The National Academies of SCIENCES • ENGINEERING • MEDICINE

Roundtable on Environmental Health Sciences, Research, and Medicine and Roundtable on Population Health Improvement

PROTECTING THE HEALTH AND WELLBEING OF COMMUNITIES IN A CHANGING CLIMATE

March 13, 2017

AGENDA

National Academy of Sciences Building, Auditorium • 2101 Constitution Avenue, NW, Washington, DC

WORKSHOP OBJECTIVES:

In the context of considerations of health equity, economic viability, social acceptability, political palatability, and regional fit, the workshop's speakers, discussants, and other participants will:

- 1. Receive an overview of the health implications of climate change
- 2. Explore mitigation/prevention and adaptation/resilience-building strategies deployed by different sectors at various levels (e.g., local, national) and in various regions
- 3. Discuss aspects of collaboration on climate and health issues among community based organizations, health care systems, business, public health and other local government, along with lessons learned

8:30 am	Welcome and opening remarks
	Lynn Goldman, dean, Milken Institute School of Public Health, The George Washington University
	George Isham, senior advisor, HealthPartners, Inc., senior fellow, HealthPartners Institute for Education and Research; co-chair, Roundtable on Population Health Improvement
	Georges Benjamin, executive director, American Public Health Association
9:00 am	Setting the stage
	Jonathan Patz, director, Global Health Institute; Nelson Institute, Center for Sustainability & the Global Environment (SAGE); Population Health Sciences; University of Wisconsin—Madison
9:30 am	Q&A and discussion
	Moderator: Henry (Andy) Anderson, adjunct professor, population health, University of Wisconsin–Madison; former chief medical officer, Wisconsin Division of Public Health; planning committee member
10:00 am	Networking break
10:15 am	Panel I: Regional perspectives from the South
	Moderator: Linda Rudolph, director, Climate Change and Public Health Project, Public Health Institute; planning committee member
	Halida Hatic, director, Community Relations and Development, Center for Interfaith Relations, Louisville, KY; and Rachel Holmes, Healthy Trees, Healthy Cities program coordinator, The Nature Conservancy
	Maria Koetter, director, Office of Sustainability, Louisville Metro Government

11:05 am	Q&A and discussion
11.05 um	Moderator: Linda Rudolph
11:35 am	Panel II: Regional perspectives from the Midwest
	Moderator: Surili Patel, senior program manager, Environmental Health, American Public Health Association
	Paul Biedrzycki, director, Disease Control and Environmental Health, City of Milwaukee Healti Department
	Jeff Thompson, executive advisor and chief executive officer emeritus, Gundersen Health System, Wisconsin
12:10 pm	Q&A and Discussion
	Moderator: Surili Patel
12:40 pm	Lunch (provided for members and speakers; NAS cafeteria and neighborhood options available to attendees)
1:40 pm	Panel III: Regional perspectives from the Northeast
	Moderator: Paul A. Biedrzycki, director, Disease Control and Environmental Health, City of Milwaukee Health Department
	Celia Quinn, director, Bureau of Health Care System Readiness, New York City Department of Health and Mental Hygiene
	Matt Cahillane, program manager, Bureau of Public Health Protection, Division of Public Health, New Hampshire Department of Health and Human Services
	Kristin Baja, climate and resilience planner, Office of Sustainability, Baltimore City
2:30 pm	Q&A and Discussion
	Moderator: Paul A. Biedrzycki
3:00 pm	Break
3:15 pm	Panel IV: Regional perspectives from the West
	Moderator: John Bolduc, environmental planner, Cambridge (Massachusetts) Community Development Department
	Kathy Gerwig, vice president, Employee Safety, Health and Wellness; Environmental Stewardship Officer, Kaiser Permanente
	Renata Brillinger, executive director, California Climate & Agriculture Network (CalCAN)
	Fletcher Wilkinson, climate change program coordinator, Institute for Tribal Environmental Professionals, Northern Arizona University
4:05 pm	Q&A and Discussion
	Moderator: John Bolduc
4:30 pm	Closing remarks and reflections on the day
	Ray Baxter, health policy advisor
	Sanne Magnan, co-chair, Roundtable on Population Health Improvement
5:15 pm	Adjourn

