

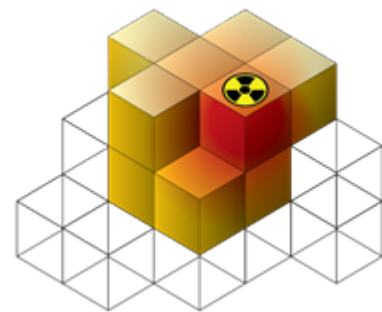
The National Academies of
SCIENCES • ENGINEERING • MEDICINE

CHALLENGES IN INITIATING AND CONDUCTING LONG-TERM
HEALTH MONITORING OF POPULATIONS FOLLOWING
NUCLEAR AND RADIOLOGICAL EMERGENCIES IN THE
UNITED STATES

A WORKSHOP

March 12-13, 2019

The Keck Center
Room 100
500 Fifth Street, NW
Washington, DC 20001



The workshop is hosted by the Nuclear and Radiation Studies Board of the National Academies of Sciences, Engineering, and Medicine, and is sponsored by the Centers for Disease Control and Prevention

Agenda

DAY 1: March 12, 2019

8:30 AM

PLENARY SESSION: Setting the Stage

Moderated by Jonathan Fielding, UCLA Fielding School of Public Health

Call to order and Welcome (10')

Jonathan Fielding, UCLA Fielding School of Public Health

About the Study Request (15')

Armin Ansari, Centers for Disease Control and Prevention

The need to Prepare for Population Monitoring (15')

Kevin Yeskey, Office of the Assistant Secretary for Preparedness and Response

Environmental Consequences of Radioactive Material following a Nuclear or Radiological Incident (15')

Steve Musolino, Brookhaven National Laboratory

Radiation Dose Reconstruction (15')

John Till, Risk Assessment Corporation

Biodosimetry Tools for Long-Term Health Monitoring (15')

David Brenner, Columbia University

10:00 AM

BREAK

10:15 AM

SESSION 1: Existing Radiation Registries and Population Monitoring

Moderated by Betsy Kagey, Georgia Department of Public Health

Follow-up of the Atomic Bombing Survivors (15')
Eric Grant, Radiation Effects research Foundation, Hiroshima

Health Impacts and Follow-up after the Goiânia Accident (15')
TBD

The Chernobyl Registry (15')
Andrei Chesnyk, Republican Research Center for Radiation Medicine and Human Ecology

The Fukushima Registry (15')
Koichi Tanigawa, Fukushima Medical University

11:20 AM

Questions and Discussion for Session 1

11:45 AM

LUNCH (available for purchase at refectory on 3rd floor)

1:00 PM

SESSION 2: Health Screening

Moderated by Tener Veenema, Johns Hopkins University School Of Nursing

Radiation Screening/Decontamination (10')
TBD

Benefits and Risks of Health Screening (15')
Steven Woolf, Virginia Commonwealth University

Long-Term Strategies for Thyroid Health Monitoring after Nuclear Accidents (15')
Kayo Togawa, International Agency for Research on Cancer

Mental Health Screening (15')
Robert Ursano, Uniformed Services University School of Medicine

Health Care Resources (15')
Cullen Case, Radiation Injury Treatment Network

Medical Management of Radiation Incidents (15')
TBD, Radiation Emergency Assistance Center/Training Site

2:35 PM

Questions and Discussion for Session 2

3:00 PM

BREAK

3:20 PM

Session 3: Lessons Learned from Setting up Population Monitoring Registries

Moderated by Lorna Thorpe, NYU Langone Health

The World Trade Center Registry (15')
Mark Farfel, New York City Department of Health and Mental Hygiene

Hurricane Katrina and Superstorm Sandy (15')
TBD

The Las Vegas Mass Shooting (15')
Jeff Quinn, Southern Nevada Health District

Zika Pregnancy and Infant Registry (15')
TBD, Centers for Disease Control and Prevention

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| 4:30 PM | Questions and Discussion for Session 3 |
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| 5:00 PM | Day 1 Closing Remarks <i>Lorna Thorpe, Committee Member</i> |
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| 5:15 PM | Adjourn day 1 |
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DAY 2: Wednesday, March 13, 2019

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| 8:15 AM | Welcome Remarks <i>Jonathan Fielding, UCLA Fielding School of Public Health</i> |
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| 8:20 AM | SESSION 4: Operational Considerations for Setting up and Maintaining a Radiation Registry <i>Moderated by Meghan McGinty, Johns Hopkins Bloomberg School of Public Health</i> |
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PANELISTS

