



The University of Maryland

Center for Health & Homeland Security

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Director's Message

By Michael Greenberger, CHHS Founder and Director



Founder and Director Michael Greenberger, JD

Entering our eighteenth year, the University of Maryland Center for Health and Homeland Security (CHHS) continues its dedicated service in the fields of emergency management, emerging infectious diseases, cybersecurity, and homeland security. Our staff of over 40 professionals work on more than 90 contracts worldwide. In conjunction with the Maryland Carey School of Law, we also run and teach in well-attended graduate school programs, training professionals to fill the many public and private careers available in cybersecurity and crisis management.

Our principal mission is to assist public and private institutions nationally and internationally to prepare for and respond to devastating crises, including terror and cyber attacks, emerging infectious disease outbreaks, and threats from intensifying adverse weather conditions.

Our work building and bolstering community resilience is particularly key in light of the unique challenges presented by climate change.

Over these last few months, our country has seen widespread and devastating impacts from flooding, wild fires, and other forms of severe weather. The public is confronted on a daily basis in the media and online with scenes of towns and cities, residences, businesses, roads, and farmland decimated by drought, wildfires, or with mountains of water, especially occurring in these last few weeks in the country's middle regions. The financial and personal losses are in the billions of dollars, and often not fully covered by insurance or eligible for federal recovery funds.

What is most concerning is that these adversities are happening with a frightening frequency and their recurrence comes with steadily increasing strength and damage.

In our own "backyard," we have a prime example of these changing weather patterns. In 2016, Ellicott City (in nearby Howard County, Maryland), which is a charming and highly popular tourist attraction situated along the Patapsco

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CHHS Staff



First Row (*left to right*): Christine Gentry, Senior Law & Policy Analyst; Megan Timmins, Associate Director; Michael Greenberger, Founder & Director; Heather Shaivitz, Associate Director; Tiffany Smith, Policy Analyst

Second Row (*left to right*): Maggie Davis, Senior Law & Policy Analyst, Hannah Preston, Extern; Talishiea Croxton, Extern; Kathleen Petrie, Extern; Alexandra LaFree, Extern; Felicia Langel, Extern

Third Row (*left to right*): Jihane Ambroise, Senior Policy Analyst; Clark J. Lee, Senior Law & Policy Analyst; Hassan Sheikh, Senior Law & Policy Analyst; Ketevan Vashakidze, Extern; Nicole Kulaga, Law & Policy Analyst; Netta Squires, Senior Law & Policy Analyst; Tyler Babich, Law & Policy Analyst

Fourth Row (*left to right*): Samantha Durbin, Policy Analyst; Christopher Webster, Public Safety Technology Program Director; Joe Corona, Senior Policy Analyst; Matilda Channel-Ward, Senior Accountant; Trudy Henson, Public Health Program Director; Kim Stinchcomb, Senior Policy Analyst; Zachary Birnbaum, Extern

Fifth Row (*left to right*): Kyle Cleavinger, Extern; Jason Rubinstein, Senior Law & Policy Analyst; Michael Tennison, Senior Law & Policy Analyst; Markus Rauschecker, Cybersecurity Program Director; Jonathan Lim, Senior Law & Policy Analyst; Eric Oddo, Continuity Program Director; Danyel Hafeez, Senior Policy Analyst; Ian Hamilton, Senior Policy Analyst; Ben Yelin, Senior Law & Policy Analyst/Public Relations Specialist; Shanna Batten, Community Resilience Initiatives Program Director

Staff not Pictured: Michael Vesely, Academic Program Director; Jeanne Stringer, Coordinator; Sarah Wetter, Law & Policy Analyst; Patrick Fleming, Senior Policy Analyst; Ellen Cornelius, Senior Law & Policy Analyst

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Director's Message (continued)

Continued from cover

River, was hit by catastrophic flooding in what was described as a "1,000-year storm," causing officials and the public to assume it to be an extremely rare occurrence and to think time was on their side. After the devastation, CHHS worked with Howard County in its response and recovery efforts not only to address the 2016 storm damage, but to build a robust recovery program in the County. Unfortunately, not even two years later, as affected businesses were re-opening and mitigation efforts were underway, Ellicott City was hit yet again by an almost identical storm, resulting in catastrophic flooding that almost completely undid the previous recovery efforts.

The lesson learned is that the country must reflect on how we can better build for a climate-resilient future. As we have seen over the last few years, appropriating the trillions of dollars needed in federal taxpayer funding for disaster recovery is now a constant and highly publicized source of debate and tension in Congress and between Congress and the President. The same concerns take place in states and localities across the country. The storms and flooding are so bad and so repetitive that, as soon as funds and resources are set aside, they are depleted.

Overwhelmingly, the scientific community predicts that these climate-driven incidents will continue to occur, even more frequently and intensely. The country must quickly

identify opportunities to mitigate the climate-related environmental, health, and social risk factors that contribute to the devastating effects of climate change. While carbon reduction is key, there are partial, but very effective, remedial actions that are immediately within our expertise and reach.