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THE ROUNDTABLE ON ENVIRONMENTAL HEALTH SCIENCES,

RESEARCH, AND MEDICINE

The Roundtable on Environmental Health Sciences, Research, and Medicine was established in 1998 and provides a structured opportunity for regular and open communication among interested experts from a variety of government, academic, industry, and consumer groups in a neutral setting. Through meetings and workshops, the Roundtable facilitates discussion of key issues in environmental health sciences and decision making, identification of vulnerable populations to environmental hazards, and translation of environmental health research into public health practice. Workshop proceedings are published but do not contain conclusions and recommendations. By focusing on current and emerging issues that are being considered by decision makers, the Roundtable facilitates the discussion of the contribution of environmental health to complex societal problems.

ROUNDTABLE MEMBERS

Frank Loy, LL.B. (Chair) Washington, DC

U.S. Representative to the 66th Session of the General Assembly of the United Nations

- Lynn R. Goldman, M.D., M.P.H., (*Vice Chair*) Milken Institute School of Public Health George Washington University, Washington, DC
- Henry A. Anderson, M.D., University of Wisconsin, Madison, WI
- John M. Balbus, M.D., M.P.H., National Institute of Environmental Health Sciences National Institutes of Health, Bethesda, MD
- Faiyaz Bhojani, M.D., MBBS, Global Manufacturing and Chemicals Royal Dutch Shell, Amsterdam, Non-USA

Linda S. Birnbaum, Ph.D., DABT, ATS, National Institute of Environmental Health Sciences National Institutes of Health, Research Triangle Park, NC

Wayne E. Cascio, M.D., FACC, FAHA, National Health and Environmental Effects Research Laboratory US EPA Initiative Office of Public Engagement, Research Triangle Park, NC

Luz Claudio, Ph.D., Community Outreach & Education Mount Sinai School of Medicine, New York, NY Dennis J. Devlin, Ph.D., ExxonMobil Corporation, Irving, TX

- Richard A. Fenske, Ph.D., M.P.H., School of Public Health and Community Medicine University of Washington, Seattle, WA
- David D. Fukuzawa, M.S.A., The Kresge Foundation, Troy, MI
- **Bernard D. Goldstein, M.D.**, Department of Environmental and Occupational Health Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA
- Richard J. Jackson, MD, MPH, Hon. AIA, Hon. ASLA, Department of Environmental Health Sciences, Fielding School of Public Health University of California, Los Angeles, Los Angeles, CA
- Suzette M. Kimball, Ph.D., United States Geological Survey United States Department of the Interior, Reston, VA
- Jay Lemery, M.D., FACEP, FAWM, School of Medicine University of Colorado, Aurora, CO
- Maureen Y. Lichtveld, M.D., M.O.H., Department of Environmental Health Sciences Tulane University School of Public Health and Tropical Medicine, New Orleans, LA
- Al McGartland, Ph.D., National Center for Environmental Economics Environmental Protection Agency, Washington, DC
- David M. Michaels, Ph.D., M.P.H., George Washington University, Washington, DC
- Susan L. Santos, Ph.D., M.S., School of Public Health Rutgers University, Medford, MA
- Kirk P. Smith, Ph.D., School of Public Health University of California, Berkeley, Berkeley, CA
- Agnes Soares da Silva, M.D., M.P.H., Sustainable Development and Health Equity Pan American Health Organization / WHO, Washington, DC
- John D. Spengler, Ph.D., Environmental Health and Human Habitation Harvard School of Public Health, Boston, MA
- **G. David Tilman, Ph.D.**, Department of Ecology, Evolution and Behavior University of Minnesota, St. Paul, MN
- Juli Trtanj, MES, Climate Program Office NOAA, Silver Spring, MD

Patricia Verduin, Ph.D., Global Research & Development Colgate-Palmolive Company, Piscataway, NJ **Dick Zimmer, LL.B**, Zimmer Strategies, Inc., Flemington, NJ

