

WRAP-EM Community Regional Response to COVID-19:

Lessons Learned and Best Practices Intra-Action Report

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Table of Contents

Executive Summary/Abstract	3
Introduction.....	4
Figure 1. WRAP-EM Portal and Functional Areas.....	5
Methods	6
Section I: What Did We Expect?	6
Section II: What Was the Reality?	7
Figure 2. WRAP-EM Activities Responding to COVID-19 Case Trends.....	8
Figure 3. Just-in-Time Video Views by Country, 2020	11
Section III: What Went Well?	12
Section IV: What Should Be Improved or Explored?	18
Conclusion	20
Appendix	21
WRAP-EM Organization Chart	22
COVID-19 Response Report (edited June 13, 2020).....	23
Western Region - Emergency Declarations Fact Sheet	29
Provider Mental Health Quick Reference Guide	31
Telehealth Usage Report.....	34
Presentations and Outreach List	35

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EXECUTIVE SUMMARY/ABSTRACT

The Western Regional Alliance for Pediatric Emergency Management (WRAP-EM) was founded with the goal of developing a “coordinated, collaborative and sustainable regional pediatric disaster planning and response capability.” In March 2020, the focus of WRAP-EM rapidly shifted from planning to execution. As the COVID-19 global pandemic began to rapidly spread in many regions of the United States, prompting local and state shutdowns as healthcare systems prepared for a potential surge of critically ill patients.

The WRAP-EM response to COVID-19 was swift. Bi-weekly conference calls were initiated that connected some of the foremost subject matter experts (SMEs) in pediatric emergency care, disaster response, infectious disease, emergency planning and other critical fields as well as representatives from each alliance State. The calls were a primary method to provide rapid dissemination of constantly changing information to the regional alliance members, allowing for institutions to share critical knowledge for patient care. The focus groups of WRAP-EM, while making good progress on the initial intended objectives, also shifted their attention towards COVID-19. Focus groups were able to generate numerous deliverables including emergency patient surge plans, PPE management strategies, plans for management of obstetric patients and their newborns, pediatric mental health initiatives, novel use of telemedicine and other communication strategies for pediatric care, and just-in-time educational resources for management of COVID-19 respiratory failure. In addition to these projects, WRAP-EM identified resources that were made available through the external online portal, which served as an important vehicle for networking and dissemination of information. These projects were shared widely in our scheduled COVID-19 meetings and utilized across the entire WRAP-EM membership.

The COVID-19 crisis exposed vulnerabilities across our healthcare system that WRAP-EM is uniquely positioned to address. WRAP-EM identified the need for legislative support as a primary concern. We noted that there is a need to change existing local, state, and federal regulations in order to support innovation across state lines, which is a primary goal of our consortium. Much of the success of our response relied on our technological solutions, specifically the WRAP-EM portal. Technologies such as the portal need to be expanded in use and scope to disseminate best practices and crisis communication. Additional opportunities for growth include leveraging medical trainees (medical, nursing, pharmacy, public health, etc.) in disaster situations as well as out-of-region representatives/experts who could serve in hot-spot operations centers to facilitate disaster “cross-pollination.”

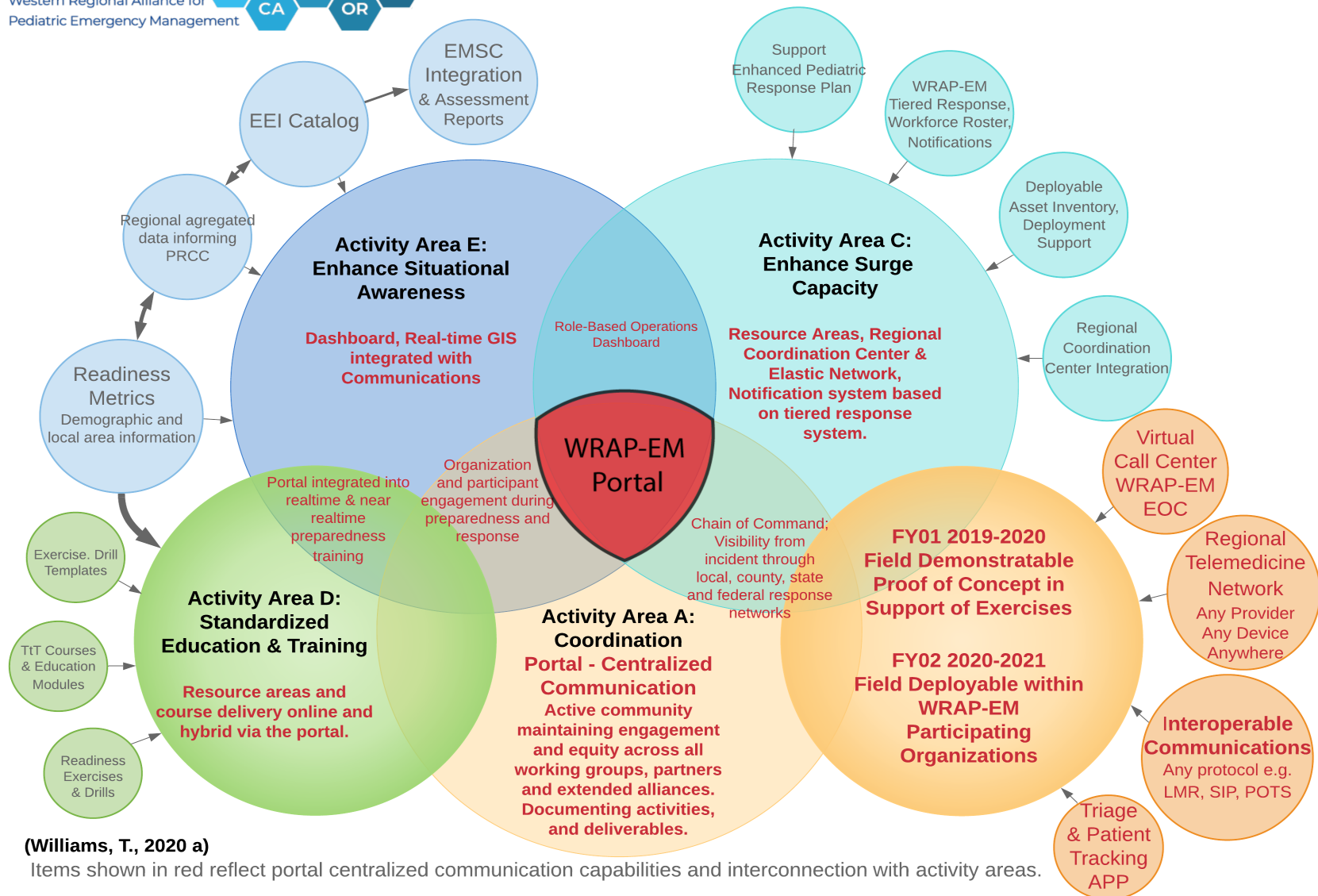
The WRAP-EM response to the COVID-19 pandemic is ongoing. The emergence of the novel coronavirus pandemic provided an opportunity for the existing WRAP-EM focus groups to address some grant deliverables while simultaneously providing response to COVID-19. Several focus groups were able to produce real-time tools, methods, and outreach materials that met

