

Empowering scientists and educators to protect our nation's health from disasters

NCDMPH



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National Center for **D**isaster **M**edicine and **P**ublic **H**ealth

# ANNUAL REPORT

OCTOBER 2018 to SEPTEMBER 2019

Uniformed Services University of the Health Sciences





# TABLE OF CONTENTS

Executive Summary .....1

About NCDMPH .....2

Major Accomplishments .....3

Disaster Science Student Rotation and Visiting Scholars .....4

Stop the Bleed Initiative .....7

Fiscal Years 2015 -2019 Timeline .....9

State Of Disaster Health Science Symposium .....10

Fiscal Year 2019 Snapshot .....11

Staff .....12

Collaboration and Leadership Activities .....13

Disaster Education/Disaster Science Core Curriculum .....17

Publications and Presentations .....18

Looking Forward: 2020 Priorities.....Inside Back Cover

### Report Design

Henry M. Jackson Foundation for the Advancement of Military Medicine (hjfm.org) with NCDMPH collaboration.

State of Science symposium photographs by Barbara Hunt.

Thanks to the staff at NCDMPH for their input and feedback.



In coordination with the Uniformed Services University of the Health Sciences (USU), this report fulfills the requirements between USU and the Assistant Secretary of Defense for Health Affairs.

The views within this report are solely those of the authors and do not reflect the view of USU or the U.S. Department of Defense.

# NCDMPH



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# EXECUTIVE SUMMARY



The National Center for Disaster Medicine and Public Health (NCDMPH or “National Center”) is building upon the successes of previous years to improve our Nation’s preparedness for disasters. We continue to increase our productivity and impact across a wide range of activities, including research, education and collaboration. By holding symposia and other interactive events and webinars, we continued to promote the National Center as a source of high-quality output and intellectual excellence in the disaster health field. In presenting our 2019 Annual Report, I am delighted to highlight our accomplishments and share some of our ambitious plans for the next fiscal year.

## ***Disaster Response Support Activities***

- NCDMPH collaborated with the National Institute of Standards and Technology (NIST) in an assessment of the health and public health impacts of Hurricane Maria in Puerto Rico.

## ***Education Activities***

- Stop the Bleed training initiative continued strong with the launch of the mobile application (available on Google and iTunes app stores), which has garnered more than 3,500 downloads, and over 5,000 “likes” on Facebook.
- With funding from DHS/FEMA, a new course is being developed in collaboration with the American Red Cross, geared toward high school students. The First Aid for Severe Trauma (FAST) course will teach high school students how to respond to traumatic injuries in emergency situations.
- Publications highlighting the gaps and overlaps in disaster health education nationwide.
- Increased the number of participants in our Visiting Scholars program and continued engagement and collaboration with disaster experts from around the country.
- NCDMPH staff continue to engage with Uniformed Services University of Health Sciences (USU) students directing and teaching two courses in the USU graduate education program, as well as assisting with teaching medical student courses.

## ***Research Activities***

- NCDMPH continues to publish in peer-reviewed journals, including 18 papers and multiple editorials, as well as contributing chapters in three books.
- In collaboration with the American Red Cross and the University of Virginia, NCDMPH conducted research related to the lay public’s ability to use hemostatic dressings to stop life-threatening bleeding.
- NCDMPH reviewed the current state of disaster funding from the federal government, which resulted in two peer-reviewed publications in May 2019.

The activities outlined in this report serve as the foundation upon which we will continue to collaborate with partners, perform research, and educate the lay public. As we commence 2020, we eagerly anticipate opportunities known and unknown to continue to build on our accomplishments and embrace further collaboration with existing and new partners.

Thank you for your support of the National Center and please continue to stay in touch with us via our website [usuhs.edu/ncdmp](http://usuhs.edu/ncdmp) and social media: Twitter, Facebook, LinkedIn, Listserv or YouTube to stay up to date.

Sincerely,



Thomas Kirsch, MD, MPH, FACEP  
Professor and Director, NCDMPH



# About NCDMPH

**MISSION:** The mission of the National Center for Disaster Medicine and Public Health is to improve our Nation’s disaster health readiness through education and science.

**VISION:** NCDMPH will be the Nation’s academic center of excellence leading domestic and international disaster health education and research efforts. In collaboration with partners, we create and translate science and education to improve readiness.

## **NCDMPH is uniquely positioned to be a bridge between federal agencies and academia.**

- The National Center was founded under five federal agency partners: Department of Defense, Department of Health and Human Services, Department of Homeland Security, Department of Transportation, and Department of Veterans Affairs.
- The National Center is both a federal organization and an academic center, located in an academic health institution, the Uniformed Services University of the Health Sciences.

## **NCDMPH:**

- **Leads and collaborates** with governmental and nongovernmental partners to advance disaster medicine and public health education and research agendas.
- **Acts** as a neutral coordinator across federal, state, tribal and local governments; academia and non-government associations; and non-governmental organizations.
- **Convenes** experts from diverse professional backgrounds to define disaster health issues and recommend policy solutions.
- **Provides consultations** consultations to partners within and external to the federal government regarding disaster health education, training, and science.

The National Center for Disaster Medicine and Public Health was established under the Homeland Security Presidential Directive 21 (HSPD 21) to be “...an academic center of excellence in disaster medicine and public health...”, and “...shall lead Federal efforts to develop and propagate core curricula, training, and research related to medicine and public health in disasters.”

The National Center is listed as an implementing organization in the **National Health Security Strategy 2019-2022**, and has an important role to play in preparing the public health workforce for the safety and security of the nation going forward.

**“The National Center for Disaster Medicine and Public Health (NCDMPH) is strategically situated within the federal interagency to help advance the readiness of the public health and medical workforce through enhanced collaborative efforts in disaster health research and education. NCDMPH leads federal efforts to develop and propagate core curricula, training, and research related to medicine and public health disasters.”**

Quote taken from National Health Security Strategy 2019-22, Develop the Public Health Workforce to Address 21st Century National Health Security Threats - P. 16.



# MAJOR ACCOMPLISHMENTS

## DISASTER SCIENCE

The NCDMPH mission for disaster science is to: Conduct, translate, and propagate research that bolsters readiness practice and policy.

- Build the science and education evidence base to improve the Nation's preparedness.
- Translate disaster-related research into practice and policy solutions for federal, state, tribal, and local partners.
- Collaboratively develop and drive a coordinated national disaster science and research agenda.

## STATE OF DISASTER HEALTH SCIENCE

The National Center has undertaken a comprehensive assessment of the current state of disaster health science, as applied to research and education including research, reports, collaborations and symposia. These activities will help steer future disaster health science work at the National Center and across the field. The following studies were completed during FY18 and have been published in 2019:

**U.S. governmental spending for disaster-related research, 2011-2016: Characterizing the state of science funding across five professional disciplines** DOI: 10.1017/dmp.2019.14. May 2019.

This study characterizes federal funding for disaster-related research for five professional disciplines: medicine, public health, social science, engineering, and emergency management during a seven-year period.

**Funding for the National public health preparedness capabilities, 2008-2017** -DOI: 10.1017/dmp.2019.66. August 2019.

This study describes the level of federal funding allocated for research related to national public health preparedness capabilities during a 10-year period.

**Characterizing the current state of disaster research for 3 scientific disciplines: A qualitative analysis** [Under consideration]

This study characterizes the current state of disaster science using qualitative indicators of developmental status as characterized by leaders of three scientific disciplines: medicine, public health and social science.

**An analysis of After Action Reports from Texas Hurricanes in 2005 and 2017.** Accepted for publication.

The objective of this paper was to review and analyze After Action Reports from jurisdictions following Hurricanes Katrina and Rita in 2005 and Hurricane Harvey in 2017 in order to assess the utility of AARs as a quality improvement measurement tool. DOI: 10.1097/PHH0000000000001120

**Disasters and Health: State of the Science.** Commentary on the April 2019 Disasters and Health: State of Science symposium [doi:10.1017/dmp.2019.105]

# DISASTER SCIENCE STUDENT ROTATION AND VISITING SCHOLARS

The National Center's education efforts include the Disaster Science Student Rotation (DSSR) and Visiting Scholars program. Both programs provide opportunities to collaborate and engage with recent graduates and practicing professionals.

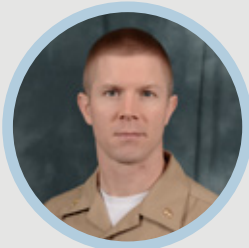
The National Center launched DSSR in June 2018. This educational rotation is designed for individuals currently attending (or recently graduated from) an accredited graduate education program in the fields of medicine, public health or social sciences, who are interested in future careers in disaster health.