For instance, we now know that both low income individuals, who are particularly vulnerable during these kinds of emergencies, and economically-disadvantaged cities have significantly higher exposure to catastrophic adverse weather events because of the Nation's crumbling infrastructure. Vastly increased funding and planning for rebuilding the country's infrastructure, as well as the related protection of vulnerable populations, is now more important than ever. These efforts can no longer be ignored.

We are redoubling our own efforts to put ourselves and our clients at the forefront of community planning focused on mitigation of and resilience to extreme weather events.

For example, our staff has begun enrolling in the Climate Change Professional Prep Course ("CC-P®") sponsored by the State of Maryland's Climate Leadership Academy. The CC-P® curriculum is designed to teach working professionals how to incorporate climate change solutions into workable policies and procedures that mitigate climate change and its impacts. To date, four of our staffers are enrolled in CC-P® and they find



CHHS headquarters, located in downtown Baltimore.

the course invaluable to our planning and response efforts. More of our staff will soon follow their lead.

We are also incorporating our newly gained climate change knowledge across our graduate school Crisis Management curriculum. In that regard, we are greatly aided by the fact that the Maryland Carey School of Law has a nationally recognized environmental curriculum and the environmental law faculty are helping us in our climate change efforts.

With your continued support, we are furthering our own nationally recognized credentials as being at the very forefront of disaster response field work and scholarship.

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Enjoy the newsletter!

CHHS IN FOCUS: Academics

CHHS Develops Innovative Programs at the University of Maryland, Baltimore

CHHS and the University of Maryland Francis King Carey School of Law work together to provide students with cuttingedge academic credentials in crisis management and cybersecurity. Currently, CHHS delivers courses for JD, LLM, and MSL students. One of this year's highlights has been the introduction of two new courses, developed and taught by CHHS: "International Law and Cybersecurity," which focuses on international aspects of cybersecurity, and a "Cyber Boot Camp," which is an opportunity for law students to become more familiar with basic technical issues in cybersecurity.

CHHS externships continue to afford our students an opportunity to gain practical experience working on many different issues. This past year our externs helped draft cyber legislation for the Maryland General Assembly, provided legal analysis to the Maryland Opioid and Operation Command Center, developed new initiatives for community resiliency amidst concerns of radicalization and homegrown terrorism, and supported the



Cybersecurity Program Director Markus Rauschecker, Founder & Director Michael Greenberger, Senior Law & Policy Analyst Ben Yelin and Academic Program Director Michael Vesely prepare for Graduation at Maryland Carey Law.

Ellicott City 2018 flood recovery efforts, to name but a few. We are gratified by the dedication and hard work exhibited by all of our students.

Finally, last Spring, CHHS and Maryland Carey Law, embarked on a bold adventure as the cybersecurity and crisis management tracks transitioned from a residential program to one that is completely online. One year later it is evident that this transition has been a success; with both fall and spring start dates we have expanded our graduation numbers. The timing could not be better as the workforce sorely needs people with the skillset the MSL program provides.

Commencement 2019: **CHHS Bids a Fond Farewell** to its Graduating Class

MSL Graduates

It is hard to believe that it was only last spring (2018) when CHHS was congratulating the inaugural class of online graduates; these intrepid scholars were members of the cybersecurity track. Since that time we have been fortunate to see the first group of crisis management students (Samantha Brann, Kenneth Brenneman, Marshall Matsiga, Eileen Mayer, Marissa McDonough, and Kendra Whitted) and a second cadre of cybersecurity students (Tiffany Baker, Erik Dullea, Meredith Esham, David Ferguson, Maia Tucker, Courtney Wolfe, and Melissa Yeardon) graduate in December 2018.

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Summer • 2019



Faculty and students celebrate the accomplishment of Maryland Carey Law students who graduated with either a JD Certificate in Cybersecurity and Crisis Management Law or LLM with a concentration in Cybersecurity and Crisis Management. Pictured above (from left to right): Lindsay Rausch (LLM), Academic Program Director Michael Vesely, L. Teri Spradlin (LLM), Kyle Cleavenger, Public Health Program Director Trudy Henson, Keith Levasseur, Sarah Hunt, Adam Siegel, Adam McCormick (LLM), Mark Cather, John Travers, Courtney Bennett, Cybersecurity Program Director Markus Rauschecker, Founder & Director Michael Greenberger.

Just as we were getting over the departure of these students, spring graduation was upon us and we were forced to bid farewell to another class of students. This graduating class constituted of our third group of cybersecurity students (Arsalan Ahmad, Chad Anderson, Joseph Brunsman, Sydney Davis, Donald Geiter, Tara Gonzalez, Evan Gould, Michaelle Landais, Kimberly Rupert, and Christopher Van De Verg) and second group of crisis management students (Sherry Bohn, Brandon George, Marla Goldberg, and Ellen Rigterink).

