Public Health and Radiation Emergency Preparedness Conference

March 21-24, 2011

Crowne Plaza Hotel Ravinia
Atlanta, GA

http://cdcradiationconference.org
Welcome!

Dear Colleague,

Welcome to “Bridging the Gaps: Public Health and Radiation Emergency Preparedness.” On behalf of the Radiation Studies Branch, Centers for Disease Control and Prevention, I would like to thank you for taking time out of your very busy schedule to join us for this conference. Preparing the public health, clinician, and emergency response workforce to respond to nuclear and radiological terrorism incidents is a critical need in our time. By strengthening our partnership in this arena, we can begin moving forward to address this need.

We have three main goals for our time together this week:

- Provide a forum for conference participants to discuss the current state of radiation emergency preparedness, including gaps and barriers, at the local, state, and federal levels.
- Provide a forum for conference participants to share promising practices, lessons learned, and practical applications to enhance the planning for, response to, and recovery from radiation emergencies.
- Create a professional network of public health professionals and other stakeholders invested in advancing the field of radiation emergency preparedness.

Achieving these goals will not solve all of our preparedness problems, but I believe that the partnerships we establish and strengthen this week will allow us to move forward in our preparedness efforts in the days ahead. Thank you for joining me in this effort.

I would like to extend a special thanks to the members of the program working group who helped us design this week’s program, and to the professional organizations that have partnered with us in this process. Without all of their efforts we would not be meeting here this week.

I would also like to thank our speakers and meeting chairs for coming to Atlanta this week to share their wealth of knowledge and experience with us. Their enthusiastic willingness to participate in this meeting has provided us with a very strong agenda.

Finally, I look forward to meeting with you and discussing how our Branch can partner with you to meet your preparedness needs. It has often been said that “all emergencies are local,” and in many ways I believe that is true. As a result, I recognize that you know your preparedness needs far better than I do. I hope you will share those with me over the next few days so that our Branch can continue to do its best to help you address some of them.

Sincerely,

Charles W. Miller, Ph.D.
Chief, Radiation Studies Branch
Division of Environmental Hazards and Health Effects
National Center for Environmental Health
Centers for Disease Control and Prevention
Acknowledgements

The Centers for Disease Control and Prevention’s Radiation Studies Branch would like to sincerely thank the following members of the Bridging the Gaps: Public Health and Radiation Emergency Preparedness Working Group for their time, tireless effort, and input into the conference program.

David Allard, MS, CHP
Director, Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection

Leeanna Allen, MPH, CHES
Health Education Specialist, Health Communication and Technical Training, Oak Ridge Institute for Science and Education

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Associate Professor of Public Health
Vice Chair, Department of Environmental Health Sciences, University of Alabama at Birmingham

Thom W. Berry
Director, Division of Media Relations, South Carolina Department of Health and Environmental Control

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Chief Program Officer, Public Health Practice, Association of State and Territorial Health Officials

Kevin Caspary, MPH
Health Education Specialist, Health Communication and Technical Training, Oak Ridge Institute for Science and Education

Arthur Chang, MD, MS
Medical Officer and Toxicologist, Health Studies Branch, Centers for Disease Control and Prevention

Doran Christensen, DO
Associate Director and Staff Physician Radiation Emergency Assistance Center/Training Site, Oak Ridge Institute for Science and Education

Jim Craig
Director, Health Protection
Mississippi State Department of Health

John Erickson, MS
Special Assistant, Washington State Department of Health

Frieda Fisher-Tyler, MHS, CIH
Administrator, Office of Radiation Control, Delaware Division of Public Health

Elizabeth Fitch, MPA (Deceased)
National Technical Assistance Coordinator, Office of the Civilian Volunteer Medical Reserve Corps, Office of the Surgeon General

Jack Herrmann, MSEd, NCC, LMHC
Senior Advisor, Public Health Preparedness, National Association of County and City Health Officials

Michael Heumann, MPH, MA
Epidemiologist, Emergency Preparedness Planning & Occupational Public Health, Office of Environmental Public Health, Oregon Public Health Division Department of Human Services

Keisha Jones-Johnson
Meeting Manager, Visions USA, Inc.

Kathleen Kaufman
Director (Retired), Radiation Management, Los Angeles County Radiation Management

Colleen Martin, MSPH
Epidemiologist, Health Studies Branch, Centers for Disease Control and Prevention
In addition, we wish to acknowledge the contributions of the National Association of County and City Health Officials, Oak Ridge Institute for Science and Education, and Visions USA, Inc. for their exceptional efforts in planning and convening this conference. We would also like to acknowledge the insight and guidance provided by Michael McGeehin, PhD, MPH, in initiating this conference.

For their assistance with the Community Reception Center (CRC) interactive tour, CDC would like to thank the Georgia Department of Natural Resources, Environmental Protection Division, the Georgia East Metro Medical Reserve Corps, Georgia East Metro Health District and the Oak Ridge Institute for Science and Education.
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General Information

Meeting Site:
Crowne Plaza Hotel at Ravinia
4355 Ashford Dunwoody
Atlanta, GA 30346
Phone: 770-395-7700

Registration and Information Desk Hours:
Sunday, March 20: 6:00 PM - 8:00 PM
Monday, March 21: 7:00 AM - 5:00 PM
Tuesday, March 22: 7:00 AM - 5:00 PM
Wednesday, March 23: 7:00 AM - 5:00 PM
Thursday, March 24: 7:00 AM - 11:30 PM

Atlanta Information Desk:
Information about area restaurants and attractions are listed in the program and available at the hotel Bell Stand.

Hotel Concierge:
The concierge will be available from 7:00 AM to 10:00 PM. Visit the Bell Stand for information on restaurants, shopping, MARTA, Atlanta sites of interest and transportation information.

Business Center Services:
Complimentary internet and printing is available in the lobby 24 hours a day.

Partner Tables:
The partner tables are located in the conference pre-function area and are open during the morning and afternoon breaks.

Poster Information:
The poster set up and presentation times are as listed. Poster presenters will be present during morning and afternoon breaks to answer questions.

Monday, March 21   Poster Set-up: 1:30 PM - 5:00 PM
Tuesday, March 21   Poster Display: 8:00 AM - 5:00 PM
Wednesday, March 23 Poster Display: 8:00 AM - 3:30 PM
Wednesday, March 23 Poster Dismantle: 3:30 PM - 5:00 PM

Emergency Procedures for Attendees:
Please follow emergency procedures provided on the guest room doors and the evacuation instructions provided in your conference packet.
Hotel Shuttle Information:
For your convenience, the Crowne Plaza Ravinia provides complimentary shuttle service to the MARTA train station located directly across the street at Perimeter Mall, which provides continuous transportation to and from the airport, as well as a variety of other Atlanta locations. Please visit the Bell Stand for a shuttle schedule.

Continuing Education Credit:
At the time of printing the program, continuing education activity for this activity is pending. See final announcement for details available at the registration desk. The Centers for Disease Control and Prevention is accredited as a provider of Continuing Nursing Education by the American Nurses Credentialing Center’s Commission on Accreditation. The American Academy of Health Physics (AAHP) has granted 18 Continuing Education Credits for attendees of this conference (ID number 2011-03-001). Attendees must participate in complete sessions in order to be eligible for credit.