the intent of the grant deliverables while simultaneously providing operational support to the COVID-19 response. The projects developed to date have been vital for the COVID-19 response in our alliance regions, and we are committed to continuing to innovate with the goal of achieving the best outcomes for children and their families.

INTRODUCTION/BACKGROUND

On September 27, 2019, the Office of the Assistant Secretary for Preparedness and Response (ASPR) awarded a \$3 million grant to support the creation of a Pediatric Care Center of Excellence. The Western Regional Alliance for Pediatric Emergency Management (WRAP-EM), led by the University of California, San Francisco (UCSF) Health System and the UCSF Benioff Children's Hospitals, partnered with over 60 entities across five states: Arizona, California, Nevada, Oregon, and Washington. [See WRAP-EM Organization Chart, Appendix] The alliance includes all the major pediatric medical centers within the five-state region. The goal of WRAP-EM is to develop a coordinated, collaborative, and sustainable regional pediatric disaster planning and response capability that effectively matches resources to needs and allows the entire region to effectively respond during large scale pediatric mass casualty events. Figure 1 illustrates the WRAP-EM Portal and Functional Areas and is a diagram of our work plan.

Figure 1. WRAP-EM Portal & Functional Areas



METHODS

The WRAP-EM leadership structure allowed the community to swiftly navigate the vast challenges during early periods of the COVID-19 pandemic response. Focus groups pivoted to support expectations and requests for help. As states began to move toward a more manageable phase of response and recovery, WRAP-EM leadership was asked to develop an IAR to document outcomes to date, especially considering the COVID-19 pandemic. The pandemic response highlighted unexpected needs that in some cases were addressed by the WRAP-EM community.

The Regional Exercise Team was asked to lead the IAR production. The team facilitated targeted group discussions with all active focus groups between May 18-29. We asked the following four key questions of each group:

- What did we expect?
- What was the reality?
- What went well?
- What should be improved or explored?

Additional activities included but were not limited to key informant interviews to collect additional focus area details, a review of minutes compiled from bi-weekly COVID-19 Response meetings from March 4 – present, the creation of a COVID-19 response table containing data provided by focus group leaders, and solicitation of additional comments using an online whiteboard, Padlet™. Documentation of WRAP-EM efforts during both the COVID-19 pandemic and through the end of the grant period should provide ASPR with a toolbox of accessible, replicable, and sustainable resources that can be used by regions across the country to enhance pediatric emergency preparedness and response to disasters.

SECTION I: WHAT DID WE EXPECT?

The original WRAP-EM work plan consisted of several collaborative focus groups, led by subject matter experts representing the five-state region (Arizona, California, Nevada, Oregon, and Washington). The original focus groups were: Active Threats/MCI, Burns, CBRN/Infectious Disease, Deployable Assets, Education (subgroup Exercise Planning), EMSC, Gap Analysis, Mental Health, Patient Movement (subgroups Surge, NICU/OB), and Telemedicine.

Purpose Definition and Deliverable Completion

When the COVID-19 pandemic hit the US, most of the focus groups were meeting regularly and making good progress toward their intended objectives. Each focus group developed a mission statement and objectives consistent with funded deliverables supporting Activities A-E.

“Chris [Newton] created the platform that linked entities that in the past were not linked. People didn’t know they existed much less talked to each other.”
[BURN Group]

Focus groups were working toward dissemination of their work via in-person meetings, professional conferences, teleconferences, and videoconferences. At least two conference abstracts had been accepted and the Education focus group, for example, expected to be able to conduct in-person trainings in simulation centers in each state.