International Perspectives

Eduardo Herrera, International Atomic Energy Agency

Federal Perspectives

TBD, Centers for Diseases Control and Prevention

TBD, Office of the Assistant Secretary for Preparedness and Response

State and Territorial Perspectives

Tess Konen, Minnesota Department of Health

Jennifer Beggs, Michigan Department of Health and Human Services

Betsy Kagey, Georgia Department of Public Health

TBD,

Local Perspectives

TBD, National Association of County and City Health Officials

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| 10:00 AM | BREAK |
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10:20 AM

SESSION 5: Communications

Moderated by Brooke Rogers, Kings College London

Communicating about the Event and What to Do (15')

Jessica Weider, Environmental Protection Agency (tentatively accepted)

Communicating about Potential Health Effects (15')

Vivi Siegel, Centers for Disease Control and Prevention

Communicating the Scope of the Registry (20')

Monica Schoch-Spana, Johns Hopkins Bloomberg School of Public Health

Communicating Health Monitoring Following the Salisbury Nerve Agent Attack (15')

Brooke Rogers, King's College London

Communicating Inclusion and Exclusion criteria of a Registry (15')

Eddie Olivarez, Hidalgo County

Social Media Monitoring (15')

Tamer Hadi, NYC Department of Health and Mental Hygiene

11:20 AM

Questions and Discussion for Session 4

11:50 AM

Key Themes Emerged During the Workshop

Jonathan Fielding, UCLA Fielding School of Public Health

12:00 PM

General Discussion

12:25 PM

Closing Remarks

Jonathan Fielding, UCLA Fielding School of Public Health

12:30 PM

Adjourn Day 2

Statement of Task

The National Academies will establish an ad hoc planning committee that will organize a workshop to discuss challenges and considerations for setting up a registry for long-term health monitoring of populations following nuclear or radiological emergencies in the United States. Workshop participants will discuss the following topics:

- Existing international inclusion criteria for such registries and possible alternative approaches, including a dose-tiered approach.
- Challenges associated with communicating inclusion criteria for a registry with the affected population.
- Considerations regarding health screening of the affected population, such as thyroid screening.
- Operational considerations for setting up and maintaining a registry, taking into account practicality and implementation issues.

The workshop presentations and discussions will be summarized in National Academies proceedings of a workshop authored by a rapporteur.

Committee Member and Speaker Biographies

Jonathan E. Fielding, MD, is a professor of health policy and management and pediatrics at UCLA Fielding School of Public Health. His areas of expertise include the development of preventive services guidelines and priorities, prevention economics and financing, evidence based public health methods and practice, and health promotion for children, adults and families in community, clinical and occupational settings. As the founding co-director of the UCLA Center for Health Enhancement, Education and Research, he helped develop the first comprehensive university-based center to focus on clinical and worksite prevention opportunities. Dr. Fielding served as director of public health and health officer for Los Angeles County for over 16 years where he was responsible for the full range of public health activities for over ten million county residents. Dr. Fielding's awards include the Porter Prize, given for his national impact on improving the lives of Americans; The Milton and Ruth Roemer Prize for achievements in local public health, the Sedgwick Medal for contributions to the field of public health, and elected membership in the National Academy of Medicine. He received an MD, MA, and MPH from Harvard University, and an MBA from the Wharton School of Business Administration.

Betsy T. Kagey, PhD, is the academic and special projects liaison at the Georgia Department of Public Health's Office of Emergency Preparedness and Response. The primary focus of her current work is on emergency preparedness planning for vulnerable populations and developing guidance for Georgia's public health response to radiation incidents. Dr. Kagey is a member of the Council for State and Territorial Epidemiologists (CSTE)'s environmental and disaster epidemiology workgroups and she is CSTE's representative on the National Alliance for Radiation Readiness. Dr. Kagey is a member and past president of the Society for Environmental Geochemistry and Health. Dr. Kagey received a BS in chemistry from Carnegie Mellon University, an MSPH in environmental epidemiology from University of North Carolina School of Public Health, and a PhD in environmental health and toxicology from the State University of New York School of Public Health.