Continuing Education Evaluation:
Continuing education credit for this conference is available through the CDC Training and Continuing Education Online system only. Please follow the instructions provided below. You must complete the online evaluation by April 25, 2011 to receive your continuing education credits or your certificate of completion. Instructions for completing the conference evaluation will also be posted on the conference website at http://www.cdcradiationconference.org/.

To complete online evaluation:
- Go to the CDC Training and Continuing Education Online at http://www.cdc.gov/tceonline/. If you have not registered as a participant, click on New Participant to create a user ID and password; otherwise click on Participant Login and login.
- Once logged on to the CDC Training and Continuing Education Online website, you will be on the Participant Services page. Click on Search and Register. Click on CDC Courses at the bottom right hand side of the search page.
- The next page will ask for the CDC Center/Course Code. The code for this training is bridgegaps. Enter the course code and then click on view. Click on the course. The course information page will come up. Scroll down to Register Here. Click on the type of CE credit that you would like to receive and then Submit. Three demographic questions will come up. Complete the questions and then Submit.
- A message will come up thanking you for registering for the course.
- If you have already completed the course you may choose to go right to the evaluation. Complete the evaluation and Submit. A record of your course completion and your CE certificate will be located in the Transcript and Certificate section of your record.
If you have any questions or problems contact:
*CDC/ATSDR Training and Continuing Education Online*
1-800-41TRAIN
Email at ce@cdc.gov

**Community Reception Center Tour:**
For those who registered for the Community Reception Center (CRC) Tour, please refer to the ticket inside your registration materials for your assigned time. Please arrive at the assigned time to ensure that all registrants have an opportunity to visit the Community Reception Center. Preregistration is required for this event and is now closed.

**Tell Us What You Think!**
We take your feedback seriously. For quick comments, questions, ideas, or suggestions, please fill out one of the comment cards located in the meeting rooms and throughout the hotel. Comment card collection boxes are located in the registration area and throughout the meeting rooms. Your feedback is vital.

**Hotel Map:**
![Conference Specifications Lobby Level](image-url)
Proof of Disclosure

CDC, our planners, and our presenters wish to disclose they have no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters with the exceptions of Dr. Harvey W. Clark, Jr., Mr. Grant Coffey, Dr. Robert Feldman, Mr. Korey Jackson and Dr. Carol North. Dr. Harvey W. Clark wishes to disclose that his salary is paid by National Security Technologies LLC, a U.S. Department of Energy contractor. Mr. Grant Coffey wishes to disclose that he received consulting fees for work done for Crisis Simulations International. Dr. Robert Feldman wishes to disclose that he received travel reimbursement for a presentation from Mirion Health Physics. Mr. Korey Jackson wishes to disclose that his salary is paid by L-3 Communications, a U.S. government contractor. Dr. Carol North wishes to disclose that she received consulting fees for work done for University of Oklahoma Health Sciences Center and Tarrant County, Texas and a speaker honorarium from Washington University School of Medicine in St. Louis.

Presentations will not include any discussion of the unlabeled use of a product or a product under investigational use with the exceptions of Dr. Nicholas Dainiak and Dr. David Weinstock. Dr. Nicholas Dainiak wishes to disclose that he will discuss the use of cytokine treatment for Acute Radiation Syndrome. Dr. David Weinstock wishes to disclose that he will discuss the use of G-CSF, GM-CSF and PEG-G-CSF for the treatment of Acute Radiation Syndrome.

There is no commercial support for this activity.

Accreditation Statements:

For Continuing Medical Education for Physicians (CME):

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the Centers for Disease Control and Prevention (CDC) and Oak Ridge Associated Universities (ORAU). CDC is accredited by the ACCME® to provide continuing medical education for physicians. The Centers for Disease Control and Prevention designates this live activity for a maximum of 14.25 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Continuing Education designated for Non-Physicians:

Non-physicians will receive a certificate of participation.

For Continuing Nursing Education for Nurses (CNE):

The Centers for Disease Control and Prevention is accredited as a provider of Continuing Nursing Education by the American Nurses Credentialing Center's Commission on Accreditation. This activity provides 14.2 contact hours.
IACET Continuing Education Units (CEU):  
The CDC has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102. The CDC is authorized by IACET to offer 1.7 ANSI/IACET CEU's for this program.

For Continuing Education Contact Hours in Health Education (CECH):  
Sponsored by the Centers for Disease Control and Prevention, a designated provider of continuing education contact hours (CECH) in health education by the National Commission for Health Education Credentialing, Inc. This program is designed for Certified Health Education Specialists (CHES) to receive up to 14.5 Category I CECH in health education. CDC provider number GA0082.

For Continuing Pharmacy Education (CPE):  

The Centers for Disease Control and Prevention is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. This program is a designated event for pharmacists to receive 1.45 Contact Hours in pharmacy education. The Universal Activity Number is 0387-9999-11-002-L01-P. Course Category: This activity has been designated as Knowledge-Based.

For Health Physics Continuing Education Credit:  
The American Academy of Health Physics (AAHP) has granted 18 Continuing Education Credits for attendees of this conference (ID number 2011-03-001).
| Daily Theme | Monday, 3/21  
Optional Training Day | Tuesday, 3/22  
Local and State Response—
Setting the Stage | Wednesday, 3/23  
Local, State, and Federal
Response—
Current Capacity and Gaps | Thursday, 3/24  
Integrated Response—
Bringing It All Together |
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<td>7:30 am-8:30 am</td>
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| 8:30 am-9:15 am | Training: Radiation Basics | Welcome  
Plenary: Why Are We Here? | Welcome  
Plenary: Gaps and Useful Practices | 8:15 am-9:30 am  
Welcome  
Plenary: Building Partnerships |
| 9:15 am-10:30 am | Training: Radiation Emergencies and Public Health | Plenary: Setting the Stage | Gaps and Useful Practices - continued | Break 9:30 am-9:45 am  
9:45 am-11:15 am Plenary: Funding Opportunities and Challenges |
| 10:30 am-11:00 am | Networking Break | Networking Break | Networking Break |  |
| 11:00 am-12:30 pm | Training - continued | Plenary: Public Health Operations and Capabilities | Regional Breakout Session  
(10 HHS regions) | Closing Session and Charge to Participants |
| 12:30 am-1:30 pm | Lunch | Lunch | Lunch |  |
| 1:30 pm-3:00 pm | Training Breakouts:  
• Applied Clinical Management of Radiation Casualties  
• Tools and Strategies for Public Health Response | Breakout Session 1  
• Logistical Issues for Medical Response  
• Planning for Psychosocial/Behavioral Health in a Radiation Emergency  
• Public Health Functions Under ESF8 and Nuclear/Radiological Annex | Breakout Session 3  
• Tools for Managing Patients  
• Communications Issues Following a Radiation Emergency  
• Reception Centers and Sheltering |  |
| 3:00 am-3:30 pm | Networking Break | Networking Break | Networking Break |  |
| 3:30 pm-5:00 pm | Training Breakouts - continued  
(through 4:30 pm) | Breakout Session 2  
• Triage and Screening at Hospitals Following a Radiation Emergency  
• Tools and Resources for Psychosocial Behavioral Health Planning and Preparedness  
• Situational Awareness and Assessment | Breakout Session 4  
• Keeping First Receivers and First Responders Safe  
• Challenges in New Technologies for Communications  
• Epidemiology and Health Surveillance in Radiation Emergency Response |  |
| 6:00 pm-7:30 pm | Welcome Reception  
Best Practices/Poster Showcase | Welcome Reception  
Best Practices/Poster Showcase | Community Reception Center (CRC)  
Interactive Tour (5:00-8:00 pm) |  |
### Monday, March 21, 2011
**Optional Training Day**

#### 7:30 AM - 8:30 AM
**Networking Breakfast**  
*Pre-function ABC*

#### 8:30 AM – 10:00 AM
**Radiation Basics (PC1)**  
*Ravinia ABC*

**Description:**  
This session will provide an overview of radiation hazards and the public health and medical response to radiation emergencies.