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ROSTER OF ROUNDTABLE ON POPULATION HEALTH IMPROVEMENT

CO-CHAIRS

George J. Isham, MD, MS (Co-chair)

Senior Advisor, HealthPartners Senior Fellow, HealthPartners Institute for Education and Research HealthPartners, Inc

Sanne Magnan, MD, PhD (Co-chair) Adjunct Assistant Professor Department of Medicine University of Minnesota

CO-CHAIR EMERITUS

David A. Kindig, MD, PhD

Professor Emeritus vice Chancellor for Health Sciences Emeritus Vice Chancellor for Health Sciences University of Wisconsin-Madison School of Medicine

MEMBERS

Terry Allan, RS, MPH

President, National Association of County and City Health Officials Health Commissioner Cuyahoga County Board of Health

Catherine Baase, MD Health Adviser The Dow Chemical Company

Gillian Barclay, DDS, MPH, DrPH

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Professor Judith and John Bendrosian Chair in Governance and the Public Enterprise Sol Price School of Public Policy University of Southern California

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Kathy Gerwig, MBA

Vice President, Employee Safety, Health and Wellness and Environmental Stewardship Officer Kaiser Permanente

Alan Gilbert Director of Global Government and NGO Strategies GE Healthymagination

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José T. Montero, MD, MHCDS

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Mary Pittman, DrPH, MPH, MCP President and CEO Public Health Institute

Pamela Russo, MD

Senior Program Officer Robert Wood Johnson Foundation

The Roundtable on Population Health Improvement and The Roundtable on Environmental Health Sciences, Research and Medicine

PROTECTING THE HEALTH AND WELLBEING OF COMMUNITIES IN A CHANGING CLIMATE: A WORKSHOP

March 13, 2017 NAS AUDITORIUM

BIOSKETCHES OF PRESENTERS AND MODERATORS

Lisa Abbott

Lisa Abbott is Empower Kentucky Organizer at Kentuckians for the Commonwealth (KFTC), where she coordinates the organization's effort to develop a "people's energy plan" for Kentucky. She has worked as a community organizer with KFTC for more than two decades, including seven years organizing in coalfields of eastern Kentucky and 14 years as KFTC's Organizing Director. She received a Master's Degree in Public Policy with an emphasis in Leadership Development from the University of Maryland in 2001. She holds a BS in Biology from the University of North Carolina at Chapel Hill, and serves on the board of the New World Foundation.

Henry Anderson

Henry A. Anderson, MD is adjunct professor of population health at the University of Wisconsin Medical School. He was previously the State Health Officer, chief medical officer and state epidemiologist for occupational and environmental health in the Wisconsin Division of Public Health and Dr. Anderson's expertise includes public health; preventive, environmental, and occupational medicine; respiratory diseases; epidemiology; human health risk assessment; and risk communication. His research interests include disease surveillance, risk assessment, health hazards of Great Lakes sport-fish consumption, arsenic in drinking water, asbestos disease, and occupational fatalities and injuries. He is certified by the American Board of Preventive Medicine with a subspecialty in occupational and environmental medicine and is a fellow of the American College of Epidemiology. Dr. Anderson is past chair of the Board of Scientific Councilors of the National Institute for Occupational Safety and Health. He has served on several NRC committees, including the Division on Earth and Life Studies Committee, the Committee on Toxicity Testing and Assessment of Environmental Agents, and the Committee on Enhancing Environmental Health Content in Nursing Practice. Dr. Anderson received his MD from the University of Wisconsin Medical School.

Kristin Baja

Kristin Baja is the Climate and Resilience Planner with the Office of Sustainability at Baltimore City. She is responsible for development and implementation of the City's Disaster Preparedness Project and Plan (DP3) which integrates climate adaptation with hazard mitigation efforts. She is also responsible for climate change communication and outreach, Community Rating System certification, resiliency planning and STAR Communities certification. Kristin is a Certified Floodplain Manager and is also responsible for regulating the city's floodplain. She is an active member of the Urban Sustainability Directors Network, Climate Communications Consortium of Maryland, American Society of Adaptation Professionals, and the Baltimore City Forestry Board. Before joining Baltimore City, Kristin worked for the City of Ann Arbor developing their Climate Action Plan and Sustainability Framework. She has been involved in climate and resilience planning with various cities throughout the United States. Kristin holds a Master of Urban Planning degree and a Master of Science degree from the University of Michigan. In 2016, Kristin was recognized by the White House as a Champion of Change for her work on climate equity and resilience.

