Colorado School of Public Health Research Exchange

Friday, October 6, 2023
8:00 AM to 1:30 PM
Anschutz Health Science Building

Agenda & Speaker Biographies

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Schedule of Events

Time	Activity	Room
8:00 - 8:20 AM	**Registration and Breakfast**	**Lobby & Don Elliman Conference Room**
8:20 - 9:30 AM	**Opening Remarks:** Dr. Cathy Bradley **Keynote Address:** Dr. Barbara K Rimer	**Don Elliman Conference Room**
9:30 - 10:00 AM	**Poster Session 1**	**Bridge**
10:00 - 11:00 AM	**Panel:** Battling Disinformation in Public Health Research and Practice	**Don Elliman Conference Room**
	Panel: Technology Transformation in Public Health: What Does it Mean for Our Research?	**Breakout Room 2007**
	Panel: Lighting the Fire: Teaching Public Health in a Time of Rapidly Changing Information	**Breakout Room 2004**
11:00 - 11:30 AM	**Poster Session 2**	**Bridge**
11:30 AM - 12:30 PM	**Panel:** Too Hot to Handle: Participatory Climate Research in Public Health	**Breakout Room 2007**
	Panel: Recognizing and Addressing Structural Racism in Public Health Research	**Don Elliman Conference Room**
	Panel: Mental Health Promotion in Low-Resourced Populations	**Breakout Room 2004**
12:30 - 1:30 PM	**Lunch** **Plenary Speakers:** George Sparks and Kristan Uhlenbrock **Closing Remarks:** Dr. Cathy Bradley	**Don Elliman Conference Room**
1:30 - 2:30 PM	**Optional Event:** Student Q&A	**Breakout Room 2004**
	Optional Event: Meet the Researchers Session (If you are interested in attending, please contact Thomas.Jaenisch@cuanschutz.edu)	**Breakout Room 2002**

Keynote Speaker

Barbara K. Rimer

Barbara Rimer, DrPH, MPH, is Alumni Distinguished Professor of Health Behavior and dean emerita at the UNC Gillings School of Global Public Health which she led from 2005-2022. Dr. Rimer is the author of more than 270 peer-reviewed articles and 55 book chapters, and is co-editor of Health Behavior: Theory, Research and Practice, the essential health behavior text. She was the first woman and behavioral scientist to lead the National Cancer Institute's National Cancer Advisory Board, a Presidential appointment, and was elected to the National Academy of Medicine in 2008. She was appointed by President Obama to chair the President's Cancer Panel, which she did from 2011 to January 2019. Dr. Rimer has received numerous national awards and honors, including the National Institute of Health Director's Award in 2000, and the American Cancer Society's Medal of Honor in 2013. Much of her research focused on developing practical, evidence-based methods to achieve increases in behaviors shown to reduce cancer risk and increase cancer screening. Dr. Rimer currently serves on the Scientific Committee of Cancer Grand Challenges, an effort of Cancer Research UK and the U.S. National Cancer Institute – the two largest funders of cancer research in the world -- to empower interdisciplinary global teams to make urgent progress against cancer. She also serves on North Carolina Governor Roy Cooper's Commission on Inclusion.

Panelists for Battling Disinformation in Public Health Research and Practice

Patricia Valverde

Patricia Alvarez Valverde, PhD, MPH, is an Assistant Professor in the Department of Community and Behavioral Health of the Colorado School of Public Health. Dr. Valverde has conducted research on health navigation, care coordination and community health work as director of the Patient Navigation and Community Health Worker Training and was Co-Chair of the Training and Certification work group of the National Navigation Round Table. Dr. Valverde, in partnership with Trailhead Institute and the Alliance for Health Navigators, Promotores de Salud and Community Health Workers, received a $3 million Health Research and Services Administration to develop a statewide community health worker training for Colorado. Dr. Valverde was the research manager of the Denver site of the Patient Navigation Research Program and continues to develop protocols and supervise health navigators. Dr. Valverde has developed curricula related to patient navigation, care coordination and community health workers for over 20 years and conducted local, national and international training for this workforce.

Abstract

US Latinos and Hispanics experienced COVID19 differently with a greater proportion of hospitalizations, deaths and exposure to COVID19 than other population groups. With the advent of vaccines to reduce the impact of COVID19, Latinos/Hispanics showed lower intention to vaccinate initially. Causes of lower vaccine uptake among Latinos include concern for side effects, distrust of government, distrust of vaccines, access issues and knowledge gaps. Trusted community messengers such as promotores de salud, community navigators and community health workers, who are members of the communities and utilize their membership and understanding of their communities to deliver health promotion services, could potentially reduce vaccine hesitancy, defined as delay or refusal of accepting a vaccine when available. In 2021-2022, the Patient Navigation and Community Health Worker Training (PNCT) program delivered an adapted motivational interviewing training to address conversations related to vaccine hesitancy. The training is an adaptation of a physician-initiated MI for vaccine hesitancy protocol originally developed and evaluated in research studies for infant, childhood, and adolescent vaccine conversations. Participants are trained to recognize and tailor their conversations based on the four common client vaccine dispositions: accepting, accepting with questions, hesitant, and refusing. The 4 learning objectives of the training are 1) make a participatory COVID19 recommendation, 2) recognize common vaccine dispositions, 3) tailor conversation based on disposition, and 4) demonstrate skill in using MI for hesitant patients.

This training has been delivered in English and Spanish for 202 patient navigators in Colorado and for 80 Community Health Aids in Alaska. The first evaluation with a group of 21 trainees shows significant increases (P<.001) across confidence statements in using MI skills. Ninety-five percent of the attendees stated that they were moderately or very likely to apply the MI skills in their work and reported a 4 out of 4 in training satisfaction. The second Alaska training of 50 community health aides showed considerable increases in confidence across MI skills with 97% of respondents stating they were somewhat or highly satisfied with the training. One trainee stated, "it was good to hear examples and then do hands on exercises with each other." PNCT has recently received state funds to expand the delivery of this training across Colorado in English and Spanish. Trusted community messengers will be key in regaining trust between communities and public health, and this training enhances their communication strategies.

Nicole Kelp

Nicole Kelp earned a PhD in molecular biosciences from Washington State University before transitioning to a career focused on science education and science communication. At Colorado State University, she runs a research lab focused on inclusive science communication education as well as health communication about emerging infectious diseases, handling topics like scientific uncertainty and misinformation. She also teaches pathology and endocrinology to medical students at the Fort Collins branch of the CU School of Medicine. Working with undergraduate and graduate STEM students, communication students, MPH students, and med students helps Nicole consider complex socioscientific issues from multiple angles and interdisciplinary approaches.

Abstract

Misinformation presents a tricky science communication challenge, and utilizing the most effective science communication approaches to address misinformation is critical. Inclusive and participatory approaches to science communication have been shown to be both more equitable and more efficacious, but deficit-based approaches that focus simply on sharing information with an ignorant audience prevail in science communication practice. We aimed to address this issue and utilize community-engaged, interdisciplinary, and inclusive approaches to address misinformation in Northern Colorado.

We piloted academic-community partnerships between multiple departments at Colorado State University and two community organizations: a government office (Larimer County Office of Emergency Management) and an NGO (Immunize Colorado). Community partners and researchers co-developed research questions to assess misinformation in response to emergencies and regarding vaccination. Additionally, we piloted an interdisciplinary course to train graduate students about community-engaged approaches to address misinformation. Fifteen graduate students across Colorado State University took the course, in which they learned about effective science communication strategies and continued the research projects with the community partners. This course increased students' self-efficacy in science communication and civic engagement as well as their mindset and plans for inclusive approaches for community-engaged science communication to address misinformation.