JD and LLM Graduates

The University of Maryland, Baltimore 2019 Commencement Exercises exhibited the continued growth of the specialty program that CHHS and Maryland Carey Law have developed for JD and LLM students. This year, fourteen JD students (Courtney Bennet*, Mark Cather, Kyle Cleavenger, Sarah Hunt, Nicole Kulaga, Eric Manski, Kirby McMahon, Jiah Park, Alec Prechtel, Charles Richardson, Adam Siegel, John Travers, Nicholas Vogt, and Vanessa Zehnder) were able to satisfy the requirements for the Certificate in Cybersecurity and Crisis Management Law. This credential is awarded on top of their juris doctorate and denotes mastery in this area of law. Earning this certificate demonstrates that these graduates have specialization beyond the ordinary course of study.

In addition to these graduates, three LL.M students completed a concentration in cybersecurity and crisis management law while completing their degree (Adam McCormick, Lindsay Rausch, and L. Teri Spradlin).

These graduates leave the law school and enter a world that looks very different from the one that existed when they began their studies. Climate change, cyberattacks, terrorism, natural disasters, and pandemics are featured in the news almost daily. All of these issues present problems that require immediate attention and offer no easy solutions. Debate rages about what course of action, if any, should be taken to ameliorate or resolve these issues. Although solutions are not immediately apparent, what is indisputable is that individuals who can think critically, exercise sound judgement, and devise novel and innovative solutions are desperately needed. The graduates of Maryland Carey Law of are uniquely qualified to join this brave new world. We can't wait to see what they accomplish.

* Graduated December 2018

CHHS IN FOCUS: Recovery

EMI Focus Group

CHHS is continually called upon to provide subject matter expertise in both pre-disaster and post-disaster recovery planning and implementation. In November 2018, the National Emergency Man-agement Institute (EMI) conducted a focus group on FEMA's recovery curriculum. The objective of the week-long session was to revamp the curriculum to be more cohesive and include lessons learned over the past several years. CHHS Recovery Program Director Lisa Crow had the distinct honor of being one of the subject matter experts invited to serve on the focus group. Updates to the way training will be shaped nationally will come as a result of the focus group's efforts.

IAEM Annual Conference

On October 24th 2018, CHHS Recovery Program Director Lisa Crow presented at the 66th Annual International Association of Emergency Manager's Conference in Grand Rapids, Michigan. The presentation included the story of the two historic Ellicott City floods and walked attendees through all phases of pre-disaster planning and post-disaster recovery: shortterm, intermediate, and long-term. Crow also shared personal insights into and lessons learned from handling recovery after the catastrophic storms, including a focus on how individual efforts can greatly influence an organization's overall recovery program.



Recovery Program Director Lisa Crow and Maryland State National Capital Region Program Manager Blake Langford present on recovery efforts following the Ellicott City floods at FEMA's Field Leader Apprenticeship Program in March, 2019.

Howard County Recovery Plan

Following the 2018 Ellicott City flood, the Howard County Office of Emergency Management undertook the revamping of the County's Emergency Operations Plan and development of the Pre-Disaster Recovery Plan as a consolidated effort. CHHS led the development of the Recovery Plan by drafting the Recovery Chapter, Recovery Toolkits, and specific County Coordinating Functions. In addition to the development of the Recovery Plan, CHHS Recovery Program Director Lisa Crow fa-cilitated a workshop on the Recovery Plan to the County's Emergency Management Operations Group.

Prince George's Response and Recovery Plan

CHHS is working with the Prince George's County Office of Emergency Management on updating the County's Response Plan and developing a Recovery Plan through a unified approach, similar to the model that Howard County undertook. The team, led by Crow, includes CHHS Law & Policy An-alyst Tyler Babich and Policy Analyst Ian Hamilton. They are working with the County's stakeholders to lead a series of work sessions throughout the summer to develop County Coordinating Functions and Appendices needed to carry out response and recovery activities throughout the County.





Recovery Program Director Lisa Crow and Policy Analyst Ian Hamilton conduct workshops with stakeholders in Prince George's County as part of the development of the County's Response and Recovery Plan.

Montgomery County Pre-Disaster Recovery Plan

CHHS is working with the Montgomery County Office of Emergency Management and Homeland Security on revamping the County's Pre-Disaster Recovery Plan. The overhaul of this Plan has included engagement with the County's stakeholders who have a prominent role in carrying out

specific recovery functions. Because the circumstances of recovery are specific to the incident, the Plan will be flexible and adaptable to any type of hazard that impacts different geographic areas throughout the County. This revised Plan also offers the County a proactive element by including job aides and templates that will allow the Plan to become operational very quickly.

FEMA Training

On March 29th, Crow presented with the Maryland Emergency Management Agency's Blake Langford on handling recovery efforts following the 2016 and 2018 Ellicott City floods at FEMA's Field Leader Apprenticeship Program for trainees. The apprentices underwent a week-long training program in order to be prepared for deployment as the appointed Federal Coordinating Officer during a declared Presidential Disaster. During the presentation, trainees participated in an interactive discus-sion on how they could better serve local jurisdictions and to have a better understanding of FEMA's role in supporting recovery efforts.

Baltimore Urban Area Security Initiative Briefing

On April 24th, Crow provided a briefing to the Baltimore UASI's Recovery Committee on developing a robust Recovery Program that included how to develop a plan and implement planning components. The seven jurisdictions that comprise the UASI learned about the key obstacles in developing a program and methods for overcoming these obstacles.