Raymond Baxter

For the past 15 years, Dr. Baxter was Kaiser Permanente's senior vice president for Community Benefit, Research and Health Policy. There he built the largest community benefit program in the US, investing over \$2 billion annually in community health. He led Kaiser Permanente's signature national health improvement partnerships, including the Weight of the Nation, EveryBody Walk!, the Convergence Partnership and the Partnership for a Healthier America. He established Kaiser Permanente's Center for Effectiveness and Safety Research and its national genomics research bank, served as President of KP International and chaired Kaiser Permanente's field-leading environmental stewardship work.

Previously Dr. Baxter headed the San Francisco Department of Public Health, the New York City Health and Hospitals Corporation, and The Lewin Group. Dr. Baxter holds a doctorate from Princeton University. In 2001 the University of California, Berkeley, School of Public Health honored him as a Public Health Hero for his service in the AIDS epidemic in San Francisco. In 2006 he received the CDC Foundation Hero Award for addressing the health consequences of Hurricane Katrina in the Gulf Coast. He currently serves on the Advisory Board of the UC Berkeley School of Public Health and the Boards of the CDC Foundation and the Blue Shield of California Foundation. He recently completed terms on the Global Agenda Council on Health of the World Economic Forum, and the Institute of Medicine's Roundtable on Population Health Improvement.

Georges Benjamin

Georges Benjamin is known as one of the nation's most influential physician leaders because he speaks passionately and eloquently about the health issues having the most impact on our nation today. From his firsthand experience as a physician, he knows what happens when preventive care is not available and when the healthy choice is not the easy choice. As executive director of APHA since 2002, he is leading the Association's push to make America the healthiest nation in one generation.

He came to APHA from his position as secretary of the Maryland Department of Health and Mental Hygiene. Benjamin became secretary of health in Maryland in April 1999, following four years as its deputy secretary for public health services. As secretary, Benjamin oversaw the expansion and improvement of the state's Medicaid program.

Benjamin, of Gaithersburg, Maryland, is a graduate of the Illinois Institute of Technology and the University of Illinois College of Medicine. He is board-certified in internal medicine and a

fellow of the American College of Physicians, a fellow of the National Academy of Public Administration, a fellow emeritus of the American College of Emergency Physicians and an honorary fellow of the Royal Society of Public Health.

Paul Biedrzycki

Paul Biedrzycki, MPH, MBA, CIH, serves as the Director of Disease Control and Environmental Health within the City of Milwaukee Health Department (MHD). He has worked in local public health for over 33 years and currently provides leadership and strategic oversight across a wide range of programs and initiatives at the MHD department.

He has been active in the response to a number of emerging infectious disease outbreaks in the City of Milwaukee and surrounding region that were national in scope and impact. These include the 1993 Cryptosporidium outbreak, the 2003 Monkeypox outbreak, the 2006 multi-state E. coli spinach outbreak, a 2008 nationwide measles outbreak, and the 2009 H1N1 influenza pandemic.

Mr. Biedrzycki has presented extensively at national conferences, workshops and seminars on a variety of emerging public health topics. These include global climate change, biosurveillance and intelligence fusion, novel infectious disease epidemiology, legal preparedness and whole of community engagement in emergency planning and response. Mr. Biedrzycki routinely participates on several national workgroups and committees convened by the federal agencies such as the US Department of Homeland Security, Centers for Disease Control and Prevention, U.S Environmental Protection Agency and the National Academy of Sciences, Institute of Medicine.