**Speaker:**  
Armin Ansari, PhD, CHP, Health Physicist, Radiation Studies Branch, CDC

#### 10:00 AM - 11:30 PM
**Radiation Basics:**  
*Ravinia ABC*

**Radiation Emergencies and Public Health (PC1)**

**Description:**  
This session will provide an overview of radiation hazards and the public health and medical response to radiation emergencies.

**Speaker:**  
Armin Ansari, PhD, CHP, Health Physicist, Radiation Studies Branch, CDC

#### 11:30 AM – 12:00 PM
**Radiation Basics:**  
*Ravinia ABC*

**Medical Reserve Corps and Radiation Emergencies (PC1)**

**Speaker:**  
Sherwin Levinson, MBA, Director, Georgia East Metro Medical Reserve Corps, (MRC GEM)

#### 12:00 PM – 1:30 PM
**Lunch (on your own)**

#### 1:30 PM - 4:30 PM
**Concurrent Session:**  
*Ravinia ABC*

**Applied Clinical Management of Radiation Casualties (PC2)**

**Description:**  
For medical personnel. This 3-hour session will provide detailed information about treating radiation-induced injury and illness.

**Moderator:**  
CAPT Jeffrey B. Nemhauser, MD, U.S. Public Health Service, Medical Officer, Radiation Studies Branch, CDC

**Speakers:**  
Ronald Goans, MS, PhD, MD, MPH, Senior Medical/Scientific Advisor, Radiation Emergency Assistance Center/Training Site (REAC/TS)  
David Weinstock, MD, Assistant Professor, Department of Medicine, Harvard Medical School  
Doran Christensen, DO, Associate Director and Staff Physician, Radiation Emergency Assistance Center/Training Site (REAC/TS)
Monday, March 21, 2011
Optional Training Day

1:30 PM - 4:30 PM

Concurrent Session:
Ravinia EFG
Tools and Strategies for Public Health Response to Radiation Emergencies (PC3)

Description:
For public health and emergency management personnel. This 3-hour session will provide detailed information about public health response strategies and demonstrate new training and planning tools.

Moderator:
Armin Ansari, PhD, CHP, Health Physicist, Radiation Studies Branch, CDC

Speakers:
Kevin Caspary, MPH, Health Education Specialist, Oak Ridge Institute for Science and Education
Arthur Chang, MD, MS, Medical Officer, Toxicologist, Health Studies Branch, CDC
Michelle Podgornik, MPH, Epidemiologist, Health Studies Branch, CDC
Leeanna Allen, MPH, CHES, Health Education Specialist, Oak Ridge Institute for Science and Education

6:00 PM - 7:30 PM

Welcome Reception

Market Bistro 55
Tuesday, March 22, 2011
Setting the Stage: Local and State Response

7:30 AM – 8:30 AM  Networking Breakfast  Pre-function ABC

8:30 AM – 8:45 AM  Welcome  Ravinia ABCD
Charles Miller, MS, PhD, Chief, Radiation Studies Branch, CDC

Speakers:
Thomas R. Frieden, MD, MPH, Director, CDC, Administrator, Agency for Toxic Substances and Disease Registry
Judy Qualters, PhD, Acting Director, Environmental Hazards and Health Effects, National Center for Environmental Health, CDC

8:45 AM – 9:15 AM  Plenary: Why Are We Here? (PL1)  Ravinia ABCD

Description:
The lecture will focus on identifying the real threat presented by radiation emergencies. The speaker will discuss the political landscape and how it is not difficult to obtain the materials or to engineer an explosive device. The discussion will emphasize that a radiation emergency will require a multi-agency, multi-discipline response.

Speaker:
Brian Kamoie, JD, Senior Director, All-Hazards Medical Preparedness Policy, White House National Security Staff

9:15 AM – 10:30 AM  Plenary: Setting the Stage (PL1)  Ravinia ABCD

Description:
This panel presentation will focus on the federal, state and local efforts to prepare for and respond to a radiation emergency. The role of public health in radiation emergency response and state and local level response initiatives will be showcased.

Speakers:
Judy Qualters, PhD, Acting Director, Environmental Hazards and Health Effects, National Center for Environmental Health, CDC
George Korch, Jr., PhD, Assistant Secretary for Preparedness and Response, Acting Principal Deputy Assistant Secretary, Office of Preparedness and Response, U.S. Department of Health and Human Services
Alexander Garza, MD, MPH, Assistant Secretary for Health Affairs and Chief Medical Officer, Office of Health Affairs, U.S. Department of Homeland Security
Damon Arnold, MD, MPH, Director, Illinois Department of Public Health

10:30 AM – 11:00 AM  Networking Break
Tuesday, March 22, 2011

Setting the Stage: Local and State Response

11:00 AM – 12:30 PM

Plenary: Public Health Operations and Capabilities (PL2)  
Ravinia ABCD

Description:
The panel will define and discuss the role of public health in the planning and response to radiation emergencies. The emphasis will be on preparedness efforts and response capabilities at the state and local levels and provide examples of how to build radiation emergency response capabilities. Discussion will include similarities to and differences from other public health emergencies.

Speakers:
RADM Ali S. Khan, MD, MPH, U.S. Public Health Service, Assistant Surgeon General, Director, Office of Public Health Preparedness and Response, CDC
James H. Craig, III, Director, Health Protection, Mississippi State Department of Health
Kathleen Kaufman, Director (Retired), Los Angeles County Department of Public Health Radiation Management
CAPT Narayan Nair, MD, USPHS, Senior Program Officer Deployment Operations, Office of the Surgeon General, Office of the Civilian Volunteer Medical Reserve Corps
Armin Ansari, PhD, CHP, Health Physicist, Radiation Studies Branch, CDC

12:30 PM – 1:30 PM

Lunch (provided)

1:30 PM – 3:00 PM

Medical Response Breakout Session:  
Logistical Issues for Medical Response (A1)  
Dunwoody

Description:
The medical response to a mass casualty radiation emergency is complex and requires additional planning efforts at the state and local level. The need for medical personnel, equipment and supplies will often overwhelm state and local capability. Panelists will discuss the delivery of federal assets, including National Disaster Medical System and Strategic National Stockpile as a means of supplementing state and local resources in a scarce resource environment.