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CHHS IN FOCUS: Public Safety Technology



Public Safety Technology Program Director Christopher Webster works with clients to navigate the challenges of technology systems and provides strategic planning and guidance for future investments.

Credentialing Emergency Responders

For the past few years, CHHS Public Safety Technology Director Christopher Webster has been working closely with the Foundation for Trusted Identity (FTI) and the Southwest Texas Regional Advisory Council for Trauma (STRAC) to tackle one of the biggest challenges facing public safety today - Credentialing. Emergency response requires the coordination of response agencies and personnel from local, state, and federal agencies, as well as private hospitals and medical service providers. When all of the response personnel providing assistance are carrying their own unique agency-specific identification, managing authentication and authorization can be nearly impossible.

The situation is complicated, even on a day-to-day basis, as these diverse organizations need to securely share critical data across trust-boundaries, access common web-portals, and authenticate each other's personnel for physical access. Often organizations are forced to rely on antiquated and easily hacked username and password schemes as network "security" and rudimentary visual inspection of badges or ID cards for building access. Things get even more complex when a disaster strikes, and personnel from agencies far and wide arrive to provide mutual aid, each bringing an unfamiliar ID card or badge of their own. All of this adds up to a credentialing nightmare that can only be resolved with a secure, interoperable, federally-recognized credential.

Recognizing this challenge, and hoping to better secure federal data systems and facilities, the federal government introduced the "Personal Identity Verification Interoperable" or PIV-I standard. PIV-I defines how non-federal organizations can issue secure, interoperable, credentials built on state-of-the-art cryptographic Public Key Infrastructure (PKI). Each PIV-I card contains a digital encryption certificate that can be traced back to, and verified against, a federal certificate authority. This means PIV-I card holders can not only have their cards easily recognized when accessing secure federal systems and facilities, but also quickly and easily verify each other's PIV-I cards even if their organizations have no formal relationship.

Even though the PIV-I standard has existed for years, the adoption rate of PIV-I cards among emergency management and first response agencies has been relatively low due to the technical challenges and cost of issuing PIV-I cards. But that is changing! To help tackle the technical and practical challenges of getting PIV-I cards in the hands of responders, the Southwest Texas Regional Advisory Council for Trauma (STRAC) created the STRAC Bridge Certification Authority (CA). Since 2017, state, local, and tribal response agencies have been able to start using PIV-I credentials issued by STRAC Bridge CA affiliate Foundation for Trusted Identity (FTI).

1, 2, OR 3 FACTOR AUTHENTICATION







Card & PIN (2 factor)



Card & PIN & Print (3 factor)

Via the STRAC Bridge CA, emergency responders arriving at Joint Operations Centers prove their identities quickly and reliably by scanning their PIV-I credentials on mobile validation devices to support events as varied as hurricane response and the State of the Union Address. Through this application, the federal and non-federal responder agencies have awareness and accountability of their resources before, during, and in the aftermath of a disaster response. Similarly, state, local, and tribal emergency personnel use the Homeland Security Information Network (HSIN), for which smart card logon is enabled.

The STRAC Bridge CA also helps state, local, tribal, and territorial entities interact with their federal government partners via physical access. When PIV-I cardholders visit a federal facility where they have been enrolled, they use their FTI PIV-I certificates to gain access to the building. For example, staff from the Texas General Land Office use their cards to gain access to the Texas Joint Field Office (a federal facility) to support the ongoing

Hurricane Harvey recovery effort. The Federal PKI gains tremendous positive exposure this way as more than a few of those cardholders are leaders of state agencies visiting federal agency headquarters in D.C. (such as Interior and DHS) greatly appreciate bypassing the usual timeconsuming screening process.

In addition to benefiting from the traditional trust relationship provided by the Federal Public Key Infrastructure ecosystem, response agencies can also use FTI PIV-I cards to meet less specific federal security requirements. The Missouri State Highway Patrol (MSHP), for example, has integrated FTI PIV-I certificates for use in its mobile VPN solution and accesses Criminal Justice Information Services (CJIS) subject to the CJIS Security Policy, which contemplates two-factor authentication. MSHP subscribers can use their cards to achieve two-factor authentication and improve the security of their interaction with the federal government via CJIS.

CHHS is excited to continue helping STRAC and FTI put PIV-I credentials in the hands of emergency management professionals, first responders, and healthcare providers nationwide.



CHHS IN FOCUS: Public Health

Maryland Region V Full Scale Exercise

CHHS facilitated the Region V
Emergency Preparedness Coalition's
Full-Scale Medical Surge exercise
on May 23, 2019. Comprised of
hospitals, health departments, and
other healthcare providers within
Calvert, Charles, Montgomery,
Prince George's, and St. Mary's
Counties the Maryland Region V
Emergency Preparedness Coalition's
mission is to "provide a process for
collaborative preparedness, planning
and response to incidents across
Region V through partnerships,
resource building and sharing."