John Bolduc

John Bolduc has been an environmental planner with the City of Cambridge, MA for 20 years and has over 30 years of experience in municipal sustainability policy. His professional experience includes local climate change planning for mitigation and adaptation, building energy efficiency, renewable energy, green buildings, open space planning and management, wetlands protection, and land use policy. Currently he is managing the Cambridge Climate Change Vulnerability Assessment and Climate Change Preparedness and Resilience Plan. John holds a Bachelor of Science from the University of California, Davis and a Masters in Urban and Environmental Policy from Tufts University.

Renata Brillinger

Renata Brillinger is the co-founder and Executive Director of the California Climate and Agriculture Network (CalCAN). She has 18 years of experience in sustainable agriculture policy and food systems projects and has held numerous non-profit administrative positions since 1992. Prior to CalCAN, she was Program Director at the Climate Protection Campaign, focused on renewable energy and on agriculture. For seven years she served as the Director of Californians for GE-Free Agriculture, a coalition of sustainable agriculture and environmental organizations that provided education on genetic engineering in agriculture. She serves on the steering committee of the Center for Sustainability at CalPoly University in San Luis Obispo and the advisory board of UC Davis Agricultural Sustainability Institute.

Matt Cahillane

Matt Cahillane is Public Health Program Manager in the Bureau of Public Health Protection of the New Hampshire Department of Health and Human Services. Mr. Cahillane has managed a number of state-level environmental health programs in New Hampshire over the past two decades. His current projects include building resilience against the effects of a changing climate, and local-level interventions for heat stress among the elderly, and tick exposure among youth. His past projects have included hazardous materials response, indoor air quality, and disease surveillance.

Kathy Gerwig

Kathy Gerwig is Vice President of Employee Safety, Health and Wellness, and Environmental Stewardship Officer at Kaiser Permanente.

She is responsible for developing, organizing and managing a nationwide environmental initiative for Kaiser Permanente. Her book Greening Health Care, How Hospitals Can Heal the Planet examines the intersections of health care, health and environmental stewardship. Kathy is also responsible for eliminating workplace injuries, promoting healthy lifestyle choices, and reducing health risks for the organization's 220,000 employees and physicians.

Lynn Goldman

As the Michael and Lori Milken Dean at Milken Institute School of Public Health at the George Washington University, Dr. Goldman's responsibilities are informed by her broad and deep public policy and academic experience. Prior to joining GW in August 2010, she was professor of environmental health sciences at The Johns Hopkins Bloomberg School of Public Health.

Dr. Goldman was assistant administrator for toxic substances in the U.S. Environmental Protection Agency (EPA) from 1993 through 1998 under President Bill Clinton. Under her watch, the EPA overhauled the nation's pesticide laws, expanded right-to-know requirements for toxin release, reached consensus on an approach to testing chemicals with endocrine-disrupting potential, developed standards to implement lead screening legislation and promoted children's health and global chemical safety. Prior to joining the EPA, Dr. Goldman worked in environmental health for the California Department of Public Health.

A member of the National Academy of Medicine, she has chaired or served on numerous committees and forums. She currently serves on the National Academy of Medicine Governing Council and the Governing Board of the National Academy of Sciences. She serves as a member of the Advisory Committee to the Director of the U.S. Centers for Disease Control and Prevention and a member of the Food and Drug Administration Science Board.

Among many accolades, Dean Goldman received a 2009 Heinz Award, given to innovators addressing global change caused by the impact of human activities. She was awarded alumna of the year by the UC Berkeley School of Public Health, received the Woodrow Wilson Award for Excellence in Government from Johns Hopkins University and was named one of 150 outstanding alumni by the University of California San Francisco. She also received an honorary doctorate from Örebro University in Sweden for her contributions to chemical legislation in the U.S. and Sweden and her influence on the research conducted at the university's Man Technology Environment Research Centre.

Halida Hatic

Halida Hatic is the director of community relations and development for the Center for Interfaith Relations, a Louisville-based nonprofit working to promote and support interfaith understanding, cooperation and action. Before joining the CIR staff, Ms. Hatic, a native of Cincinnati, worked for ten years in the environmental sustainability field, including six years at the New England office of the Environmental Protection Agency. In this capacity, she managed and coordinated regional implementation of EPA's voluntary programs to reduce emissions from mobile sources.