Moderator:
Norman Coleman, MD, Senior Medical Advisor, Office of Preparedness and Emergency Operations, Assistant Secretary for Preparedness and Response, U.S. Department of Health and Human Services and Associate Director, Radiation Research Program, National Cancer Institute

Speakers:
CAPT Allen Dobbs, MD, U.S. Public Health Service, Chief Medical Officer, National Disaster Medical System, Office of Assistant Secretary for Preparedness and Response, U.S. Department of Health and Human Services
Richard Hatchett, MD, Chief Medical Officer and Deputy Director, Biomedical Advanced Research & Development Authority
Leticia Mathis, SNS Program Administrator (Former), Office of Emergency Preparedness, Division of Emergency Preparedness and Response, Georgia Department of Community Health
Tuesday, March 22, 2011
Setting the Stage: Local and State Response

1:30 PM – 3:00 PM  
**Psychosocial, Behavioral and Risk Communication Issues**  
*Ravinia EFG*  
**Breakout Session: Planning for Psychosocial and Behavioral Health in a Radiation Emergency (A2)**

**Description:**  
This session provide an overview of the unique psychosocial and behavioral health effects of radiation emergencies. Emphasis will be placed on the benefit of behavioral health planning, disaster mental health teams and family assistance centers.

**Moderator:**  
Jack Herrmann, MSEd., NCC, LMHC, Senior Advisor, Public Health Preparedness, National Association of County and City Health Officials

**Speakers:**  
Rob Yin, MSW, LISW, Manager, Disaster Mental Health, American Red Cross  
Sandra Shields, MA, LMFT, CTS, Senior Disaster Services Analyst, Los Angeles County Department of Health Services, Emergency Medical Services Agency  
Onora Lien, MA, Health System Response Planner, King County Healthcare Coalition, Public Health – Seattle & King County, Washington

1:30 PM – 3:00 PM  
**Public Health Operations Breakout Session:**  
*Ravinia ABCD*  
**Public Health Functions Under Emergency Support Function Eight and the Radiological and Nuclear Annex (A3)**

**Description:**  
This session will explain some of the standard assets and additional resources which may be deployed in a radiation emergency. These resources include the Radiation Injury Treatment Network (RITN), Radiological Emergency Medical Management (REMM) website, the White House National Security Staff Improvised Nuclear Device (IND) Planning Guidance, the HHS/ASPR MedMap situational awareness application, a state and local planners playbook that aligns with the ESF 8 IND Playbook, guidance for the allocation of scarce medical resources, and a potential Radiation Laboratory Network (Rad-LN).

**Moderator:**  
Robert Whitcomb, Jr., PhD, CHP, Lead Physical Scientist, Radiation Studies Branch, CDC

**Speakers:**  
Gregory T. Banner, MS, CEM, Regional Emergency Coordinator, Region I, U.S. Department of Health and Human Services  
Robert Burhans, Director (Retired), Office of Health Emergency Preparedness, New York State Department of Health  
David Allard, MS, CHP, Director, Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection

3:00 PM – 3:30 PM  
**Networking Break**
Tuesday, March 22, 2011
Setting the Stage: Local and State Response

3:30 PM – 5:00 PM

**Medical Response Breakout Session:**

*Dunwoody*

**Triage and Screening at Hospitals Following a Radiation Emergency (B1)**

Description:
This session will describe radiation detection equipment needs and use in the hospital setting. Techniques used for detecting radioactive contamination will be described and appropriate management of severely injured, contaminated patients will be discussed.

Moderator:
**RADM Scott Deitchman**, MD, MPH, U.S. Public Health Service, Associate Director for Terrorism Preparedness and Emergency Response, CDC/NCEH-ATSDR

Speakers:
- **Donna Earley**, MS, Director, Environmental Health and Safety, Cedars-Sinai Medical Center
- **Robert Feldman**, MD, FAAEM, Senior Attending Physician, Assistant Medical Director, Assistant Professor, Department of Emergency Medicine, Cook County Hospital
- **James J. James**, MD, DrPH, MHA, Director, Center for Public Health Preparedness and Disaster Response, Editor-in-Chief, Journal of Disaster Medicine and Public Health Preparedness, American Medical Association
- **Norman Coleman**, MD, Senior Medical Advisor, Office of Preparedness and Emergency Operations, Assistant Secretary for Preparedness and Response, U.S. Department of Health and Human Services and Associate Director, Radiation Research Program, National Cancer Institute

3:30 PM – 5:00 PM

**Psychosocial, Behavioral and Risk Communication Issues**

*Ravinia EFG*

**Breakout Session: Tools and Resources for Psychosocial and Behavioral Health Planning and Preparedness (B2)**

Description:
This session will discuss available tools and training on mental health and psychosocial issues in a radiation emergency. These tools include training resources developed by NACCHO/APC, CDC, National Center for School Crisis and Bereavement, and the National Center for Child Traumatic Stress.

Moderator:
**Steven M. Becker**, PhD, Associate Professor of Public Health and Vice Chair, Department of Environmental Health, University of Alabama at Birmingham

Speakers:
- **Melissa Brymer**, MA, MS, PhD, PsyD, Director, Terrorism and Disaster Programs, University of California Los Angeles/Duke National Center for Child Traumatic Stress
- **Robin Gurwitch**, MA, PhD, Professor and Program Coordinator, National Center for School Crisis and Bereavement, Cincinnati Children’s Hospital Medical Center
- **Richard King**, PhD, Associate Professor, Health Care Sciences/Emergency Medicine and Director of Education and Research, Section on EMS, Disaster Medicine, and Homeland Security, University of Texas Southwestern Medical Center
- **Carol North**, MD, MPE, Professor of Psychiatry, University of Texas Southwestern Medical Center Department of Psychiatry
- **Merritt Schreiber**, PhD, Director, Psychological Programs, Center for Disaster Medical Sciences, Associate Clinical Professor of Emergency Medicine, University of California Irvine School of Medicine
Tuesday, March 22, 2011
Setting the Stage: Local and State Response

3:30 PM – 5:00 PM

Public Health Operations Breakout Session: Ravinia ABCD
Situational Awareness and Assessment for Decision Makers (B3)

Description:
This session will describe the planning considerations that need to be addressed in responding to a radiation emergency. The discussion will describe resources provided by the Federal Emergency Management Agency, the Nuclear Regulatory Commission, and the National Nuclear Security Administration to assist decision makers with situational awareness. Plume modeling and its uses in evacuation and shelter-in-place decision making will be discussed.

Moderator:
William Irwin, MS, MBA, ScD, CHP, Radiological Health Chief, Vermont Department of Health

Speakers:
Patricia Milligan, Senior Technical Advisor, Preparedness and Response, U.S. Nuclear Regulatory Commission
Harvey Clark, Jr., PhD, Remote Sensing Laboratory, National Security Technologies LLC (Operator of the Remote Sensing Laboratory and Nevada National Security Site, formerly Nevada Test Site), U.S. Department of Energy
Wednesday, March 23, 2011
Current Capacity and Gaps: Local, State and Federal Response

7:30 AM – 8:30 AM  Networking Breakfast  Pre-function ABC

8:30 AM – 10:30 AM  Welcome  Ravinia ABCD
Charles Miller, MS, PhD, Chief, Radiation Studies Branch, CDC

Plenary: Gaps and Useful Practices (PL3)
Description:
This session will highlight practices from state and local public health that have worked successfully to advance radiation emergency preparedness. Communications surrounding Three Mile Island, Los Angeles County’s integration of multiple agencies into planning efforts, New York City’s Radiation Safety Officer training, and Florida’s recruitment and training of radiation volunteers provide examples of useful practices in risk communication, planning, training and staffing.