The 2019 Full Scale Exercise drew from two real-world events: the 2011 tornado in Joplin, Missouri and the 2002 tornado in La Plata, Maryland. This year's scenario contemplates the effects of an F0-F1 tornado touching down in a densely populated area of Prince George's County and catastrophically damaging a large hospital. As a result, exercise players simulated a medical surge from both the storm, as well as simulated patient transfers from the damaged facility.

Using a mix of live actors and mannequins, each of the seventeen hospitals and medical centers and five health departments playing practiced scaling up for and responding to a medical surge incident. The Coalition tested their regional communication and regional resource management plans to identify gaps in the current planning assumptions



CHHS staff traveled to St. Louis for the Preparedness Summit this Spring. Senior Law & Policy Analyst Clark J. Lee, Public Health Program Director Trudy Henson, Senior Law & Policy Analyst Maggie Davis, Public Safety Program Director Christopher Webster, and Senior Policy Analyst Joe Corona take some time out to visit the world-famous Arch.

and develop recommendations to improve future regional communication and resource management. Amateur Radio Emergency Services (ARES) played inside a number of the hospitals, demonstrating their ability to provide a critical "last resort" communication channel.

Senior Law and Policy Analyst
Maggie Davis led the CHHS
planning efforts, and CHHS staff
served as evaluators and controllers
are each of participating entities. This
year CHHS was thrilled to also have
the support of the Maryland Defense
Force and Maryland Emergency
Management Agency personnel, who
provided additional exercise support.

CHHS Assists Baltimore City Health Department Measles Response

The Baltimore City Health
Department (BCHD) has been
actively involved in response to a
measles outbreak. In response, the
Health Department led two mass
vaccination clinics to protect as many
individuals as possible from the
devastating effects of the disease.

Senior Law and Policy Analyst Hassan Sheikh, who has been working at BCHD's Office of Public Health Preparedness and Response as a Medical Countermeasure Coordinator, played a critical role as the Operations Chief in both clinics. In this capacity, he designed both clinic layouts, provided training for BCHD staff, produced job action sheets for clinic employees, and coordinated with medical subject matter experts to ensure safe delivery of the vaccination and supervised BCHD employees the day of the clinics. At the time, there were 5 confirmed cases of measles in Maryland, and Baltimore City Health Department will continue to monitor the situation for more cases.

Unfortunately, on the heels of this major incident, Baltimore City was struck with a ransomware attack, crippling several key infrastructures. While the extent of the damage from this attack is still being uncovered, Sheikh has been tasked to work within the incident team to render assistance to the response efforts.



Senior Law & Policy Analyst Hassan Sheikh acts as the Clinical Operations Manager at one of the Baltimore City Health Department's measles vaccination clinics. (photo courtesy of BCHD).



UMB hosted its Inaugural Global Health Summit on May 29, 2019. Academic Program Director Michael Vesely joined as a panelist on global education at UMB, sharing lessons learned from the 2018 student trip he and Public Health Program Director Trudy Henson led to Costa Rica.

CHHS Works with WSSC for Water Emergency Preparedness

This spring, CHHS began working with the Washington Suburban Sanitary Commission to research and write an Emergency Powers Handbook. The Handbook, which will combine relevant federal, state, and local laws and regulations, will be a concise resource for WSSC employees who need to know what emergency powers WSSC has, or what emergency powers other agencies may have, that will affect an emergency response.



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Prince George's County PHEP Exercise

This July, the Prince George's County Health Department Public Health Emergency Preparedness (PHEP) Program participated in a 3-day exercise to test their response to an attack with a biological agent. CHHS Senior Policy Analyst Kim Stinchcomb led CHHS' team, which provided development and evaluation assistance to the County for the exercise series.

The National Capital Region (NCR); Cities Readiness Initiative (CRI); Metropolitan Statistical Area (MSA) Exercise officially known as "Capital Fortitude Exercise," included 24 local planning jurisdictions located in Maryland, Virginia,

West Virginia and Washington, D.C. By conducting this exercise with all jurisdictions at the same time, the NCR tested their intercounty/interstate communications, collaboration, and mutual aid capabilities.

This three-day exercise began on Wednesday, July 17th, with detection and investigation of a potential bioterrorism incident by federal, state, and local law enforcement. Day 2 took place at the Health Department Headquarters where the Health Department Operations Center (all Command and General Staff) activate and participated in a tabletop exercise to discuss widescale antibiotic dispensing operations. The exercise concluded on Day 3 with a full-scale open point of

CHHS IN FOCUS: Public Health (continued)

dispensing (POD) exercise at Largo High School to capture POD facility set-up and throughput data. This exercise was a great opportunity to boost partnerships between county agencies. Participants in the open POD include the Prince George's County Health Department, Police Department, Office of Emergency Management, Office of Central Services, and the School System.

The CRI, a program of the Division of Strategic National Stockpile within CDC's Office of Public Health Preparedness and Response, focuses on enhancing preparedness in the nation's MSAs where more than 50% of the U.S. population resides. Through the CRI program, state and large metropolitan area public health departments have developed plans to respond to a large-scale bioterrorist event within 48 hours. The Point of Dispensing exercise served as the culmination of a series of exercises designed to test the County's CRI plan.

