2020 Rural Emergency Medical Communications Demonstration Project Closeout Report

# Message from the Executive Assistant Director

I am pleased to present the "2020 Rural Emergency Medical Communications Demonstration Project Closeout Report." The Cybersecurity and Infrastructure Security Agency (CISA) prepared the report to document lessons learned and best practices from administering the grant program.

CISA is responsible for protecting the nation's critical infrastructure from physical and cyber threats and enhances public safety interoperable communications at all levels of government. In accordance with authorizing legislation, CISA reestablished the Rural Emergency Medical Communications Demonstration Project (REMCDP) for a third time in 2020. REMCDP is a $2 million competitive grant program to examine barriers and develop solutions that enhance existing emergency communications infrastructure and the delivery of rural medical care.
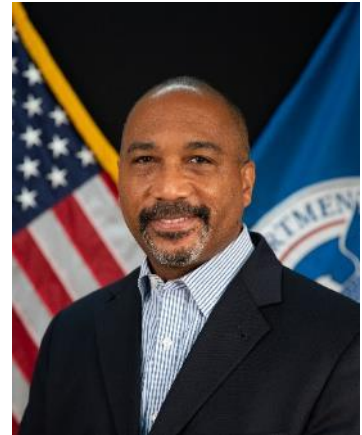
Following a merit-based application review process, the Department of Homeland Security selected one public and state-controlled institution of higher education to receive funding, specifically the University of Mississippi Medical Center. The selected project demonstrated an innovative and comprehensive approach and a significant impact on rural community interoperable communications, using existing communications infrastructure, improving operational effectiveness, and providing communications training to enable improved rural medical services.

Under REMCDP, Mississippi continued executing the First Hands Program to improve its statewide public safety communication system and training. The state successfully moved the First Voice Program to a completely virtual delivery; this course is designed for Mississippi's public safety communication personnel and telecommunicators. Despite continued challenges associated with the COVID-19 pandemic, Fiscal Year 2020 REMCDP accomplishments included training nearly 2,000 first responders across Mississippi, improving access to just-in-time training, and extending Mississippi's statewide public safety communication system's use to support and improve rural medical care and communications.

The period of performance ended on April 30, 2023. While the 2020 grant program has closed, CISA remains focused on transferring REMCDP information and knowledge to all interested stakeholders through targeted technical assistance. CISA is applying REMCDP best practices to the Department's current and future grants and cooperative agreements, as well as coordinating with other federal agencies to act on recommendations included throughout this report. Please direct any questions to my office at ECD@cisa.dhs.gov.

Sincerely,

Billy Bob Brown, Jr.
Executive Assistant Director for Emergency Communications
Cybersecurity and Infrastructure Security Agency
Department of Homeland Security

2020 Rural Emergency Medical Communications Demonstration Project

Closeout Report

I.   Background

The Department of Homeland Security (DHS) is responsible for strengthening preparedness and emergency response capabilities within the United States. To support this mission, emergency responders at all levels of government and disciplines must have the ability to communicate as needed, on demand, and as authorized to coordinate critical response operations. Rural communities face unique challenges associated with emergency medical response. Coordinated response is often delivered by a combination of medical providers and non-medical emergency responders, which requires consistent, reliable communications among public safety telecommunicators, the responder on scene (e.g., volunteer firefighter, law enforcement officer), and medical personnel at various locales.

To address this critical need, the *Consolidated Appropriations Act, 2020* (P.L. 116–93) authorized the Emergency Communications Division within the Cybersecurity and Infrastructure Security Agency (CISA) to reestablish the Rural Emergency Medical Communications Demonstration Project (REMCDP), a $2 million competitive grant program, to provide funding to a public and state-controlled institution of higher education. Consistent with previous legislation for REMCDP, the demonstration project shall leverage existing technologies and engage non-medical professionals

> *…$2,000,000 for CISA to administer SLTT projects, as in prior years, that aid in the implementation of the National Emergency Communications Plan and demonstration of emergency medical communications in rural areas.*
>
> *- Joint Explanatory Statement (P.L. 116–93)*

to help establish or sustain statewide medical communications systems and use existing infrastructures to improve the delivery of rural medical care.[1]

REMCDP aligned with CISA's mission to enhance public safety interoperable communications at all levels of government, providing training, coordination, tools, and guidance to help partners across the country develop their emergency communications capabilities. In turn, the REMCDP grant supported the *National Emergency Communications Plan* (NECP)[2] goals and objectives as demonstrated in Figure 1. To
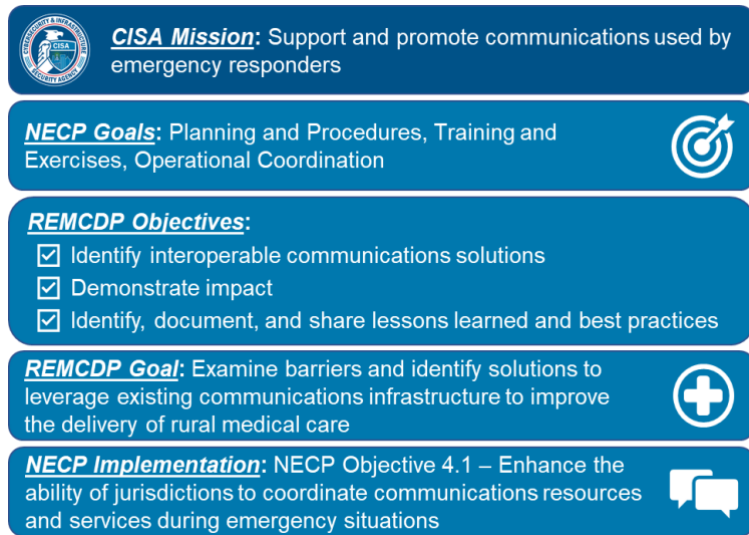
CISA Mission: Support and promote communications used by emergency responders

NECP Goals: Planning and Procedures, Training and Exercises, Operational Coordination

REMCDP Objectives:
- ☑ Identify interoperable communications solutions
- ☑ Demonstrate impact
- ☑ Identify, document, and share lessons learned and best practices

REMCDP Goal: Examine barriers and identify solutions to leverage existing communications infrastructure to improve the delivery of rural medical care

NECP Implementation: NECP Objective 4.1 – Enhance the ability of jurisdictions to coordinate communications resources and services during emergency situations

Figure 1. REMCDP Alignment to CISA Mission and 2014 NECP Goals.

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[1] Statutory language is included in Appendix A of this report.

[2] The NECP serves as the nation's strategic plan that promotes communications and sharing of information across all levels of government, jurisdictions, disciplines, and organizations for all hazards, as needed and when authorized. REMCDP supported NECP Objective 4.1 to enhance the ability of jurisdictions to coordinate communications resources and services during emergency situations. Since the NECP's initial release in 2008, CISA coordinated across the whole community to release an updated NECP in 2014 and 2019. For more information, see: cisa.gov/national-emergency-communications-plan.

implement the NECP, CISA needed to continue to improve its understanding of communications between emergency responders and medical personnel, especially in rural communities.

From May 8, 2020, through June 30, 2020, the REMCDP Notice of Funding Opportunity (NOFO) (DHS-20-CISA-120-001) was published at grants.gov, the governmental website that serves as the central storehouse for information on more than 1,000 grant and cooperative agreement programs. CISA received four applications requesting more than $5 million for various projects.

The applications were subject to the evaluation process described in the 2020 REMCDP NOFO. The evaluation included an initial review for eligibility and completeness, a merit review to score the projects based on pre-determined criteria, and final selection by the Objective Review Panel. Table 1 summarizes REMCDP requirements in accordance with the program's guidance derived from national priorities in the NECP.

Table 1. REMCDP Program Guidance Requirements.