Networking and Communication

WRAP-EM developed communication strategies, largely centered around a quickly developed internet portal. Focus groups expected WRAP-EM to serve as a clearinghouse for resources, including training curricula, and for the portal to be a vehicle for organizing those resources. The focus groups also expected to meet regularly to expand the network that was developed during the grant proposal process, and to be able to use the network to communicate priorities to the five state regions. Finally, groups expected to complete needs assessments toward supporting gap analysis, including literature reviews and identification of best practices in managing pediatric cases during a disaster response.

“The group developed a survey and strategy to capture information about the participating members’ inventory and models. Shortly, the information captured in the Hub Site surveys will be used to formulate a Spoke Specific Survey.”
[Telemedicine Group]

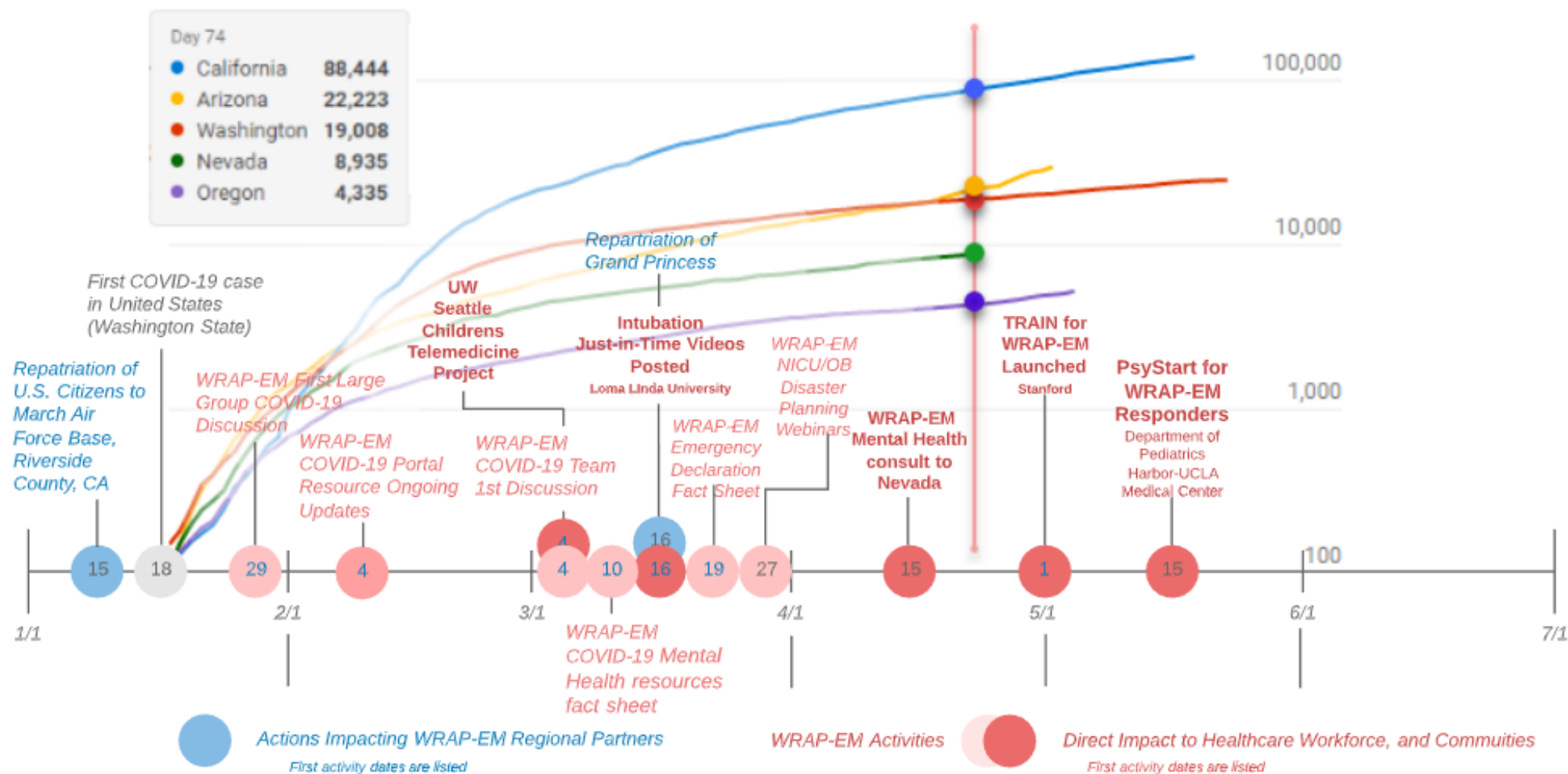
SECTION II: WHAT WAS THE REALITY?

The first suspected U.S. COVID-19 case occurred in Washington, one of the WRAP-EM region states, on January 13, 2020.ⁱ As the COVID-19 pandemic spread into all five WRAP-EM states, administration started a weekly call to share information. The first call was March 4; the scheduled calls have since continued. Calls were recorded, minutes posted to the WRAP-EM portal, and average attendance was more than 25 participants. The dialogue included updates from all regions, including important updates from a New York participant at the height of their pandemic response. The platform was intentionally created for open sharing of information, questions, and challenges across all regions.