Jonathan M. Samet

Jonathan M. Samet, MD, MS, a pulmonary physician and epidemiologist, is a professor in the departments of Epidemiology and Environmental & Occupational Health. His research has focused on the health risks of inhaled pollutants—particles and ozone in outdoor air and indoor pollutants including secondhand smoke and radon. His work on radon began in the late 1970s when he developed a still-ongoing study of New Mexico uranium miners. He led the radon component of the Biological Effects of Ionizing Radiation (BEIR) IV Committee and chaired the National Research Council's Radon Dosimetry Report and the BEIR VI Committee. He has served on and chaired numerous committees of the National Academies of Science, Engineering and Medicine, the Clean Air Scientific Advisory Committee (CASAC) of the U.S. EPA and the FDA's Tobacco Products Scientific Advisory Committee (TPSAC). Dr. Samet has served as editor and author for Reports of the Surgeon General on Smoking and Health since 1984, receiving the Surgeon General's Medallion in 1990 and 2006 for these contributions. Dr. Samet received the 2004 Prince Mahidol Award for Global Health awarded by the King of Thailand, the Edward Livingston Trudeau Medal from the American Thoracic Society/American Lung Association, the Luther L. Terry Award for Distinguished Career from the American Cancer Society, and the Fries Prize for Health. He received the Alumni Award of Merit from the Harvard School of Public Health and was named Distinguished Alumnus of the Year by the University of Rochester School of Medicine and Dentistry. He was elected to the National Academy of Medicine (Institute of Medicine) of the National Academy of Sciences in 1997 and received the Academy's David M. Rall Medal for his contributions in 2015.

The Lung Cancer Epidemic Among Underground Uranium Miners: Origins and Aftermath - Abstract

Underground uranium mining began in the Four Corners states in the late 1940s, as the United States began to produce nuclear weapons and to build nuclear reactors. Through 1967, the only purchaser of uranium was the government agency, the Atomic Energy Commission, leaving the federal government responsible for the health and safety of the underground miners. That responsibility was largely abdicated, and a lung cancer epidemic followed, becoming evident by the late 1950s/early 1960s. It was first documented by the Public Health Service study of Colorado Plateau uranium miners and later by studies of lung cancer in the Navajo and New Mexico miners. Miners seeking compensation for their mining-related lung cancers were unsuccessful until the passage of the Radiation Exposure Compensation Act in 1990, later amended and now extended through 2024. This presentation will address the epidemiological investigations of the miners; the role of epidemiologists in establishing the need for compensation; and the grounding of compensation in the epidemiological evidence.

Marilee Long

Marilee Long, PhD, chairs the Department of Journalism and Media Communication at Colorado State University. She is also a professor in the Department of Community & Behavioral Health in the Colorado School of Public Health. Dr. Long's research interests are in health and science communication. In health communication, she studies how messages influence people's adoption of protective health behaviors. Dr. Long is a Fellow in the American Association for the Advancement of Science and a member of CSU's Partnership for Air Quality, Climate, and Health.

Abstract

We investigated the relationship between scientists' communication experience and attitudes towards misinformation and their intention to correct misinformation. We focused on two correction strategies: source-based correction and relational approaches. We surveyed 416 scientists from U.S. land-grant universities using a self-report questionnaire. Results indicate that scientists' engagement in science communication activities is positively related to their intention to correct misinformation using both strategies. Moreover, scientists' attitude towards misinformation mediates the relationship between engagement in communication activities and intention to correct misinformation. Results also suggest that scientists' beliefs in the knowledge deficit model of science communication act as a barrier to them using relational strategies to correct misinformation.

Meara Faw

Meara Faw, PhD, is an Associate Professor of Communication Studies at Colorado State University and a faculty member in Health Communication in the Colorado School of Public Health. Dr. Faw's research explores how interpersonal relationships affect health, with emphases on how supportive communication, conflict management processes, and caregiving communication create meaningful impacts on well-being.

Abstract

Misinformation manifests in many places, including in our relationships with close friends and family members. Knowing how to broach difficult topics with close relationship partners can be challenging, as the emotional and relational stakes feel high! Understanding key principles related to conflict communication (including the role of conflict styles and positive conflict behaviors) and supportive communication can help us feel more confident in these difficult moments, allowing us to maintain these important close relationships while also working to bridge the gaps caused by misinformation.

Panelists for Technology Transformation in Public Health: What Does it Mean for Our Research?

Timothy R. Amidon

Tim Amidon, PhD, is an Associate Professor of digital rhetoric in the English Department and the Colorado School of Public Health at CSU. His research, which explores the relationships between communication, technologies, and risk, has appeared in venues such as Technical Communication, Communication Design Quarterly, Technical Communication Quarterly, Journal of Business and Technical Communication, and Kairos: A Journal of Rhetoric, Technology, and Pedagogy.

Futures of Risk and Resilience: Emerging Technologies and Public Health - Abstract

From wearables and artificial intelligence to smart speakers and augmented reality, a broad array of digitally networked tools and platforms are influencing how humans perceive and orient to risk within their lives. This talk explores the uses of emerging technologies and platforms for community resilience and risk reduction. Focusing on case studies of a wearable physiological monitor for use by a fire and emergency service professionals and an automated AI wildfire detection platform, I discuss some of the current limitations and promises associated with broadly implementing such technologies for the purpose of mitigating the public health risks faced by individuals, sub-populations, and communities.

Antonio Porras

Antonio Porras, PhD, is an Assistant Professor at the Department of Biostatistics and Informatics of the Colorado School of Public Health —University of Colorado Anschutz Medical Campus, and serves as Director of Research in the Department of Pediatric Plastic and Reconstructive Surgery at Children's Hospital Colorado. Dr. Porras' research team creates new medical image computing and machine learning methods to improve the understanding, evaluation, diagnosis and treatment of diverse pathologies with special focus on pediatric developmental anomalies.

Abstract

In this presentation, Dr. Porras will present how new imaging and machine learning technologies are helping understand and identify pediatric pathology early to achieve prompt interventions and preventive care.

Dan Olson

Dan Olson, MD, is an Associate Professor in the Section of Infectious Diseases (ID) at the University of Colorado (CU) School of Medicine, with secondary appointments in the Department of Epidemiology within the Colorado School of Public Health and the Department of Bioengineering in the CU School of Engineering. His research focuses on novel approaches to emerging infectious diseases (EID) surveillance, including field-based molecular diagnostics, measuring the clinical and socioeconomic impact of EIDs in resource-limited populations, as well as the immunologic response, and assessing the benefit of community-based interventions such as vaccines. He is the co-director for research at the CU-associated Center for Human Development in Southwest Guatemala, and he leads several cohort studies with a number of collaborators from CU, Colorado State University, the Centers for Disease Control and Prevention, and elsewhere.

Abstract

The expansion of technology in data collection, molecular diagnostics, and other areas is rapidly changing our ability to study disease, including emerging pathogens, in resource-limited settings. Particularly in low- and middle-income countries, leapfrog technology such as smartphones (and data collection tools), point-of-care molecular diagnostics, and communication tools provide an opportunity to decentralize our research away from high-income countries and instead enable local capacity-building. These changes also allow the research to be more impactful, with more rapid turnaround time for diagnostic testing, rapid dissemination of results, and sustainability. In this Research Exchange panel, I will provide a brief overview of how we have implemented these emerging technologies to carry out higher quality research at the CU-affiliated Trifinio Center for Human Development site, located in a remote area of Southwest Guatemala.