Program Guidance Requirements
Program Objectives • Use of a current statewide emergency communications system to address NECP implementation gaps and deliver rural medical care and services • Development of trainings and exercises to ensure that first responders and personnel can use emergency medical communications systems and equipment effectively • Collaboration with state leaders to address the adoption of broadband communications (e.g., First Responder Network Authority's public safety broadband network) to supplement current land mobile radio and statewide emergency communications systems • Collaboration with whole community representatives to support a broad set of NECP activities, including rural emergency medical care and other needs (e.g., cybersecurity solutions, patient tracking, alerting and social media guidance) • Innovative solutions to ensure that emergency responders and medical practitioners can communicate in various geographies (e.g., rural), operating conditions, and scenarios, as needed and when authorized • Identify, document, and share lessons learned and best practices of the demonstration project, which in turn could be shared with other stakeholders addressing NECP implementation activities **Evaluation Criteria** • Innovation in approach, including strategies for management, governance, operations, training and exercises, and how well the project uses advanced and innovative technology solutions to achieve interoperability with rural communities or address NECP implementation gaps • Impact of the project on emergency communications capabilities in rural communities (i.e., assess current interactions with rural communities and expected improvements to medical response in these communities resulting from REMCDP funding) • Inclusion and description of partnerships with various disciplines, including non-medical professionals, and how new partnerships and agreements will benefit interoperable emergency communications in rural communities • Consideration for the SAFECOM Interoperability Continuum[3] in project planning and development to ensure stakeholders develop, manage, operate, and maintain communications interoperability to enhance existing emergency communications infrastructure **Reporting** • Quarterly progress reports on performance and financials • Annual financial reports • Closeout or final report on performance and financials

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[3] CISA, SAFECOM, *Interoperability Continuum: A Tool for Improving Emergency Response Communications and Interoperability*, cisa.gov/safecom/resources.

CISA prioritized innovation as the demonstration project's key criterion as shown in Figure 2. During the merit review, federal staff knowledgeable in the field of emergency communications and other focus areas evaluated REMCDP applications for their innovativeness in approach. This criterion included strategies for management, governance, operations, training, and exercises, as well as how effectively the project used advanced and innovative technology solutions[4] to achieve interoperability with rural communities. The reviewers also focused on how an existing technical or non-technical solution was altered or enhanced to address the issue or how the applicant used a combination of solutions to address a unique problem.
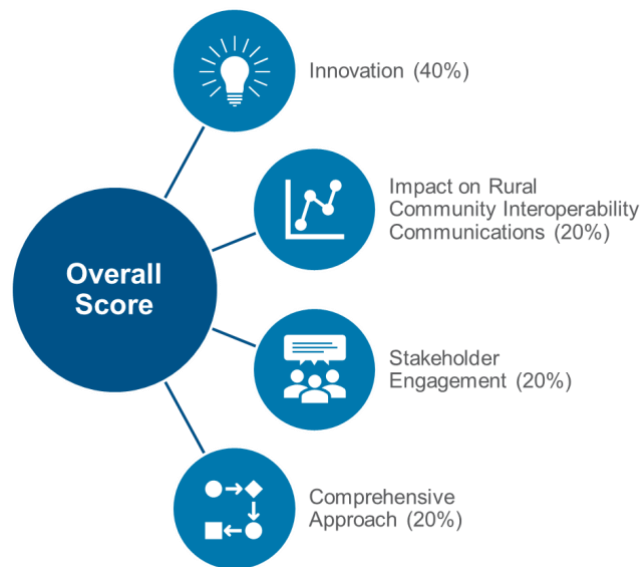

Figure 2. REMCDP NOFO Scoring Criteria.

Three applications were deemed eligible by the DHS Grants and Financial Assistance Division based on pre-determined criteria. Then, DHS selected one application and project based on the results of the merit review, applicability to overall legislative and programmatic goals and objectives, and the availability of funds. In September 2020, DHS announced the University of Mississippi Medical Center (UMMC) as the award recipient. Appendix B provides the program financial overview and expenditure information for UMMC.

UMMC's project sought to continue previous programmatic successes and incorporate innovative approaches to expand the reach of its successful programs. As in previous years, UMMC's focus was training emergency responders and improving medical care coordination during emergencies and disasters, especially in rural Mississippi. UMMC continued the First Hands Program to meet pent-up course demand from the COVID-19 pandemic and converted the First Voice Program for all Mississippi public safety communication personnel and telecommunicators[5] to an online format. They also continued offering just-in-time training to responders across the state in various scenarios (e.g., tornado, field hospital) and overhauled the mobile smartphone application to accommodate tele-training and multimedia components. These efforts leveraged existing communications infrastructure to continue improving operational effectiveness and serve as a repeatable model for other communities to examine their own communications barriers and enhance the delivery of rural medical care.

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[4] The 2020 REMCDP NOFO provided examples of innovative technology solutions that use voice or radio over internet protocol; broadband voice, data, or video applications; mobile public safety networks; multi-band/multi-mode software designed radios; network interconnect technologies; or satellite communication systems.

[5] The terms "public safety communication personnel and telecommunicators" refer to staff working at public safety answering points, emergency communications centers, or other facilities supporting operations or answering 911 calls. Agencies may also refer to these positions as call takers, dispatchers, or operators where terms may be interchangeable, or the positions have unique functions. In addition, the First Voice Program may benefit administrators, uniformed vs. non-uniformed staff, and triage personnel that support the public safety mission.

Throughout the period of performance and particularly during a December 2022 site visit to UMMC's Mississippi Center for Emergency Services (MCES), CISA worked with UMMC to document lessons learned and capture challenges and successes to share with the emergency response community in the post-award phase, as well through future technical assistance offerings. The site visit included a tour of the MCES building, including Mississippi MED-COM, as well as a tour of the medium and large radio asset distribution (LRAD) vehicles. The discussion included how to potentially adjust the current First Hands and First Voice training courses for use in other states. In particular, CISA and UMMC personnel weighed how to use current REMCDP materials to inform CISA's Interoperable Communications Technical Assistance Program (ICTAP) new technical assistance program titled the Rural Emergency Communications Operational Rapid Assistance Package (O-RAP).[6] O-RAP components are shown in Figure 3 and described further in the Looking Forward section of this report.

1 **Rapid Assessment**
Conduct site visit to understand gaps and needs

2 **Policies, Plans, Procedures**
Address a specific need selected from the Rapid Assessment

3 **Training**
Develop training related to the policy, plan, or procedure

4 **Exercise**
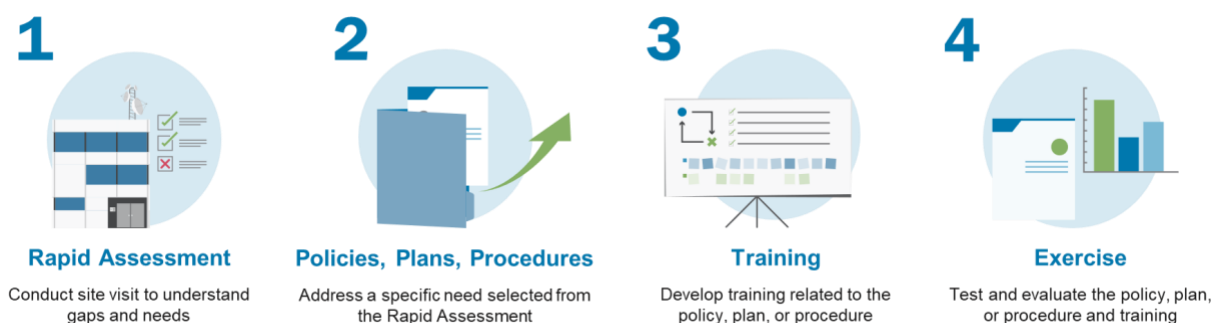Test and evaluate the policy, plan, or procedure and training

Figure 3. O-RAP Components.

CISA is applying REMCDP best practices to its programs and services, in addition to sharing lessons learned with other communities to serve as repeatable models for addressing rural population healthcare needs. The goal is for CISA's technical assistance service offerings to implement REMCDP successes in rural communities across the nation.

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[6] CISA's ICTAP serves all 56 states and territories and provides direct support to state, local, tribal, and territorial emergency responders and government officials through the development and delivery of training, tools, and onsite assistance to advance public safety interoperable communications capabilities. To access the *CISA Technical Assistance Service Offerings Guide* or *Technical Assistance Request Form*, visit: cisa.gov/safecom/ictapscip-resources.

II. Advancing Rural Emergency Medical Communications

Under REMCDP, UMMC's MCES continued the mission of educating and connecting first responders and public safety users throughout Mississippi. Building on the successful foundation created in the 2016 and 2018 REMCDP, MCES has expanded the reach, deepened the understanding, and strengthened the preparedness of medical and emergency communications across the state.