In her current role as director of community relations and development for the Center for Interfaith Relations, Ms. Hatic leads efforts to infuse principles of environmental health and sustainability into CIR's daily operations and ongoing programming. Ms. Hatic holds a Bachelor of Arts in International and Development Economics from the University of New Hampshire and a Master of Arts in Urban and Environmental Policy and Planning from Tufts University. She is a certified Green Specialist, a certified consultant in the Barrett Cultural Transformation Tools, Levels I and II, and a 2014 graduate of the Bioneer's Cultivating Women's Leadership program. Ms. Hatic currently serves as Vice Chair of the board of the Louisville Sustainability Council and has infused her passion and commitment to protecting the health and well-being of all living things into both her personal and professional life.

Rachel Holmes

Rachel Holmes is the coordinator of The Nature Conservancy's national urban forestry program called the Healthy Trees, Healthy Cities (HTHC) Initiative. In this role, she educates and mobilizes people nationwide to engage in long-term urban forest stewardship. She also currently leads a Conservancy-wide initiative to enhance and expand the organization's efforts to engage youth and communities in urban conservation worldwide, with a special focus on human health and well-being. Particularly passionate about building strategic partnerships with communities of faith, Rachel is co-developing an urban conservation engagement/ ecological data collection protocol with the Center for Interfaith Relations (in Louisville, KY), called the Landscape Audit for Sacred Spaces. Prior to joining the Conservancy, Rachel created and implemented two urban forestry-based job training programs for urban youth in Connecticut and served as an urban forester for the State of Connecticut's Department of Energy and Environmental Protection. Rachel holds a Bachelor of Science from Rutgers University, and concurrently earned a Master of Divinity from the Yale Divinity School and a Master of Forestry from the Yale School of Forestry and Environmental Studies.

George Isham

George Isham, M.D., M.S., is Senior Advisor to HealthPartners, responsible for working with the board of directors and the senior management team on health and quality of care improvement for patients, members, and the community. Dr. Isham is also Senior Fellow at HealthPartners Research Foundation and facilitates forward progress at the intersection of population health research and public policy. Dr. Isham is active nationally and currently cochairs the National Quality Forum convened Measurement Application Partnership, chairs the National Committee for Quality Assurances' clinical program committee and is a member of NCQA's Committee on Performance Measurement. He is a former member of the Center for Disease Control and Prevention's Task Force on Community Preventive Services and the Agency for Health Care Quality's United States Preventive Services Task Force and currently serves on the advisory committee to the director of Centers for Disease Control and Prevention. His practice experience as a general internist was with the United States Navy, at the Freeport Clinic in Freeport, Illinois, and as a clinical assistant professor of medicine at the University of Wisconsin Hospitals and Clinics in Madison, Wisconsin. In 2014 Dr. Isham was elected to the National Academy of Medicine. He has chaired three studies in the National Academies Health and Medicine Division (the program unit of the former Institute of Medicine) in addition to serving on a number of HMD studies related to health and quality of care. In 2003 Dr. Isham was appointed as a lifetime National Associate of the National Academies of Sciences, Engineering, and Medicine in recognition of his contributions to the work of the Health and Medicine Division.

Maria Koetter

Maria Koetter is Louisville's first Director of Sustainability and is responsible for city-wide strategic sustainability planning, policy development and program implementation. Ms. Koetter developed Louisville's comprehensive sustainability plan "Sustain Louisville", which was released in 2013. Key programs under her direction focus on energy conservation, green infrastructure, tree canopy and urban heat island mitigation.

Ms. Koetter formerly worked in the environmental and sustainability consulting industry and has extensive experience with corporate social responsibility and organizational sustainability funding.