John Volckens

John Volckens, PhD, is a professor of Mechanical Engineering and the Director of the Center for Energy Development and Health at Colorado State University (CSU). He holds affiliate appointments in Environmental Health, Biomedical Engineering, the Colorado School of Public Health, and the CSU Energy Institute. His research interests involve air quality, low-cost sensors, exposure science, and air pollution-related disease. He is a founding member of the CSU Partnership for Air Quality, Climate, and Health – an organization that seeks to develop practical, science-vetted solutions to intertwined problems of air quality, climate, and health that we face as a society.

He received a BS in Civil Engineering from the University of Vermont and MS, PhD degrees in Environmental Engineering from the Gillings School of Public Health at the University of North Carolina at Chapel Hill. He was a Postdoctoral Fellow at the U.S. EPA's National Exposure Research Laboratory in Research Triangle Park, NC. At CSU, he has pioneered the development of several new aerosol measurement technologies, which have been deployed for public health research in over 40 different countries and as far away as the International Space Station. He is a co-founder of Access Sensor Technologies, a company started through his research collaborations at Colorado State University. Dr. Volckens is the recipient of 'Best Paper' awards from the American Industrial Hygiene Association (1999, 2017, 2021) and the Journal of Indoor Air (2013). He was a 2018 finalist for the NASA Earth, Space, Air Prize.

Wearable Technologies for Exposure and Precision Environmental Health: Prospects and Pitfalls - Abstract

The advent of mass-produced, low-cost sensor technologies has greatly expanded the promise of precision environmental health research at the personal level. With these prospects, however, come new challenges and barriers to overcome. This brief presentation will discuss how wearable exposure monitoring technologies developed in our lab at Colorado State University have been used to advance exposure and health research in various settings, along with the challenges and pitfalls facing these technologies going forward.

Marina McCreight

Marina McCreight, MPH, is a health science specialist at the Veterans Health Administration Denver-Seattle Center of Innovation (COIN) and has experience in Implementation and Adaptation across multiple studies and sites. Her additional professional experience includes implementing various programs focused on improving care coordination between health care settings, collecting, and analyzing qualitative data, documenting adaptations. She virtually trained staff on D&I frameworks and qualitative data collection and analysis. Currently, she is pursuing PhD in Health Services Research in the Health System Management and Policy Department in the Colorado School of Public Health at the University of Colorado Anschutz Medical Campus.

Abstract

Our Implementation and Adaptation Guide is intended for anyone who is planning to implement a new practice into any healthcare setting. It provides tools and steps to implement and adapt an evidence-based practice/program/intervention. It is applicable at multiple levels within different settings, including hospital transitions, community care, and primary care teams. We use examples from our previous work with implementing care coordination interventions to describe the steps to adapt and implement any evidence-based practice into a new environment and/or with a new participant population. The guide resulted in a combination of videos, diagrams, worksheets, and brief didactics to provide guidance with D&I concepts and their practical application.

Panelists for Lighting the Fire: Teaching Public Health in a Time of Rapidly Changing Information
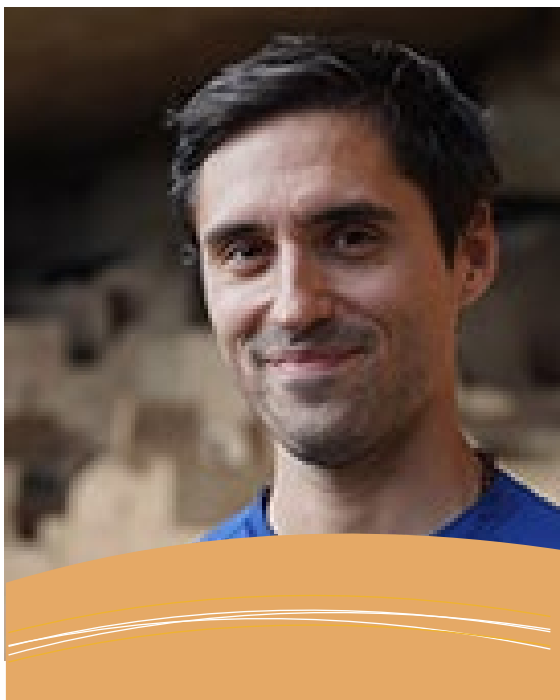
Dannon Cox

Dannon G. Cox, Ph.D., is an Assistant Professor with the Colorado School of Public Health at the University of Northern Colorado. With 18 years of experience as a videographer, Dannon brings a unique skill set to public health, using digital media as a research and pedagogical tool. Dannon's research focuses on digital media pedagogies, professional development, higher education programming, yoga education, and media portraiture. Dannon practices daily headstands, enjoys camping in the middle of nowhere, and staying hydrated.

An Ode to Creation: Embracing Higher-Order Thinking Through Digital Media Production – Abstract

Background: As the digital landscape continues to increase information production and consumption, it is imperative that educators develop high quality curriculum and mindful instructional design practices that both acknowledge and address public health issues. Pedagogical strategies such as media production is a contemporary approach to incorporate higher-order critical thinking skills that can address how public health information is both produced and consumed. "Create" is the highest level of complexity based on Bloom's Taxonomy, which requires the learner to plan and deliver content into digestible, yet accurate information for public consumption.

Methods: Students enrolled in a Health Communication and the Media course were given hands-on experience by creating a variety of media that included brochures, infographics, videos, podcasts, and websites. First, students chose a local organization to work with. Next, students implemented learned content from the course to draft and develop media. Each media deliverable aimed to meet specific objectives based on the organization. During the development of each medium, students practiced giving and receiving constructive feedback to each other and worked on multiple drafts for each deliverable. Lastly, all media content was consolidated into a website and presented to their organization that could be used at their discretion.

Results: Students gained increased proficiency in the meticulous yet creative process of digital media as a public health communication tool. Students were given the opportunity to practice their creativity while following basic principles in public health communication. Additionally, students were given the opportunity to create and submit multiple drafts in order to receive constructive feedback and ensure high quality content was delivered to the local organizations.

Conclusion: As faculty prepare public health professionals, it is essential to provide students the opportunity to explore and create digital media content no matter their digital expertise. The pedagogical strategy of allowing students to create media requires higher-order thinking skills that are all too common in today's digital landscape. Therefore, incorporating project-based digital media production is a promising approach to ensuring public health professionals are competent in critically producing and consuming information wherever they go.

Rose Grose

Rose Grace Grose, PhD, is Associate Professor of Community Health Education in the Colorado School of Public Health at the University of Northern Colorado. She uses research to inform policy and evidence-based programs to reduce sexual health disparities and promote gender equity. Her expertise is in mixed methods research, understanding social determinants and structural influences on sexual health, and evaluation of community-based programs in partnership with local organizations. Her work is interdisciplinary and grounded in public health, psychology, sociology, and gender and sexuality studies scholarship. She teaches several MPH core courses as well as an undergraduate Human Sexuality class. Outside of work she enjoys gardening, hiking, reading, and relaxing with her cat Cid.