The First Hands Program was originally developed to improve Mississippi's statewide public safety communication system—Mississippi Wireless Information Network (MSWIN)—and extend the system's use to support and improve rural medical care, coordination, and communications. In rural and underserved communities, it is often the responders with limited medical training and equipment who reach those in need first. Under the 2016 REMCDP, UMMC identified the opportunity to combine medical and land mobile radio communications education with hands-on training to empower non-medical first responders providing medical aid. The success of the First Hands Program drove the need for continued course offerings

Figure 4. First Hands and First Voice Program logos.

through the 2018 REMCDP and then 2020 REMCDP. Additionally, in response to first responders' suggestions, UMMC developed a separate course for public safety telecommunicators titled the First Voice Program under 2018 REMCDP. This program also continued under 2020 REMCDP albeit in a virtual format rather than the originally planned in-person format mimicking the First Hands Program. By improving communication links among first responders, public safety telecommunicators, and medical support teams and ensuring first responders and telecommunicators have a common educational foundation when dealing with an emergency medical situation in the field, MCES sought to improve patient outcomes in rural communities during emergency and hazardous events.

The 2020 REMCDP period of performance ran from October 1, 2020, to April 30, 2023.[7] Similar to 2018 REMCDP, this award spanned an unprecedented time in United States history. The global pandemic continued to present a challenge to UMMC.[8] Nearly all the First Hands and

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[7] UMMC received a seven-month no cost extension that extended the period of performance end date from September 30, 2022, to April 30, 2023.

[8] Beginning in January 2020, cases of COVID-19 began to climb in the United States and across the globe. COVID-19 is a disease caused by a virus called SARS-CoV-2. Most people with COVID-19 have mild symptoms, but some people can become severely ill. In March 2020, most states and local jurisdictions imposed strict travel and gathering restrictions and encouraged people to stay home and avoid social situations. As variants of the disease caused spikes in case counts, states and local jurisdictions imposed temporary restrictions at various times.

First Voice instructors are clinicians, clinical managers, or communications specialists in the MCES disaster communications center. Their primary roles took precedence as MCES shifted into emergency response mode, which at times left few, if any, personnel available to teach courses. Simultaneously, intermittent travel and gathering restrictions made it impossible to teach First Hands in person some quarters; these courses rely heavily on teaching hands-on motor skills and participant interaction.

Accomplishments

UMMC successfully expanded existing, and developed new, trainings and educational offerings that Mississippi's public safety professionals needed to support rural medical care and communications. In delivering the First Hands and First Voice Programs, UMMC enhanced the delivery of medical care across the state's rural and underserved communities. UMMC's many accomplishments and successes include:

Innovative Course Formats and Expanded Content

Because COVID prevented the execution of in-person First Voice courses, under 2018 REMCDP, UMMC approached the Mississippi Department of Public Safety's Board to seek approval to provide First Voice classes online; the Board agreed attendees would receive the same number of education credits as an in-person course. Under 2018 REMCDP, UMMC laid the groundwork to offer the First Voice Program to telecommunicators across the state during the 2020 REMCDP period of performance. The first online First Voice course was held May 5–11, 2021. Once telecommunicators discovered the convenience of taking the course online, it was unnecessary for

Figure 5. Online First Voice course content.

UMMC to attempt to offer First Voice in person even as travel and gathering restrictions were lifted. First Voice has received positive feedback for the course content and for the online format. The online format allowed for easy updating as staff turnover occurred and additional radio talkgroup specificity became available. UMMC re-recorded and updated content for portions of the First Voice course; the new version was approved by MCES leadership for use beginning in April 2022.
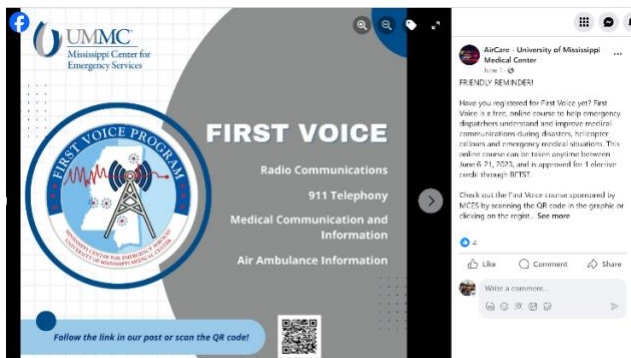
Figure 6. Example First Voice social media advertisement.

Given the consistent demand for First Hands courses, UMMC recognized the original model of teaching small classes of 15 to 25 participants was not sustainable and would not meet the demand. As such, in May 2022, UMMC opted to host larger classes using a regional venue (e.g., responder training center) for multiple requesting agencies. UMMC would then extend the invitation to agencies and departments from

surrounding counties, which raised the average attendance from 20 to more than 100 for each class.

To supplement existing First Hands content regarding helicopter landing zone instruction, the MCES team used the unmanned aerial vehicle (UAV) acquired through 2020 REMCDP to develop realistic night scenarios showing the hazards and obstacles responders need to be aware of when creating a landing zone. The video from the UAV offers a bird's eye view that is critical in helping responders to understand the complexities for helicopter pilots. Additionally, UMMC updated the companion First Hands pocket reference guide in September 2022 as follows; reference Appendix F for a full version of the pocket guide:

- Added more details for "Stroke Signs & Symptoms"
- Included additional signs of heart attack specifically for women and the elderly
- Edited phone numbers for requesting a talkgroup from the Mississippi Wireless Communications Commission
- Amended the typical vital sign chart to include pregnant women
- Revised Glascow Coma Scale with non-medical descriptors for easier field use
- Added more details on snake bites on poison treatment page
- Promoted downloading the MCES application to reference content in the field
- Adjusted spacing, font size, and color on several pages to improve readability

Just-in-Time Training and Operational Platform

Under 2018 REMCDP, UMMC designed the just-in-time training and operational platform (i.e., LRAD) to meet the NECP goal of helping coordinate the various methods of public safety communication capabilities for both planned and unplanned events. The LRAD can be used in situations calling for rapid deployment of equipment, training, and support for field operations and radio communications. Each disaster or operational deployment requires flexibility to create the training needed in the moment. Just-in-time training is a crucial piece of each disaster response effort from MCES and has proven to be a valuable resource for on-scene responders.

During the 2020 REMCDP extended period of performance, UMMC leveraged LRAD as a base for just-in-time training, communication equipment deployment, and an operational command center for special weapons and tactics (SWAT) callouts, hostage situations, training exercises, and first responder health posts across the state. For example, when a field hospital was set up for Samaritans Purse on the UMMC campus during a round of COVID resurgence in 2021, just-in-time training was used to instruct the visiting medical personnel how to communicate with MedCom regarding incoming patient status and transfers. Also, in


Figure 7. Large radio asset distribution vehicle serves as a mobile command unit during tornado response.

March 2023, the LRAD was dispatched to Rolling Fork, Mississippi in the wake of a devastating tornado. MCES offered just-in-time training, communications equipment cache, and operational and medical resources in support of response and recovery operations. The MCES team also used the UAV to provide situational awareness and site evaluation when planning to set up the mobile field hospital.

Mobile Smartphone Application and On-Demand Content

The MCES application was originally created under 2016 REMCDP. Given technology evolution and feedback from stakeholders regarding the static nature of the application, UMMC opted to enhance its capabilities to ensure the MCES App would give Mississippi responders a robust medical and communication resource they could use in the field.

UMMC hired a third-party vendor to improve the application's functionality and manage content. The vendor helped establish various levels of user access, an efficient process for handling access requests, and an approach for best marketing the application to first responders. Additionally, as the MCES team created new medical and communications video and podcast content using the acquired production equipment, the vendor loaded and managed the various multimedia types to ensure easy access by application users. The MCES team added 53 videos, 25 podcasts, and 14 new documents to the content library within the MCES application. This on-demand content, as well as the existing First Hands and First Voice course content, is available to first responders and medical professionals statewide.
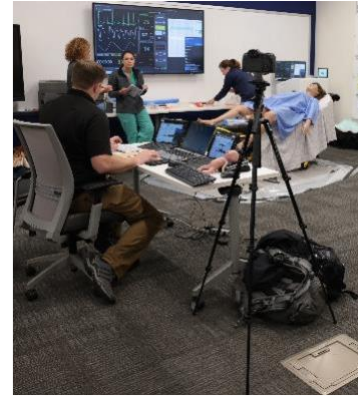
Figure 8. In house production equipment being used to video record medical content.

Program Attendance

Between October 2020[9] and December 2022,[10] UMMC hosted 52 First Hands courses for 1,539 first responders across the state, as well as 27 online First Voice courses for 459 participants. Participants trained since First Hands was initially launched in January 2017 represent all of Mississippi's 82 counties while First Voice reached agencies across 77 of the 82 counties. Participants received four hours of continuing education credits in emergency medical services (EMS), law enforcement, or public safety telecommunications depending on the audience.