During 2018-2019 four students participated in the education rotation, which was twice the number of the previous year. As DSSR students, they actively participated in real-world disaster programs and had the opportunity to meet world experts during a comprehensive course of webinars, lectures, journal reviews and by attending conferences with senior NCDMPH staff. The DSSR students also were able to tour the Anatomical Teaching Laboratories (ATL) at USU and attend the "Disasters and Health: State of Science" symposium.  
<https://www.usuhs.edu/ncdmph/about/students>

## STUDENT ROTATION



**ZLT Cassandra Godar** is a fourth-year Army medical student at the Uniformed Services University. A native of Annapolis, Md., she completed her undergraduate degree in biological sciences at the University of Maryland, College Park, and subsequently obtained a Master's of Science in Physiology at Georgetown University in 2015.



**LCDR Ross Mullinax, MD** graduated from the University of South Alabama College of Medicine in 2010 as an HPSP participant and went on active duty for the U.S. Navy. His first assignment was an internship in General Surgery at Naval Medical Center San Diego, where he was selected as the General Surgery Department Intern of the Year. In July 2017 he began residency in the Walter Reed Occupational and Environmental Medicine program, becoming Chief Resident in 2018.



**CPT(P) Jessica Reeves, MD** is currently a third-year Occupational Medicine Resident at the Uniformed Services University of the Health Sciences. She received her undergraduate degree from Johns Hopkins University and her Medical Doctorate from Tulane School of Medicine. CPT Reeves originally completed two years of Neurology residency at Madigan Army Medical Center prior to leaving the residency and becoming a general medical officer (GMO). Prior to entering her Occupational Medicine residency, CPT Reeves worked as the physician of the U.S. Army Medical Research Institute of Infectious Diseases Biosurety Clinic in Fort Detrick.



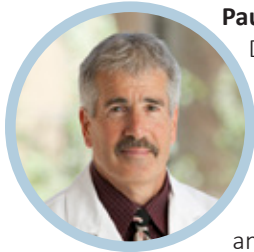
**Patricia Abigail Weems, MD** of Mobile, Alabama is currently completing a fellowship in Operational and Disaster Medicine at Carolinas Medical Center-Atrium Health in Charlotte, North Carolina. She attended medical school at the University of South Alabama College of Medicine, graduating in 2015. She then moved to Portland, Maine to complete her residency in Emergency Medicine at Maine Medical Center.



## VISITING SCHOLARS

The National Center provides an academic home for disaster health scientists within the federal environment. NCDMPH welcomes diverse and respected visiting scholars in a variety of disciplines. Each year, NCDMPH will host Visiting Scholars to collaborate on critical disaster science and education projects.

The 2018/2019 Visiting Scholars are:



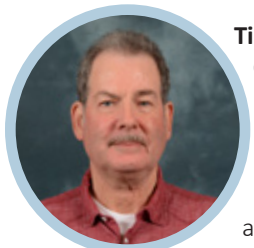
**Paul S. Auerbach, MD, MS, FACEP, MFAWM, FAAEM** is the Redlich Family Professor Emeritus in the Department of Emergency Medicine at the Stanford University School of Medicine, and Adjunct Professor of Military/Emergency Medicine USU. He is co-author of *Enviromedics: The Impact of Climate Change on Human Health*, editor of the textbook *Wilderness Medicine*, and author of *Medicine for the Outdoors*. Dr. Auerbach is a founder of the Wilderness Medical Society, member of the Council on Foreign Relations, and serves on the National Medical Committee for the National Ski Patrol System. Dr. Auerbach is a thought leader on climate change and human health, and will assist the National Center in addressing this aspect of disaster medicine.



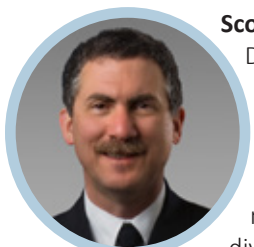
**Dan Barnett, MD, MPH** is an Associate Professor in the Department of Environmental Health and Engineering at the Johns Hopkins Bloomberg School of Public Health, where he has a joint appointment in the Department of Health Policy and Management and is on the core faculty of the Office of Public Health Practice and Training. Dr. Barnett will use his expertise to conduct an assessment of After Action Reports from Hurricane Harvey and develop training for volunteers in disasters based on prior data.



**Rita Burke, PhD, MPH** is an Assistant Professor of Research Surgery and Preventive Medicine at the Keck School of Medicine at the University of Southern California and the Division of Pediatric Surgery at Children's Hospital Los Angeles. Dr. Burke is the former co-chair of the Research Committee for the Pediatric Trauma Society, the current co-chair for the Los Angeles Children in Disasters Working Group and co-chair of the Disaster and Emergency Response sub-committee of the American Public Health Association.



**Tim Davis, MD, MPH** (EIS'97) is a retired USPHS Captain (1997-2018), former Branch Chief (CMO) of Operational Medicine, National Disaster Medical System (HHS/ASPR/OEM), an Emory Emergency Medicine Asst. Professor Emeritus (1989-2015), Adjunct Assistant Professor of Surgery (Primary), Military Emergency Medicine (Secondary) at the Uniformed Services University (2005-present), and USAF (1976-1997) LTC Senior Flight Surgeon. Dr. Davis will share his expertise on explosives and other kinetic energy incidents causing mass casualties and fatalities, disaster health care responder safety and health, and provide additional support for Stop the Bleed and other ongoing disaster projects.



**Scott Deitchman, MD, MPH** is a retired USPHS Rear Admiral with 30 years of service. As the Associate Director for Environmental Health Emergencies in the National Center for Environmental Health at the Centers for Disease Control and Prevention (CDC), he led CDC's responses to the 2004 Asian tsunami disaster, the 2010 Deepwater Horizon oil spill, the 2011 Fukushima nuclear reactor emergency, and numerous hurricanes. Dr. Deitchman brings to NCDMPH his extensive experience, expertise and research interests in crisis leadership during health emergencies, responses to natural and man-made environmental disasters, and promoting effective coordination among diverse response organizations.



**Jeff Freeman, PhD, MPH** currently serves as the Senior Scientist for Disaster Health in the National Health Mission Area of the Johns Hopkins University Applied Physics Laboratory (JHU/APL), which is the nation's largest and longest serving University Affiliated Research Center. Dr. Freeman's primary responsibilities include the development of a Disaster Health Initiative for JHU/APL in support of the U.S. government.

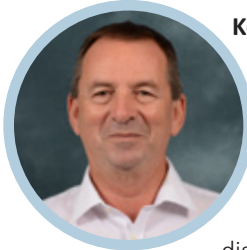
## VISITING SCHOLARS



**Nino Kharashvili, MD, MBA, PMP, CMAP** currently serves at the Technical Branch Lead at Booz Allen Hamilton. Dr. Kharashvili leads a team of 25 personnel who specialize in disease surveillance, biosafety, bio security, training, metrics and evaluation, and global health security. She brings to NCDMPH her extensive expertise in international health, global health security, health system strengthening, and health governance.



**Matthew Levy, DO, MSc** is an Associate Professor of Emergency Medicine at the Johns Hopkins University School of Medicine with leadership roles with the Johns Hopkins Emergency Medicine's Division of Special Operations, as well as the Johns Hopkins EMS Fellowship, and the Johns Hopkins Center for Law Enforcement Medicine. Dr. Levy is also a Clinical Associate Professor and the Medical Director of the UMBC Department of Emergency Health Services. Dr. Levy brings to NCDMPH his experiences with multiple local, state, federal and international elements related to emergency medical, tactical and disaster medicine.



**Kobi Peleg, PhD, MPH** currently serves as Head of the National Center for Trauma and Emergency Medicine Research. In addition, he is a full Professor, the Head (and founder) of the Disaster Medicine Management Department, and the Head of the Executive Master's Program for Emergency Disaster Management in the School of Public Health, Tel Aviv University. In this capacity, Prof. Peleg leads research and education activities in various fields of trauma, with special interest in mass casualty events, disasters and terror-related injury, and emergency medical services (EMS). Prof. Peleg is the foremost global expert in mass-casualty events, disasters, and terror-related injuries and international EMS.