Speakers:
Jack Herrmann, MSEd, NCC, LMHC, Senior Advisor, Public Health Preparedness, National Association of County and City Health Officials
Harold Denton, Director (Former 1978-1987), Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission
Kathleen Kaufman, Director (Former), Los Angeles County Department of Public Health Radiation Management
Katherine Uraneck, MS, MD, Senior Medical Coordinator, Healthcare Emergency Preparedness Program, New York City Department of Health and Mental Hygiene
John Williamson, MS, Environmental Administrator, Bureau of Radiation Control, Florida Department of Health

10:30 AM – 11:00 AM  Networking Break

11:00 AM – 12:30 PM  Regional Breakout Sessions
Description:
There will be 10 parallel sessions for each U.S. HHS region. Participants will be briefed on the initiatives in their region and given specific questions to discuss in small groups about the planning and preparedness initiatives taking place in their areas

12:30 PM – 1:30 PM  Lunch (provided)
Wednesday, March 23, 2011
Current Capacity and Gaps: Local, State and Federal Response

1:30 PM – 3:00 PM  Medical Response Breakout Session:  Dunwoody
Tools for Managing Patients (C1)

Description:
This panel will discuss tools to assist clinicians responding to a mass casualty radiation emergency.

Moderator:
Doran Christensen, DO, Associate Director and Staff Physician, Radiation Emergency Assistance Center/Training Site (REAC/TS)

Speakers:
Edward J. Waller, MScE, PhD, P. Eng., CAIH, CHP, Associate Professor, Energy Engineering and Nuclear Science, University of Ontario Institute of Technology
Nicholas Dainiak, MD, Chairman of Medicine and Clinical Professor of Internal Medicine, Bridgeport Hospital and Yale University School of Medicine
Ronald Goans, MS, PhD, MD, MPH, Senior Medical/Scientific Advisor, Radiation Emergency Assistance Center/Training Site

1:30 PM – 3:00 PM  Psychosocial, Behavioral and Risk Communication Issues  Ravinia EFG
Breakout Session: Communications Issues Following a Radiation Emergency (C2)

Description:
Communicating with the public is an essential component of a successful response to radiation emergencies. The panel will provide specific guidance concerning communications planning and messaging in a radiation emergency.

Moderator:
Thom Berry, Director, Division of Media Relations, South Carolina Department of Health and Environmental Control

Speakers:
Grant Coffey, Hazardous Materials Team Coordinator, Portland Fire & Rescue
Korey Jackson, MS, Program Manager, L-3 Communications
Jessica Wieder, Public Affairs Specialist, Radiation Protection Division, U.S. Environmental Protection Agency
Katrina Pollard, Health Communication Specialist, Radiation Studies Branch, CDC
Wednesday, March 23, 2011
Current Capacity and Gaps: Local, State and Federal Response

1:30 PM – 3:00 PM  
Public Health Operations Breakout Session: Reception Centers and Sheltering (C3)  
*Ravinia ABCD*

Description:
The state of Florida has a long history of preparing for and successfully responding to natural disasters. Building on this experience, planners in Florida have developed an integrated approach to address the needs of displaced population in a radiation emergency. Topics include mass care and need for monitoring and screening of people and pets in a congregate care facility.

Moderator:  
*Armin Ansari*, PhD, CHP, Health Physicist, Radiation Studies Branch, CDC

Speakers:  
*John Williamson*, MS, Environmental Administrator, Bureau of Radiation Control, Florida Department of Health  
*Mike Geier*, Radiological Emergency Preparedness Planner, Palm Beach County Division of Emergency Management

3:00 PM – 3:30 PM  
Networking Break

3:30 PM – 5:00 PM  
Medical Response Breakout Session: Keeping Receivers and First Responders Safe (D1)  
*Dunwoody*

Description:
Keeping first responders and first receivers safe in a radiation emergency is vital to radiation emergency response efforts. This panel will discuss plans to safeguard first responders and first receivers, and safely transport contaminated patients.

Moderator:  
*CAPT Jeffrey B. Nemhauser*, MD, U.S. Public Health Service, Medical Officer, Radiation Studies Branch, CDC

Speakers:  
*Steve Sugarman*, MS, CHP, CHCM, Health Physics Project Manager, Radiation Emergency Assistance Center/Training Site (REAC/TS)  
*Robert C. Beauchamp*, RN, BSN, NREMT-P, Nurse/Paramedic, Radiation Emergency Assistance Center/Training Site (REAC/TS)  
*CAPT James Spahr*, MPH, U.S. Public Health Service, Associate Director for Emergency Preparedness, National Institute for Occupational Safety and Health
3:30 PM – 5:00 PM

**Psychosocial, Behavioral and Risk Communication Issues**  
Ravinia EFG

**Breakout Session: Challenges in New Technologies for Communications (D2)**

**Description:**
This session will discuss the role of social media and networking in emergency communication with the public. The panel will describe CDC’s social media toolkit, and incorporation of social media into state emergency preparedness programs, media relations, as well as specific examples of social marketing.

**Moderator:**
**Ann Wright**, MA, Director of Communications, Office of Health Communications and Marketing, Arkansas Department of Health

**Speakers:**
**Diane Brodalski**, Social Media Specialist, Northrop Grumman Contractor, National Center for Health Marketing, CDC
**Kerry Shearer**, Social Media & Video Evangelist, Kerry Shearer Communications|Social Media|Video Consulting
**Kate Fowlie**, Communications Officer, Contra Costa Health Services, Martinez, California
**Nick Alexopulos**, Media Relations Specialist, Center for Health and Homeland Security, University of Maryland
Wednesday, March 23, 2011
Current Capacity and Gaps: Local, State and Federal Response

3:30 PM – 5:00 PM
Public Health Operations Breakout Session: Ravinia ABCD
Epidemiology and Health Surveillance in a Radiation Emergency (D3)

Description:
In this session, recent radiation public health emergency exercises that have integrated epidemiology and urine bioassays to detect internal contamination into the population monitoring process will be discussed, including challenges and lessons learned. Epidemiologic tools being developed for collecting data from Community Reception Centers, hospitals, and other settings will be presented.

Moderator:
CAPT Lauren Lewis, MD, U.S. Public Health Service, Director, Health Studies Branch, CDC

Speakers:
Neil Muscatiello, MS, Epidemiologist, Bureau of Environmental and Occupational Epidemiology, Center for Environmental Health, New York State Department of Health
Cyrus Rangan, MD, FAAP, Director, Toxics Epidemiology Program, Los Angeles County Department of Public Health

5:00 PM – 8:00 PM
Community Reception Center Interactive Tour Maplewood Hall

Description:
Following a mass casualty radiation emergency, public health professionals will play a crucial role in assessing and monitoring people potentially exposed to radiation or contaminated with radioactive material. This process, called population monitoring, will be conducted in community reception centers (CRCs). This tour will allow participants to walk through a mock CRC and learn more about services offered at a CRC, including contamination screening, decontamination, registration, and radiation dose assessment. Preregistration is required and is now closed for this event.
Thursday, March 24, 2011
Integrated Response: Bringing It Together

7:30 AM – 8:15 AM  Networking Breakfast  Pre-function ABC

8:15 AM – 9:30 AM  Welcome  Ravinia ABCD
Charles Miller, MS, PhD, Chief, Radiation Studies Branch, CDC

Plenary: Building Partnerships (PL4)

Description:
This panel will discuss the need for national, regional and state and local partnerships to ensure robust planning and response networks for radiation emergencies.