Meeting the Needs of Rural Colorado through HyFlex Public Health Courses – Abstract

Background and Significance: In 2022 the Colorado State Legislature passed Senate Bill 22-172, "Colorado Rural Health-care Workforce Initiative," which aims to expand the number of healthcare and public health professionals practicing in Colorado's rural and frontier counties, and to enhance best practices for providing rural-practice-focused education. This prompted the ColoradoSPH at UNC to adapt its existing Rural Public Health Graduate Certificate to ensure access for online, distanced-based public health practitioners. The Rural Certificate provides training for professionals who desire to add a new level of expertise to their current careers, and for ColoradoSPH students who desire to add additional expertise beyond their MPH. With the significant numbers of people living in rural communities around the country, and the often-limited health related resources available, HyFlex course options are essential. HyFlex courses are student-centered because they allow participation synchronously online or in-person in any combination from week to week.

Methods: Although HyFlex course designs have existed since about 2006, the COVID-19 pandemic spurred more widespread adoption and an increase in resources for faculty. After reviewing best practices, we updated our Biostatistics and Epidemiology courses for implementation in the 2023-2024 academic year. Both are core MPH courses and are required (Epi) or elective (Biostats) for the Rural Public Health Certificate. We updated the Canvas online environment, standardized the classroom technology and physical set-up, and revised classroom discussions, activities, and assignments to ensure equal access for online and in-person attendees.

Results: We will present an overview of the best practices and core tenants behind our HyFlex course re-design. Using an example class session agenda and activity we will share lessons from updating these courses for rural public health practitioners. Challenges for other faculty to consider will be discussed.

Conclusion: To promote rural health, Colorado needs a well-trained workforce. HyFlex courses that center students' needs take considerable faculty effort and collaboration. ColoradoSPH is poised to be a national leader by offering one of the only existing Rural Public Health Certificates, but only if we have courses that are accessible and created with intention.

Umit Shrestha

Umit Shrestha, PhD, serves as an Assistant Professor at the Colorado School of Public Health at Colorado State University. He teaches courses in Global Health and Health Disparities. His research has centered on the intersection of WASH (Water, Sanitation, and Hygiene) and Gender Equality and Social Inclusion in Nepal. Dr. Shrestha's pedagogical approach centers on social justice, inclusion, and the praxis of decolonization.

Marcelo Perraillon

Marcelo Coca Perraillon, PhD, is an associate professor in the Department of Health, Systems, Management & Policy at the University of Colorado Anschutz Medical Campus, with a secondary appointment in the Economics Department at the Denver campus, and a President's Teaching Scholar. His research focuses on the evaluation of the effects of health care policy on costs, quality, and outcomes. Areas of interest include long-term care, Medicare/Medicaid policy evaluation, and cancer care. Dr. Perraillon teaches graduate-level classes on statistical/econometric methods for health services research, economic evaluations, and health economics.
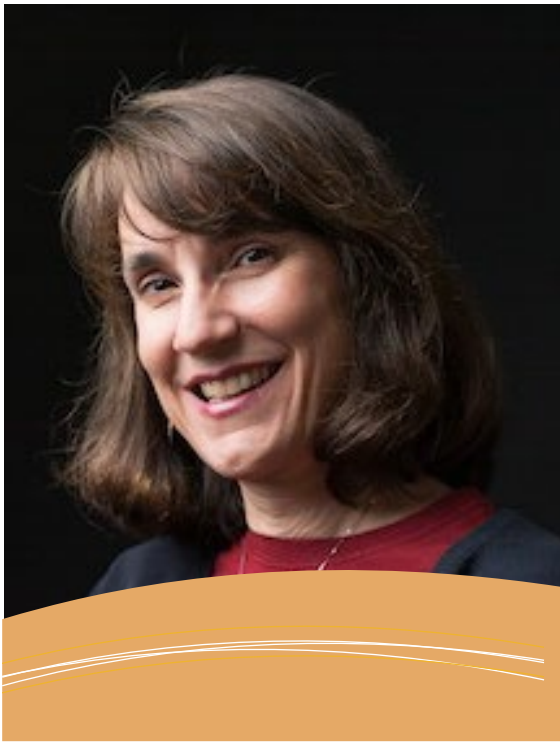
Virginia Visconti

Virginia Visconti, MAT, PhD is an assistant professor clinical teaching in the Department of Community and Behavioral Health at the Colorado School of Public Health -- Anschutz Medical Campus. She is trained as a social-cultural anthropologist and teaches community health assessment and qualitative research methods courses for both MPH and DrPH students. She is also the internship coordinator for undergraduate public health majors at the University of Colorado Denver.

Nurturing Reflective Practitioners through Transformative Learning

Public health education offers exciting -- and urgent -- opportunities to nurture reflective practitioners who are prepared to turn knowledge and skills into action. Transformative learning experiences are integral to students' development as future community engagement professionals. Drawing on the scholarship of Donald Schön, the author of The Reflective Practitioner: How Professionals Think in Action, I will first delineate the features of reflective practice and then illustrate them with examples of transformative learning from work with students in community health assessment and qualitative research methods courses.

Panelist for Too Hot to Handle: Participatory Climate Research in Public Health

Katherine A. James

Katherine A James, PhD, MSPH, MS is an Associate Professor in the Department of EOH and the Center for Health, Work & Environment in the ColoradoSPH at CU. Dr. James is an epidemiologist and a specialist in environmental systems and the long-term health effects of environmental and climate exposures. She has led NIH funded studies in the San Luis Valley, Colorado for the past 15 years and is an established researcher in this rural, agrarian, community.

How the aridification of the west is associated with the behavioral health crisis of agriculture workers in the San Luis Valley, Colorado – Abstract

Background: Drought is an extreme-weather disaster projected to increase in severity due to global trends in climate change. Some research suggests that drought is associated with elevated levels of heavy metals in groundwater. The San Luis Valley's natural geology causes elevated exposure rates - before accounting for current extreme drought conditions. Heavy metals are known to have ranging adverse health outcomes. With the possibility of existing adverse exposures to increase, understanding the severity of exposure is critical. Using citizen science and community engaged research, we are assessing heavy metal exposure during extreme drought conditions.

Methods: We have convened local water resource and conservation agencies to oversee our research efforts. Community leaders have guided recruitment efforts while rallying private well owners across the six-county region. Participants provided information to identify well permit records maintained by the Colorado Division of Water Resource and were mailed water sampling materials. Samples were returned via drop-off sites dispersed throughout the region. A subset of participants will be selected for repeated water testing over the next three years, as we retrospectively expand our assessment with previous community assessment data.

Results: To date, 839 private-well owners have signed up to participate with a 74% sample return rate. Approximately 20% of recruitment is contributed to follow-up on previous community assessment participants; 21% from conservation agency email lists; 10% from in-person recruitment; and 50% from newspaper advertisement. Currently, 78% of samples have been analyzed and reported back to participants with individual interpretations by the research team.

Conclusion: Lessons learned may benefit future efforts to engage hard-to-reach groups in environmental and rural health. Support from community leaders greatly increased stakeholder buy-in and guided adaptive recruitment strategies. Successful retention heavily relied on accessible and timely methods. For a population knowledgeable about the existing environmental concerns, less information was needed on environmental health risk, and more about protecting community interests and individual privacy. Terminology around climate change should be carefully implemented, with the community being more receptive to communication framed around 'drought'. Providing timely and transparent updates to participants is important for maintaining rapport.

