In any urban area the fire departments and emergency response teams will conduct disaster preparedness drills. This group of team members gathers around to discuss options.
Executive Summary

The National Center for Disaster Medicine and Public Health (NCDMPH) is proud to publicly release our fifth annual report. Through the launch of this public report, we aim to offer more transparency to our current and future stakeholders.

NCDMPH is a center of excellence affiliated with the Uniformed Services University of the Health Sciences. We were established by Homeland Security Presidential Directive-21 (HSPD-21) in 2008. Our mission is to “lead Federal and coordinate national efforts to develop and propagate core curricula, education, training, and research in all-hazards disaster health.”

Learn more about how we aim to meet this mission by reading our annual report which discusses our products and research focused on disaster health education.

The following outline is a guide for navigating the contents of this report:

1. NCDMPH Outcomes and Impacts
2. Current Tasks
3. Partnerships
4. Outreach
5. Selected Future Plans

We encourage readers to visit ncdmph.usuhs.edu to learn more about all the efforts detailed in this report.

Thank you,

Kenneth Schor, DO, MPH, FAAFP
Acting Director, NCDMPH
Hosted a National Disaster Health Workshop

The National Center hosted “Learning in Disaster Health: A Continuing Education Workshop” in Washington D.C. on September 17-18th, 2013. The interdisciplinary workshop brought together experts to discuss education and training in disaster health. Workshop sessions included topics such as: maximizing transfer of learning in disaster health training and response; identifying learning gaps regarding education and training for responding to populations with special needs; and harnessing social media for adult learning. Senator Tom Daschle presented the keynote address. In addition to diverse presentations and discussion, the workshop featured a poster competition judged by an expert panel.

Attendees came from a variety of backgrounds including disaster medicine, human resource development, academia, and government. Over 200 hours of continuing education credit was claimed by attendees. Attendees participated in the event’s robust social media presence by tweeting about session content by using a hashtag provided by the NCDMPH twitter.

The National Center’s ability to bring together a variety of stakeholders at a national meeting is a testament to the relevance of the unique interdisciplinary nature of the Center’s work. Beyond the valuable content of the meeting, the interaction between these different stakeholders can lead to a more interconnected community of practice. To learn more about session content, read the workshop proceedings.

Peer-Reviewed Learning Objects in Pediatric Disaster Health

NCDMPH furthered its dedication to pediatric disaster health through the release of two new learning objects. These products assist in fulfilling the tasking from the National Commission of Children and Disaster and a federal panel of experts. In 2012, the National Center released its first online lesson “Tracking and Reunification of Children in Disaster”. This lesson focuses on pediatric disaster health and continues to enjoy success. Since the National Center’s last annual report, 178 learners claimed Continuing Education credit. Accreditation is available for both doctors and nurses but other professions can petition their professional associations for credit. The Public Health Foundation’s Training Finder real-time Affiliate Integrated Network (PHF TRAIN) provides a link to this lesson under the course ID1042676.
Within the last year the National Center presented content related to the pediatric learning object in national and state events. Specific presentation information is available in the “Conference Presentation and Attendance” section of this report.

In September of 2013, the National Center launched “Psychosocial Impacts of Disasters on Children,” an online lesson authored by David J. Schonfeld, MD, FAPP that addresses the unique behavioral health needs of children during and after a disaster. The lesson provides examples of healthcare practitioners applying concepts related to the psychosocial health of children following a disaster event. The lesson builds a diverse skill set for the learner which includes identifying adjustment reactions in children as well as advising parents and caregivers on how to support children’s recovery.

“Psychosocial Impacts of Disasters on Children” is accredited for one hour of Continuing Education credit for 14 professions. Since the learning object’s launch, over 80 learners have claimed Continuing Education credit. This lesson is also available under the PHF TRAIN course ID 1047369.

Curriculum Recommendations

NCDMPH continues its dedication to competency-based education and training with the release of two peer-reviewed curriculum recommendations. The information in the curriculum recommendations is not prescriptive, but rather a set of recommendations that educators can tailor.