DSSR and Visiting Scholars information is at: <https://www.usuhs.edu/ncdmph/research-education>





# STOP THE BLEED INITIATIVE

**The Stop the Bleed (STB) initiative continues to gain momentum. The STB initiative involves efforts to train, equip and empower laypersons to help during a bleeding emergency.**

Key accomplishments and activities include:

## **Stop the Bleed App**

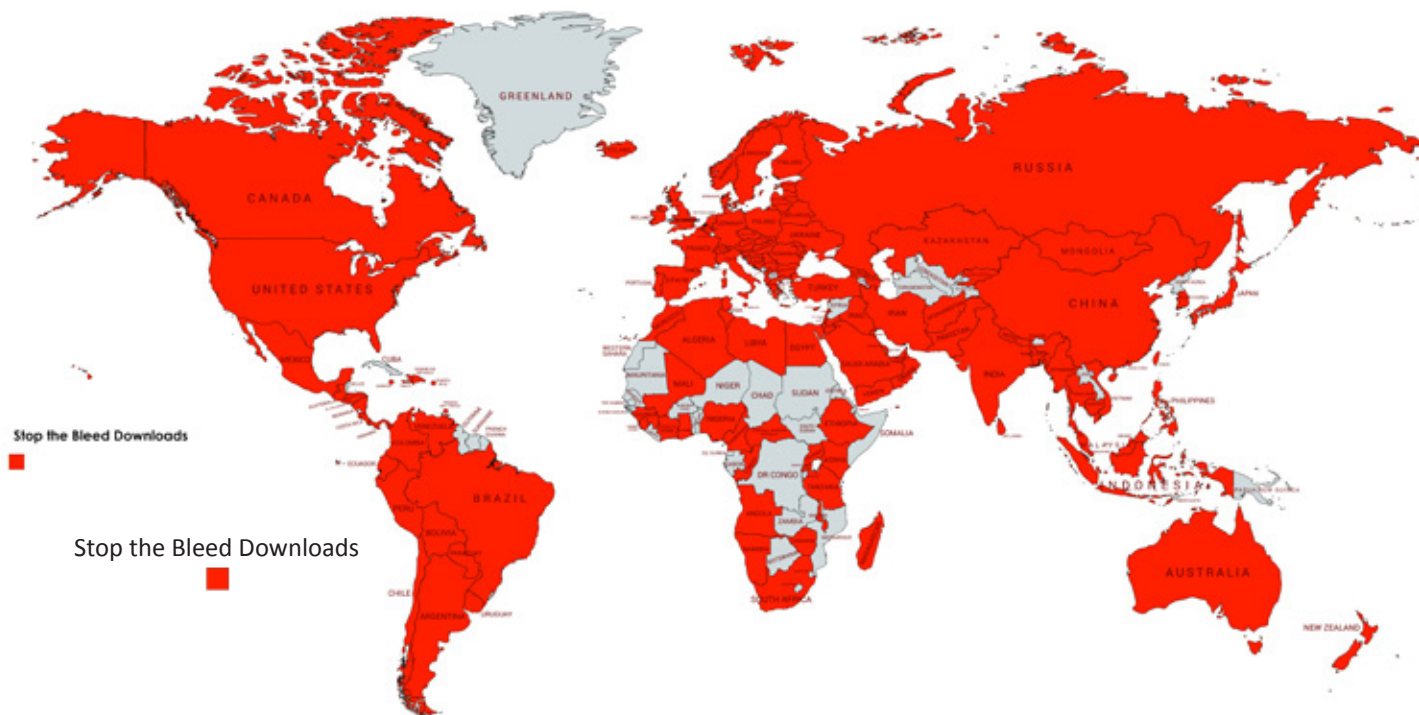
The number of users downloading the free app which was launched in May 2018 continues to grow. The app outlines steps to take during a bleeding emergency – from determining whether a bleed is serious, to applying a tourniquet.

To date, the app has more than 3,200 downloads from Google and over 15,000 downloads from Apple.

The free app can be downloaded from

<https://play.google.com/store/apps/details?id=edu.usuhs.stb>

<https://itunes.apple.com/us/app/stb/id1336173602?mt=8>



## **Stop the Bleed Video on NCDMPH Website**

38,880 sessions have been reported by Google Analytics from 150 countries.

Google defines a session as a group of interactions one user takes within a given time frame on a website. Google Analytics defaults that time frame to 30 minutes. Meaning whatever a user does on website (e.g. browses pages, downloads resources, purchases products) before they leave equals one.

## **STB Research**

NCDMPH has published multiple studies to improve America's preparedness for bleeding and mass-casualty events. These publications included multiple studies to evaluate the best way to educate lay people on how to stop the bleed and use a tourniquet, a study to identify preventable hemorrhagic deaths, and research to evaluate a layperson's ability to correctly apply a hemostatic dressing.

## STB Preparedness at the Uniformed Services University (USU)

The National Center collaborated with USU and installed 196 bleeding control kits to 54 bleeding control stations throughout USU main campus. In addition, bleeding control kits have been installed at 8 other USU Centers around the country as well as at Armed Forces Radiobiology Research Institute in Bethesda, Maryland.



## STB Education Consortium

NCDMPH continued to lead the “Stop the Bleed Education Consortium”, which is a group of subject matter experts that collaborated to develop and publish the first national education standards for hemorrhage control training. The consortium is working on a series of projects related to STB policy, assessment tools, research planning, as well as planning for future initiatives.

## Transforming Technology for the Warfighter (TTW) Grant

The National Center received a \$2 million TTW grant to develop novel hemorrhage control technology. Research and development are being conducted in partnership with Harvard-Brigham and Women’s Hospital, Mayo Clinic, Linköping University/Region Östergötland in Sweden, and InnoVital Systems, Inc.

## First Aid for Severe Trauma (FAST) Grant

In 2018, the National Center received a \$2.3 million grant to develop a trauma training course geared toward high school students; we are in the midst of Phase 2 and expect Phase 3 to begin mid-2020. In partnership with the American Red Cross, the National Center is creating a curriculum focusing on applying pressure to stop bleeding, communication in emergencies, situational awareness, and body positioning. Three formats of the curriculum are in development: instructor-led, blended, and online only.



Based on educational research done at the HOSA (Future Health Professionals, formerly known as Health Occupations Students of America) International Leadership Conference in June 2019,



it was determined multiple educational modalities are effective to teach high school students hemorrhage control. During a demonstration of interest with Ohio HOSA at the Rocket Mortgage Fieldhouse, home of the Cleveland Cavaliers, 612 students and teachers were taught hemorrhage control with a blended learning format. During a demonstration of interest with Ohio HOSA at the Rocket Mortgage Fieldhouse, home of the Cleveland Cavaliers, 612 students and teachers were taught hemorrhage control with a blended learning format.

*Senator Chris Van Hollen learning how to Stop the Bleed.*



Learn more at <https://stopthebleed.usuhs.edu>



### Community Education and Outreach

NCDMPH staff conducted community education and outreach related to STB:

- Translated STB instruction card into Spanish
- Provided closed captioning in Spanish for STB video
- Led training and education activities at 24 events throughout the country resulting in more than 1,000 people trained.



**Hemorragia que ponen en peligro al vida**  
**El sangrado es peligroso si:**

- La sangre fluye continuamente
- La sangre está chorreando
- La cantidad de sangre en el suelo es igual que la mitad de una lata de gaseosa
- La sangre se está acumulando en el suelo

**Un sangrado le puede suceder a alguien que resulte seriamente herido durante un accidente o explosión.**

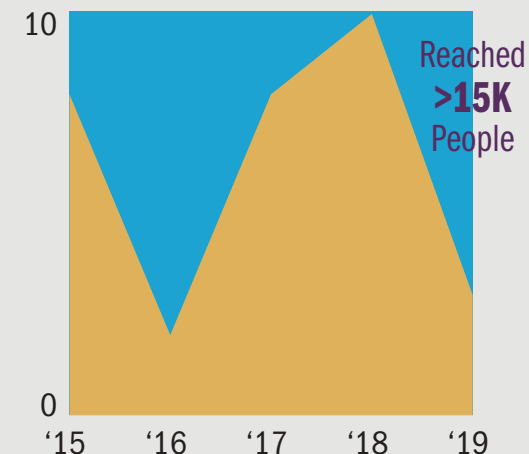
Si el sangrado ocurre en los brazos o piernas, y pone en peligro la vida, es apropiado el uso de un torniquete.

Si el sangrado ocurre en otras partes del cuerpo y pone en peligro la vida entonces apliqué presión directas.