Katie Dickinson

Katherine "Katie" Dickinson, PhD, is an Associate Professor of Environmental and Occupational Health in the Colorado School of Public Health. Engaging in interdisciplinary, collaborative team science across a wide range of contexts, she applies social science tools and methods to measure the impacts of policies and interventions on communities, and to understand and ultimately influence the systems and processes that shape environmental risks and benefits across societies. International projects have addressed problems at the nexus of environmental quality, economic development, and human health, including water and sanitation, household energy and air pollution, and mosquito-borne diseases. Domestically, she has studied drivers of environmental health (in)equity in the context of wildfire, infectious disease (including COVID-19 and mosquito-borne disease), and oil and gas development. Dr. Dickinson has a passion for teaching students about environmental and occupational health policy, and how public health professionals can partner with change-makers at different levels to build healthier and more resilient communities where everyone can thrive. Katie enjoys spending time with her three bright and witty daughters and her husband Caleb, who serves as a City Council member in their hometown of Louisville, Colorado.

Engaging with Denver Communities Toward Climate Justice – Abstract

Over the past several years, the Dickinson Lab has been building partnerships with community organizations in North and West Denver to understand current environmental burdens and needs as well as assets and priorities to support climate resilience and justice. This talk will briefly highlight two ongoing projects. 1) In collaboration with GreenLatinos and the CU Denver Community Collaborative Research Center, we are working to promote a just transition towards electrification of Denver's shipping and transportation center by engaging workers, small business owners, and community members in North Denver. 2) Through the NIH-funded Mountain West Climate-Health Engagement Hub, we are working with West Denver partners that include the Denver Housing Authority and residents of the Sun Valley public housing community to understand how ongoing housing redevelopment is impacting community members and how to ensure that community-driven climate resilience is prioritized in this process.
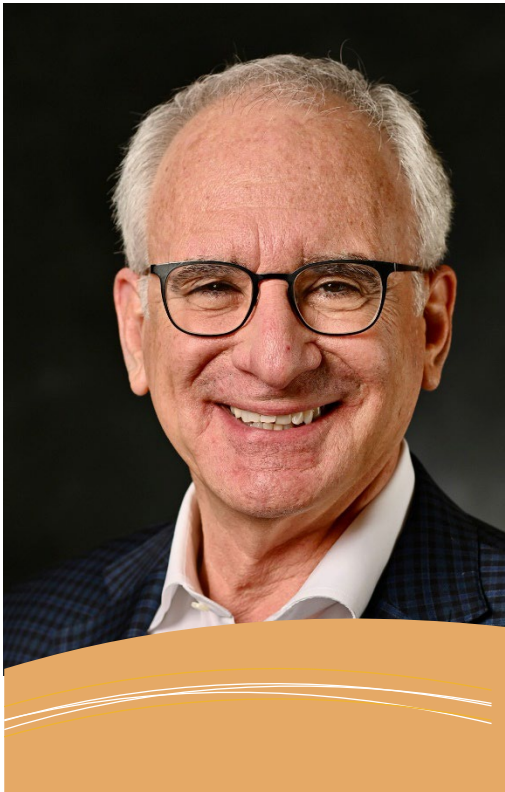
Lee S. Newman

Lee S. Newman, MD, MA, is a physician-scientist, passionate educator, public health advocate and invested mentor. He is Distinguished University Professor in the Department of Environmental and Occupational Health and Department of Epidemiology at ColoradoSPH and Department of Medicine, SOM, CU Anschutz. He is founding director of the Center for Health, Work & Environment, a CDC/NIOSH-funded Total Worker Health® Center of Excellence and of the Mountain & Plains Education and Research Center (MAP ERC). His team's research includes studies of the contributions of extreme heat and humidity, physical energy expenditure, and environmental toxins/toxicants on the health of workers and agricultural communities in Latin America. He remains irrationally optimistic.

Abstract

Workers have always faced greater health risks from hazardous environmental conditions than the general public. Sadly, they are now our climate 'canaries'. We engage with communities of workers and employers to identify, implement, and evaluate solutions to the greatest threats facing agricultural workers around the world. I will share insights from our experience with Guatemalan, Nicaraguan and Mexican sugar cane workers who are at high risk for Mesoamerican Nephropathy (Chronic Kidney Disease of Unknown Cause, CKDu). I will offer a perspective on our newest engagement: greenhouse workers in the Mexican tomato and pepper industries endure occupational exposures to extreme heat, high humidity, agrochemicals, within an entrenched system of labor relations and enduring cultural barriers to change.

Sheryl Magzamen

Sheryl Magzamen is an associate professor in the Department of Environmental and Radiological Health Sciences at Colorado State University. Her research seeks to understand the relative contribution of social factors and environmental exposure on chronic disease, with a focus on respiratory health.

Circling the Fire: Thinking About Environmental Health Research Approaches for Wildfire Smoke Events - Abstract

Wildfires and wildfire smoke are a major climate change challenge in the Mountain West. The episodic nature of wildfire events results in challenges to understand subacute health effects, comparative toxicity of wildfire smoke to anthropogenic air pollution, and effectiveness of communication tools to prevent smoke exposure. In this brief presentation, we'll discuss ways to work around these issues in advancing our science, from novel study approaches and new health impacts to collaborations and harmonization of data.

Ashley Anderson

Ashley Anderson, PhD, is a communication scientist who examines how audiences select, interpret, and respond to mediated communication about scientific topics. She works in partnership with community organizations to use evidence-based approaches to communicate about health and environmental risks such as air quality and wildfire smoke, pandemic disease, and workplace health and safety exposures. She is an associate professor in the Department of Journalism and Media Communication and Center for Science Communication at Colorado State University.

Abstract

Poor outdoor air quality from wildfire smoke and ozone is a pressing health threat, particularly for those who spend extensive time outdoors. The Air Quality Index is the primary tool for communicating current pollutant levels and associated health-protection recommendations for reaching sensitive groups, such as those with respiratory conditions, children, or the elderly. Specific recommendations for other populations, such as outdoor workers who spend the majority of their days outside, are limited. This study introduces an evidence-based communication campaign with targeted recommendations for air quality health-protective actions among outdoor workers.

Panelist for Recognizing and Addressing Structural Racism in Public Health Research
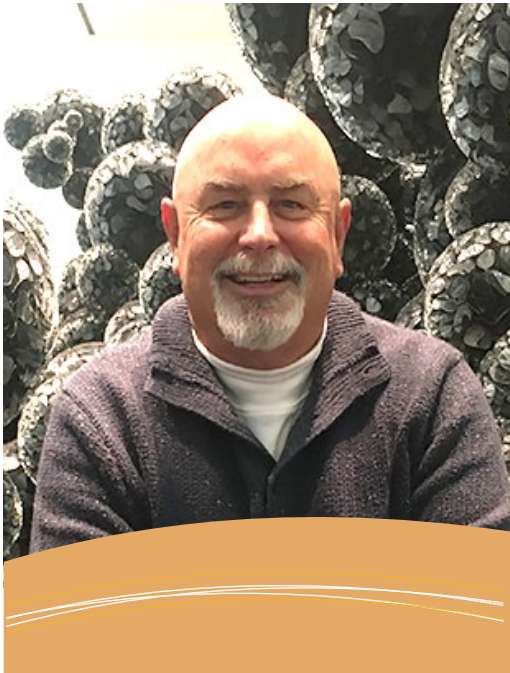
Blair Gifford

Blair Gifford, PhD, is a Professor of Sustainability and Global Health in the Business School at the University of Colorado Denver. He initiated the Center for Global Health (CU Anschutz) in 2003, and the Sustainability program in the Business School in 2008. Blair has worked in SE Asia, Haiti and currently works in Kenya. Blair's NFP organization, Global Health Connections, provides community health, economic development and empowerment in villages in Kenya. The impact of this work has been substantial and will be reported on. Blair has a B.A. in economics from the University of California, Santa Cruz, and a Ph.D. in sociology from the University of Chicago. He has had visiting Professor appointments at Tsinghua University in Beijing, Northwestern University and Yale University.