These recommendations were written by subject matter experts (SMEs) and consist of three tools to aid educators in tailoring disaster education:

- **Design Process Diagram:** A step-by-step process for tailoring courses
- **Topical Overview:** Summary of recommended topics
- **Learning Objective and Resource Table:** Learning objectives, core competencies & resources

The first of this series is “Curriculum Recommendations for Disaster Health Professionals: The Pediatric Population.” Released in June, this effort was co-written by the Uniformed Services University of the Health Sciences Graduate School of Nursing’s Heather Johnson, LtCol, USAF (Ret), DNP, FNP-BC, FAANP and Catherine Ling, PhD, FNP along with NCDMPH Project Associate Kelly Harrison Gulley, BA. This peer reviewed set of curriculum recommendations is designed to aid disaster education on children.

“Radiation Disaster Issues in Children: An Approach to the Patient” is accredited for one hour of Continuing Education credit for 14 professions. Since its release, 36 learners have claimed credit. This lesson is also available on PHF TRAIN under the course ID 1047388.

Also in September, NCDMPH released the accredited primer “Radiation Disaster Issues in Children: An Approach to the Patient” which was authored by Gary Crouch, MD, MHSA, Col (Ret), USAF, MC. The primer explores pediatric management priorities after ionizing radiation incident exposures. Additionally, the primer instructs learners on the creation of appropriate clinical management plans for pediatric radiation patients. Before reading the primer, learners can take a knowledge check for self assessment and learning.
These recommendations were recently cited in a poster by the authors at the American Public Health Association (APHA) 2013 Annual Meeting and Exposition. In addition, the curriculum authors presented the recommendations on the poster “A Pathway to Excellence: Disaster Curricular Recommendations for the Pediatric Populations” at “Learning in Disaster Health: A Continuing Education Workshop.”

Last September, NCDMPH launched “Curriculum Recommendations for Disaster Health Professionals: Disaster Behavioral Health” authored by the Center for the Study of Traumatic Stress’ Brian W. Flynn, Ed.D., RADM, USPHS, Ret and Joshua Morganstein, MD, CDR, USPHS. The Center for the Study of Traumatic Stress is also a center of the Uniformed Services University. The collaboration between these two centers is an meaningful accomplishment for the National Center. Since being released, over 200 users have viewed the recommendations.

Resilience through Learning

In response to the April 15, 2013 explosions at the Boston Marathon, NCDMPH created a multidisciplinary resource for educators and trainers and the disaster health workforce. Resources were organized thematically under areas relevant to explosions and mass gatherings. In one week, this page received over 1,000 visits. Additionally, NCDMPH received a personal thank you from the Mayor’s Health Line in Boston, MA.

“On behalf of the City of Boston, thank you for this,” - Boston Public Health Commission

Because of the success of the “Resilience through Learning: Explosions and Mass Gatherings” page NCDMPH created pages in the following topics: Winter Weather, Wildfires, Hurricanes, Typhoon and Cyclones, Earthquakes, and Tornadoes. NCDMPH promotes these resource pages in the wake of major events in order to maximize just-in-time learning. For example, the Winter Weather page was shared frequently during the severe winter weather of 2013-2014. The National Center also presented the creative process behind this resource in conjunction with APHA’s National Public Health Week with the webinar presentation, “Just-In-Time Disaster Health Learning Tools.”

Launched Webinar Series Focused on Disaster Learning

Last fall, the National Center began a webinar series focused on topics related to disaster health education and training. This is a unique effort from a center affiliated with Uniformed Services University of the Health Sciences. The webinars are an effective form of stakeholder engagement, which is evidenced by the unique interactions that took place after the webinar “Integration and Performance of Mental Health Triage Core Competencies in Los Angeles County Statewide Disaster Exercise.” This presentation was hosted by poster winners from Learning in Disaster Health 2013. The webinar was attended by disaster workers responding to the crisis in the Philippines after Typhoon Yolanda. Webinar presenters later connected with these disaster workers to provide them materials mentioned in the webinar.
Current Tasks

**Health Care Coalitions as a Potential Vehicle for Disaster Health Education & Training**

In summer of 2013, NCDMPH launched “Health Care Coalitions as a Potential Vehicle for Disaster Health Education and Training”. This formative research aims to identify education and training needs within preparedness healthcare coalitions. The effort is a first step in the Center’s translation of original research into actionable learning.