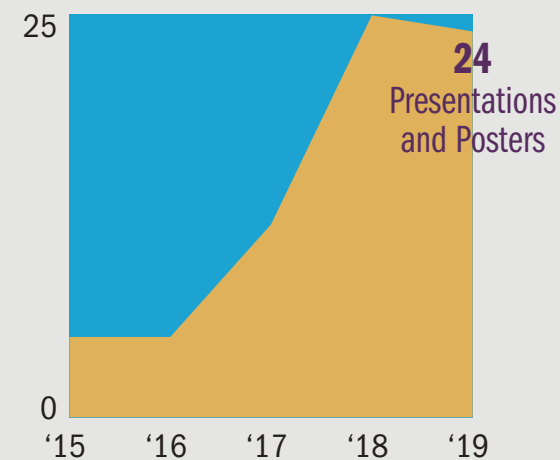
# NCDMPH

## FY 2015 - 2019 TIMELINE

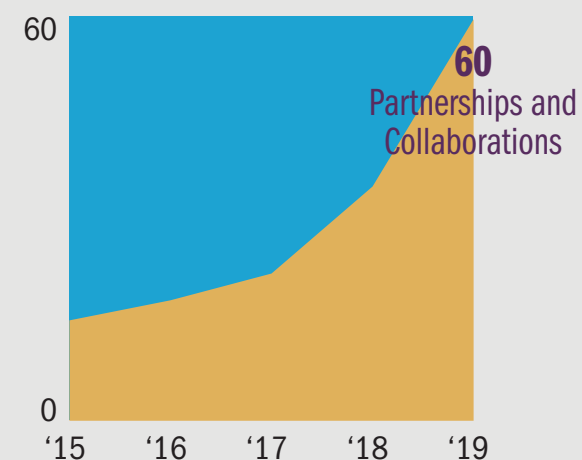
### Webinars/Conferences



### National Presentations



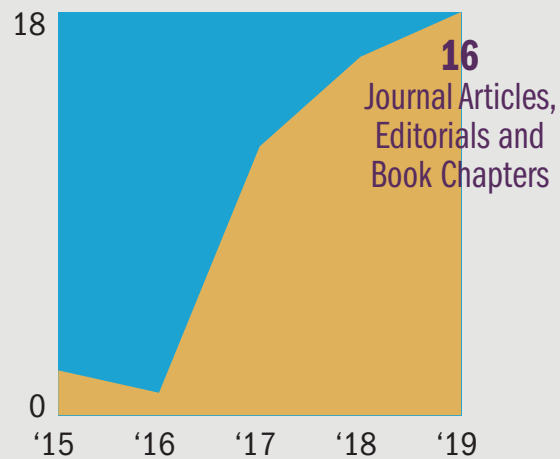
### Active Engagements





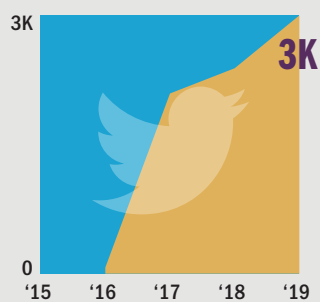
# STATE OF DISASTER HEALTH SCIENCE SYMPOSIUM

## Publications

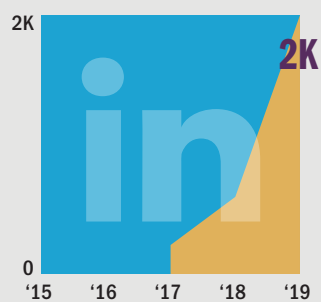


## Social Media

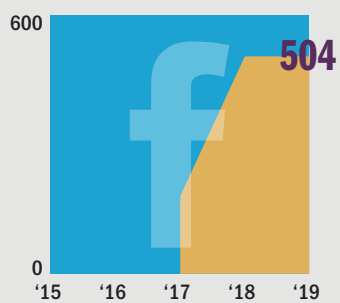
### Twitter Followers



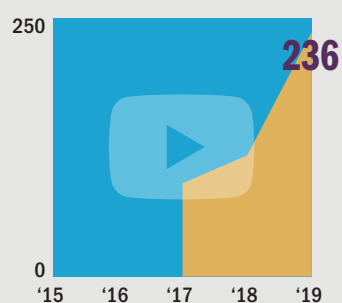
### LinkedIn Connections



### Facebook Followers



### YouTube Subscribers



38,880 sessions for Stop the Bleed video from the NCDMPH website



**NCDMPH** convened its first annual “Disasters and Health: State of Science” symposium on April 25-26, 2019, at the American Geophysical Union (AGU) headquarters in Washington, D.C. The symposium drew nearly 200 leading experts from the fields of science, academia, government, finance, technology and philanthropy.

The objective of the symposium was to identify the important issues enabling and constraining an evidence-based approach to disaster preparedness and response, with a particular focus on health.

The agenda consisted of two keynote presentations, a lunchtime presentation, and five moderated panels. Each panel included a minimum of four speakers.

The presenters all had significant experience with disasters.

Four key challenges were identified for improving the state of disaster science (to be published in detail in the proceedings paper Disasters and Health: State of the Science. Commentary on the April 2019 Conference [doi:10.1017/dmp.2019.105]):

- Disaster science, like disaster response, must be viewed from a multidisciplinary perspective and approach
- Challenges in conducting disaster research—including research gaps and research quality—need to be addressed
- Improving funding to support disaster research
- Ensuring that disaster science improves disaster response practice





**Art Kellermann, MD, USU**

“Disasters are all about getting hurt, getting ill, and the health consequences both during the event and following... I would argue, even accentuate, that we have not really substantially added the evidence base of disaster health. This is a major challenge.”



**Craig Fugate – Keynote Speaker**

“After Action Reports - they’re basically the greatest works of fiction ever written...a hint for practitioners... write a really good executive summary in English and don’t try to use precision to hide behind your observations. Tell us what you’re thinking...It’s more useful to us. If you are so afraid of peer-review criticizing that you’re not being precise, I’ve got news for you! We have seen where precision and science has killed people.”



**Lori Peek, MD**

“One of the things that we’re moving towards is really thinking about how do we assess problems? But then also how do we come together in order to think about ways to develop solutions to those problems?”



**Paul Auerbach, MD – Moderator**

“If you have a research issue, if you have a research agenda, you should be looking both domestically and internationally, and becoming familiar with any possible sources of funding and support and collaboration to do that research.”



**Rita Colwell PhD – Keynote Speaker**

“That Federal agencies and academic institutions should ease up or expedite administration restrictions on collaboration, information sharing, and data collection in order to use science during crisis effectively.”



**Scott Deitchman, MD – Rapporteur**

“The observations of this conference present a starting point for further discussion to refine and facilitate disaster research to improve future disaster responses.”



**Tom Kirsch, MD – Organizer**

“This has been a simple continuation of a conversation that’s been going on for a long time... we need evidence, we need science to go forward to increase our capability of protecting the lives and the health of our nation ... collaboration has to be between not just the disciplines but everybody...”



**Edward Gabriel, MPA**

“When you go to a scene of an incident, which I’ve done a lot of times in my career, and you stand in front of that incident, no one there is thinking study, nobody there is thinking analysis. What we’re thinking is how do I save the lives, where are my resources best deployed to, how to protect my people, what other things am I missing in terms of the response ?”

# NCDMPH

FY 2019 SNAPSHOT

The following snapshot highlights key focus areas of NCDMPH in FY 2019

 **DISASTER HEALTH  
CORE CURRICULUM**

More than 8,000 page views

## STOP THE BLEED

**18K** App Downloads

**39K** Website Views

**47K** YouTube Views

**15K** Reached via Webinars

**25**  Conferences



60 Active Engagements

16 Publications

Significantly increased social media engagement:

Nearly 3,000  Followers

2,000  Connections

600  Followers

44,537  Views/Likes

236  Subscribers

>48,000  Views

For more information about NCDMPH, visit [usuhs.edu/ncdmpH](http://usuhs.edu/ncdmpH), follow us on social media or subscribe to our: Twitter, Facebook, LinkedIn, Listserv or YouTube

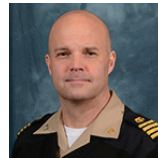
## STAFF

### Thomas Kirsch, MD, MPH, FACEP, Director



Dr. Kirsch brings over 30 years of domestic and global disaster health and public health experience to the National Center that enables him to strategically build partnerships and advance the NCDMPH vision and mission.

### CAPT Paul Reed, MD, Deputy Director



CAPT Reed (U.S. Public Health Service) has extensive experience in domestic and international humanitarian assistance and disaster response. He departed from the National Center in September to assume the role of Deputy Assistant Secretary for Health (Science and Medicine)

### Craig Goolsby, MD, MEd, FACEP, Science Director



Dr. Goolsby is an Air Force combat veteran who brings extensive experience in battlefield medicine, field training and medical education. He leads the Stop the Bleed and mass casualty portfolio, positioning NCDMPH as a key leader in the field. Dr. Goolsby received the Chairman's Award from the American Red Cross Scientific Advisory Council.

### Kandra Strauss-Riggs MPH, Education Director



Ms. Strauss-Riggs brings years of teaching and curriculum development experience to advance the NCDMPH education portfolio. She leads the education portfolio for the Center, focusing on working with partners to develop strategic vision for disaster health education. Ms. Strauss-Riggs is pursuing a PhD in health professions education.