Project Description on the Community Health and Empowerment Club Model

Background information on the Community Health and Empowerment Club model that I have used for community development around Kisii, Kenya for the last few years. Global Health Connections (NFP, Colorado) is in a village for 3 years+. We provide 24 months of experiential education on community health topics (clean water, nutrition, sanitation, washing hands, malaria prevention, teen sexuality, etc.) and 10 weeks of economic/finance topics to about 150 club members. Through community-based projects (community garden, model latrine, etc.), women (especially) are empowered through (self-esteem, friendship, confidence) to improve their households and be more involved with the community. Men are not getting in the way of this but are joining to lift a whole village through social capital. Initial results have shown strong impact including better health (less illness, diarrhea), improved income (poverty alleviation through income project groups), and empowerment (better balanced relations with partners, etc.). CU medical students (Global Health track, Center for Global Health) have been involved with these developments.

Claudia Amura

Claudia R. Amura, PhD, MPH, is a public health equity implementation scientist. Through her bicultural lens, Dr. Amura both experienced and witnessed difficulties minorities face when navigating US systems like health care and social structures. She moved to Public Health Implementation Science after a basic science career in chronic disease research. For over a decade, Dr. Amura has been involved in the implementation and evaluation of evidence-based health interventions, particularly involving underserved, at-risk, and socioeconomically disadvantaged populations. She has served as PI/CO-I of community engagement grants with rural communities to address stigma around mental health and substance use, several behavioral health change programs to address changing context in rural and Hispanic patient needs during the pandemic, and as the evaluator of a state-wide Medication Assisted Treatment Expansion across 21 counties in highly underserved rural Colorado. Dr. Amura is a faculty at the College of Nursing and the current Director of the Latino Health Certificate at the Colorado School of Public Health sponsored by the Latino Research and Policy Center.

Working Together Equitably Around Substance Use in Rural Colorado - Abstract

Substance use and mental health are major public health threats in the US. Colorado rural areas with low resources, high proportion of Hispanics, and strained public health systems are disproportionately impacted, all of which was exacerbated during the COVID-19 pandemic. Implementing and adapting evidence to clinical and public health services that fit to context remains a challenge. Additionally, perceptions and stigma add to the constraints that prevent traditionally marginalized individuals from accessing care. Here we highlight community engagement, mixed methods, and participatory action approaches used to engage rural and Hispanic/Latino community members in partnerships, addressing their needs and the intersectionality of socio-structural determinants of health, and implement programs that are fit to context across Colorado during times of colliding epidemics. Engagement and joint efforts between local workforces and communities are key to informing priorities and creating public health interventions rooted in evidence and justice that incorporate community input and equity for strategic planning and implementation of programs with a collective impact towards eliminating disparities.

Cerise Hunt

Cerise Hunt, PhD, MSW, is the Associate Dean for Equity, Diversity, and Inclusion, Director for the Center for Public Health Practice, and Assistant Professor in the Department of Community and Behavioral Health at Colorado School of Public Health University of Colorado Anschutz Medical Campus. In this role, she is responsible for leading the school's efforts to advance equity, diversity, and inclusive excellence. Among her responsibilities are forming community linkages, providing education and workforce development opportunities, and conducting public health practice research. She was instrumental in founding the Colorado Black Health Collaborative, a community-based organization that promotes health and wellness in Colorado's Black, African, and African American communities.

Cerise's expertise in promoting health equity builds concretely on her experience with the Colorado Department of Public Health and Environment Office of Health Disparities. She was charged with developing and implementing statewide strategies to eliminate racial and ethnic disparities. Cerise's research and practice explore topics related to equity, diversity, inclusion (EDI) and organizational transformation, racial and ethnic health inequities, and community outreach and mobilization among diverse populations. Her experience in organizational EDI consultation and educational support spans more than 17 years.

Confronting and Dismantling Structural Racism in Team Science - Abstract

We will delve into the critical topic of dismantling structural racism in team science. Structural racism is deeply embedded within institutions and systems which have exploited and excluded racial and ethnic groups, impacting research practices and outcomes. As researchers, educators, advocates, and change agents, it is our responsibility to confront these barriers and work towards equitable and inclusive research methodologies. We will explore practical strategies for creating research teams that represent and amplify the voices of historically excluded racial and ethnic groups. Advancing equity, justice, and inclusivity in all of our research endeavors also advances science.

Wei Perng

Wei Perng, PhD, MPH, is a nutritional and lifecourse epidemiologist who leverages 'omics science and causal inference methods to study origins of obesity and metabolic conditions in children and adolescents.

Abstract

Structural racism is systemic and operates through mutually-reinforcing structures that perpetuate bias and discrimination across space and time. This talk discusses ways in which public health practicitioners can characterize and assess the health effects of structural racism, including an example from maternal and child health epidemiology.

Gregory Kinney

Greg Kinney, PhD, is a pulmonary epidemiologist specializing in smoking related lung disease. He received his doctoral training at the Colorado School of Public Health where he studied spatial clustering of Chronic Obstructive Pulmonary Disease mortality in the state. Dr Kinney is the co-chair of the epidemiology core for the COPDGene study which has collected longitudinal data on 10,000 participants over 15 years. As a part of this work he has worked closely with investigators from National Jewish Health and University of California to investigate the effects of race specific prediction equations used in spirometry.

Abstract

Race-specific prediction equations are commonly used in medicine when an individual is being assessed for disease, these equations are derived from models of the measure in a large population and represent a simple prediction model of the expected value of the measure in the individual. For instance a model may indicate an *expected* value for an individual that matches the *measured* value where the predicted value might be assessed as "100% predicted" and indicate no disease. Another individual may have a value that is 50% of predicted and that value may be interpreted as disease. Given a generalizable sample and relevant statistical model was used this comparison can indicate the degree of difference between "normal" and "abnormal".

Assessment of lung health often includes measures of pulmonary function collected using a spirometer which measures air flow out of lungs across a 6 second exhalation. The participant inhales as deeply as possible and then exhales through the spirometer which measures the volume of air flow continuously over the maneuver. Several measures are available after testing with the primary measures Forced Expiratory Volume at 1 second and Forced Vital Capacity typically measured at 6 seconds are common and measured in Liters of air and their ratio is typically used to define COPD vs Normal. In order to compare an individual result to others, percent predicted values are calculated and the agreement between the expected and observed values are used for modeling disease. These equations often include race as a binomial value or as a stratification as it has been observed that African American people tended to have lower lung volumes in NHANES.

The results of adjusting the Percent Predicted values and thus the disease definition will be discussed using two papers published by COPDGene.

Sarah Stotz

Sarah Stotz, PhD, MS, RD, CDE, is a registered dietitian nutritionist and certified diabetes educator. She is an Assistant Professor at Colorado State University in the Department of Food Science and Human Nutrition. Her research focuses on addressing food insecurity as it impacts adults with nutrition-related chronic disease (e.g., diabetes) with emphasis on health disparities, social determinants of health, nutrition education and multilevel approaches to chronic disease management and prevention.