CHHS Provides Continuity in Montgomery County's Public Health Emergency Preparedness and Response Efforts

Since 2010, Senior Law and Policy Analyst Clark J. Lee has continuously provided professional support for the public health emergency preparedness and response efforts of the Montgomery County Department of Health and Human



Senior Law & Policy Analyst Maggie Davis presents on using Emergency Declarations to address the Opioid Crisis at the 2019 Preparedness Summit.

Services (MCDHHS). This year, Lee has assisted the Department in many initiatives, including:

- Montgomery County's Operational Readiness Review (*March 2019*) by the Maryland Department of Health and the Centers for Disease Control and Prevention to evaluate the County's ability to execute a large-scale public health response requiring medical countermeasure (MCM) distribution and dispensing.
- MCDHHS' efforts to become accredited by the Public Health Accreditation Board (Spring 2019) by demonstrating and documenting the Department's capacity to carry out the ten Essential Public Health Services.
- Montgomery County's participation in several interagency exercises relating to MCM distribution and dispensing, including a local tabletop exercise on medical materiel management and distribution (*February 2019*) and a regional operations-based exercise on MCM dispensing as part of the upcoming National Capital Region Metropolitan Statistical Area "Capital Fortitude" Full Scale Exercise (*July 2019*).
- MCDHHS' continuing efforts to adopt and improve application of Incident Command principles to manage its local public health incident response operations such as vaccination clinics and disease outbreak investigations in at-risk communities (FY 2019).

GLOBALtimore Fellow

In spring 2019, Public Health Program Director Trudy Henson was selected to be a UMB GLOBAL-timore Fellow. The GLOBALtimore program, overseen by the Center for Global Education Initiatives, encourages UMB staff to globalize courses in order to help students better understand the connections between the local setting and the world. As a fellow, Henson will be developing a law course that focuses on global public health emergencies.

RALI Maryland and Baltimore City's Prescription Drug Take Back Day

On April 25th, CHHS participated with RALI Maryland and Baltimore City's Prescription Drug Take Back Day, where Baltimore City partners, including now-Mayor Jack Young, RALI Maryland, the Maryland Hospital Association, and CHHS Public Health Program Director Trudy Henson, urged Baltimoreans to return unused medicines to numerous sites across the city for National Prescription Drug Take Back Day.

CHHS Helps Maryland Prepare for Climate Change

As the world of public health and emergency management turns more and more to the impacts climate change is having on daily life and emergency response, CHHS is working to put its clients at the front of planning and response efforts.



Senior Law & Policy Analyst Clark J. Lee shares his work on a Vulnerability Assessment of Medical Countermeasure Response in the National Capital Region at the 2019 Preparedness Summit.

Recently, the State of Maryland, through the Climate Leadership Academy, began offering state public and private leaders the chance to participate in the Climate Change Professional Prep Course. The CC-P® Prep course teaches working professionals how to incorporate climate change concerns into workable policies and procedures that can mitigate climate change and its impacts. CHHS is proud that several of its staff, including Program Directors Trudy Henson and Lisa Crow, as well as Law and Policy Analyst Samantha Durbin, and Senior Policy Analyst Jihane Ambroise, were chosen to participate in this course as they work toward receiving a credential that recognizes their expertise in climate change planning and preparedness.

CHHS Staff at the 2019 Preparedness Summit in St. Louis, MO

This year, CHHS staff were honored to participate in the 2019 Emergency Preparedness Summit, a conference that brings together public health emergency practitioners from across the country. In March, 6 CHHS staff, including Senior Policy Analyst Joe Corona, Senior Law and Policy Analyst Maggie Davis, Public Health Program Director Trudy Henson, Senior Law and Policy Analyst Clark J. Lee, Senior Policy Analyst Kim Stinchcomb, and Public Safety Technology Program Director Christopher Webster, traveled to St. Louis to present on cutting-edge public health issues, and to share best practices and lessons learned with other leaders in the field.

CHHS IN FOCUS: Continuity

Maximizing Organizational Resiliency: COOP for Public Entities

CHHS continues to deliver its long-running, flagship Continuity Planning course: "Maximizing Organ-izational Resiliency: COOP for Public Entities" across the United States. In April 2018, CHHS instructors traveled to Dover, Delaware to train a cross-section of federal, state, local government, and private sector personnel in the terms, concepts, and methodology of continuity planning.

Housing Authority of Baltimore City

In October 2018, CHHS began a year-long project to develop an Emergency Preparedness and Re-sponse Plan (EPRP) for the Housing Authority of Baltimore City (HABC). HABC's mission is to ensure that all citizens of Baltimore have access to adequate and affordable housing opportunities in safe, livable and decent neighborhoods. Today, HABC is one of the nation's largest public housing author-ities and Baltimore's largest landlord, serving over 40,000 people in public housing and nearly 30,000 in the Housing Choice Voucher Program. This EPRP will ensure that both HABC executive leadership and individual housing developments possess a clear delineation of roles and responsi-bilities under all emergency circumstances.