Speakers:
James Blumenstock, MA, Chief Program Officer, Public Health Practice, Association of State and Territorial Health Officials
Adela Salame-Alfie, PhD, Assistant Director, Division of Environmental Health Investigation, New York State Department of Health
William F. Stephens, MS, Advanced Practice Center Manager, Tarrant County Public Health
Ruth McBurney, MS, Executive Director, Conference of Radiation Control Program Directors, Inc.

9:30 AM – 9:45 AM  Networking Break

9:45 AM – 11:15 AM  Plenary: Funding Opportunities and Challenges (PL5)  Ravinia ABCD

Description:
Funding from a variety of sources is available to support radiation emergency preparedness efforts. This session will discuss the funding environment and how these resources can be used for planning and response to radiation emergencies.

Speakers:
John Erickson, MS, Special Assistant, Public Health Emergency Preparedness and Response, Washington State Department of Health
Christine Kosmos, MS, Director, Division of State and Local Readiness, Office of Public Health Preparedness and Response, CDC
Christa Singleton, MD, MPH, Associate Director of Science, Division of State and Local Readiness, Office of Public Health Preparedness and Response, CDC
RADM Clare Helminiak, MD, MPH, U.S. Public Health Service, Deputy Director for Medical Surge, Office of the Assistant Secretary for Preparedness and Response, U.S. Department of Health and Human Services

11:15 AM – 12:00 PM  Closing Session and Charge to Participants  Ravinia ABCD
Speaker:
Charles Miller, MS, PhD, Chief, Radiation Studies Branch, CDC
Poster Abstracts

**Title:** Tracking Countermeasures and Adverse Reactions during a Radiation Emergency: A Use Case for CDC’s Countermeasure and Response Administration (CRA) System

**Authors:** B. Nichols, BS¹, A. Chang, MD, MS², C. Martin, MSPH², U. Andujar, MPH, CHES³, A. Ansari, PhD, CHP², K. Caspary, MPH⁴, G. Faler, MBA, PMP⁵

**Affiliations:** Centers for Disease Control and Prevention (CDC), Office of Surveillance, Epidemiology, and Laboratory Systems (OSELS)¹, CDC, Division of Environmental Hazards and Health Effects (DEHHE)², SRA International Inc., Contracted to CDC³, Oak Ridge Institute for Science and Education, Contracted to CDC⁴, Northrop Grumman Information Systems, Contracted to CDC⁵

**Description:** The Countermeasure and Response Administration (CRA) system was developed by the Centers for Disease Control and Prevention (CDC) to support all hazards countermeasure tracking for any countermeasure and any event. It is a web-based system that may be deployed on a stand-alone basis or accessed via CDC. CRA has supported preparedness activities at the federal, state, and local level for pandemic influenza, anthrax, and other events. CRA was implemented during the 2009 H1N1 response to track vaccine doses administered and inventory of antiviral medications and PPE. CRA was also prepared for use during the *Empire 09* radiological dispersal device exercise in Albany, NY. The system was setup to collect high priority screening information and countermeasures administered at the Community Reception Center (CRC). Participation in this drill provided CRA with valuable feedback on the settings and logistics of how radiation medical countermeasures would be administered during a radiological response. It also identified an area of improvement in how data is collected in CRA, which is the need to support a linkage between data collected at the CRC and countermeasures administered at a hospital or medical facility.

**Results:** The *Population Monitoring in Radiation Emergencies: A Guide for State and Local Public Health Planners* states that resources must be available at a CRC to address medical and countermeasure administration needs during a response¹. Observations made during the *Empire 09* exercise identified the issue that some radiation medical countermeasures would only be administered in a hospital setting (DTPA, G-CSF). This resulted in identifying a need to transport individuals potentially or known to be internally contaminated with radiation who would require targeted medical treatment from the CRC to a hospital or medical facility. The CRA system is equipped to support the data collection needs in both scenarios: (1) countermeasure dispensing at a CRC, and (2) countermeasure administration at a hospital.
CRA can be used to enter data as forms are collected from individuals exiting the CRC (Scenario 1). Registration data can also be entered into CRA at the CRC on exposed individuals needing to receive treatment, with the countermeasure data entered into CRA at the hospital or medical facility (Scenario 2). In all cases, the CRA system also has a robust reporting capability, which provides standard reports as well as data extracts that can be used for detailed analysis. This ensures that along with collecting critical information, system users can also maintain situational awareness through meaningful report outputs.

Reference:
Title: Development of a Nuclear Detonation Aftermath Plan

Author: James Thomas

Affiliation: California Department of Public Health Radiologic Health Branch

Description: The California Department of Public Health (CDPH) has the lead and critical role in preparing for public health emergencies throughout California. One of the most catastrophic events CDPH must prepare for is the use of a nuclear weapon in a major metropolitan area. The CDPH Radiologic Health Branch (RHB) and the Emergency Preparedness Office (EPO) have teamed up to develop a Nuclear Detonation Aftermath Plan (NDAP) that will serve as an annex to the department’s Emergency Operations Response Plan.

Results: Casualties in this type of incident could be very high, infrastructure severely damaged, and communication difficult at best. A coordinated effort by all levels of government is required to prepare for, respond to, and recover from a nuclear incident however federal assistance may not be fully available for the first hours to days after such an event making it incumbent on state and local government to be prepared as possible. The CDPH NDAP will address the public health considerations of a nuclear detonation by:

- Providing a plan to coordinate state and local public health resources and actions.
- Creating tools to assist local and state agency planning and response efforts.
- Incorporating health and medical guidelines to protect the public and emergency responders.
- Developing effective communication tools to inform the public of the risks and protective action to take.
Title: Sampling During Public Health Emergencies

Authors: Alan Antenucci, Nick Cirino, Cynthia Costello, Christina Egan, Regina Keenan, Paula Pennell, Robert Rafferty, Mark Virgil, and Lloyd Wilson

Affiliation: New York State Department of Health

Description: At the request of the CBRNE Task Force, staff at Wadsworth Center and the Center for Environmental Health collaborated with the NYS Department of Environmental Conservation (DEC) and the NYS Office of Fire Prevention and Control (OFPC) to develop procedures for collecting samples in Level A personal protective equipment. These procedures include sampling for biological, chemical and radiological contaminants in air, wipe, liquid and solid matrices. These procedures are designed for use in public health emergencies in which the type and degree of hazard is unknown. Staff from OFPC would use these procedures to collect samples under the direction of DOH and DEC staff who respond to these emergencies as members of the Environmental Assessment Group (EAG).