Abstract

We will discuss food insecurity specifically in the historical context of the implications of colonization, water insecurity, forced relocation, environmental pollution for American Indian and Alaska Native peoples. We will then review a multi level intervention to address food insecurity and diabetes health disparities among AI/AN peoples with type 2 diabetes and discuss key contributions of a community advisory board in this approach.

Panelist for Mental Health Promotion in Low-Resourced Populations

Charlotte Farewell

Charlotte Farewell, PhD, MPH, is an Assistant Professor with the Rocky Mountain Prevention Research Center and Director of the Population Mental Health and Well-being concentration at the Colorado School of Public Health. For over a decade, she has been implementing interventions rooted in community-based participatory research as well as research and evaluation projects that utilize a unique combination of mixed methods in national and international settings. Dr. Farewell is a Principal Investigator/Co-Principal Investigator on numerous intervention projects which focus on promoting the well-being of low-resourced populations (e.g., pregnant and postpartum individuals, early care and education caregivers). Her research experience, to date, is centered around three overarching goals: (1) to build expertise related to the analysis of developmental research questions using quantitative and qualitative methods, with specific focus on mental health (depression, stress, and anxiety) during sensitive periods (prenatal, postpartum, early childhood), (2) to investigate non-pharmacological methods (e.g. mindfulness and positive psychology interventions) that can be targeted and/or mobilized to optimize population mental health and resilience in multi-ethnic and low-resourced communities, and (3) to advance research in the field of dissemination science to identify core constructs that are most critical to enhance the uptake of evidence-based behavioral interventions into community and clinical settings.

Abstract

Depression and anxiety during pregnancy is associated with a constellation of detrimental maternal and child health outcomes. Psychological resources (e.g., hope, optimism, self-efficacy, resilience collectively referred to as psychological capital or psycap) and social resources (e.g., social support, social capital) may aggregate and interact during the perinatal period to collectively influence prenatal, birth and postpartum outcomes. Unfortunately, individuals facing low socioeconomic status experience disproportionately high rates of poor perinatal mental health, have fewer resources and have a decreased ability to replenish resources over time. The purpose of this ongoing research study is to investigate psychosocial resource caravans that promote perinatal mental health and wellbeing among low-resourced individuals. Preliminary findings suggest that optimism and social support may be particularly protective in this sample and mitigate associations between social determinants of health (e.g., low socioeconomic status) and perinatal depression and anxiety. Though additional longitudinal analyses are ongoing, these findings have significant implications for the development of strengths-based interventions to promote perinatal well-being. Mindfulness and optimism are psychological constructs that have been shown to be strongly correlated and collectively associated with mental health; therefore, adaptation of multi-level, evidence-based, mindfulness interventions that integrate positive psychology strategies focusing on the cultivation of psychological *and* social resources targeted towards low-resourced pregnant individuals may help to mitigate perinatal mood disorders and promote the intergenerational transmission of resilience.

Jenn Leiferman

Jenn Leiferman, PhD, is the Chair of the Department of Community and Behavioral Health at the Colorado School of Public Health. She also directs the Rocky Mountain Prevention Center (RMPRC), one of 26 CDC-funded prevention research centers in the U.S. Trained in behavioral science and epidemiology, she has extensive expertise in intervention design, implementation science, and program evaluation in both clinical and community settings. She has developed and evaluated interventions across all levels of the socioecological framework including interventions targeting individual behavioral change, social/environmental/structural supports, and community and systems-level changes. Her work has focused on developing and evaluating multi-level interventions to promote population mental health and wellbeing including the enhancement of management practices (i.e. screening, treatment and referral) among providers and coordinated systems of care.

Abstract

Each year, approximately one in five US adults experience a mental illness. Untreated mental illness leads to higher risk of morbidity and mortality. Unfortunately, many rural communities report significant mental health provider shortages, placing a greater burden on their hospital and public health systems. This presentation will highlight innovative systems-level changes that involve task-sharing delivery platforms and scalable and sustainable multi-level interventions to promote wellbeing and prevent at-risk individuals from needing formalized mental health treatment in rural communities.

Megan Cherewick

Megan Cherewick received her PhD in International Health from Johns Hopkins University, with focus on child and adolescent mental health in humanitarian emergencies and low- and middle-income countries. Her central research interests include psychosocial interventions to promote mental wellbeing; translation of developmental science to adolescent programs; risk and resilience processes in developmental trajectories of mental health; climate change; and neurodiversity affirming interventions. She has over 12 years of experience working in global health and humanitarian emergencies including design, implementation, and evaluation of psychosocial interventions to promote mental health. Her work seeks to interface research, practice, and policy to strengthen mental health resilience in resource-poor contexts.

The Darjeeling Early Adolescent Study: Promoting Mental Wellbeing in Adolescents - Abstract

The project goal of the Darjeeling Early Adolescent Study (DEAS) is to complete mixed-methods formative research needed to design an effective early adolescent mental health prevention program in Darjeeling, India. The project seeks to establish estimates of mental health symptoms, risk and protective factors, and to assess neurodiversity. To accomplish this goal the study will (1) collect quantitative survey data on 300 early adolescents ages 10-14; (2) complete in-depth interviews with early adolescents ages 10-14, near-peers ages 15-18, teachers and caregivers; (3) complete focus group discussions with community health leaders (Samaj). The formative research will result in resources for caregivers, teachers, and community health workers to support the mental health of early adolescents inclusive of neurodiverse populations.

Jini Puma

Jini Puma, PhD, is an Associate Professor in the Department of Community and Behavioral Health and the Associate Director of the Rocky Mountain Prevention Research Center (RMPRC) at the Colorado School of Public Health.   Dr. Puma's research and evaluation interests include early childhood health and well-being promotion. She is the Principal Investigator or Co-Principal on numerous federal, state and foundation grants.   Dr. Puma received her doctorate in Quantitative Research Methods at the University of Denver in 2007. She has been implementing public health interventions and conducting program evaluations and research since then.

Abstract

The early care and education (ECE) workforce provides care for children aged birth to five years old. This critical segment of the workforce experiences significant burnout and turnover rates resulting from extensive demands, including job stress, and poor overall well-being. The goal of the pragmatic, mixed-methods effectiveness-implementation hybrid 2 Well-Being of the ECE Workforce in Low-Resources Locations (WELL) study is to investigate associations between five NIOSH worker well-being domains and burnout and turnover outcomes among a sample of 36 Head Start center ECE staff members in Colorado; as well as to adapt, implement, and examine the effects of the WELL intervention, which focuses on worker health and self-care and targets individual, interpersonal, and organizational factors associated with well-being. The preliminary results and implications of this study will be discussed.