Meghan McGinty, PhD, is a faculty associate in health policy and management at the Johns Hopkins Bloomberg School of Public Health. Her research examines public health preparedness and response to disasters, allocation of scarce resources during emergencies, risk management and communication, and resilience. Prior to joining Hopkins, Dr. McGinty served as the deputy director of the Big Cities Health Coalition at the National Association of County and City Health Officials (NACCHO). In this role, she convened leaders of America's largest metropolitan health departments to exchange strategies and jointly address issues to promote and protect the health and safety of the 55 million people they serve. Over the course of her career, Dr. McGinty has prepared for, responded to and conducted research to improve our national resilience to disasters and public health emergencies. She served as director of continuity of operations planning at the New York City Department of Health and Mental Hygiene, where she was responsible for developing plans to sustain essential public health services in the event of a disaster. She also supported preparedness and response initiatives of the U.S.

National Response Team, the U.S. Environmental Protection Agency, the U.S. Coast Guard, the Federal Emergency Management Agency and the U.S. Public Health Service. She has responded to disasters including Hurricanes Katrina and Rita and the 2009 H1N1 pandemic. Dr. McGinty is committed to improving our collective ability to learn from prior disasters. To this end, she has served on the National Institute of Environmental Health Sciences' Best Practices Working Group for the development of special considerations for Institutional Review Board review of disaster and emergency related public health research, and is a member of National Health Security Preparedness Index's Advisory Panel for the development of local measures. Dr. McGinty earned an MPH and a PhD from the Johns Hopkins Bloomberg School of Public Health, an MBA from Johns Hopkins Carey Business School, and a BA from Georgetown University.

Stephen V. Musolino, PhD, is a scientist and in the Nonproliferation and National Security department at the U.S. Department of Energy's (DOE) Brookhaven National Laboratory (BNL). With more than 30 years of experience in health physics, his current research interests are in nonproliferation, counterterrorism, and planning for response to the consequences of radiological and nuclear terrorism. Since 1981, he has been part of the DOE Radiological Assistance Program as a team captain/team scientist and has been involved in developing radiological emergency response plans and procedures, as well as participating in a wide range of radiological and nuclear exercises and field deployments. During the Fukushima crisis, he was deployed in Japan as an assessment scientist with the DOE response team that was measuring the environmental consequences of the radioactive material released from the damaged nuclear power plants. He is a member of the National Council on Radiation Protection and Measurements (NCRP) and served on the scientific committee that developed NCRP Report No. 165, Responding to a Radiological or Nuclear Terrorism Incident: A Guide for Decision Makers. and co-Chaired the committee for Report No. 179, Guidance for Emergency Responses Dosimetry. Dr. Musolino was a member of the team with the Department of Homeland Security that published, Radiological Dispersal Device (RDD) Response Guidance Planning for the first 100 Minutes. Earlier in his career at BNL he was a member of the Marshall Islands Radiological Safety Program and participated in numerous field missions to monitor the populations living on islands affected by nuclear testing. Dr. Musolino earned a BS in engineering technology from Buffalo State College, an MS in nuclear engineering from Polytechnic Institute of New York University, a PhD in health physics from the Georgia Institute of Technology and is certified by the American Board of Health Physics.

Brooke Rogers, PhD, is a Professor of Behavioural Science and Security in the Department of War Studies at King's College London. She is a social psychologist interested in risk and crisis communication, perceptions of risk, and health outcomes in response to extreme events. The majority of her projects investigate public and practitioner responses to chemical, biological, radiological or nuclear (CBRN) terrorist incidents. She is the chair of the Cabinet Office Behavioural Science Expert Group for the National Risk Assessment and National Security Risk Assessment. She maintains membership on various working groups and committees including the UK Government's Scientific Advisory Group for Emergencies; the Cabinet Office Community

Resilience Programme Steering Group; the Home Office Science Advisory Council; the Home Office, Office for Security and Counter Terrorism Science, Technology, Analysis and Research Programme Challenge Board; the Cabinet Office Community Resilience Programme Steering Group; the Cabinet Office Practitioner Guidance Advisory Group; and Public Health England's Emergency Response Development Group's Psychosocial and Behavioural Issues Sub-Group. She has also been involved in teaching and training for NATO, the International Atomic Energy Agency, Home Office, Metropolitan Police, Police National CBRN Centre, Department of Homeland Security, and others. Professor Rogers has a BA (Cum Laude) in psychology from Rollins College in Winter Park, Florida and a PhD in psychology from Royal Holloway University, University of London.