Figure 9. First Hands Program in-person instruction.

First Hands Program participants represented the following disciplines: law enforcement, emergency management, EMS, fire services (paid and volunteer), and communications/ dispatch. The First Voice course participants dispatch for law enforcement, EMS, fire services, and colleges/universities. See Appendix C for a breakdown of participants per quarter, as well as some participant demographics.

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[9] The 2018 REMCDP Closeout Report includes program attendance for the full 2018 REMCDP period of performance, which began October 1, 2018, and ended March 31, 2021, given a six-month no-cost extension to the original two-year period of performance. As such, the program attendance overlaps in the 2018 and 2020 reports.
[10] Though UMMC received a no-cost extension to April 30, 2023, any courses offered after December 31, 2022, will be included in the 2022 REMCDP course statistics.

The ongoing popularity of the First Hands Program speaks to the need for high-quality, medical and communication training for Mississippi's first responders. Additionally, continuing to offer the First Hands course supports the NECP goal of enhancing the knowledge of the available emergency communications technologies in a rural state.

Program Results

Under 2016 REMCDP, UMMC established a method by which First Hands Program participants could request a replacement bleeding control kit after using the kit in an emergency situation. Participants complete a form on the UMMC website or in the mobile smartphone application to request a new kit and provide general details about the incident. During the 2020 REMCDP period of performance, UMMC received replacement kit requests from 54 First Hands Program attendees who had used the bleeding control kits and tourniquet training in response to an emergency situation. The 54 incidents ranged from gunshot and stabbing wounds to car accidents; responders described how they used kit components to provide critical care before the arrival of other medical assistance. The pandemic did not seem to have an adverse effect on how often first responders were using their First Hands training in the field. See Appendix D for a sample of the data collected through the bleeding control kit re-supply request form.

Table 2. First Hands and First Voice Program participant feedback.

First Hands
"Awesome, practical information with the take home tourniquet for us to use when saving lives."
"I had no knowledge of the radio system and helicopter" before this training.
"I feel every educator, school nurse, small clinic worker/personnel should have access to this training."
"We should conduct this class every year to stay up to date."

First Voice
"I appreciate the training I got from the class. I learned a lot about MSWIN and the functions that as a dispatcher I don't see, how far of a broad range that it is used."
"This should be a mandatory class for all new dispatchers."
"Really is easier with it being virtual. I can take the class at home and learn the same subject matter…"

Additionally, the pre- and post-course evaluations show there is an across-the-board improvement in First Hands attendees' understanding of radio interoperability, medical communication, and medical response. The comments from those who attend the First Hands class are consistently positive. Similarly, First Voice has received positive feedback for the course content and for the online format.

Lessons Learned

CISA facilitated information sharing throughout the period of performance. UMMC submitted quarterly financial and performance reports and participated in quarterly teleconferences with REMCDP Program Office personnel to discuss and validate its quarterly reports. This comprehensive reporting and coordination allowed UMMC and CISA to collectively recognize problems and challenges early on and brainstorm mitigation strategies to prevent impacts to project implementation. Through this coordination, CISA identified two overarching lessons learned:

Implement Flexible Data Collection Techniques

As previously introduced, UMMC moved to a large format First Hands course. To streamline data collection, UMMC opted to provide participants a quick response (QR) code directly to online electronic forms and preemptively brought FirstNet-enabled Nighthawk long-term evolution (LTE) mobile hotspot routers to address any potential connectivity issues.

However, the team still encountered challenges as some participants' devices did not support QR code use or completion of electronic forms, and some participants preferred not to scan a QR code for security reasons. UMMC addressed this challenge by bringing iPads (connected to the Nighthawk LTE router) to future courses to allow participants to complete the electronic forms. While an excellent tool, the iPads created a bottleneck at the beginning and end of the course that required UMMC to revert to using paper Scantron forms. First Hands attendees now have three options for completing paperwork, including using the paper Scantron forms, scanning the QR code and accessing the forms on their phone, or using the UMMC-provided iPad to complete the forms. Having multiple data collection methods requires UMMC to be meticulous while merging paper and online data sets to ensure data from all participants is captured.

Organizations must consider and plan for all manner of challenges when conducting courses in rural communities and be prepared to offer multiple data collection methods. While flexible collection methods may complicate data compilation, it is important to gather information from all participants regardless of technology literacy or technology limitations.

> **Considerations for Large Training Classes**
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> In addition to lessons learned when offering QR codes for data collection, UMMC shared other challenges encountered while switching to the large First Hands class format. First and foremost, it was critical for instructors to select appropriate venues. Despite coordinating needs with local contacts, UMMC experienced venue-related issues such as lack of air conditioning, missing audio/visual equipment, and limited seating and space for hands-on aspects of training. Spotty cellular service was also a common issue in rural communities, impacting the ability to access online content. UMMC implemented several solutions, including scouting the venues in advance, bringing the required audio/visual (e.g., projector, cables) and broadband equipment to ensure internet connectivity, and adding administrative personnel to support instructors and manage registration and surveys. Lastly, UMMC noted some participants departing early without completing the post-survey, which was critical to measure knowledge gained. Trainers resolved this issue by distributing bleeding kits upon completion of the post-survey.

Plan for Continued Support and Maintenance of Online Learning

To support the online First Voice course, UMMC selected a learning management system to manage the course and collect participant data. This platform is not automated. The MCES team must manage each monthly class window and input each First Voice registrant into the platform. Managing the course, providing email reminders, prompts, and being available to troubleshoot any access issues requires ongoing supervision by an MCES team member.

One issue the MCES team had to troubleshoot was related to distributing course information and course completion reminders. It was general practice to send First Voice course information and reminders via blind copy on an email to all persons registered for a specific class. However, the MCES team discovered those registrants with ".mil" or ".gov" email addresses were not receiving the messages. To eliminate this issue, the team now sends individual, custom emails to those registrants to ensure receipt. After implementing the email reminders and the individual messages to .mil and .gov registrants, First Voice completion increased from about 50 percent to almost 70 percent. Prompting registrants with frequent emails helps bring the course back to top-of-mind and seems to be responsible for increasing course completion rates.

When considering offering an online course, organizations must consider all elements of operations and maintenance from maintaining the course content itself to the additional administrative burden placed on the responsible team members. Organizations should be prepared to troubleshoot various issues and, if needed, be prepared to implement workarounds to ensure registrants have access to all relevant information and course content.

III. Looking Forward

CISA continues to work to improve rural emergency medical communications through various activities where the 2016, 2018, and 2020 REMCDP information and knowledge can be shared. These activities include planning for an outreach and technical assistance (TA) offering specifically for rural communities and states with significant rural populations; application of best practices to the Department's current and future demonstration projects, grants, and cooperative agreements; and ongoing work to replicate the First Hands and First Voice Programs in other communities.

Conduct Rural Community Outreach

One of CISA's functions is to conduct outreach with its public safety stakeholders. CISA will share the 2020 REMCDP best practices and lessons learned directly with rural communities, as well as states with significant rural populations. Through additional outreach with public safety stakeholder bodies (e.g., SAFECOM, National Council of Statewide Interoperability Coordinators, National Public Safety Telecommunications Council), CISA will continue to address and bring attention to the communications barriers and challenges that are unique to rural communities.

Integrate Program Outcomes into CISA Service Offerings

Congress recognized the success of the 2016, 2018, and 2020 REMCDP and embraced the opportunity to fund TA driven by those successes. The legislation that established 2022 REMCDP set aside funding specifically for TA. As such, CISA is developing a TA program entitled the Rural Emergency Communications Operations Rapid Assistance Package to implement REMCDP successes in rural communities across the nation. O-RAP will assist rural communities by examining communications barriers and identifying solutions that enhance existing emergency communications infrastructure to improve the delivery of rural medical care. O-RAP is a comprehensive assistance package that begins with a rapid analysis where the host community meets with a team of subject matter experts to review existing communications challenges and solutions. From the analysis, the team will identify and prioritize needs with the host

Figure 10. O-RAP Flyer.

community, leading to the selection of problems that can be addressed through policy and training. Then, the host community works with CISA to complete the needed plans, policies, and procedures and deliver needed training. If the community chooses, they can finalize their O-RAP with a tabletop exercise or small drill. In the end, the community receives all products created for them to continue building interoperability. All TA requests are directed to the Statewide Interoperability Coordinator who will coordinate with ICTAP to prioritize O-RAP projects in their states or territories.