“With COVID response, we moved from collecting resources to more of an exploratory purpose. I found that to be very exciting because you could see and listen to what folks were doing and how it was different or similar to your own.”
[Surge Group]

The need to share and archive resources, as well as the move to online only communication strategies spurred a rapid expansion of the WRAP-EM portal. Focus groups continued to meet regularly via Zoom. Most groups reported changing their priorities in order to meet the COVID-19 response. Separate group achievements are detailed in the COVID-19 Response Summary (Appendix). Figure 2 compares the COVID-19 case trend with major WRAP-EM response activities.

Figure 2. WRAP-EM Activities Responding to COVID-19 Case Trends



(Williams, T., 2020 b)

IN FOCUS: PPE MANAGEMENT

The COVID-19 pandemic presented challenges regarding personal protective equipment (PPE). Shortages of PPE across the nation were reported and institutions were tasked with creating innovative ways to protect healthcare workers fighting on the front lines. The WRAP-EM community was able to assist in disseminating vital novel concepts in PPE use, sterilization procedures, and staffing models to WRAP-EM member institutions and their communities. The Education focus group produced and shared multiple instructional videos on Bag-valve mask ventilation techniques utilizing in-line viral filters to protect providers managing patient airways. Additional resources shared across institutions included PPE strategies during advanced airway procedures which included recommendations for powered air purifying respirators (PAPR), N95 masks and specially designed patient containment boxes to decrease staff exposure. Novel sterilization techniques for reuse of N95 respirator masks, such as the use of ultraviolet light, were also shared across WRAP-EM institutions. The Bi-weekly COVID-19 subgroup meetings were also able share techniques for staffing and communication during pediatric resuscitations of suspected COVID-19 patients which would limit exposure to staff and preserve vital PPE.

Quickly Solidify WRAP-EM Infrastructure

The weekly COVID-19 meetings highlighted the need to quickly expand the WRAP-EM network. The expansion occurred organically because the priority was to ensure representation from all five regions. Representatives also switched out as clinical duties demanded attention. The weekly COVID-19 meetings helped people engage and support one another.

"People panic more alone than in front of a group. We support each other, makes it less likely to panic." [Surge Group]

Surge Planning

The actual surge exceeded expectations even though pediatric cases were not the initial focus. The "real life" disaster forced quicker solutions, and this seemed to also provide an opportunity to exercise a "real life" disaster response community. In some cases, this meant repurposing existing resources to accommodate the COVID-19 response.

"COVID is a distraction every single day continually refocusing, minds are continually somewhere else. You start on a project and then COVID drives you screaming somewhere else." [Burn Group]

Transition to Online Strategies and Unique Ways to Communicate

Expectations for the WRAP-EM portal grew exponentially in March, including enhanced resource management and the challenge of creating new pathways to communicate in both public (external) and private (internal) spaces. The move to strictly online strategies eliminated some of the distractions that can take up time such as travel and in person conferences and meetings. WRAP-EM participants did not have to shift because they already depended on technology for meetings. Using the portal for announcements, event scheduling, file sharing, and discussions resulted in an automatic archival system of online communications and shared

documents. Participants accessed a full array of resources by registering on the portal, but that registration also protected WRAP-EM from outsiders. In addition to the WRAP-EM portal communication efforts demonstrated by the focus groups, Zoom became the preferred method for focus group meetings.

IN FOCUS: WRAP-EM Representatives Deployed with NDMS

Chip Schreiber, PhD and Karen Greeley, RN were deployed by NDMS during the COVID-19 response. Dr. Schreiber provided mental health support for Travis Air Force Base where more than 100 repatriated cruise passengers were quarantined for more than 60 days. Karen Greeley assisted in three locations. First, she provided support for pediatric transfers for two airplanes evacuating American citizens from China in the early days of the pandemic. Second, she helped with the repatriation of the Grand Princess ship when it docked in Oakland, CA. Finally, she spent 3 weeks assisting with pediatric patients on the Navajo nation. Both representatives shared valuable lessons learned from these experiences and we appreciate their service in this capacity.

Pivoting Away from Expected to Reality

All regions expected to have a similar experience as Washington. Preparations included surge planning and PPE and ventilator acquisition. The reality for pediatric facilities is that the expected surge never occurred for children. Pediatric facilities were mostly impacted when resources were diverted to adult services.

The unspoken reality for children, however, while not directly from illness, was the potential for trauma especially for vulnerable kids. Lack of structure and lack of school services such as provided meals, the grief of losing a family member to COVID-19, and family stress due to financial hardship increased the potential for isolation and child abuse.ⁱⁱ The Mental Health focus group reported multiple requests for consultations, including resource development and assembling subject matter experts (SMEs) to provide professional input. The Burn focus group discussed the impact of cancelling summer camps devoted to pediatric burn victims.