Since completing field research with nine coalitions, the team has conducted qualitative analysis on the data and begun writing research papers for publication. Preliminary data were presented at the 2013 National Healthcare Coalition Conference.

**Examining Long-Term Community Recovery to Identify Opportunities for Improved Education and Training**

NCDMPH research team completed field research for “Examining Long-Term Community Recovery to Identify Opportunities for Improved Education and Training.” This study explores disaster health workforce roles in the weeks and months following Hurricanes Irene and Sandy via community-level analysis of the recovery from these events at about one year post event. The Center will produce a report which examines the lived experiences of the Emergency Support Function–8 workforce during the recovery from these hurricanes. This report aims to provide recommendations on meeting identified education and training needs. The Center has presented preliminary findings at national conferences within the last year.

**Examining & Enhancing Public Health Workers’ Sense of Efficacy toward Hurricane Sandy Recovery**

Last summer, NCDMPH, Johns Hopkins Bloomberg School of Public Health and the State of Maryland’s Department of Health and Mental Hygiene received funding for a competitive CDC grant to investigate long-term recovery after Hurricane Sandy. NCDMPH is currently in an advisory position during the data-gathering portion. After data gathering is complete, National Center staff will create, implement, and evaluate an evidence-based educational intervention designed to increase self-efficacy and decrease threat perception among local public health workers.

This collaborative effort is a testament to the Center’s growing reputation as a trusted adviser on matters related to education and training in the field of disaster health.
Partnerships

Institute Of Medicine

The National Center continues its membership with the Institute of Medicine’s Forum on Medical and Public Health Preparedness for Catastrophic Events. Dr. Schor was invited to moderate “Regional Disaster Response Coordination to Support Health Outcomes: Workshop #1” in Irvine, CA. These forum meetings continue to strengthen NCDMPH’s stakeholder engagement and connection with leaders in the field.

In addition, Dr. Schor was on the planning committee for the IOM Preparedness, Response, and Recovery Considerations for Children and Families workshop in June 2013. The Appendix of the workshop report features the learning object Tracking & Reunification of Children in Disasters.

The Center’s pediatric work has been featured at other working groups via key stakeholders as well as in-person presentations. In addition, NCDMPH has briefed additional forums on the long-term recovery research. The research team also was invited by the Institute of Medicine Committee on Post Disaster Recovery on Communities Public Health, Medical, and Social Services to present the long-term recovery findings later this year.

Federal

NCDMPH maintains its strong presence in the federal sphere through continued interaction with the following departments:

Department of Defense:

- Working Groups: Acting Director Dr. Schor remains involved in the Department of Defense Homeland Defense / Defense Support to Civil Authorities working group as well as two of its committees, Education and Training and Complex Catastrophe. Dr. Schor is also a member of the Global Health Working Group (GHWG), co-chaired by the Joint Staff Surgeon and Deputy Assistant Secretary of Defense for Force Health Protection and Readiness. In addition, Dr. Schor is a member of the Patient Care Committee of the Global Health Working Group.

- Uniformed Services University of the Health Sciences: Dr. Schor continues to instruct at USUHS as well as facilitate Healer’s Art discussion groups with USUHS first year medical students. In addition he teaches in and codirects the courses below. Dr. Schor also attends the global health working group held at the university.
Courses:
- PMB Course Lecturer: “Rapid Disaster Assessment and Site Selection” in PMO 613 “Public Health Aspects of Disasters in Developing Countries”, Spring Quarter
- PMB, Independent Study Preceptor, PMO 970
- SOM, MS-1, Small Group Facilitator: “Healer’s Art”, March-April
- SOM, B3, Small Group Facilitator: Global Health Micromodule
- GSN, Course 970, Lecturer on Humanitarian Assistance and Disaster Response Ethics

Department of Health and Human Services:
- National Health Security Strategy (NHSS) Input: NCDMPH currently advises on the 2014 NHSS by providing direct input to the Department of Health and Human Services. National Center leadership also participates on calls throughout the year on the NHSS implementation plan.