Additionally, CISA gained valuable insight regarding training in rural communities from the implementation of First Hands and First Voice Programs in Mississippi. For example, the lack of reliable broadband connectivity in rural areas impacted how participants completed pre- and

post-training questionnaires, requiring paper Scantron forms instead of online surveys. This lesson learned has informed CISA's service offerings in rural communities, including the importance of traveling to public safety agencies in remote outposts that would otherwise be unable to spare staff from their regular duties to attend training.

Apply Best Practices to DHS Demonstration Projects, Grants, and Cooperative Agreements

CISA is applying the 2020 REMCDP best practices to 2022 and 2023 REMCDP. The 2022 REMCDP grant again focused on innovation as the key component of a demonstration project while also addressing all lanes of the *SAFECOM Interoperability Continuum* (i.e., Governance, Standard Operating Procedures, Technology, Training and Exercises, and Usage). CISA released the 2022 REMCDP NOFO on June 1, 2022, and following a competitive merit review process, awarded grant funds to UMMC in September 2022. With the 2022 REMCDP grant, UMMC will use REMCDP funds to build on the successes of its previous REMCDP awards. UMMC will continue and enhance the First Hands Program, First Voice Program, and MCES mobile application, as well as explore push-to-talk over cellular options to supplement land mobile radio coverage and expand crucial communications capabilities for frontline responders.

The 2023 REMCDP grant retained the same program objectives as previous awards; however, eligibility was expanded to include, state, local, tribal, and territorial government agencies in collaboration with a medical facility, as well as public and state-controlled institutions of higher education. CISA released the 2023 REMCDP NOFO on May 30, 2023, and following a competitive selection process, CISA awarded cooperative agreements of $4,276,023 across three communities in Colorado, Iowa, and Virginia.

Additionally, CISA is coordinating with the Federal Emergency Management Agency to incorporate rural considerations and medical emergency communications aspects into the DHS Preparedness Grants. As a lesson learned, confirmed by the 2016 and 2018 REMCDP implementation, the Department requires in Standard Terms and Conditions that grant recipients use and comply with the *SAFECOM Guidance on Emergency Communications Grants* (SAFECOM Guidance).[11] DHS will continue monitoring grant recipient compliance with the SAFECOM Guidance across its grants.

Replicate First Hands and First Voice Programs

The goal of any demonstration project is for similar communities to replicate the project's successes and apply the lessons learned. UMMC's REMCDP project, such as the First Hands and First Voice Programs and LRAD specification list, are repeatable models for other communities to examine their own communications barriers and, ultimately, enhance the delivery of rural medical care. With CISA's guidance, communities across the United States could replicate these programs and offer similar training and tools to first responders. Communities could tailor the hands-on radio training and tools to address state, local, and regional emergency communications systems, combining with medical response and bleeding control training and guidance for medical evacuation procedures.

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[11] CISA, *SAFECOM Guidance on Emergency Communications Grants*, cisa.gov/safecom/funding.

IV. Recommendations

CISA strives to improve emergency communications nationwide by promoting consistent national policies such as the NECP. Grants, including 2020 REMCDP, are essential in implementing these national policies as they provide funding to state, local, tribal, and territorial public safety agencies with associated performance and reporting requirements to measure implementation. CISA will continue to share 2020 REMCDP best practices and lessons learned and provide services that meet rural communities' needs. To assist in this endeavor, CISA recommends the following congressional actions:

Implement and Require Grant Recipient Compliance with the SAFECOM Guidance

State, local, tribal, and territorial agencies have championed the SAFECOM Guidance and should use it as the all-inclusive guidance for grant applicants planning emergency communications projects. As a result, DHS requires its grant recipients to comply with SAFECOM Guidance when using federal funds for emergency communications projects. DHS shared these adopted policies with federal partners, which were then incorporated as best practices and voluntarily adopted by many federal agencies. However, voluntary adoption is only an initial step. The optimal approach is to mandate grant recipient compliance with SAFECOM Guidance for all federal funds with emergency communications as an allowable cost to increase coordination efforts and impact across emergency communications nationwide. CISA recommends Congress require this compliance through the Office of Management and Budget Circulars that govern federal grant funding.

Figure 11. SAFECOM Guidance.

Authorize and Appropriate Similar Demonstration Projects to Inform Large Grants

Demonstration projects require substantial involvement by federal personnel. For example, CISA personnel had regular interactions with the 2020 REMCDP grant recipient through quarterly teleconferences to provide guidance and customized assistance, as well as conducted a site visit in December 2022 to conduct a programmatic review. As a result, UMMC successfully completed its project to examine communications barriers and identify solutions that improve the delivery of rural medical care. Though this level of support is not feasible or replicable for large grant programs that administer hundreds of emergency communications projects, it does not diminish the impact of demonstration projects. These projects generate valuable lessons learned that will be applied to all grant programs and used to inform the type of large-scale grant programs that could be funded in the future. For instance, there are numerous NECP implementation gaps that could be explored by a future demonstration project such as developing a program to oversee Communications Unit personnel training and tracking, test innovative cybersecurity planning and solutions, or explore alerting systems and social media guidance for providing resilient and interoperable notifications to the whole community. Subsequent solutions and lessons learned generated would then be shared and replicated in other communities nationwide. CISA recommends Congress establish similar demonstration projects as small investments impacting billions in federal financial assistance programs.

Continue Investing in Rural and Underserved Communities

Rural communities present the perfect opportunity to focus on coordination in a targeted environment as they face unique challenges in providing quality emergency medical care. For example, first responders need to cover large geographic areas with sparse populations and challenging terrain. This leads to long travel distances and times to not only reach patients but then transport them to trauma centers. Additionally, limited funding availability in rural communities impacts communities' ability to hire career first responders and thus results in volunteer forces. Limited funding can also impact the ability to provide advanced training for responders. Finally, rural communities face potentially limited radio and broadband system coverage, which impacts their ability to communicate with medical personnel for advice or to hospitals to inform them of patient status. CISA recommends Congress continue investing in rural and underserved communities to adequately address NECP implementation gaps, including those gaps that impact communities' ability to provide quality emergency medical care.

> **Rural Communities' Lack of Cybersecurity Planning**
>
> According to the 2018 Nationwide Communications Baseline Assessment, fire departments and organizations located in rural areas tend to be least prepared for cybersecurity attacks. Two-thirds of fire departments and almost 60 percent of public safety disciplines located in rural areas indicate they do not conduct cybersecurity planning.

V. Conclusion

The 2020 REMCDP grant provided $2 million in funding to a public and state-controlled institution of higher education that effectively used existing emergency communications infrastructure to improve the delivery of rural medical care. Despite the COVID-19 pandemic, UMMC continued executing the First Hands Program (as permitted) and launched the fully online version of the First Voice Program. As of December 2022, these programs combined had reached more than 8,200 public safety stakeholders across Mississippi since the initial First Hands courses in January 2017. By effectively incorporating lessons learned throughout the demonstration project, UMMC evolved the First Hands format to meet high course demand, continued providing hands-on experiences and just-in-time training, distributed simple but crucial medical supplies, created new medical and communications content in various formats, and ultimately, enabled non-medical emergency responders to save lives.

This grant fulfilled the authorizing legislation's requirement to leverage existing technologies and engage non-medical professionals to help establish or sustain statewide medical communications systems and use existing infrastructures to improve the delivery of rural medical care. Congress has funded a successful demonstration project that will continuously share lessons learned and best practices with other rural communities, enhance existing emergency communications infrastructure, influence other grant programs across the Department and federal government, and ultimately, save lives. For questions on 2020 REMCDP or this report, please contact CISA.[12]

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[12] Contact CISA at: ECD@cisa.dhs.gov.

VI. Appendices

Appendix A: Statutory Language

Division D, Title III of the *Consolidated Appropriations Act, 2020* (P.L. 116–93) sets forth the following:

<div align="center">

TITLE III

PROTECTION, PREPAREDNESS, RESPONSE, AND RECOVERY

CYBERSECURITY AND INFRASTRUCTURE SECURITY AGENCY

Operations and Support

</div>

For necessary expenses of the Cybersecurity and Infrastructure Security Agency for operations and support, $1,566,229,000, of which $31,793,000 shall remain available until September 30, 2021: *Provided*, That not to exceed $3,825 shall be for official reception and representation expenses.