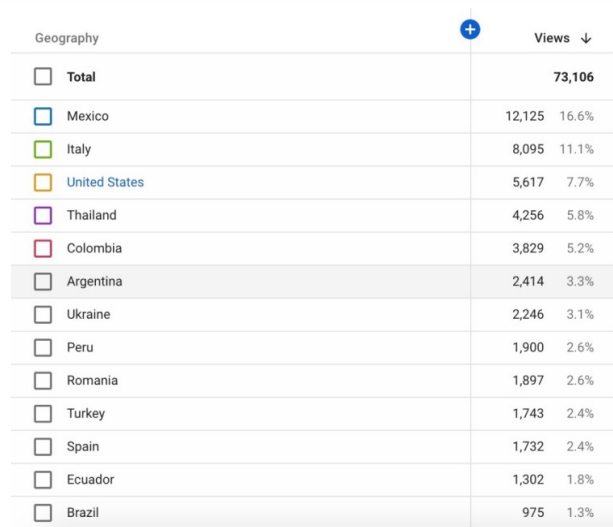
"This group shifted and responded to several requests for specific information by federal partners in supporting the mental health needs of both youth and adults over the past months. The resources and contacts have been invaluable to the States." [Mental Health Group]

Most groups reported changes to their original plans. Three groups delayed distribution of planned surveys because of concern about skewed responses due to COVID-19 distractions. The Education focus group quickly disseminated two Just-in-Time intubation videos that were viewed in Italy and Mexico during the height of their pandemic response. The Active Shooter focus group adapted resources used in the Las Vegas active shooter incident to the COVID-19 response.

“We used a collaborative approach that didn’t reinvent the wheel but enhanced our ability to respond.” [Mental Health Group]

IN FOCUS: Cross-Pollination

The cross-pollination of ideas and expertise among WRAP-EM community members has delivered early successes in developing timely educational content. WRAP-EM experts serving patients in Nevada and Arizona brought their ideas and hard work to build educational content community hospitals can use to prepare for an active shooter event that impacts children. Additional experts specializing in education from both the WRAP-EM and EGL groups came along-side the developing group and provided ideas and recommendations on methods that will increase the likelihood of the educational objectives sticking with the learners. Additionally, WRAP-EM community members from Southern California created a first person view educational intubation video during the early days of the United States SARS-CoV-2 outbreak. The larger WRAP-EM community quickly provided links to the video to their network of colleagues. As of June 4th, 2020, the video has been viewed over 72,000 times. Videos can be viewed at: <https://youtu.be/5fYdMyiaeu4> and <https://youtu.be/c9h2I8n9Ptk>



The image shows a screenshot of a YouTube video analytics table. The table has two main columns: 'Geography' and 'Views'. The 'Views' column is further divided into 'Views' and a percentage. The table lists various countries with their respective view counts and percentages. The total views are 73,106.

Geography	Views	
<input type="checkbox"/> Total	73,106	
<input type="checkbox"/> Mexico	12,125	16.6%
<input type="checkbox"/> Italy	8,095	11.1%
<input type="checkbox"/> United States	5,617	7.7%
<input type="checkbox"/> Thailand	4,256	5.8%
<input type="checkbox"/> Colombia	3,829	5.2%
<input type="checkbox"/> Argentina	2,414	3.3%
<input type="checkbox"/> Ukraine	2,246	3.1%
<input type="checkbox"/> Peru	1,900	2.6%
<input type="checkbox"/> Romania	1,897	2.6%
<input type="checkbox"/> Turkey	1,743	2.4%
<input type="checkbox"/> Spain	1,732	2.4%
<input type="checkbox"/> Ecuador	1,302	1.8%
<input type="checkbox"/> Brazil	975	1.3%

Figure 3. Just-in-Time Video Views by Country, 2020

Differing State and Local Policies Challenged Innovation and Adoption

Stay at home orders in all states pushed officials to alter typical health care delivery systems. The primary example was the use of telemedicine, which for years had faced issues related to crossing state lines and personal security legislation. WRAP-EM administration had anticipated these concerns and established a consulting relationship with James Hodge, a legal expert in inter-state health policy. WRAP-EM telemedicine leaders supported a project in Washington to help outpatient pediatric care clinics continue providing care despite restrictions on in-person visits. The Telemedicine focus group is also collecting examples of Telemedicine use during the pandemic. These examples and statistics will be collected and analyzed to produce a best practices report. Preliminary report is available in Appendix.

IN FOCUS: Emerging Telehealth in Washington State

Telehealth emerged as a tool for healthcare to combat COVID-19 (SARS-CoV-2). In early March, in Washington (WA) we recognized that there was significant disparity in the telehealth experience between well resourced, larger networks, and poorly resourced, smaller clinics. Prior to COVID-19, large networks had already begun establishing telehealth programs. Concern was raised that non-networked or poorly resourced outpatient pediatric clinics might lack telehealth access. After consulting our regional pediatric disaster network (Western Regional Alliance for Pediatric Emergency Management), we performed a needs assessment at 15 pediatrics clinics in Washington. 14 clinics (93% response rate) responded; none had ability to perform telehealth visits. Clinics needed support, specifically: (1) An easily implemented, low-cost system and (2) parity billing for telehealth services. Two weeks after the needs assessment was performed, we facilitated direct telehealth initiation support to 45 WA clinics and had created a coalition of statewide advocacy groups. We advocated for (1) a statewide solution for non-network or poorly resourced providers, which was delivered by the WA Health Care authority and (2) parity billing, which was delivered in final action by emergency governor action. Engagement with our regional pediatric disaster network was essential in providing guidance and expertise in this needs assessment, telehealth initiation process, and subsequent advocacy efforts. The power we have as pediatricians to coordinate with regional experts helped improve access to telehealth across Washington. A manuscript is under review reporting these results.