- Disaster Research Responder Project (DR2): The National Center is also a contributing stakeholder for the Disaster Research Responder Project (DR2) which was launched by the National Institute of Health / National Institute of Environmental Health and Sciences. The DR2 aims to create an environmental health disaster research system to train research responders.

- The Administration of Children and Families, Office of Human Services Emergency Preparedness and Response: ACF received an informal briefing on data from the Long-Term Recovery project. ACF requested this briefing to inform their disaster support responsibilities. By providing this brief, NCDMPH helped amplify both the work of the National Center and ACF.

- Assistant Secretary for Preparedness and Response, Division of Hospital Preparedness: The research team responded to a request from the Assistant Secretary for Preparedness and Response for a presentation on the preliminary results from the National Center’s field research “Healthcare Coalitions as a Potential Vehicle for Disaster Health Education and Training”.

- All-Hazards Ventilator Working Group: This group addressed issues relating to the purchase of ventilators for the Strategic National Stockpile and developing capabilities for their use. Dr. Schor participated on the team addressing ventilator training.

Department of Homeland Security
- Federal Emergency Management Agency Region III: The National Center connects with FEMA via several different avenues. Dr. Schor attended the FEMA Region III Regional Interagency Steering Committee and Regional Advisory Council in January 2014 as a Subject Matter Expert. Attending these meetings provides the Center a unique regional perspective on disaster health issues and their workforce development implications. In addition, Region III has become a valuable partner in promoting and sharing the Center’s work.

- FEMA’s Intergovernmental Affairs: In 2013, FEMA’s Intergovernmental Affairs reached out to the National Center in order to strengthen FEMA’s relationship with intergovernmental agencies. Since an initial meeting with IGA, the National Center attended a briefing at FEMA headquarters with other interagency groups. Dr. Schor was also invited to the FEMA Capstone 2014 exercise.

Academic:
- Boston University Healthcare and Emergency Management Program (BU HEM): The National Center currently has a partnership with BU HEM and collaborates frequently with adjunct professor John J. Burke, MS. Mr. Burke’s
collaborations with the Center have included speaking at NCDMPH’s Learning in Disaster Health 2013: A Continuing Health Workshop and presenting in the Center’s webinar series. Mr. Burke recently participated in a hybrid exercise with Dr. Schor’s graduate students and will also host an exercise with NCDMPH staff later in 2014. April 4, 2014, Dr. Schor and Mr. Burke will present at the National Academies of Practice meeting in the session, “Interprofessional Workshop: Evidenced Based Teamwork-Reinforce TeamSTEPPS.” BU HEM also supports the promotion and amplification of NCDMPH products and events. NCDMPH Operations Director Kandra Strauss-Riggs has an adjunct appointment with the Boston University Medical School and is the course director for Community Health in the Healthcare Emergency Management program.

Associations:

- **American Academy of Pediatrics:** The National Center and the American Academy of Pediatrics enjoy a strong partnership due to the shared dedication to pediatric health. NCDMPH works specifically with the AAP’s Disaster Preparedness Advisory Council (DPAC). AAP DPAC continues to brief the Center’s latest updates at DPAC meetings. Members of the DPAC have also been strong partners in the development of the Center’s online lessons.

- **American Public Health Association:** The National Center is currently active in the APHA Emergency Health Services–Disaster Preparedness (EHS-DP) committee. Participation in this committee strengthens the Center’s engagement in the disaster health field by engaging with a respected organization of public health professionals.