The Joint Explanatory Statement[13] accompanying P.L. 116–93 sets forth the following:

<div align="center">

DIVISION D—DEPARTMENT OF HOMELAND SECURITY APPROPRIATIONS ACT, 2020

TITLE III PROTECTION, PREPAREDNESS, RESPONSE, AND RECOVERY

CYBERSECURITY AND INFRASTRUCTURE SECURITY AGENCY

OPERATIONS AND SUPPORT

EMERGENCY COMMUNICATIONS

</div>

First Responder Emergency Medical Communications.—The agreement includes $2,000,000 for CISA to administer SLTT projects, as in prior years, that aid in the implementation of the National Emergency Communications Plan and demonstration of emergency medical communications in rural areas.

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[13] *Congressional Record Proceedings and Debates on the 116th Congress, First Session.* December 17, 2019. Volume 165, No. 204 – Book II. Available online: govinfo.gov/content/pkg/CREC-2019-12-17/pdf/CREC-2019-12-17-house-bk2.pdf.

Appendix B: Program Financial Overview

The Department of Homeland Security (DHS) Grants and Financial Assistance Division (GFAD) served as the Rural Emergency Medical Communications Demonstration Project (REMCDP) Grants Officer. DHS GFAD collected the REMCDP award recipient financial reporting and maintained the official grant file. This appendix provides the financial information, including the award recipient's cumulative award, draw down amounts and percentages for each fiscal year, and any deobligated funds. The recipient completed its project on budget; therefore, the recipient did not have funds to deobligate and return to the U.S. Department of the Treasury.

Table 3. REMCDP Program Financials.

REMCDP Cumulative Award Amount	$2,000,000.00
FY 2021 Funds Drawn Down	$480,854.02
Percentage of Total Award	24.0%
FY 2022 Funds Drawn Down	$1,598,388.88
Percentage of Total Award	79.9%
FY 2023 Funds Drawn Down	$2,000,000.00
Percentage of Total Award	100.0%
Deobligated Funds	$0.00

Appendix C: Program Statistics

The First Hands Program training began in January 2017 under the 2016 Rural Emergency Medical Communications Demonstration Project (REMCDP) and continued during the 2018 and 2020 awards. The *2018 Rural Emergency Medical Communications Demonstration Project Closeout Report* provided course and attendance statistics through the 2018 award's extended period of performance in March 2021. Though it introduces overlap between the 2018 and 2020 reports, to provide a complete picture of 2020 REMCDP, Table 4 reflects the course and participant counts as provided in the University of Mississippi Medical Center's (UMMC) quarterly and final performance reports from October 2020 to December 2022. During this time, UMMC continued conducting First Hands and First Voice training. Overall, UMMC conducted 52 First Hands classes across the state and 27 virtual First Voice courses between October 1, 2020, and December 31, 2022.[14] Nearly 2,000 first responders participated in the two training courses.

Table 4. UMMC Program Statistics by Quarter.

Quarter Ending	First Hands			First Voice		
	By Quarter	Total Participants	Classes per Quarter	By Quarter	Total Participants	Classes per Quarter
December 2020	35	6,292[15]	0[16]	0	0	0
March 2021	121	6,413	8	0	0	0
June 2021	141	6,554	7	56	56	3
September 2021	50	6,604	3	145	201	9
December 2021	0	6,604	0	33	234	3
March 2022	121	6,725	7	74	308	3
June 2022	156	6,881	3	80	388	3
September 2022	744	7,625	22	40	428	3
December 2022	171	7,796	4	31	459	3

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[14] Though UMMC received a no-cost extension to April 30, 2023, any courses offered after December 31, 2022 will be included in the 2022 REMCDP course statistics.

[15] Total participants since the First Hands course launched in January 2017 under 2016 REMCDP.

[16] Discrepancy between quarterly and final report; quarterly report does not indicate any courses were conducted this quarter but the final report indicates 35 participants.
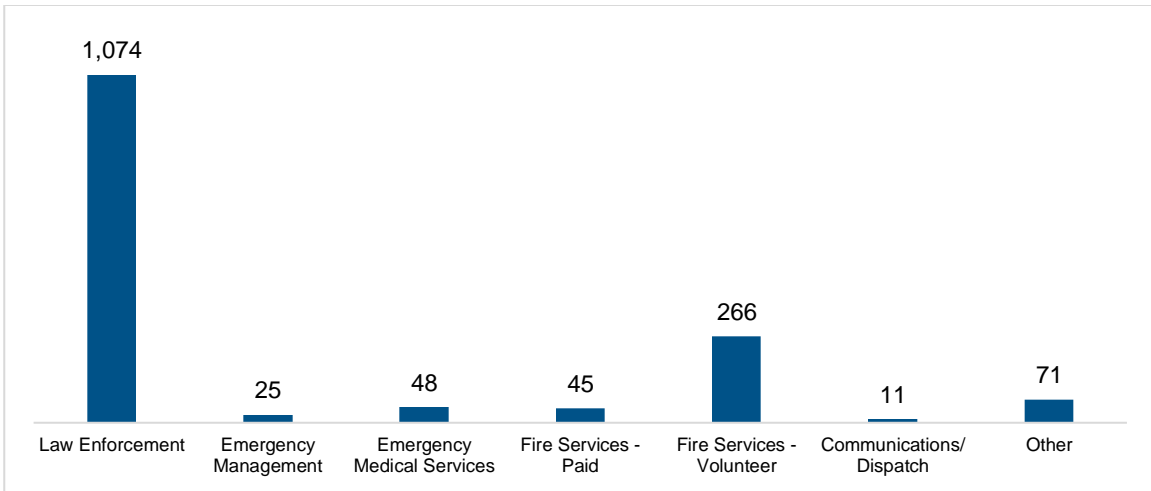
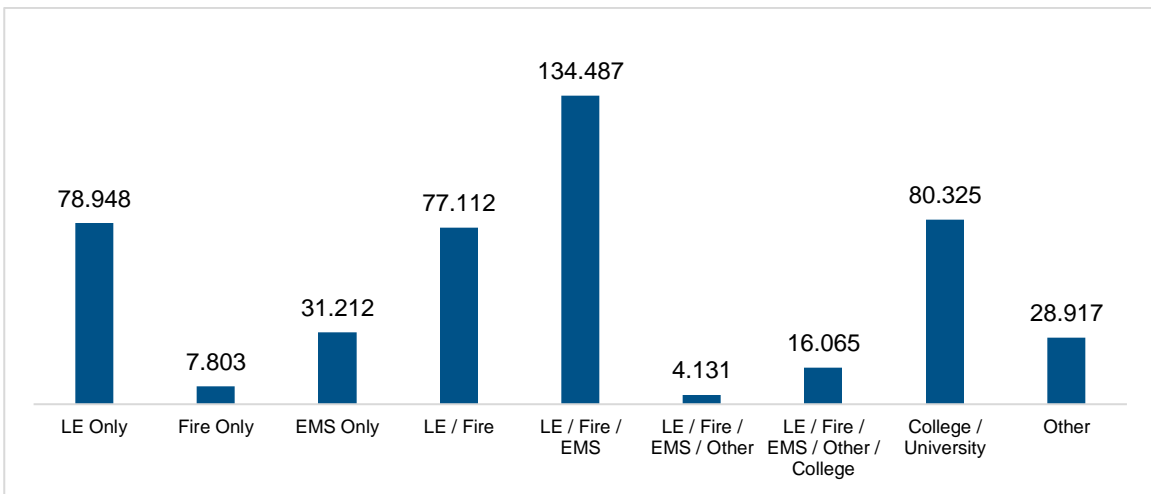*Figure 3. First Hands Program Participants by Discipline (October 2020 through December 2022).*