Results: OFPC and EAG staff trained on these procedures during four sessions in 2005, four sessions in 2006, and three sessions in 2007. At the culmination of each training session, there was a functional exercise where both EAG and OFPC staff worked together to demonstrate what they had learned. Throughout the training and exercises, the procedures evolved as a result of comments submitted by both OFPC and EAG staff. As personnel have become more familiar with sampling procedures, the time devoted to training on these procedures has been decreased to ―just-in-time" training followed by a full-day exercise and technical decontamination of personnel in order to more closely simulate what would happen during an actual public health emergency. In 2009, OFPC and EAG staff demonstrated their skills during EMPIRE 2009, a national level, full-scale radiological exercise.
Authors: Jonathan Lifland and David Ferguson

Affiliations: Oak Ridge Institute for Science and Education (ORISE) for the Federal Emergency Management Agency (FEMA) Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) Branch

Description: This poster describes the recent efforts of the FEMA Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) Branch to improving the nation’s response and recovery from an improvised nuclear device (IND) incident. Included is information on the five CBRNE-sponsored working groups that were established to outline the methodology used to mitigate or close previously identified gaps in the government’s current capabilities. These working groups have been created to assess these capability gaps, examine current and future program priorities, and assist in the construction of an IND Implementation Plan. This Implementation Plan will outline solutions to the response and recovery mission of the Department of Homeland Security and FEMA in coordination and collaboration of Federal, State, Local and Tribal stakeholders.

The poster will present information on the Implementation Plan concept, along with the current and planned efforts of the CBRNE Communications Working Group he helps to support. He will also introduce and outline the other four Working Groups. David Ferguson will answer technical questions related to his work with the FEMA CBRNE Branch, including his contributions to the Research and Development Working Group and to the IND Implementation Plan.

Impact on Community Preparedness: The efforts of the CBRNE Branch in the response and recovery activities following an IND incident will provide significant contribution to the Federal, State, Local and Tribal communities. The CBRNE Branch is providing input into the April 2010 DHS Strategy for Improving the National Response and Recovery from an IND Attack and laying out steps to implement actions that can mitigate or close previously identified gaps in the government’s current capabilities. Examples of these actions include: incident management and incident command, infrastructure cleanup and site remediation, medical stabilization and evacuee care, emergency public communications and information exchange, and scientific support in modeling and decision making.

The FEMA CBRNE Branch distributes nearly all of its products through state and local stakeholders. Distributing and communicating information about these response and recovery initiatives and providing insight into current and ongoing CBRNE efforts to this audience—through the CDC Radiation Conference—will have a positive impact on state and community preparedness.
Title: On the Safe Side: A Security Planning Toolkit for Public Health Emergencies

Authors: John Simkovich, Ann Sports, Raymond Barteet and Dana Millet

Affiliation: South Carolina Department of Health and Environmental Control Region 7, NACCHO Advanced Practice Center

Description: Public health and hospital planners have traditionally struggled with engaging law enforcement in the planning process for public health emergencies. The lack of engagement stems primarily from a communication deficiency between public health, healthcare, and law enforcement. As such, there is a lack of understanding concerning the role of law enforcement in response to a public health emergency. In some instances, public health and healthcare organizations have made an inaccurate assumption that when contacted, law enforcement will respond quickly, with adequate resources to meet the identified need while at the same time addressing other high priority events that are occurring in the community. Additionally, we expect law enforcement to respond without knowing a facility’s plan or whether this plan would allow them to provide adequate security for the facility, staff and patients.

This poor engagement has hampered healthcare facilities in the development of operational site security plans for use in medical surge situations. It has also hindered public health in the development of functional and operational site security and traffic management plans for Points of Dispensing (POD). The problem is compounded by a deficiency of reference materials, plan templates, and resources specific to hospital security planning for mass surge events. It is also applicable to POD security and traffic management to assist public health and law enforcement in this process.

This poster session will demonstrate how establishing and utilizing a public health, healthcare, and law enforcement partnership can improve security planning for public health emergencies. It will illustrate the various risks and vulnerabilities that could impact hospitals and PODS during a response to Radiation Emergencies and/or other public health emergencies. It will also present tools that can be used to mitigate and resolve many of these risks. Additionally, there will be discussion on how to establish a partnership and what resources and plans are available to assist agencies in developing operational security plans to protect their facilities.
Authors: Jane Orient and Steve Jones

Affiliation: PhysiciansForCivilDefense.org

Description: PCD is distributing postage stamp-size radiation monitors created by the Department of Defense for use by emergency responders. The monitors are for triage but have many more benefits such as preventing panic. PCD is arranging to make these radiation monitors free to all emergency responders nationwide.

So far approximately 8,000 police, firefighters and emergency response personnel in MA, VT, UT and SC have received these free radiation monitors and 60-Second training cards. Response from counties, cities and towns receiving the monitors has been enthusiastic. Local press has always been supportive in giving educational coverage of this project by informing the first responders of their availability, purpose and use.

―SIRN" monitors can be found at www.CTTSO.gov
Title: The North Texas Radiation Response Group: An Integrated Participatory Solution for Regional Response

Author: John C. White

Affiliation: The University of Texas Southwestern Medical Center at Dallas

Description: Bringing together disparate management and jurisdictional entities can be a significant challenge. Existing regulatory and legal requirements drive political and response entities to be self-sufficient, so the concern about drawdown of owned equipment can hamper pooling of resources when an event overwhelms the response of an individual entity. A solution has been initiated in the North Texas/DFW MSA and surrounding areas to enlist Management, Planning, and Response groups to focus on a common threat: A Radiological or Nuclear Incident. This solution, the North Texas Radiation Response Group (NTRRG), is a voluntary cooperative effort to consider limited radiological resources as a Collective Resource for the region. This Collective Resource extends to personnel, dedicated equipment, and response expertise for the benefit of the population of the region. The driver for this group is the likelihood that in a major incident, communications will hinder deployment of State and Federal resources to the affected area in a timely manner, at a time when rapid response will be most effective at ameliorating the effects of the incident.

The NTRRG has the stated goal of gathering Radiation Professionals, Radiation-Trained Fire/Emergency Responders, Law Enforcement, Planners, and Managers together in a non-mandatory environment to discuss the specifics of the response environment and show the benefits of cooperation and combining resources. The voluntary nature of the NTRRG helps to reduce conflict with existing required command groups. Areas of focus are: The dramatically significant nature of the threat; Scarcity of large-scale detection equipment such as Portable Portal Monitors, and the relatively small numbers of trained radiation professionals. Also, the geographic location of response equipment can have a significant effect on the capability of the region to deploy response equipment, particularly if equipment is located under the plume from an incident.

To date (March 2011), three meetings of the NTRRG have been held. The first meeting concentrated on describing the nature of the threat and the roadblocks to successful response. The second meeting concentrated on the use of specific equipment for dealing with large numbers of contaminated victims and detection equipment that can be used to determine the levels of contamination. The third meeting discussed the collected personnel and equipment resources in the region and the location of the equipment, for response planning purposes. Certain problems have hampered a successful completion of the goals: The voluntary nature of the organization has enabled unwilling organizations and individuals to keep resources to themselves and not report the resources; The complication of Super Bowl XLV has restricted the available time for persons and organizations to participate in the NTRRG; Personalities and Municipal history have impacted the level of participation from some organizations.
Title: Radiological Preparedness-Awareness and Attitudes: A Cross-sectional Survey of Emergency Medicine Residents and Physicians at 3 Academic Institutions

Authors: Spencer Adoff¹, Lisa McCormick², Frank Walter³, and Ziad N. Kazzi⁴

Affiliations: Penn State Hershey Medical Center¹, University of Alabama at Birmingham², University of Arizona College of Medicine³, Emory University⁴

Description: Previous research has shown that emergency responders, which include clinicians, emergency medical services providers, public health workers, and medical students, felt unprepared to respond to radiological or nuclear disasters.