Unexpected Reductions Due to Low Census, Despite Growing Pediatric Needs

The intentional suspension of elective procedures and in-person primary care visits to preserve personnel and PPE resulted in a sudden and catastrophic drop in hospital resources. This drop forced many facilities to cutback and, in some cases, layoff clinical personnel. Increases in child abuse reports and consequences indicated increasing needs for mental health support.

“How will the system respond in current depleted mode when other disasters hit? (i.e., fires)” [Active Shooter Group]

Integrating COVID-19 Testing into Standard of Care (SOC)

As the pandemic continues, integrating COVID-19 testing into standard of care is becoming a higher priority for pediatric facilities. Policies are needed regarding pre-op screening, testing standards for clinical staff, and preventative visitor policies.

SECTION III: WHAT WENT WELL?

Despite significant demands on clinical personnel, working groups continued to be productive during the pandemic response. The WRAP-EM community responded generously with cross-state consultations for mental health and telemedicine. Commitment to documenting these efforts also supported eventual publication.

Communication

WRAP-EM provided access to a multidisciplinary community and many people commented that this sped up access to resources and ideas during the COVID-19 pandemic.

"Hearing that we are sharing the same experience, comradery, less reinventing the wheel, better about sharing, things are moving faster, we were linking resources that had not been linked before." [Burn Group]

Several people said that knowing who SMEs were and having access to them before you need them, was a significant benefit and one of the factors promoting their engagement in the WRAP-EM community. The WRAP-EM community focus group members communicate regularly by using the internal portal via focus group specific announcements, discussions, and chat. Additionally, Zoom is often used for collaborative discussions and meetings. Most focus groups meet every other week, the entire community meets weekly on Wednesday in addition to the open COVID-19 response meetings, and individuals use email and discussion/announcement posts within their focus group areas in the WRAP-EM Portal.

"WRAP-EM allowed me to be a leader in health care... WRAP-EM gave me credibility; we could take things back to our community. Credit to our leadership to bring in leaders from other locations, they gave us insight into how COVID was in other communities and helped us prepare better." [Burn Group]

IN FOCUS: Emergency Declaration Fact Sheet and Surge Plans

An example of WRAP-EM adapting an outreach product from an existing source is the "Declarations Fact Sheet" which was reviewed by members of the CBRNE/ID Focus Group and refined by WRAP-EM's legal advisor (Appendix). The original fact sheet had been previously developed for general workshops in emergency management in Nevada. The enhanced fact sheet became a valuable outreach tool for purposes of explaining the emergency declarations process within the context of COVID-19. It was made publicly available on the WRAP-EM external portal.

The implementation of surge plans was prevalent throughout WRAP-EM states in response to COVID-19. Existing surge plans provided valuable best-practice examples to communities struggling with the possibility of a large influx of patients in hospitals throughout the Western Region. For example, Clark County's University Medical Center and other area hospitals formed a CEO-level Hospital Surge Task Force which reached out to other WRAP-EM states for examples that could be adapted for use in planning for both surge and alternate care facilities. This is another example of not having to "re-create the wheel," saving precious time and resources needed to focus on immediate patient care during the pandemic. In turn, the plan developed for Clark County and subsequent Table Top Exercise which tested the plan can be used as templates and examples for addressing hospital surge and alternate care, especially in tourism-reliant communities.

Portal Development

The Portal serves as a hub to connect all aspects of the project. The Portal evolved with the WRAP-EM community, adding focus group specific spaces to meet ongoing needs. The Portal features public and private interfaces. Demand for Portal hosted services expanded exponentially as the pandemic progressed. As participants learned to depend on Portal communication features, the Portal supported administrative efforts for reporting, synthesis, and archival efforts.

IN FOCUS: WRAP-EM Portal				
<p>The portal team is led by Todd Williams, GISc MEP, as an extension of the Education Focus Group providing central communications for the WRAP-EM community members. The team is actively engaged in rapid cycle iterative projects to support the innovations required during the grant and specifically resulting from identified needs during the COVID-19 response. The research, development, and modeling of advanced projects are all focused on increasing the collaboration and advocacy across the WRAP-EM community. The following table highlights activities of community engagement facilitated by the WRAP-EM Portal Team during the recent heightened COVID-19 pandemic period from January-June 2020.</p>				
January 2020	March 2020	April 2020	May 2020	June 2020
<p>Telemedicine Clinic Launched for the Regional Exercise Team (any device, any user, anywhere)</p> <p>Video Meeting Rooms Launched Integration into the Portal Focus Groups has been completed. However, due to the COVID-19 demand for similar services in support of telemedicine, the Focus Group meeting rooms are on hold.</p>	<p>Newly Introduced COVID-19 Public Resources -Mental Health Resources -Provider Resources -State-Specific Resources</p> <p>COVID-19 Team added to the portal. Comprised of cross-group multi-disciplinary team members interested in COVID-19 collaboration.</p> <p>The Portal Team Provided resources and advocacy supporting the development of a telemedicine solution for the UW, Seattle Children's Hospital.</p>	<p>Tools Enhancing Collaboration:</p> <p>WRAP-EM HUB The HUB is a central location for the most critical portal information created during the high-volume activities supporting the COVID-19 response.</p> <p>Portal Advanced Calendar & Event Management System. Based on WRAP-EM member requests to increase the visibility of a growing number of events, supporting dynamic changes in our five-state community of WRAP-EM members.</p>	<p>Surge Capacity Critical Resources System Project (Launch July 1) Inspired by portal team efforts in 2019 and recent projects by UW and OHSU, the WRAP-EM situation awareness and assessment solution will provide a combination of real-time job-role based tabular views, dashboards, map-based views, and mobile APP data collectors.</p>	<p>WRAP-EM Connect Created Article categories create community engagement for each Focus Group, latest news, WRAP-EM member human interest stories, and inspirations from the advocacy across the WRAP-EM community.</p> <p>Re-launch of Video Meeting Rooms Integrated into the Portal Focus Groups in January, this portal service has been updated and re-launched based on lessons learned. The updated solution allows groups to select from multiple meeting room solutions.</p>