Figure 4. First Voice Participants by Dispatch Service Category (October 2020 through December 2022).
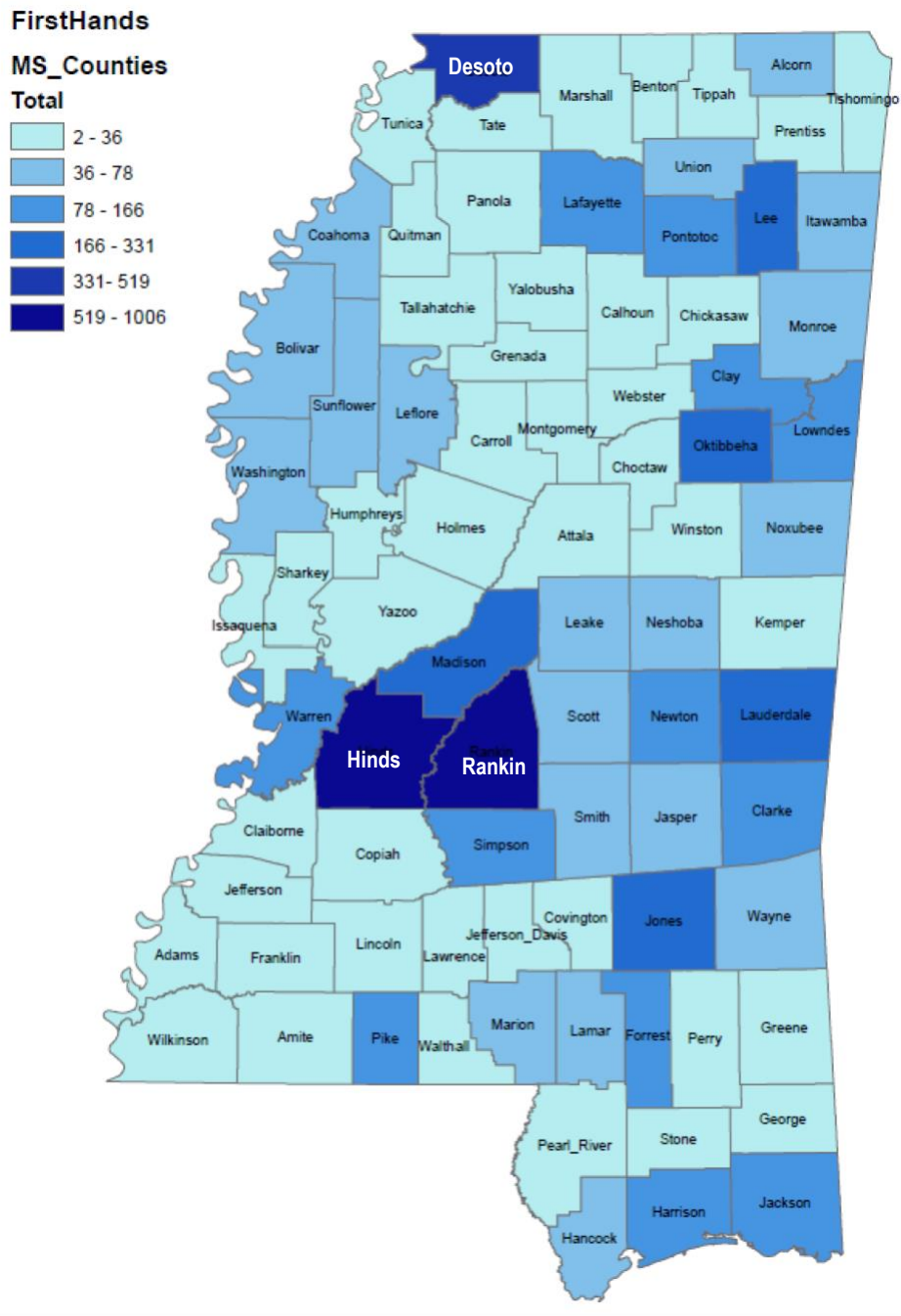
Figure 5. First Hands Participants by county (January 2017 – December 2022).

Appendix D: First Hands Program Bleeding Kit Re-Supply Request

The University of Mississippi Medical Center (UMMC) continued its previously established method by which First Hands Program participants could request a replacement bleeding control kit after using the kit in an emergency situation. Participants completed a form on the UMMC website or in the mobile smartphone application to request a new kit and provided general details about the incident. Between October 2020 and December 2022, UMMC received 54 bleeding control kit replacement requests. The following table includes a sample of the data collected through this form.

Table 5. First Hands Program Bleeding Kit Re-Supply Requests (October 2020 – December 2022).

Responder Category	Comments
Fire Services – Volunteer	The CAT tourniquet was applied above the wound then a bandage was applied to the wound on the pt's upper leg.
Fire Services – Paid	Engine 3 responded to a factory where a male had a laceration to his left arm. Firefighters quickly applied the tourniquet to the arm and waited for the medics. Once medics arrived, they applied another to the arm below the one the firefighter applied, then left for the hospital.
Law Enforcement	Had a shooting; needed everything to control the bleeding.
Law Enforcement	An accident that involved bleeding, used items from my kit to stop the bleeding and get medical attention.
Fire Services – Volunteer	Patient was run over by a tractor with tiller attachment. Used gloves for BSI, removed shirt and pants with trauma shears to check for injuries to torso and extremities, and used gauze and trauma dressing to control bleeding and bandage cuts from tiller lacerating patient.
Law Enforcement	Used gloves to apply basic first aid.
Law Enforcement	Gunshot wound to victim's right leg on the thigh. Kit was used to stop bleeding.

FIRST HANDS
Reference Guide

HEART ATTACK AND STROKE SIGNS / SYMPTOMS

Heart Attack

- Pressure, tightness, pain, squeezing or aching sensation in the chest or arms - may spread to neck, jaw or back.
- Nausea, indigestion, heartburn or abdominal pain
- Shortness of breath
- Cold sweats
- Fatigue
- Lightheaded or sudden dizziness
- Women may experience shortness of breath, nausea/vomiting and back or jaw pain
- Elderly & diabetics may have mild/no symptoms - do not dismiss mild symptoms in these patients.

Stroke

- Sudden numbness or weakness of the face, arm or leg - especially on one side.
- When asked to raise both arms out in front, one arm drifts down or won't raise at all.
- When asked to smile one side of month droops.
- Sudden confusion, trouble speaking or understanding.
- Sudden trouble seeing in one or both eyes.
- Sudden trouble walking, dizziness, loss of balance or coordination.
- Sudden severe headache with no known cause.

TO USE MSWIN SPECIAL EVENT TALKGROUPS

Planned Event:
Contact the Mississippi Wireless Communication Commission (WCC) and request a Special Event talkgroup:

WCC Main Number:
**601-359-5333 (M-F; 8am-5pm)
or 601-503-0391**
Website: www.wcc.ms.gov

Unplanned Event
- Select a State or Regional Special Event talkgroup.
- Monitor radio traffic 1-2 minutes, then:
  a. Key the talkgroup and ask if it is being used for an operation.
  b. Use the talkgroup for interoperability as needed.
- If the event will be operational for an extended amount of time, contact the WCC for an assigned talkgroup.

LEVEL OF CONSCIOUSNESS

The mnemonic AVPU refers to the basic scale of consciousness and identifies the following levels of consciousness:

A	The patient is **awake**
V	The patient responds to **verbal stimulation**
P	The patient responds to **painful stimulation**
U	The patient is completely **unresponsive**

MSWIN SPECIAL EVENT TALKGROUPS

MSWIN Special Event Talkgroups were created to ensure interoperability between local, state, federal & tribal entities.

The **ST SE CMN** talkgroup is considered the statewide calling talkgroup and is currently monitored by MSWFP, MHP, MDOT Law Enforcement, UMMC Med-Com, and MEMA.

SE1 (ZONE 1)	SE2 (ZONE 2)	SE3 (ZONE 3)
ST SE CMN	ST SE CMN	ST SE CMN
ST SE 1	ST SE 1	ST SE 1
ST SE 2	ST SE 2	ST SE 2
ST SE 3	ST SE 3	ST SE 3
R7 SE CMN	R1 SE CMN	R2 SE CMN
R7 SE 1	R1 SE 1	R2 SE 1
R7 SE 2	R1 SE 2	R2 SE 2
R7 SE 3	R1 SE 3	R2 SE 3
R8 SE CMN	R5 SE CMN	R3 SE CMN
R8 SE 1	R5 SE 1	R3 SE 1
R8 SE 2	R5 SE 2	R3 SE 2
R8 SE 3	R5 SE 3	R3 SE 2
R9 SE CMN	R6 SE CMN	R4 SE CMN
R9 SE 1	R6 SE 1	R4 SE 1
R9 SE 2	R6 SE 2	R4 SE 2
R9 SE 3	R6 SE 3	R4 SE 3

PATIENT ASSESSMENT

SAMPLE History	**OPQRST** Signs/Symptoms	**DCAP-BTLS** Trauma
Signs/symptoms	**O**nset	**D**eformities
Allergies	**P**rovocation	**C**ontusions
Medication	**Q**uality	**A**brasions
Past pertinent history	**R**adiation	**P**unctures
Last oral intake	**S**everity	**B**urns
Events leading to injury	**T**ime	**T**enderness
		Lacerations
		Swelling