National Center continues to participate in other private sector in the following lanes:

- Invited to speak at the American Osteopathic Associations Bureau meeting where Dr. Schor briefed on the National Center.
- Participated on a subcommittee on training and education to make recommendations to the Post-2015 Framework for Disaster Risk Reduction.

**Disaster Medicine And Public Health Preparedness**

In October 2013, the National Center for Disaster Medicine and Public Health formalized an agreement with the Society for Disaster Medicine and Public Health that facilitates NCDMPH to provide editorial support to SDMPH’s journal Disaster Medicine and Public Health Preparedness. This agreement accomplishes a tasking from the FETIG Executive Committee. The agreement is formally between SDMPH and USU but the National Center houses the editorial facilities. This relationship with the society and the journal further strengthens the National Center’s status as a center of scholarship.
Outreach

Hosted Events

Learning in Disaster Health: A Continuing Education Workshop
Washington, D.C.
September 17-18, 2013

Hosted Webinars

Health, Medicine, & Reunification in School Disasters
Presented by John J. Burke, Fire Prevention Officer, Sandwich Fire Rescue Department, Adjunct Professor, Boston University School of Medicine
October 11th, 2013

Disaster Health Education: Context, Capabilities, and Competencies
Presented by Richard King, PhD, Associate Professor, Health Care Sciences, UT Southwestern Medical Center
November 13th, 2013

Poster Winners from LDH 13: Part One
Presentations featured two of the poster winners from Learning in Disaster Health 2013
- “Training Social Work Students through Disaster Work” by Patricia Findley, DrPh, MSW
- “Integration and Performance of Mental Health Triage Core Competencies in Los Angeles County Statewide Disaster Exercise” by Sandra Shields & Merrit D. Schrieber, PhD
December 18, 2013

Continuing Professional Volunteers’ Education Outside of University Walls
Presented by LCDR Skip A. Payne, USPHS, Program Officer, Division of the Civilian Volunteer Medical Reserve Corps
January 21st, 2014

Disaster Human Services and the Socioeconomic Determinants of Post-Disaster Health Outcomes
Presented by CDR Jonathan D. White, PhD, LCSW-c, Deputy Director, Office of Human Services Emergency Preparedness & Response
February 11th, 2014

Presentations & Posters

2013 Public Health Preparedness Summit
March 12-15, 2013
- Education Coordinator Dr. Brian Altman, Operations Director Kandra Strauss Riggs, MPH, and Senior Research Associate Lauren
Walsh, MPH, led the session “Disaster Health: Introducing a Framework for Learning and Moving Toward Defining a Discipline”
- The same team with the addition of Project Associate Kelly H. Gully led the session, “Finalizing Curriculum Recommendations for All Disaster Health Professionals: Caring for the Pediatric Populations in a Disaster or a Public Health Emergency”

**APHA 2013 Annual Meeting: Think Global Act Local**
November 2-6, 2013
Presented two posters:
- "Tracking and Reunification of Children in Disasters: Development of a Learning Object” 
  by Dr. Brian Altman and Kandra Strauss-Riggs, MPH
- "Examining Long-Term Community Recovery to Identify Opportunities for Improved Education and Training: Sandy and Irene” 
  by Laurie Chow, MPH and Lauren Walsh
- Led the following oral session: “Opportunities for Augmenting Regional Preparedness through Healthcare Coalitions”

**Virginia Interagency Distance Learning Summit**
November 21, 2013
- Dr. Brian Altman, Liz Brasington, and Dr. Kenneth Schor presented, “Removing Barriers to Enhance Disaster Health Learning”

**2013 National Healthcare Coalition Conference**
December 11-12, 2013
- The research team also held a discussion focused on the National Center’s study, “Healthcare Coalitions as a Potential Vehicle for Disaster Health Education and Training.”

**2014 AHRD International Conference in the Americas**
February 19-22, 2014
- Hosted the Food n’ Thought session, “Learning and Performance for Disasters: What can we learn from HRD to improve our local and national disaster health sector readiness?”