Resource Sharing (Tangibles and Documents)

The WRAP-EM community developed and disseminated resources during the COVID-19 pandemic in response to requests and identified needs. People depended on WRAP-EM for real-time information via the biweekly calls and several commented that

“hearing the real story to compare to media reports was a harbinger that encouraged us to prepare for reality. COVID made us work together.” [Mental Health Group]

The Portal evolved to an important vehicle for shared resources, especially for COVID-19 related products. The COVID-19 resource section is a comprehensive compilation of relevant training and data resource material. An unexpected benefit was the opportunity to have SMEs evaluate products before reaching the public.

“Leveraging our work group for the information management piece and recommending not advancing a particular resource because of potential harm to kids. Leveraging the group for real time consultative support. Bringing the real experiences of Washington to other areas.” [Mental Health Group]

The WRAP-EM network also facilitated forging of quick solutions to identified needs. An early example was the sharing of “surge” emergency declaration plans across the states. “... they were able to reach out to other states and get good examples of surge plans they could build on. This was a huge help in not recreating the wheel.” [Surge Group] The biweekly COVID-19 response calls also spurred the need for a separate group to discuss OB issues.

“PPE was shifted to the Adult side. But suddenly Dads visiting in OB were exposing us to COVID. Or we didn’t have PPE to protect us from the Moms.” [Surge Group]
“Wanted to be at the table so people understood there is a mother attached to the baby.” [OB Group]

This group was instrumental in helping providers interpret the data flood impacting policies like mother/baby separation and breastfeeding practices to especially protect babies from attachment concerns.

Generous Collaborators as Opposed to Competition/Shared Expertise to Solve Problems

Collaborative work is evident throughout the WRAP-EM community, as our experience shows that people prioritize “pitching in for the good of the patient.” We especially appreciate the strong partnership with the other ASPR funded project, Eastern Great Lakes Pediatric Consortium for Disaster Response (EGLPCDR). WRAP-EM and EGLPCDR collaborated on development and dissemination of needs assessments, and they have been especially active in

the Mental Health group. Another out of network contributor has been the University of Utah Burn Center, adding significant expertise to the Burn working group via resources and active participation in the group. Information gleaned from SMEs, front-line survey responses, and WRAP-EM members assigned to and embedded in emergency operation centers, repatriation/reunification efforts, and direct acute medical care response have served a dual purpose throughout the grant period to date. In addition, expertise from outside WRAP-EM has been instrumental in expanding access to subject matter expertise and front-line testimonials that have informed the ongoing work of the focus groups and expanded the WRAP-EM community.

"A benefit of WRAP-EM, it gave us an opportunity to push out established resources, WRAP-EM community forced that process. We have been looking to find each other, we had this stuff we developed and now we can share."
[Burn Group]

IN FOCUS: New York Collaborative Impact on WRAP-EM Community

Collaborating with partners outside the five-state region allowed WRAP-EM members to benefit from the tremendous expertise and wisdom of those that were battling the devastating effects of COVID-19 in their healthcare sectors in varying degrees. From the New York region where the magnitude and severity of cases was greater than any other state, our members were incredibly fortunate to have Dr. Mike Frogel within our community.

During the WRAP-EM community response to COVID-19 focus group discussions, a common theme emerged about the significance of hearing firsthand accounts from Dr. Frogel in the New York epicenter. Information shared by Dr. Frogel allowed WRAP-EM members to learn vicariously through his experiences and apply the knowledge gained to their own regions, enhancing their pediatric response to disaster capability and empowering them to rapidly identify advanced methods for matching needs to resources.

Dr. Frogel frequently joined the weekly large group meetings and the biweekly COVID-19 meetings, providing pertinent information to our community well before other states experienced similar events. The personal and professional observations and reflections he shared about dealing with COVID-19 brought tremendous meaning to our community by creating pathways and strategies to move forward through uncharted areas in the WRAP-EM and Great Lakes regions. A recent example of this was his warning of the IVIG drug shortages New York has been experiencing, advocating for increased monitoring to ward off challenges, which prompted WRAP-EM leadership to contact infectious disease experts in our local regions and alert them accordingly. Dr. Frogel has partnered with diverse WRAP-EM regional members to incorporate TRAIN™ and PsySTART® into pertinent New York infrastructures and to obtain valuable mental health, telemedicine, pediatric disaster, and web-based resources to distribute to New York affiliates and work towards the development of shared solutions for augmenting pediatric disaster response.

Advocacy and Influence, Sharing Expertise to Craft Solutions

As COVID –19 pushed providers into unfamiliar territory, WRAP-EM representatives offered generous consultation in several of these instances. The Mental Health focus group provided consults to situations in both Nevada and Texas, in addition to adding content to national publications. Burn and Mental Health groups offered flexible and fast consultations with national coalitions for fact sheet development.