### Kelly Gulley, MPH, Program Manager



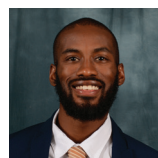
Ms. Gulley provides administrative project oversight to maximize the effective use of program resources. She is specifically responsible for budgeting/accounting, space management, personnel management, contracts, and purchasing. Ms. Gulley also participates in a wide range of research and educational programmatic activities.

### Alicia Acevedo, Administrative Assistant



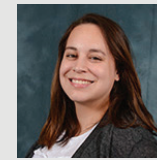
Ms. Acevedo provided programmatic and administrative support to the Center Director and other senior technical and professional staff, until departing the National Center in July 2019 due to spousal transfer.

### Aaron Hinton, Administrative Assistant



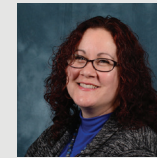
Mr. Hinton joined NCDMPH in August 2019 and provides programmatic and administrative support to the Center Director and other senior technical and professional staff. Mr. Hinton has several years of health care experience from providing both clinical and clerical support at Georgetown University Hospital.

### Nicole Dacuyan-Faucher, MPH, Project Manager



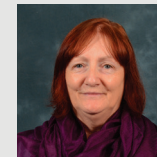
Ms. Dacuyan-Faucher continues to support activities to develop a research-informed novel hemorrhage control device under the Transforming Technology for the Warfighter (TTW) grant. She received a Superior Performance Award for her contributions to this project.

### Victoria Klimczak, Project Coordinator



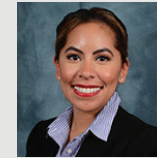
Ms. Klimczak received the NCDMPH Superior Performance Award for her outstanding contributions to numerous projects including Urban Outbreak tabletop exercise, Stop the Bleed Initiative and more. Presented a Stop the Bleed training workshop at the Preparedness Summit in St. Louis.

### Alice O'Donnell, Project Coordinator Strategic Projects



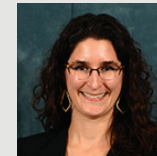
Ms. O'Donnell managed the NCDMPH funded Disaster Medicine and Public Health Preparedness journal until end of October 2018, then became a Project Coordinator and Communications Manager for Strategic Programs at the National Center. She received a Superior Performance Award for her work on "Disasters and Health: State of Science" symposium in April 2019.

### Norma Quintanilla, Project Assistant



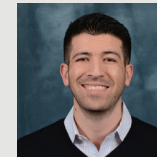
Ms. Quintanilla supports Disaster Health education at NCDMPH. She received a Superior Performance Award for her work in the "Disaster State of Science" symposium, the "Older Adult Curriculum" webinar with HHS/ASPR, the Stop the Bleed training with external partners, and the Disaster Health Core Curriculum.

### Raphaelle Rodzik, MPH, Project Coordinator



Ms. Rodzik supports our health and public health research efforts focused on the School Age Trauma Training project, which led to its selection and award of Phase 2 and Phase 3. She received a Superior Performance Award for successfully coordinating the effort.

### Luis Rojas, MS, Research Associate



Mr. Rojas supported our Stop the Bleed research efforts and received the Superior Performance Award in May for his exemplary support of multiple educational research projects. He also co-authored four papers. He left NCDMPH in September, 2019, to continue his research career at Walter Reed National Military Center.

### Kimberley Stout, Ed.D., LAT, ATC, EMT, EMT-T



Kimberly Stout is an Instructional Design & Assessment Specialist responsible for research and development of educational tools and curricula supporting the national School Age Trauma Training program. Dr. Stout is a nationally certified athletic trainer and emergency medical technician and has served on medical teams at the college and elite levels.



# COLLABORATION AND LEADERSHIP

The NCDMPH mission for collaboration and leadership is to: Engage and re-engage key internal and external partners to coordinate disaster research and education activities across the federal government.

The National Center was created as a collaborative entity; therefore, collaborating and coordinating across the federal government and with academic institutions is a primary goal.

- Lead and collaborate with government and nongovernment partners to advance disaster medicine and public health education and research agendas.
- Act as a neutral coordinator across federal, state, tribal, and local governments, academia and non-government associations and organizations.
- Convene experts from diverse professional backgrounds to identify disaster health issues and recommend policy solutions.
- Provide consultations to partners both internal and external to the federal government regarding disaster health education, training, and science.

## Overview of NCDMPH Stakeholders

Interagency collaboration is a foundational aspect of the National Center. A knowledge of and working relationship with key internal and external stakeholders is essential to the success of the National Center. The following depicts a snapshot of the National Center's collaborators, with an understanding that partnerships will continue to evolve and expand over time.

### Internal

#### Uniformed Services University

#### Armed Forces Radiobiology Research Institute (AFFRI)

- Department of Military and Emergency Medicine (MEM)
- Defense Health Horizons (DHH)
- Department of Preventive Medicine and Biostatistics (PMB)
- Health Professions Education (HPE)
- Center for Global Health Engagement (CGHE)
- Center for the Study of Traumatic Stress (CSTS)
- Leadership Education and Development Program

### External

#### Federal Government (original partners)

- Department of Defense (DoD)
  - Office of the Assistant Secretary of Defense for Health Affairs
  - Office of the Assistant Secretary of Defense for Homeland Defense and Global Security
  - Combatant Commands
  - Defense Health Agency (DHA)
  - Services: Army, Navy and Air Force Offices of the Surgeons General
  - National Guard Bureau
- Department of Health and Human Services (HHS)
  - Office of the Assistant Secretary for Preparedness and Response (ASPR)
  - Centers for Disease Control and Prevention (CDC)
  - National Institutes of Health (NIH)
  - National Library of Medicine (NLM)

- Department of Veterans Affairs (VA)
  - Veterans Emergency Management Evaluation Center (VEMEC)
  - Veterans Health Administration (VHA)
  - Office of Employee Education

#### VA Office of Emergency Management

- Department of Homeland Security (DHS)
  - Federal Emergency Management Agency (FEMA)
- Department of Transportation (DOT)
  - National Highway Traffic Safety Administration (NHTSA)
  - Federal government (other partners)
- National Institute of Standards and Technology (NIST)
- National Oceanographic and Atmospheric Administration (NOAA)
- U.S. Geological Survey (USGS)
- State and local governments

#### Academic Institutions

- Arizona State University (ASU) Public Health Law and Policy Program
- Brigham and Women's Hospital, Dept. of Emergency Medicine
- Cedars Sinai Medical Center, Los Angeles,
- Children's National Hospital
- Columbia University, National Center for Disaster Preparedness
- George Washington University, Department of Emergency Medicine
- George Mason University
- Harvard University, National Preparedness Leadership Initiative and Harvard Humanitarian Initiative

- Howard County General Hospital – a member of Johns Hopkins Medicine
- Johns Hopkins School of Public Health, Center for Humanitarian Health
- Johns Hopkins Applied Physics Laboratory
- National Center for Trauma and Emergency Medicine Research, Gertner Institute for Epidemiology and Health Policy Research, Tel-Hashomer, Israel
- Parkland Hospital, Dallas, Texas, Rees-Jones Trauma Center
- The University of Texas Southwestern Medical Center, Dallas, Division of Burns, Trauma and Critical Care
- University of Colorado, Natural Hazards Center
- University of Delaware, Disaster Research Center
- University of Hawaii, Pacific Disaster Center
- University of Massachusetts School of Medicine
- University of Virginia, Dept of Emergency Medicine

**Professional Associations**

- American Academy of Pediatrics (AAP)
- American College of Emergency Physicians (ACEP)
- American College of Surgeons (ACS)
- American Geophysical Union (AGU)

- American Nurses Association (ANA)
- American Public Health Association (APHA)
- Association of State and Territorial Health Officials (ASTHO)
- National Association of County and City Health Officials (NACCHO)
- National Environmental Health Association (NEHA)
- World Association for Disaster and Emergency Medicine (WADEM)
- Society for Disaster Medicine and Public Health (SDMPH)

**Other Partners**

- American Red Cross (ARC)
- Center for Disaster Philanthropy
- ChronAid International
- Henry M. Jackson Foundation for the Advancement of Military Medicine
- Trust for America’s Health
- National Academies of Sciences, Engineering, and Medicine (NASEM)
- InnoVital Systems, Inc
- Team Rubicon
- Through The Noise (US)

**Specific Collaborations Include:**

**Department of Defense**

NCDMPH further developed its relationship with the Department of Defense in 2019. Activities included:

**Supporting Military Readiness**

NCDMPH provides important readiness expertise to the Office of the Secretary of Defense for Policy (OSD-P), Office of the Assistant Secretary of Defense for Health Affairs, the Defense Health Agency, the Joint Chiefs of Staff, U.S. Combatant Commands and the National Guard Bureau. NCDMPH consults on DoD disaster preparedness exercises, provides opportunities to publish lessons learned and extends the military Tactical Combat Casualty Care principles into layperson training, facilitating the bridging of battlefield lessons to the American public. Additionally, NCDMPH consults on Humanitarian Assistance Disaster Response (HADR) activities and preparation with the federal government.