Sanne Magnan

Sanne Magnan, M.D., Ph.D, is the co-chair of the Roundtable on Population Health Improvement. Dr. Magnan served as President and CEO of the Institute for Clinical Systems Improvement (ICSI) until January 4, 2016. Dr. Magnan was previously the president of ICSI when she was appointed by former Minnesota Governor Tim Pawlenty to serve as Commissioner of Health for the Minnesota Department of Health. She served in that position from 2007 to 2010 and had significant responsibility for implementation of Minnesota's 2008 health reform legislation, including the Statewide Health Improvement Program (SHIP), standardized quality reporting, development of provider peer grouping, certification process for health care homes, and baskets of care. She returned as ICSI's President and CEO in 2011. Dr. Magnan also currently serves as a staff physician at the Tuberculosis Clinic at St. Paul-Ramsey County Department of Public Health and as a clinical assistant professor of medicine at the University of Minnesota. Her previous experience includes serving as vice president and medical director of Consumer Health at Blue Cross and Blue Shield of Minnesota, where she was responsible for case management, disease management, and consumer engagement. Dr. Magnan holds an M.D. and a Ph.D. in medicinal chemistry from the University of Minnesota, and is a boardcertified internist. She earned her bachelor's degree in pharmacy from the University of North Carolina. She currently serves on the National Academy of Medicine Roundtable on Population

Health Improvement; she has served on the board of MN Community Measurement, and the board of NorthPoint Health & Wellness Center, a federally qualified health center and part of Hennepin Health. She was named one of the 100 Influential Health Care Leaders by Minnesota Physician magazine in 2004, 2008 and 2012. Since 2012, she has participated in the Process Redesign Advisory Group for the National Center for Inter-professional Practice and Education coordinated through the University of Minnesota. Recently, she became a Senior Fellow, HealthPartners Institute for Education and Research. She is participating in several Technical Expert Panels for CMS on population health measures (2015-2016), and is a member of the Population-based Payment Workgroup of the Healthcare Payment Learning and Action Network (2015-2016). She is also on the Interdisciplinary Application/Translation Committee of the Interdisciplinary Association for Population Health Sciences.

Surili Patel

Surili Sutaria Patel is the Senior Program Manager, Environmental Health at the American Public Health Association (APHA). In this capacity, Surili oversees the environmental health portfolio which includes climate change, transportation and active transportation, working with tribal governments, healthy housing, chemical safety, building partnerships, and more. Surili received her Master's of Science in Biomedical Science Policy from Georgetown University and a Bachelor's of Science in Political Science from the University of Maryland, Baltimore County.

Jonathan Patz

Jonathan Patz, MD, M.P.H., is director of the Global Health Institute at the university of Wisconsin-Madison. He is a professor and the John P. Holton Chair in Health and the Environment with appointments in the Nelson Institute for Environmental Studies and the Department of Population Health Sciences. For 15 years, Patz served as a lead author for the United Nations Intergovernmental Panel on Climate Change (or IPCC)—the organization that shared the 2007 Nobel Peace Prize with Al Gore. He also co--chaired the health expert panel of the U.S. National Assessment on Climate Change, a report mandated by the U.S. Congress.

Patz is committed to connecting colleagues from across campus and communities around the world to improve health for all and is continually striving to integrate his research into teaching for students and communication to policy makers and the general public.

Patz has written over 90 peer--reviewed scientific papers, a textbook addressing the health effects of global environmental change and co-edited the five--volume Encyclopedia of Environmental Health (2011). He, most recently, co-edited "Climate Change and Public Health" (2015, Oxford University Press) and is leading a Massive Open Online Course "Climate Change Policy and Public Health." He has been invited to brief both houses of Congress and has served on several scientific committees of the National Academy of Sciences. Dr. Patz served as Founding President of the International Association for Ecology and Health.

In addition to directing the university--wide Global Health Institute, Patz has faculty appointments in the Nelson Institute, Center for Sustainability & the Global Environment (SAGE) and the Department of Population Health Sciences. He also directs the NSF---sponsored Certificate on Humans and the Global Environment (CHANGE). Patz is double board--certified, earning medical boards in both Occupational/Environmental Medicine and Family Medicine and received his medical degree from Case Western Reserve University (1987) and his Master of Public Health degree (1992) from Johns Hopkins University.