Continuity Program Director Eric Oddo facilitates an International Emergencies Workshop at UMB in June, 2019.

UMB International Emergencies Workshop

In June 2019, CHHS Continuity Program Director, Eric Oddo, facilitated a workshop for University of Maryland, Baltimore leadership to evaluate its policies and procedures regarding an international emergency affecting students, faculty, and staff operating overseas. The scenario centered around a car accident in Tanzania in which UMB-affiliated individuals were injured and/or killed. UMB leader-ship reviewed their roles and responsibilities in such an incident, and how issues such as public information, family reunification, insurance and liability and coordination with external stakehold-ers would be handled.

Maryland Department of Transportation State Highway Administration

In July 2019, CHHS began a 15-month project to develop a Continuity of Operations (COOP) pro-gram for the Maryland Department of Transportation (MDOT) State Highway Administration (SHA). MDOT SHA's Vision Statement is to provide a safe, well-maintained, reliable highway system that enables mobility choices for all customers and supports Maryland's communities, economy and en-vironment. CHHS will conduct a systematic and comprehensive development of SHA's COOP pro-gram to ensure that its mission essential functions can seamlessly continue under all circumstances.

CHHS IN FOCUS: Community Resilience Initiatives

Domestic terrorism is generally defined as violence that is motivated by an ideological commitment and used against a civilian population for the purposes of influencing social, economic, or political policy. The increasingly visible occurrences of crimes of domestic terror in the United States evidence the need for the creation of coordinated early prevention plans and infrastructures that can be efficiently and effectively implemented at the municipal level. CHHS' Community Resilience Initiatives Program is designed to work with localities to reduce vulnerabilities that can be exploited by ideologies to encourage the use of violence. Using a holistic approach, CHHS merges established methodologies of emergency preparedness, public health, and collective impact to build, reinforce, and expand locally-led capacity in order to prevent ideologically-influenced violence from developing.

Over the past two years, CRI developed a comprehensive framework known as CORE (Communities Organized for Resilience and Empowerment), which takes a comprehensive approach to building local resilience to ideologically-influenced violence. Through systematic engagement, education, and collaboration, CHHS guides stakeholders from diverse sectors to effectively integrate local priorities and resources into a sustainable infrastructure of protocols, programming, and action plans.

CORE is quickly gaining national recognition as a promising practice. For example:

- In November 2018, CHHS
 CRI Program Director Shanna
 Batten was invited to participate
 in a national capacity building
 project, "Overcoming Extremism:
 the After Charlottesville
 Project" sponsored by the
 Anti-defamation League and
 other civil society organizations.
- U.S. Department of Homeland Security and U.S. Department of State have invited CHHS-CRI to present the CORE framework as a promising practice to various foreign delegations, comprised of officials engaged in efforts to prevent terrorism in their own countries.
- In June 2019, the National Governor's Association invited Batten to present the CORE framework to local, state, and federal officials via a national webinar.
- In November 2019, Batten will present the CORE concept of preparedness and prevention to the International Association of Emergency Management.



Community Resilience Initiatives Program Director Shanna Batten presents to the Washington Institute.

CHHS now offers both short and long-term consultation and guided implementation of the CORE framework. Our team of subject matter experts developed the CORE framework with several unique aspects, including:

- Extensive, evidence-informed curriculum and 250-paged companion workbook discussing domestic terrorism and dynamics of recruitment, radicalization to ideologically-influenced violence, and interventions strategies
- Tiered training workshops taught by subject matter experts, designed to enhance stakeholder capacity to intervene and support disengagement from early development stages of radicalization to violence.
- Copyrighted software, Latitude[®], used to create desk and field assessments of existing locality assets and sector interconnectedness

CHHS IN FOCUS: Cybersecurity



Maryland Carey Law students, past and present, along with faculty and staff from CHHS attended the Incident Response Forum 2019 in Washington, D.C. on April 10th. For the second year in a row, our students were able to engage with leading legal experts on data breach response, regulation, policy and practice.

CHHS' Cybersecurity Program continues to grow as we help our clients with important advisory, planning, and educational initiatives.

CHHS and the Maryland Cybersecurity Council

CHHS is proud to continue its involvement with the Maryland Cybersecurity Council. The Council is chaired by the Maryland Attorney General and consists of 50 cybersecurity experts representing government, the private sector, and academia. The Council provides advice and guidance to the State on all matters of cybersecurity. CHHS Director Michael Greenberger and

CHHS Cybersecurity Program
Director Markus Rauschecker are
both members of the Council.
This spring, Director Greenberger
handed his chairmanship of the
Council's Critical Infrastructure
Subcommittee to Rauschecker.
CHHS is supporting the Council to
strengthen Maryland critical infrastructure cybersecurity and advise
on important cybersecurity and
privacy legislation coming out of the
Council's legislative subcommittee.

One of the ways that the Council is helping critical infrastructure as well as Maryland businesses is through the development of an online repository containing free, curated online cybersecurity resources. This repository is now available on the Council's website (https://www.umuc.

edu/administration/leadership-and-governance/boards-and-committees/maryland-cybersecurity-council/cybersecurity-resources.cfm). The repository continues to grow with additional helpful resources. CHHS is proud of its many externs who have been integral in researching and collecting invaluable resources for this resource.