**Civilian-Military Partnership**

On September 17-18, 2019 NCDMPH partnered with the Civilian-Military Urban Outbreak tabletop exercise in collaboration with the Naval War College and the Johns Hopkins Applied Physics Laboratory. The goal was to identify and clarify issues related to an emerging infectious disease crisis in a large urban environment for civilian and military actors. Participants represented diverse fields (i.e. security, humanitarian action, health, infectious disease outbreaks, urban development), including:

- U.S. interagency (CDC, USAID, OFDA, DoD, DHHS)
- Non-governmental stakeholders (IFRC, NGOs [IMC, AmeriCares])
- Inter-governmental organizations (UN OCHA, WHO, UNHCR, IOM)
- Private sector
- Select partner nation militaries/agencies (UK, Germany, Australia, Argentina)
- Research community (select universities, NIH, UARCs)



## National Institute of Science and Technology

### Disaster Mortality and Morbidity Assessment Consensus Conference

Along with NIST, the National Center hosted a meeting of disaster scientists from a wide range of fields, including engineering, public health, health and sociology to discuss the optimum methods to assess direct and indirect deaths following hurricane Maria in Puerto Rico.

The National Center continued to collaborate with NIST on several studies to assess the impact of Hurricane Maria on hospitals and health care in Puerto Rico.



## National Alliance for Hazards and Disaster Science

Continuing with its efforts to be collaborative, the National Center played a critical role in the formation of the North American Alliance of Hazards and Disaster Research Institutes (NAAHDRI), a national association for university-based centers and institutes engaged in disaster-related science and education. After two years of formative work, NAAHDRI kicked-off its inaugural meeting in April 2019 following the Disasters and Health: State of Science Symposium in Washington, DC. NCDMPH was invited to serve on the 2020 Preparedness Summit Planning Committee, sponsored by the National Association of County and City Health Officials (NACCHO).



## NASEM

NCDMPH is a member of The National Academies of Sciences, Engineering, and Medicine (the National Academies) Health and Medicine Division (HMD) which established the Forum on Medical and Public Health Preparedness for Disasters and Emergencies (Forum) in 2007 to convene leaders from across the public and private sectors to improve the nation's preparedness for, response to, and recovery from disasters, public health emergencies, and emerging threats.



## Johns Hopkins University Applied Physics Laboratory – Urban Outbreak TTX and Critical infrastructure modeling

Harvard University – StB research.

## Memorandums of Understanding (MOU) With Academic Partners

The National Center has formal science and education agreements with the University of Hawaii Center for Excellence in Disaster and Johns Hopkins Applied Physics Laboratory.

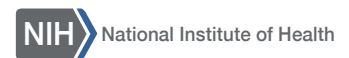


## Other Agencies

The National Center partnered with federal agencies on projects and activities including:

### NIH Disaster Research Response (DR2) Program

The National Center participated in the 5th annual Federal Interagency discussion on March 16. The meeting explored federal efforts for enhancing our collective ability to conduct timely health research in response to disasters and other time-critical situations.



### Walter Reed National Military Medical Center (NCR)

The National Center supported efforts to integrate Walter Reed into the regional trauma system.



## Expert Panels and Commissions Service

### Dr. Thomas Kirsch

- 2018- current National Construction Safety Team (NCST). National Institute of Science and Technology, U.S. Department of Commerce, Gaithersburg, MD
- 2018 ASPR Technical Expert Panel (TEP) "Assessing and Predicting Medical Needs in a Disaster". Dept. of Health and Human Services, Washington, DC
- 2019 Department of Health and Human Services, ASPR-TRACIE Mass Casualty Triage Expert Panel, Washington, DC
- 2019 Sub-PCC Integrating EMS Data into Hospital EMRs, National Security Council.

### Dr. Craig Goolsby

- 2018-present Vice Chair, Student Promotions Committee, School of Medicine, Uniformed Services University of the Health Sciences
- 2016-present Chair, Education Committee, Department of Military & Emergency Medicine, Uniformed Services University of the Health Sciences
- 2019-present First Aid Guideline Writing Group, American Heart Association
- 2019 Steering Committee Member, National Academies of Sciences, Engineering & Medicine Stop the Bleed Action Collaborative exploratory group
- 2018-2019 Planning Committee Member, National Prehospital Bleeding Control Research Agenda Summit, Harvard Medical School
- 2018-2019 Transition Leader, Military Health System conversion of resuscitative medicine training from American Heart Association to American Red Cross
- 2018-present Member, Innovation Council, American Red Cross Resuscitative Medicine Initiative
- 2018 Session Chair, Military Health System Research Symposium Planning Committee
- 2017-present Member & Defense Department Liaison, American Red Cross Scientific Advisory Council
- 2017-present Liaison Member, Committee on Tactical Combat Casualty Care
- 2017-present Director, Stop the Bleed Education Consortium
- 2016-present Member, National Academies of Science, Engineering & Medicine Forum on Medical and Public Health Preparedness for Catastrophic Events
- 2015-present Member, Federal Interagency Committee on Emergency Medical Services Evidence-Based Practice & Quality Committee

### Kandra Strauss-Riggs, MPH

- 2017 – present Member, Emergency Medical Services Agenda for the Future 2050 Federal Partner
- 2016 – present Member, National Pediatric Disaster Coalition Education Committee
- 2015 – present Member, Federal Interagency Committee on Emergency Medical Services, Systems Integration Committee
- 2015 – present Member, TRAIN Federal Partners Work Group





# DISASTER EDUCATION

The NCDMPH mission for disaster education is to:

- Identify educational needs in disaster medicine and public health preparedness and collaboratively create content to better prepare the nation.
- Lead the national disaster health and public health education agenda by creating evidence-based curricula objectives and content with academic partners and validating training activities.
- Create collaborative and coordinated activities with academic partners, professional organizations and the private sector.
- Integrate NCDMPH educational activities into the greater national health care preparedness and response framework.

The National Center has been working with partners to describe the current state of disaster health and public health education in the United States. These assessments will help direct future education efforts at the Center and across the field. The National Center is planning a “Disasters and Health: State of Education” symposium in early 2020.

The following studies were completed during FY19 and have been published or submitted for publication.

**Current state of online courses available to US disaster professionals** DOI: <https://doi.org/10.1017/dmp.2019.15>

This study characterizes U.S.-based disaster training courses currently available to disaster medicine and public health professionals and was accepted for publication in Disaster Medicine and Public Health Preparedness.

**Military Health System Preparedness in Humanitarian Action** [in press]

This article evaluates the current state of readiness of U.S. military medical personnel in the context of modern-day DoD policy with respect to humanitarian assistance/disaster response theoretical requirements with real-world precedent.

Upon publication citations will be posted to the NCDMPH website and social media. To learn more about NCDMPH’s research efforts or view links to previously published articles visit <https://www.usuhs.edu/ncdmph/research>

## DISASTER HEALTH CORE CURRICULUM

The “Disaster Health Core Curriculum” was launched online in May 2018. It is a free eight-hour, online training course consisting of 11 lessons covering a variety of disaster health topics, such as personal or family preparedness, communication, and ethical and legal issues encountered in disasters. The foundation for the “Disaster Health Core Curriculum” is “Core Competencies for Disaster Medicine and Public Health.” Designed for a wide range of health professionals who may play a role in a disaster, it offers continuing medical education (CME) and continuing nursing education (CNE) credits.

As of September 30, 2019, 543 healthcare professionals claimed continuing education credits for this activity.

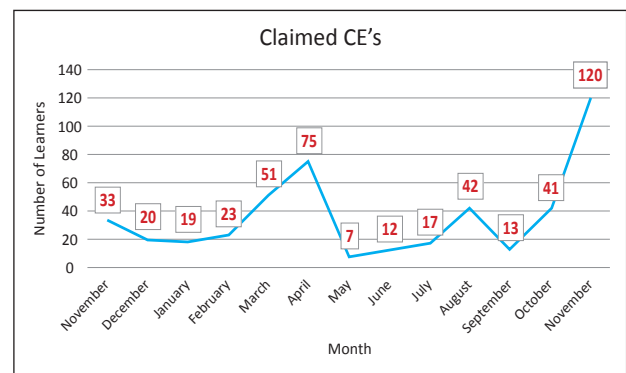
To learn more about the “Disaster Health Core Curriculum” watch the introduction at: <http://bit.ly/2mAwYbT> and visit <https://www.usuhs.edu/ncdmph/core-curriculum>.