Methods: An electronic survey was sent to a total of 309 emergency medicine residents and physicians at 3 U.S. academic institutions. The study was approved by the institutional review board.

Results: The survey response rate was 37%. 52% of respondents were residents and 48% were attending physicians. Only 37% and 28% of respondents had attended any training in radiological preparedness in the preceding 5 years or any training in radiation detection, respectively. In the event of a radiological or nuclear emergency, 48% of respondents felt uncomfortable or very uncomfortable caring for victims in the emergency department and performing decontamination. 56% of respondents felt the same about performing a radiation detection survey on their patients. Additionally, 52% and 68% felt uncomfortable or very uncomfortable diagnosing acute radiation syndrome and internal contamination respectively. When asked about their familiarity with some of the available therapies, 89%, 81% and 65% of respondents were unfamiliar with the use of DTPA, Prussian blue and Filgrastim respectively. Moreover, 65% of respondents stated that they would not care for a critically injured patient until radiological decontamination was performed. Forty-one percent believed that a patient can be externally contaminated with radiological material without being exposed to radiation. Similarly, 79% of respondents believed that a victim can be exposed to radiation without being contaminated with radiological material.

Finally, respondents were asked to rate their preferential form of education on a scale of 1 to 5, with five different educational methods/formats as options. Classroom teaching at the workplace and prepackaged educational material were most frequently rated as the preferred methods.

Discussion: Our results suggest a need for additional radiological-nuclear preparedness training for emergency medicine residents and physicians. Such training should include radiation decontamination, detection, patient management, and existing therapies. Emphasis should be placed on explaining the secondary hazards from contaminated victims and the differences between radiation exposure and contamination. Our results show that classroom teaching at the workplace and prepackaged educational material were frequently rated as preferred methods. Further studies should assess the popularity and efficacy of different educational methods.
AREA INFORMATION

**Centennial Olympic Park**
265 Park Ave West N.W.
Atlanta, Georgia 30313
404-223-4412

Less than two decades ago, Centennial Olympic Park's neighborhood was a run-down part of town. That all began to change on the day Atlanta Committee for the Olympic Games CEO Billy Payne gazed out his office window and a brilliant inspiration came to him - to convert a multi-block eyesore into a glorious gathering spot for visitors and residents to enjoy during the 1996 Centennial Olympic Games and for years to come.

**Fernbank Museum of Natural History**
767 Clifton Road, N.E.
Atlanta, Georgia 30307
404-929-6300

Fernbank Museum of Natural History grew out of a forest and the dream of Emily Harrison, a young girl who loved it. Growing up in the late 1800s, Emily Harrison often played in the forest surrounding her home just east of Atlanta. Emily was a naturalist and thrived on learning about the plants and animals around her. One of Emily's favorite spots in the forest was a creek bank covered with a variety of ferns. She was the first to call the area "Fernbank," the name which records indicate was publicly recognized in the late 1880s.

**Georgia Aquarium**
225 Baker Street
Atlanta, Georgia 30313
404-581-4000

There is so much about the Georgia Aquarium that makes it unlike anything visitors have ever experienced before. First, there are the fish and the animals. More than 100,000 of them. No other aquarium has that many and some of the fish have never been seen before in an aquarium in North America. Then there are the gallons of water. Eight million gallons. More than six million gallons in one habitat alone. There is the facility, with 505,000 square feet of covered space. There's the music, created specifically to match the visual experience as you walk through the building, and the lighting, which somehow seems just right. But, most of all, there are the galleries. Think the Louvre meets Disney World. Or the Ritz at 20,000 leagues under the sea. The galleries are the combined visions of a team of people put into place by Aquarium benefactor Bernie Marcus.
**Jimmy Carter Library and Museum of Natural History**  
441 Freedom Parkway  
Atlanta, Georgia 30307  
404-331-3942  

The Jimmy Carter Library is located in Atlanta Georgia, about two miles from downtown, and about 15 miles from Atlanta's Hartsfield International Airport. A map and directions to the Library is available. Public transportation is available in Atlanta, and lodging is abundant, but generally not near the Library. The Library is open to research Monday through Friday, except federal holidays, from 8:30 a.m. to 4:30 p.m. Materials are available to any adult requiring the unique material contained in the Library. Children under 14 years of age must be accompanied by an adult.

**Lake Lanier Islands**  
7000 Holiday Road  
Lake Lanier Islands, Georgia 30518  
800-840-5253  

Forty-five minutes from northeast Atlanta, Lake Lanier Islands Resort is situated on the shores of Lake Sidney Lanier and is Georgia's most visited lakeside resort destination. The 1,100-acre resort provides a variety of amenities and services. Emerald Pointe Hotel & Conference Center, 30 lakeside cottages, two award winning golf courses Emerald Pointe and PinIsle, scenic horseback riding, spa services, famed wine tasting dinners, campsites and boat rentals from Harbor Landing are currently available for reservations. Each year, the Beach & WaterPark is open during the summertime and Magical Nights of Lights, the world's largest animated holiday light extravaganza, takes place mid-November until the end of December.

**Michael C. Carlos Museum at Emory University**  
571 South Kilgo Circle  
Atlanta, Georgia 30322  
404-727-4282  

The Carlos Museum is free to Emory University students, faculty, and staff and Carlos Museum members. Non-members are asked to pay a $7 per person admission donation. Free docent-led tours of the Museum depart from the Rotunda on Level One every Sunday at 2:30 p.m. during the Emory academic year (call 404-727-4282 to confirm). An MP3 audio tour of the permanent collections is available at the Reception Desk on Level One. The MP3 format allows visitors to hear from Museum and University experts at the touch of a button. The guide is available for a rental fee of $3. Museum members enjoy unlimited free usage. New! A second audio tour makes connections between the Museum's permanent collections and the Bible. Curators and faculty members from Emory University's Candler School of Theology and the Departments of Religion and Middle Eastern Studies explore objects in relation to biblical texts to enhance our understanding of the cultures out of which Judaism and Christianity developed. The guide is available for a rental fee of $3. Museum members enjoy unlimited free usage.
Stone Mountain
U.S. Highway 78 East, Exit 8
Stone Mountain, Georgia 30087
770-498-5600

Located on 3,200 acres of natural beauty, Stone Mountain Park features a wide variety of fun family activities and things to do in the Atlanta, Georgia area. Amazing adventures await as you discover interactive children's attractions. Plus you'll not want to miss such fun annual events as the Yellow Daisy Festival or the Indian Pow Wow. Stone Mountain activities are suitable for all ages.

World of Coca Cola
P.O. Box 1734
Atlanta, Georgia 30301
404-675-5151

Welcome to World of Coca-Cola®! Browse the world's largest collection of memorabilia that celebrates the refreshing beverage that was created here in Atlanta in 1886. While Coca-Cola was first served at a small pharmacy soda fountain near Underground Atlanta, it is now served over 1 billion times a day and is enjoyed in over 200 countries across the globe. Come discover the history of this global brand.