Student Panel

Savannah Schwab

Savannah Schwab is a second year Master of Public Health in Epidemiology student at the Colorado School of Public Health who is focusing her research and studies specifically in the areas of infectious diseases, cancer, environmental health, and global health. She received her bachelor's degree in Biological Sciences with a minor in Geosciences in just 3 short years from Mississippi State University where she also was a division 1 Track and Cross-Country runner. She selected CoSPH for her graduate studies because of its highly ranked Public Health Epidemiology program. Since attending the school, she has worked as the Communications Coordinator on the Student Council and as a Social Media Ambassador for the School of Public Health. She is currently working as a Research Assistant in breast cancer studies with Dr. Linda Cook in the CU Cancer Center on the Anschutz Medical Campus and also as a teaching assistant for Data Management Using SAS. This summer Savannah gained exceptional hands-on experience as a Public Health Intern at the CDC where she collaborated with staff Epidemiologists to create a social determinants of health framework. She also was the Global Editor for a Morbidity and Mortality report and authored a feature article based on this data for the CDC's website. Excelling in this experience, she hopes to work for the CDC following graduation in May. When she is not studying or working, she enjoys all things outdoors including playing pickleball.
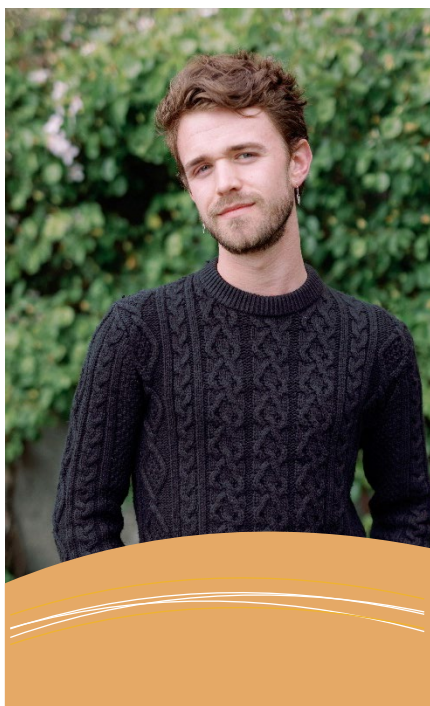
Benton Meldrum

Benton Meldrum (he/him/his) is from Littleton, CO. Benton studied public health and political science for his undergraduate degree at Tulane University. With experience in research, medical assisting, and peer health education, Benton decided to pursue an MPH in Epidemiology at the Colorado School of Public Health. His interests in the field are very broad ranging from queer health to disaster relief to substance misuse. His current research project focuses on racial disparities of cancer incidences among gay, bisexual, and other men who have sex with men (MSM) with HIV.

Jennifer P. (Villalobos) Sorg

Jennifer P. (Villalobos) Sorg is a Community Research Manager (CRM) for The Latino Research & Policy Center (LRPC) at the Anschutz Medical Campus and a doctorate student with the DrPH program in her 4th year.

The LRPC center focuses on working with students to reduce the disparities that affect Latino communities, increase collaborative partnerships with community-based organizations, and to work toward eliminating the health and education disparities affecting Latino communities in Colorado.

As a CRM for LRPC, she manages projects regarding patient navigators and community health workers and assists with coordination of a cancer intervention project among rural patients. She is also responsible for, just to name a few, the day-to-day operations of the center when it comes to scheduling and leading monthly group team meetings, sending out unit updates, and drafting LRPC reports. She also assists with the administration of the Latino Health Certificate graduate program and is involved with committees related to public health practice and environmental justice.

In her doctorate journey, she is specializing in qualitative research, specifically to address mental health and overall wellbeing disparities and inequities among Latinos through storytelling, and also enjoys and dabbles her feet in the digital health intervention world.
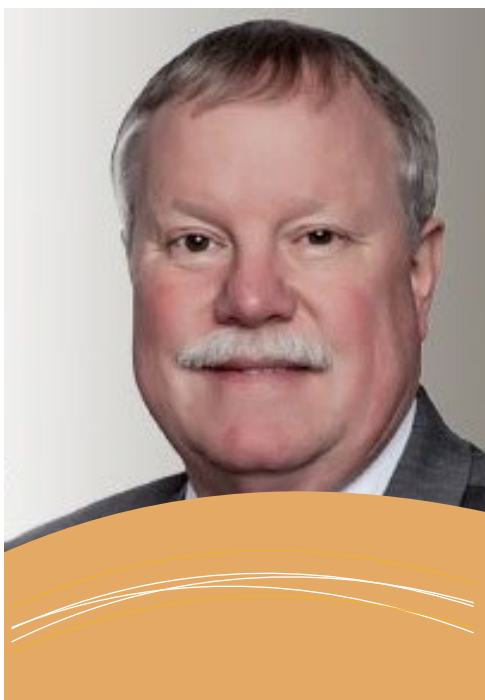
Ned Calonge

Ned Calonge, MD, MPH, is the Associate Dean for Public Health Practice at the Colorado School of Public Health, and the Chief Medical Officer for the Colorado Department of Public Health and Environment. He is an associate professor of Family Medicine at the University of Colorado School of Medicine. Nationally, Dr. Calonge chairs HRSA's Advisory Committee on Heritable Disorders of Newborns and Children and the National Academies of Sciences, Engineering and Medicine's Board on Population Health and Public Health Practice. He is a past chair of CDC's Community Services Task Force and past chair of the U.S. Preventive Services Task Force.

Katie Guthmiller

Katie Guthmiller, MPH, CHES, is the Recruitment and Outreach Program Manager at the Colorado School of Public Health. In this role, Katie supports students in their journey to the field of public health and graduate education. She is an alum of the Colorado School of Public Health and graduated with an MPH in Community and Behavioral Health in 2019. Prior to this, she studied Health Promotion and Global Health at the University of Iowa. Katie has practiced public health in a variety of settings throughout her career including the World Health Organization, American Heart Association, Center for Health, Work & Environment, a local public health department, and several medical clinics. In her free time, she enjoys traveling, spending time outdoors, and watching the Hawkeyes with her husband and rescue dog.

Plenary Speakers

George Sparks

George Sparks has been the President/CEO of the Denver Museum of Nature and Science since November 2004. He spent 24 years in the electronics measurement business at Hewlett-Packard and Agilent Technologies. His career included marketing, sales, and general management of global businesses in software, systems, and services.

Prior to joining Hewlett-Packard, George spent 9 years in the Air Force as a pilot and as an Assistant Professor of Aeronautics at the USAF Academy (1976-1978). He is a Distinguished Graduate of the USAF Academy with a BS in Aeronautical Engineering and holds an MS in Aeronautics and Astronautics from MIT.

George's passion is public policy, particularly around science and education. He is a member of the Colorado Forum, Colorado Concern, and is on the Boards of Colorado Education Initiative, Colorado Inclusive Economy, Colorado Business Round Table, Colorado Music Hall of Fame and Board Chair at the Denver Metro Chamber of Commerce.

George is the founder of the Institute for Science & Policy, a program of the Museum. He loves his wife and all of his children.

Kristan Uhlenbrock

Kristan Uhlenbrock is the Director of the Institute for Science & Policy, a project of the Denver Museum of Nature & Science, where she works to ensure science has a respected role in public discourse and policymaking. Her career has spanned the nonprofit, think tank, and government sectors, engaging in a range of science and policy challenges throughout the country. Previously, she worked for the University Corporation for Atmospheric Research, the Center for American Progress, the American Geophysical Union, and the US Environmental Protection Agency, and the White House.

She values giving back through leadership and volunteer roles. She serves as a mentor for the Morgridge Acceleration Program and the Promoting Geoscience Research, Education, and Success Program, as well as on a number of boards and committees including the American Meteorological Society, ASTC Advocacy and Stakeholder Engagement Committee, and Science Writers Association of the Rocky Mountains Board. She is a CIVIC DNA Fellow and an ASTC Deliberation & Dialogue Fellow. In her free time, Kristan enjoys escaping to the outdoors, writing, and good food and drink with friends.