### Educational Activities

The National Center’s educational activities include events and webinars designed to meet the needs of the disaster medicine and public health community.

### USU Teaching Contributions

NCDMPH staff engage with students across the Uniformed Services University of the Health Sciences, directing and teaching courses in domestic disaster preparedness and international humanitarian action as well as assisting with teaching a variety of courses for medical, nursing and other graduate students.



# PUBLICATIONS AND PRESENTATIONS

## Publications by NCDMPH Faculty and Staff

The National Center published 16 papers in peer-reviewed journals in FY2019.

### Journals

Charlton, N., Pellegrino, J., Kule, A., Slater, T., Epstein, J. Flores, G., **Goolsby, C**, Orkin, A., Singletary, E., Swain, J. 2019 *American Heart Association and American Red Cross Focused Update for First Aid: Presyncope*. *Circulation*. Accepted for publication.

Chaudhary MA, McCarty J, Shah S, Hashmi Z, Caterson E, Goldberg S, **Goolsby C**, Haider A, Goralnick E. *Building community resilience: A scalable model for hemorrhage-control training at a mass gathering site, using the RE-AIM framework*. *Surgery*. 2019 Apr;165(4):795-801. doi: 10.1016/j.surg.2018.10.001.

Goodwin T, Moore KN, Pasley JD, Troncoso R Jr, Levy MJ, **Goolsby C**. *From the Battlefield to Main Street: Tourniquet Acceptance, Use, and Translation from the Military to Civilian Settings*. *J Trauma Acute Care Surg*. 2019 Jan 18. doi: 10.1097/TA.0000000000002198

**Goolsby CA, Kellermann AL, Kirsch TD**. *Just-in-Time Instructions for Layperson Tourniquet Application*. *JAMA Surg*. 2019 Jan 30. doi: 10.1001/jamasurg.2018.5251

**Goolsby C, Rojas L**, Moore K, Kretz E, Singletary E, **Klimczak V**, Charlton N. *Layperson Ability and Willingness to Use Hemostatic Dressings: A Randomized Controlled Trial*. *Prehosp Emerg Care*. 2019 Mar 15:1-7. doi: 10.1080/10903127.2019.1593566.

**Goolsby C, Rouse E, Rojas L, Goralnick E, Levy MJ, Kirsch T, Eastman AL, Kellermann A, Strauss-Riggs K, Hurst N**. *Post-Mortem Evaluation of Potentially Survivable Hemorrhagic Death in a Civilian Population*. *J Am Coll Surg*. 2018 Nov;227(5):502-506. doi: 10.1016/j.jamcollsurg.2018.08.692.

**Goolsby C, Strauss-Riggs K, Rozenfeld M, Charlton N, Goralnick E, Peleg K, Levy MJ, Davis T, Hurst N**. *Equipping Public Spaces to Facilitate Rapid Point-of-Injury Control After Mass Casualty*. *Am J Public Health*. 2019 Feb;109(2):236-241. doi: 10.2105/AJPH.2018.304773.

Horn RB, **Kirsch TD**. *Disaster Response 2.0: Noncommunicable Disease Essential Needs Still Unmet*. *Am J Public Health*. 2018 Sep;108(S3):S202-S203. doi: 10.2105/AJPH.2018.304604.

Keim ME, **Kirsch TD**, Alleyne O, Benjamin G, DeGutis L, Dyjack D, Burkle FM Jr. *The Need for a National Strategy to Assess and Reduce Disaster-Related Mortality in the United States*. *Am J Public Health*. 2019 Apr;109(4):539-540. doi: 10.2105/AJPH.2019.304975.

Keim M, **Kirsch TD, Lovallo A**. *US governmental spending for disaster-related research, 2011-2016: Characterizing the state of science funding across 5 professional disciplines*. *Disaster Med Public Health Preparedness*, 1-8. 10.1017/dmp.2019.14. May 2019

**Kirsch TD, Keim M, Strauss-Riggs, K**. *Characterizing the current state of training courses available to US disaster professionals*. *Disaster Med Public Health Preparedness*. 1-7, 10.1017/dmp.2019.15. May 2019.

McCarty JC, Caterson EJ, Chaudhary MA, Herrera-Escobar JP, Hashmi ZG, Goldberg SA, **Goolsby C**, Lipsitz S, Haider AH, Goralnick E. *Can they stop the bleed? Evaluation of tourniquet application by individuals with varying levels of prior self-reported training*. *Injury*. 2019 Jan;50(1):10-15. doi: 10.1016/j.injury.2018.09.041.

Charlton, N., Solberg, R., Singletary, E., **Goolsby, C**, Rizer, J., Woods, W. *The use of a "CPR posture" for hemorrhage control*. *International Journal of First Aid Education*: January, 2019. Vol. 2: Issue 1. <https://digitalcommons.kent.edu/ijfae/vol2/iss1/6>

Keim M, **Kirsch TD, Lovallo A**. *A comparison of US federal government spending for research and development related to public health preparedness capabilities, 2008-2017*. *Disaster Med Public Health Preparedness*. 2019. DOI: 10.1017/dmp.2019.66

TariVerdi M, Miller-Hooks E, **Kirsch T, Levin S**. *A Resource-Constrained, Multi-Unit Hospital Model for Operational Strategies Evaluation under Routine and Surge Demand Scenarios*, *IISE Transactions on Healthcare Systems Engineering*. 2019;9(2): 102-119. DOI: 10.1080/24725579.2019.1584132.

Horn RB, **Kirsch TD**. *Disaster Response 2.0: Noncommunicable disease essential needs still unmet*. *AJPH* 2018;108(53):S202-3.

### Pending and Submitted Publications

Barnett DJ, **Strauss-Riggs K, Klimczak VL, Rosenblum AJ, Kirsch TD**. *An Analysis of After Action Reports from Texas Hurricanes in 2005 and 2007* [In Press]

Deitchman S, Peek L, and **Kirsch TD**. *Disasters and Health: State of Science Proceedings*. 2019. *Disaster Medicine and Public Health Preparedness* [In Press]

**Reed P and Kirsch TD**. *Military Health System Preparedness in Humanitarian Action*. *Joint Forces Quarterly*. 2019

**Reed P, Laib J, Strauss-Riggs K, Kirsch TD**. *Humanitarian Assistance and Disaster Relief Competencies and Training Pertinent to the Military Health System*. *Military Medicine*. 2019.

**Kirsch TD, Reed P, Sauer L**. *Strengths, Weaknesses, Opportunities and Threats that Impact Disaster Health Research*. *Prehospital and Disaster Medicine*. 2019.

Bodas M, **Kirsch TD, Peleg K**. *Top Hazards Approach – Rethinking the Appropriateness of the All-Hazards Approach in Disaster Management*. *Intl J Risk Management*, 2019.



## Books/Book Chapters

Shahpar C, **Kirsch TD**. In Townes DA, Gerber M, Anderson M (ed.), *Health in Humanitarian Emergencies: Principles and Practice for Public Health and Healthcare Practitioners*. Cambridge University Press, 2018.

James J. James, **Alice B. O'Donnell**, and Donald A. Donahue. In M.M.G. Olivier, C.C. Croteau-Chonka (eds.), *Global Health and Volunteering Beyond Borders: A Guide for Healthcare Professionals*. Springer Nature Switzerland AG, 2019 doi: 10.1007/978-3-319-98660-9\_11

Goodwin, T., Ellis, K., **Goolsby, C.** *Approach to the Emergency Patient. Fundamentals of Military Medical Practice. Borden Institute*. Fort Sam Houston, TX. 2019.

## Webinars

The National Center hosted or participated in the following webinars on specific disaster health topics for its stakeholders:

**"Tools to Help Care for Older Adults in Disasters"**  
(May 29, 2019)

Co-sponsored by NCDMPH and ASPR. Presenters were Dr. C.A. Levine, Senior Advisor for At-Risk Individuals at ASPR and **Kandra Strauss-Riggs, MPH**, Education Director at NCDMPH. Almost 400 individuals pre-registered, with 200 participating live. The event was recorded and posted online as well as distributed via Social Media. <https://www.usuhs.edu/content/tools-help-care-older-adults-disasters>

**"Interview with Dr. David Callaway, Team Rubicon,"** by **Dr. Thomas D. Kirsch**, NCDMPH (September 13, 2019)

Dr. Callaway provided reported from the Team Rubicon unit deployed to the Bahamas in response to Hurricane Dorian. The event was recorded and posted online as well as distributed via Social Media. <https://www.youtube.com/watch?v=UGzx0oxkll0>

## Podcast

"Through the Noise" is a "light and entertaining podcast that explores the business of communication." **Dr. Thomas D. Kirsch** was invited to the studio to share information on the role of NCDMPH in preparing the Nation for catastrophic events. The podcast is on LinkedIn #475 <https://throughthenoise.us/mediacast/475-dr-thomas-kirsch-executive-director-of-the-national-center-for-disaster-medicine-and-public-health/>.