Celia Quinn

Dr. Celia Quinn is the Executive Director of the Bureau of Healthcare System Readiness (BHSR) in NYC's Department of Health and Mental Hygiene (DOHMH) Office of Emergency Preparedness and Response. She has served in this role since June 2015. Dr. Quinn oversees the Healthcare Preparedness Program for NYC, with the mission of supporting the healthcare system to respond safely and effectively in emergencies. Dr. Quinn is board certified in Pediatrics, having completed residency training and a chief residency year in the Residency Program for Social Medicine at Montefiore Medical Center in the Bronx; this multi-disciplinary training program is focused on social determinants of health, primary care, and advocacy. After completing her pediatric training, Dr. Quinn joined the Centers for Disease Control (CDC) as an Epidemic Intelligence Service Officer, where she was assigned for two years to the Ohio Department of Health. She is currently a CDC Career Epidemiology Field Officer (CEFO) assigned to NYC DOHMH, and is a Lieutenant Commander in the US Public Health Service.

Linda Rudolph

Linda Rudolph, MD, MPH, is the director of the Climate Change and Public Health ProjectCenter for Climate Change and Health at the Public Health Institute. in PHI's Center for Climate Change and Public Health. She is also the principal investigator on a PHI project to advance the integration of Health in All Policies in local jurisdictions around California.

Previously, Rudolph served as the deputy director for Chronic Disease Prevention and Public Health Promotion in of the California Department of Public Health (CDPH), 's Center for Chronic Disease Prevention and Public Health and the health officer and public health director for the City of Berkeley, CA. While at CDPH, Rudolph chaired the Strategic Growth Council Health in All Policies Task Force and the California Climate Action Team Public Health Work Group.

Rudolph has also been the chief medical officer for Medi-Cal Managed Care, medical director for the California Division of Workers' Compensation, executive medical director for the Industrial Medical Council, staff physician in the CDPH Occupational Health program, and a physician for the Oil, Chemical, and Atomic Workers' International Union.

Rudolph received her doctorate in medicine and clinical training in pediatrics and emergency medicine from the University of California at San Francisco. She holds a master's in public health from the University of California at Berkeley. Rudolph. and is board certified in occupational medicine.

Jeffrey Thompson

Jeff Thompson, MD, is executive advisor and chief executive officer emeritus at Gundersen Health System. Dr. Thompson is a trained Pediatric Intensivist and Neonatologist, and served as Gundersen's Chief Executive Officer from 2001 to 2016. After completing his professional training in 1984, Dr. Thompson came to Gundersen with a desire to care for patients and be a leader among his peers. He served on Gundersen's boards beginning in 1992 and was chairman of the board from 2001 to 2014. Dr. Thompson also served as Executive Vice President from 1995 to 2001 and played a key role in the organization's negotiations and governance design.

A founding member and past board chair of both the Wisconsin Collaborative for Healthcare Quality and the AboutHealth ™ network, and a White House Champion of Change, Dr. Thompson has led Gundersen's nationally-recognized initiatives for patient care, quality improvement and sustainability. Dr. Thompson has certifications in pediatric critical care, neonatal and perinatal medicine, and pediatrics. He received his medical training at the University of Wisconsin-Madison Medical School, University of California-Davis and Upstate Medical Center in Syracuse, N.Y. Dr. Thompson has authored and been featured in a number of articles, book chapters and abstracts on many healthcare, leadership and sustainability topics.

Fletcher Wilkinson

Fletcher is the Climate Change Program Coordinator, and joined the ITEP team in 2016. He holds a B.S. in Environmental Studies and an M.S. in Climate Science and Solutions from Northern Arizona University, and has experience with climate and energy policy at the local, state, tribal, and federal levels. Alongside his role at ITEP, he works with tribal and rural governments in the southwest on energy issues including renewable energy development and policy creation.

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- <u>Climate Models and the Use of Climate</u> <u>Projections: A Brief Overview for Health</u> <u>Departments</u>
- <u>Assessing health vulnerability to climate</u> change: A guide for health departments

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