CHHS staff also continue to provide their expertise and support to important pieces of legislation coming out of the Council. As cybersecurity legislation is introduced in the Maryland General Assembly, CHHS often provides expert testimony. This year, Rauschecker provided testimony in support of a bill addressing the growing threat of ransomware.

Election Security

One area of special interest to CHHS is election security. During this past legislative session, the Maryland General Assembly saw several bills introduced pertaining to this important issue. Senior Law and Policy Analyst, Netta Squires took the lead at CHHS to raise awareness of a particular cybersecurity vulnerability associated with the absentee ballot request process in Maryland. Squires' expertise on the issue led her to testify to lawmakers in Annapolis.

CHHS Worked with the National Security Agency to Create a Cyber Law and Policy Curriculum

CHHS continued its work under the National Security Agency's National Cybersecurity Curriculum Program. The goal of the NSA's Curriculum Program is to disseminate useful educational resources in order to educate the nation's current and future cybersecurity workforce. As a grantee, CHHS developed an accessible curriculum on law and policy issues in cybersecurity. CHHS' curriculum consists of three courses, divided into modules covering complex legal and policy issues in cybersecurity. Some topics covered in the courses include: liability, regulations, surveillance, privacy, and incident response. The complete curriculum can be viewed for free at the CLARK online library (www.clark.center).

CHHS is Helping Local Governments Develop Cyber Incident Response Plans

After working with the Montgomery County Office of Emergency Management and Homeland Security to develop a Cyber Incident Response Plan, CHHS worked with Prince George's County to develop a framework for a Cyber Incident Response Plan.

As local governments are increasingly victimized by cyber criminals (see the ransomware attacks on Mecklenburg County, NC, Atlanta, and even our hometown of Baltimore), it is imperative that plans exist to prepare for and respond to cyber incidents. While the technical aspects of a cyber incident will be handled by a county's IT department, there are significant non-technical roles and responsibilities that are critical for a successful response. CHHS worked with government officials in both counties to outline all aspects of a successful county-wide response, including the roles and responsibilities of emergency management, local law enforcement, and the county attorney. We believe that the work done for Montgomery and Prince George's counties can serve as a model for other county governments.

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CHHS in Social Media



CHHS maintains active social media accounts on a number of platforms. Follow us for updates on CHHS media appearances, webinars and blogs on current events, and all the information on CHHS special events.



Check out our YouTube Channel to see our video blog series on the Zika virus



Follow us on Twitter at *mdchhs* to get up to the minute updates on news, events, and CHHS speaking appearances



Like us on Facebook for CHHS blogs, publications, media appearances, events, staff updates



Connect with us on LinkedIn!



CHHS IN FOCUS: Cybersecurity (continued)

Cyber Conferences and Notable Events

April was a busy month for CHHS's involvement in cyber conferences and other events. CHHS Director Greenberger and CHHS Cybersecurity Program Director Rauschecker were asked to speak on a panel as part of the University of Maryland Carey Law Cybersecurity & Data Privacy Symposium hosted by the Journal of Business and Technology Law.

Rauschecker and Senior Law and Policy Analyst Ellen Cornelius each spoke at the inaugural Executive Cybersecurity Summit at the University of Maryland, College Park. The two-day Summit brought together industry, government, and academic cybersecurity and privacy law experts for panel discussions about the cutting-edge cybersecurity issues facing government and the private sector.

Senior Law and Policy Analyst
Netta Squires helped facilitate an
interdisciplinary roundtable conversation about the social and ethical
implications of technology use. This
Technology & Social Responsibility
event was held at the University of
Maryland, Baltimore campus and
took a close look at the use and
reliance on Artificial Intelligence in
all types of professional settings.

In March, Rauschecker was invited to speak on a panel organized by the Maryland State Bar Association, Young Lawyers Section, Tech Committee to address the growing use of Artificial Intelligence in the legal profession.



Panelists at the Incident Response Forum address a packed ballroom at the Mandarin Oriental Hotel in Washington, D.C. on April 10, 2019.



Senior Law & Policy Analyst Ben Yelin and Cybersecurity Program Director Markus Rauschecker (not pictured) present their work in building cybersecurity curricula at the NSA CyberEd Workshop on November 8, 2018 in Miami Florida.

Give to CHHS

You can support our ongoing work by contributing to the **Center for** Health and Homeland Security. Our staff has grown to more than 40 experts and professionals, many of whom present at conferences, speak at symposiums, and offer commentary in the media - all outside the scope of their normal duties. Your contribution mirrors our dedication, and your generosity will open doors to exciting new projects and provide the essential resources we need to effectively work side-byside with emergency officials to ensure the safety of every citizen.

There are three ways to make a gift to CHHS:

- (1) Online, at mdchhs.com/give
- (2) Phone, by calling Jeanne Stringer at (410) 706-0585
- (3) Mail, by sending a check made payable to UMBF, Inc./CHHS

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