## Interview

ClimateWire (4/5/19). Harvey spared homes built to new codes, flood maps. Available at: <https://www.eenews.net/climatewire/2019/04/05/stories/1060143891>.

## Professional Association/ Meeting Presentations and Participation

The National Center staff share information about the NCDMPH and its work through participation and speaking engagements at relevant local and national events. In FY 2019, NCDMPH staff spoke at or participated in more 30 events. Highlighted below are key events/meetings:

October 4, 2018 – Stop the Bleed: Battlefield Lessons for Hemorrhage Control Before the ED American College of Emergency Physicians Scientific Assembly, San Diego, CA. **Dr. Craig Goolsby**

November 9, 2018 - Stop the Bleed: Education & Training Guidelines, and Stop the Bleed: Tourniquets. National Academies of Sciences, Engineering, and Medicine, Washington, DC **Dr. Craig Goolsby** and **Victoria Klimczak**

November 13, 2018 - Stop the Bleed: Cutting Edge Science, Education, and Outreach Empowering the Public to Save Lives. Center for Disaster Medicine Symposium, New York Medical College, Valhalla, NY. **Dr. Craig Goolsby**

November 2018 - Charlton, N., Solberg, R., Rizer, J., Woods, W., Singletary, E., **Goolsby, C.** Abstract 263: *CPR Posture for Life-Threatening Bleeding*. *Circulation*. Nov. 2018; 138:A263.

January 6, 2019 – American Meteorological Society "Hurricanes and Health: When will we stop... smarter" **Dr. Thomas D. Kirsch**

January 17, 2019 – "Historic Summary of Disaster Science Activities in the USA", NASEM Action Collaborative on Disaster Research (#1) **Dr. Thomas D. Kirsch**

January 19, 2019 - American Red Cross Scientific Advisory Council Meeting, Washington, DC. **Craig Goolsby**

January 24, 2019 - ASPR TRACIE Mass Casualty Triage White Paper Workshop. **Dr. Thomas D. Kirsch**

January 31, 2019 - DOD, Integration and Exercise Workshop (IEW) – **Dr. Thomas D. Kirsch** and **Capt. Paul Reed**

February 6, 2019 - NASEM Forum on Medical and Public Health Preparedness for Disasters and Emergencies – **Dr. Thomas D. Kirsch**

February 27, 2019 – National Prehospital Bleeding Control Research Agenda Summit, Harvard Medical School, Boston, MA, Stop the Bleed (STB) Research Agenda – **Dr. Craig Goolsby** and **Luis Rojas**

March 3, 2019 - Innovations in Technologies to Extend the Golden Hour. Hemostatic Medical Devices, NIH, Bethesda, **Dr. Craig Goolsby**

March 5, 2019 - NDIA/JHU APL National Health Symposium, **Dr. Thomas D. Kirsch** and **Capt. Paul Reed**

March 8, 2019 - Consortium of Universities for Global Health Annual Conference, **Dr. Thomas D. Kirsch**

March 27, 2019 – Preparedness Summit – 2 Presentations – **Kandra Strauss-Riggs, Victoria Klimczak and Norma Quintanilla. Alice O’Donnell** attended as reporter/social media commentator.

March 21-22, 2019 - Innovations in Technologies to Extend the Golden Hour. Hemostatic Medical Devices (panel chair)  
**Dr. Craig Goolsby.**

April 5, 2019 - Sixth Annual Federal Interagency Disaster Research Meeting, **Dr. Thomas D. Kirsch**

April 16-18, 2019 - Indo-pacific Research Alliance for Military Medicine “Strategic Partnership Session” – **Drs. Thomas D. Kirsch, Craig Goolsby, and Capt. Paul Reed**

April 25-26, 2019 – Disasters and Health: State of Science Symposium, **Dr. Thomas D. Kirsch.** All NCDMPH staff attended

April 26, 2019 - Meeting of the North American Alliance for Hazards and Disaster Research Institutes. **Dr. Thomas D. Kirsch**

May 14, 2019 – FEMA (EMI) – 2 Presentations by **Kandra Strauss-Riggs:** The Current State of University-Based Disaster Management Courses in the U.S. and Opportunities & Disaster Health Core Curriculum

May 14-19, 2019 - Society for Academic Emergency Medicine (SAEM). **Dr. Craig Goolsby** presented

May 15, 2019 – **Goolsby, C., Rojas, L., Moore, K., Kretz, E., Singletery, E., Klimczak, V., Charlton, N.** Layperson Ability and Willingness to Use Hemostatic Dressings: A Randomized, Controlled Trial. Uniformed Services University Research Days

May 20-23 – 2019 Train Annual Meeting.- **Kandra Strauss-Riggs -** Panel Building Bridges between Public Health & Clinical Care

May 23, 2019 – **Victoria Klimczak,** Stop the Bleed demo

June 3, 2019 - 21st Annual Emergency Management Higher Education Conference (EMI). **Kandra Strauss-Riggs** presented. **Victoria Klimczak** attended.

June 6, 2019 - American Red Cross Scientific Advisory Committee Meeting –**Craig Goolsby**

June 10, 2019 – National Biodefense Science Board (Core Competencies in Disaster Health) – **Kandra Strauss-Riggs**

June 11, 2019 - NASEM Forum on Medical and Public Health Preparedness for Disasters and Emergencies. **Dr. Thomas D. Kirsch**

June 19-23, 2019 – HOSA Conference, Orlando. **Dr. Craig Goolsby, Luis Rojas, Victoria Klimczak, Raphaelle Rodzik,** Nicole Dacuyan. Conducted research at event.

July 16, 2019 - 2019 Youth Preparedness Council Summit @ American National Red Cross (HQ). **Raphaelle Rodzik.**

July 16 - Call to Action: Collaborating to Advance Disaster Research. Natural Hazards Workshop. **Dr. Thomas D Kirsch,** Panelist

July 17 2019 – National Biodefense Science Board (NBSB) Disaster Working Group (radiation emergency focus). **Dr. Thomas D. Kirsch**

September 13, 2019 Keynote: Military to Civilian Knowledge Translation Disaster Medicine Symposium, Linkoping University, Linkoping, Sweden, September 12, 2019. **Dr. Craig Goolsby**





# LOOKING FORWARD: 2020 PRIORITIES

As we move into 2020, we continue to focus and plan activities and projects which fall under the National Center's mandate set under HSPD 21. We very much look forward to further expanding our unique interagency and academic position to empower scientists and educators to protect our nation's health from disasters. With an ever-growing, dedicated and talented team, we will endeavor to achieve our founding mission.

## COLLABORATION

- National Defense Authorization Act 2020: NCDMPH has been identified in the NDAA as the interagency coordinator between DHA and HHS ASPR on regional hospital preparedness.
- Partnership with the DoD to survey existing examples and work to develop health systems modeling that will benefit DoD planning for preparedness
- Collaboration with the U.S. Navy War College, U.S. interagency and other academic and non-governmental partners to develop and deliver an operational-level simulation exercise focused on the roles of military and civilian responders to an emerging public health crisis in an urban environment.

## SCIENCE

- Use the \$2 million Transforming Technology for the Warfighter Grant to develop a novel hemorrhage control device with partners from Harvard-Brigham and Women's Hospital, Mayo Clinic, Linkoping University in Sweden, and InnoVital Systems, Inc.
- The Center received a phase I grant to design and develop a School-Age Trauma Training for mass casualty events. The training will focus on enhancing the ability of students to take action to assist victims with injuries and ultimately help save lives.
- Pursue grant opportunities to further conduct research and develop tools for disaster science and education as well as related public health efforts.

## EDUCATION

- Offer continuing education credits (CME) and continuing nursing education (CNE) credits for the "Disaster Health Core Curriculum," a free, online training program for health professionals covering the "Core Competencies for Disaster Medicine and Public Health."
- Continue to lead the Stop the Bleed Education Consortium and educate lay people on how to stop the bleed and how to use a tourniquet.
- Engage with graduate students, directing and teaching two disaster health courses at the USU School of Medicine, as well as assisting with teaching other courses across the university.
- Identify and host Disaster Science Student Rotation and Visiting Scholars to provide opportunities to collaborate and engage with recent graduates and practicing professionals.
- Publish strategically for the benefit of the field.

## MEETINGS and WORKSHOPS

- Host events and webinars including: - Convene a Disasters and Health: State of Education meeting to identify the needs of educators in order to provide a collaborative forum that can work to address the community's needs.
- Conduct an interagency workshop to develop best clinical practices for responding to mass-shooting events.





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