**Attendance**

4th Annual VEMEC Conference: Advancing & Redefining Communities for Emergency Management
March 25-26, 2013

FEMA Region III Regional Interagency Steering Committee (RISC) & Regional Advisory Council (RAC)
January 8-9, 2014

**Invited Presentations**

**Indiana Healthcare Emergency Preparedness Symposium**
August 29-30, 2013
- Dr. Brian Altman and Dr. Kenneth Schor invited to present, “Getting More Learning Value from Exercise.”

**American Osteopathic Association (AOA) Bureau on Federal Health Programs Meeting**
December 11-12, 2013
- Dr. Kenneth Schor gave a briefing on the National Center

**Scholarly Work:**

The following article was accepted for publication in *Disaster Medicine and Public Health Preparedness*:


Dr. Schor wrote a chapter in the following book with release date to-be-announced:

Selected Future Work

The National Center has multiple ongoing projects that are currently in development and have not been mentioned in this report.

Radiation Case-Based Learning Object

NCDMPH is developing a case-based activity complementary to the previously released primer and knowledge check “Radiation Disaster Issues in Children: An Approach to the Patient.” Similar to the aforementioned primer, this new activity discusses the unique needs of pediatric patients after radiation exposure. The activity scenario is centered on an improvised nuclear device (IND) in a medium sized city and its ensuing effects on the children in the area. The activity will be accredited for nurses and doctors for one hour of continuing education credit.

Curriculum Recommendation Series

The National Center plans to release two more curriculum recommendations within the next fiscal year. The subject matter experts who wrote the pediatric curriculum recommendations are finalizing a set of recommendations for the geriatric population. Project Associate Kelly Gulley is coordinating both the projects and has identified the SME for a set of recommendations to be released later this year on Public Health Law.

Future Plans

The National Center continues to look forward and has multiple plans for its future efforts. Upcoming selected efforts include:

• Hosting a public health track at the 16th Annual Emergency Management Higher Education Symposium. NCDMPH is coordinating a series of talks focused on public health and disaster medicine.
• Host “Learning in Disaster Health 2014” in September 2014
• Ongoing support on education and training related to DOT’s Model Uniform Core Criteria (MUCC)
• Partnering with Val G. Hemming Simulation Center to evaluate an education product
• Launch a geriatric curriculum project
• Maintain a monthly webinar schedule
• Conduct a website redesign based on extensive usability testing data

NCDMPH is well positioned to continue its contribution to national resilience through learning. The staff at the National Center looks forward to providing the Nation more educational content and relevant research in the field of disaster medicine and public health.
Who’s talking about the National Center?

Stephen Fischer @StephenSFischer  Apr 1
@NCDDMH has an awesome poster on Disaster Health Learning Content! #PS14 @prepsummit pic.twitter.com/4lIAwW1GNg

From left to right, Kelly Gulley, Kandra Strauss-Riggs, Kenneth Schor, Hillary Craddock, Thomas Fitzgerald, Robin Lowe, Brian Altman, Elizabeth Brasington, & Lauren Walsh

Art Kellermann, MD @ArtKellermannMD  Sep 17
I'm at USUHS' Nat’l Center for Disaster Medicine's workshop on disaster health today. The challenge is urgent and growing. #LDH13

NWHRN @TheNetworkNWHRN  May 5
Great online @NCDDMH course about reuniting children in disasters. ow.ly/mvWED

Dr. Villa - Yong @MV4  Jul 29
@NCDDMH This webinar is so enlightening

National Center for Disaster Medicine & Public Health
In coordination with the Uniformed Services University, this report fulfills the requirements between USU & the Assistant Secretary of Defense for Health Affairs. The views within this report are solely those of the authors and do not reflect the views of the Uniformed Services University of the Health Sciences and the US Department of Defense.

Report Authors
Elizabeth Brasington, Communications & Administrative Assistant
Kenneth Schor, DO, MPH, FAAFP, Acting Director
Kandra Strauss-Riggs, MPH, Operations Director

Report Design
Henry M. Jackson Foundation for the Advancement of Military Medicine