TYPICAL VITAL SIGNS

Age	Pulse Rate	Respiration	Systolic Blood Pressure
Newborn to 1 year old	100 - 180	25 - 60	50 - 95
Children 1 - 12 years old	70 - 150	15 - 30	80 - 110
Adults	60 - 100	12 - 20	90 - 140
Pregnant: 1-13 weeks 14-27 weeks 28-40 weeks	63 - 105 67 - 113 65 - 114	8 - 24	95 - 138 96 - 136 102 - 139

SPECIAL EVENTS REGIONS

ZONES
SE 3 – REGIONS 2,3,4
SE 2 – REGIONS 1,5,6
SE 1 – REGIONS 7,8,9

NORTHERN REGION

REGION 4
REGION 3
REGION 5
REGION 2
CENTRAL REGION
REGION 1
REGION 6
REGION 9
REGION 7
REGION 8
SOUTHERN REGION

STATE OF MISSISSIPPI
MSWIN SPECIAL EVENT REGIONS
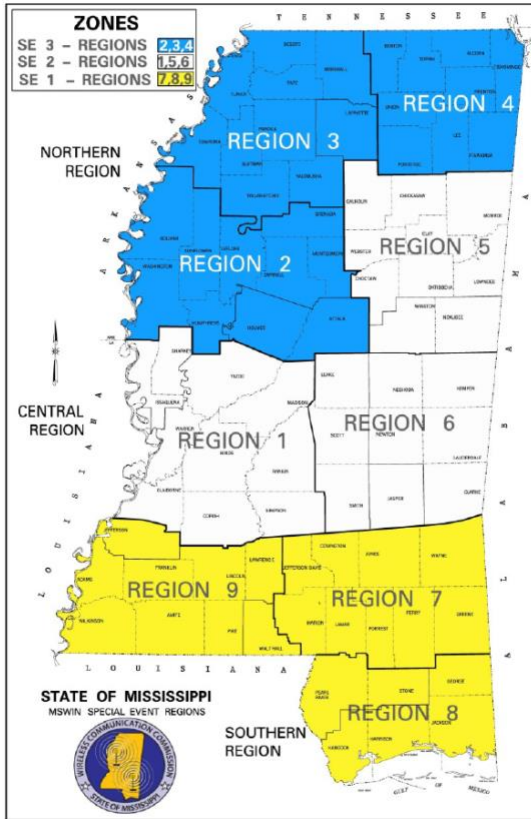
Visit www.wcc.ms.gov for updates to the MSWIN Special Event Regions map

GLASGOW COMA SCALE

The Glasgow Coma Scale uses the sum of scores for eye-opening, verbal and motor responses to assess severity of brain impairment with a head injury.

EYE OPENING RESPONSE (E)	
Spontaneous - eyes open with blinking	4
Eyes open to verbal stimuli	3
Eyes open to pain/pressure	2
No response	1
VERBAL RESPONSE (V)	
Oriented	5
Confused / Disoriented	4
Inappropriate words	3
Incomprehensible speech	2
No response	1
MOTOR RESPONSE (M)	
Obeys commands for movement	6
Purposeful movement to pain	5
Withdraws from pain	4
Flexion in response to pain	3
Extension posturing in response to pain	2
No response	1

E + V + M = score

MISSISSIPPI CENTER FOR EMERGENCY SERVICES TALKGROUPS

MEDCOM: Statewide hailing and a common talkgroup for EMS to communicate with Med-Com.

Regional MedTac 1 & 2: Regional talkgroups for EMS and non-EMS agencies for medical operations.

These talkgroups are available to Public Safety Agencies for medical interoperability.

Working with MCES TEAMS R(x) MedTac 1 & 2:
- Before event contact MED-COM via radio or 888-862-2345
- Establish the correct regional R(x) MedTac 1 talkgroup

BTOP 1	BTOP 2	BTOP 3
MEDCOM	MEDCOM	MEDCOM
R7 EMS	R1 EMS	R2 EMS
R7 Hosp	R1 Hosp	R2 Hosp
R7 MedTac 1	R1 MedTac 1	R2 MedTac 1
R7 MedTac 2	R1 MedTac 2	R2 MedTac 2
R8 EMS	R5 EMS	R3 EMS
R8 Hosp	R5 Hosp	R3 Hosp
R8 MedTac 1	R5 MedTac 1	R3 MedTac 1
R8 MedTac 2	R5 MedTac 2	R3 MedTac 2
R9 EMS	R6 EMS	R4 EMS
R9 Hosp	R6 Hosp	R4 Hosp
R9 MedTac 1	R6 MedTac 1	R4 MedTac 1
R9 MedTac 2	R6 MedTac 2	R4 MedTac 2

MISSISSIPPI POISON CONTROL
1-800-222-1222

MS Poison Control is available 24/7 to assist the general public, first responders and the healthcare community.

Poison in the eyes
- Remove contact lenses if present
- Rinse the eyes with lukewarm running water for 15-20 minutes. Have victim blink as much as possible - do not force eyes open.

Poison on the skin
- Take off any substance that the person may have touched
- Rinse the skin with lukewarm running water for 15-20 minutes

Inhaled poison
- Immediately get the person to fresh air.
- If the person cannot wake up, or is not breathing, begin CPR.
- If the person is coughing, gagging , short of breath or having difficulty breathing call 911.
- If indoors, open all doors and windows.

Swallowed the wrong medicine or too much medicine OR swallowed something that is not food or drink
- If the person can not wake up, or is not breathing begin CPR.
- The treatment for an ingested poison varies. Do not induce vomiting or give anything to eat/drink unless instructed to do so by Poison Control.

Snake Bite
- Lay them flat and keep the bitten area at the level of the rest of the body. **Do not elevate, dangle, cut or tourniquet the bitten area!**
- Do not apply ice
- Transport to a hospital. Do not bring the snake (alive or dead)
- Call Poison Control so they can notify the hospital the patient is coming and provide treatment advice.

SCENE LAUNCH PROCEDURE
MS MED-COM: 601-984-4367

Patient criteria for activation:

Multi-system Trauma Including But Not Limited To:
- BP < 90 mmHg
- RR< 10 or > 30
- Extrication > 20 minutes
- Difficult access due to remote location
- Mass Casualty Incidents (MCI)

Information Requested by AirCare
- Medic Name / agency / call back #
- Patient information /vitals
- Estimated patient age/weight
- Landing Zone (LZ) identifiers / GPS Coordinates
- Physical landmarks / city / county
- LZ commander's name / call sign

Radio Communications
Please advise the MedCom Dispatcher of your preferred radio frequency (Default = Hospital State New).

LZ Requirements
- 100 ft x 100 ft
- Flat; no more than 5 degree slope
- Firm surface: grass, concrete or asphalt
- No wires, no fences, no poles, no signs, no trees inside the 100 x 100 LZ
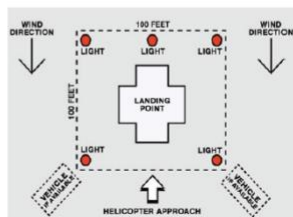
MCES MOBILE APP

The Mississippi Center for Emergency Services has created a mobile app to provide quick access to information presented during the FIRST HANDS course including:
- Bleeding control tourniquet usage
- Medical guide resources
- Radio & communication information
- Helicopter launch and landing info
- Critical messaging from MCES teams
- Important contacts
- Podcasts and relevant videos

Follow these steps to download and request access to the MCES App:

1. Search the App Store or Google Play Store for _MCES University of Mississippi Medical Center_
2. Download the App
3. Click _Request Access_ and select *First Hands Student*
4. You will receive an email within 3 days that will provide details on accessing the full App content

NOTE: Because the MCES App is by invitation only, your request and FIRST HANDS attendance will be verified before your are emailed details on how to access the full content.

The FIRST HANDS program was developed by the University of Mississippi Medical Center to enhance Mississippi's statewide public safety communication system and support rural medical care and communications. The FIRST HANDS program provides medical and communications training and exercises to empower first providers who face providing medical aid on-scene and in the field.

For more information or to request FIRST HANDS training contact the Mississippi Center for Emergency Services:
Phone: 601-815-6060
Email: publicsafetysupport@umc.edu

MEDCOM can be reached at:
888-862-2345 or 601-9844367
Fax: 601-984-4564
Website: www.umc.edu/publicsafetysupport.edu

The medical information in this booklet is provided for reference and educational purposes only. The content is not meant to be complete, or exhaustive, or to be applicable to any individual medical condition. Specific instructions/ treatment from local medical control plans, or on-line medical control physicians should be followed.

Revised 9/2022