Developed or Shared New Resources in Response to Identified Needs

The WRAP-EM Community responded with several resources in the COVID-19 pandemic. Some were original creations, and some were adaptations or efforts to endorse adoption. Resources included:

- CBRN focus group developed a scenario for the Education focus group exercise planned for Fall 2020
- SME presentations recorded and available for dissemination
- COVID-19 response practices, some videotaped, and disseminated.
- PsySTART®
- TRAIN™

IN FOCUS: WRAP-EM Mental Health Working Group

The WRAP-EM Mental Health group has been instrumental in developing and promoting resources and providing expertise within the community through the WRAP-EM portal and outside of the community through the externally facing portal. A few key examples of this are the COVID-19 Medical Personnel Mental Health Resources Quick Reference Guide V.1. (See Appendix) created in collaboration with ASPR's EGLPCDR consortium and a new Psychological Simple Treatment and Rapid Triage (PsySTART®) Responder Plus for medical providers released as compassionate use due to COVID-19, made available at no cost to any hospital or state within the seven state regions associated with the WRAP-EM and EGL grant projects. PsySTART® is a proven mental health triage and case management system developed by Chip Schreiber, PH.D. Professor of Clinical Pediatrics, Department of Pediatrics Harbor-UCLA Medical Center. PsySTART® is an evidence-based, rapid triage system for pediatric mental health risk and resilience situational awareness.

Additionally, the WRAP-EM Mental Health focus group is conducting a "Just in Time" introduction to the PsySTART® Pediatric Mental Health Triage via a tabletop exercise on June 29, 2020. The goals of this exercise are to demonstrate the ability of WRAP-EM & EGL collaborating entities to successfully log on and create PsySTART® pediatric triage encounters on 5 scenario-based, simulated pediatric patients in various all-hazards events within 50 minutes; demonstrate ability of diverse setting types and disciplines to use a common approach to evidence-based rapid triage of pediatric patients at high risk for enduring mental health consequences; and demonstrate a multi-state pediatric disaster mental health common operating picture toward evidence-based, EEI risk metrics.

“A primary value of WRAP-EM is education from others. Being able to discuss what has worked for people and what has not. Best practices as well as where the gaps are. We need the regional collaborations so we can educate one another. We cannot wait on the journal publications.” [NICU/OB Group]

SECTION IV: WHAT SHOULD BE IMPROVED OR EXPLORED?

Need System Changes Supported by Legislation

*“We need a paradigm shift in terms of disaster preparedness.”
[Active Shooter Group]*

Disasters impact children directly and indirectly, and we need enhanced situational awareness programs that include both leadership and technology to develop a comprehensive response. This includes integration with electronic health records (i.e., EPIC), a need for common definitions of bed type and equipment, and a “granular database” providing a real-time and accurate snapshot of available resources.

Legislation is also needed to help wrestle with local, state, and federal regulations that hinder innovation expansion across regional lines. A clear application is surge management. COVID-19 did not result in a direct need in this phase, but future scenarios could include the need to transport pediatric patients over state lines. Questions of who makes those decisions and how to reconcile policy differences that potentially hinder patient care should ideally be worked out before the next disaster. Similar questions pertain to telemedicine.

“Policy changes, implications for legislative changes should be a focus for this group. When do we flip the switch and go to telemedicine as a primary? Only in rural areas? Only when state or federal emergency is declared? Need to talk about this now, instead of in midst of a crisis.” [Telemedicine Group]

Legislation can also facilitate standardization. Clear examples where standardization would help include testing, both regarding availability and type, and resource distribution. For example, the focus groups commented that lack of standardization regarding PPE acquisition and distribution clearly left smaller institutions and communities at greater risk. Testing for COVID-19 is still an issue of great concern.

Planning

Regional communities like WRAP-EM provide established networks for future planning. WRAP-EM working groups reported lessons learned from COVID-19 focused on planning ahead, implementing strategies learned from best practices and the lived experience. Suggestions for planning efforts focused on earlier use of emergency declarations, increased use of intensivist providers to expand telemedicine and reduce patient stress.

Planning strategies should expand communication regarding emerging concerns. For example, an established regional network like WRAP-EM already facilitated information sharing regarding the emergence of MIS-C cases. Future applications will include resource dissemination and defining and encouraging a research agenda to test efficacy of new practices.

Encourage Participation Using Technological Solutions

Technology such as the WRAP-EM Portal should be focal in future planning. We learned that sharing real-time data, derived from reliable sources both quantitative (numbers) and qualitative (narratives), was essential to developing an authentic view of needs during a disaster. Expanded services could include use of mapping data using Geographical Information Systems (GIS).

Regional network participation should be boosted by creating expectations for relevant agencies to promote interdisciplinary interplay. We need to establish a system where group representation is encouraged, so that the system is not solely dependent on specific individuals. WRAP-EM experts were taxed in terms of responding to a plethora of emails and requests for information. Continued resource sharing via the Portal is essential to forging new solutions for dissemination and adoption of best practices.

Suggested resource development

WRAP-EM participants suggested several ideas for new resource development. In addition to new products, focus groups suggested that WRAP-EM establish a vetting process for resource endorsement whereby the Education focus group experts would establish standards for education modules prior to endorsement.

Several resources already mentioned include triage tools such as TRAIN™ and PsySTART®. Focus groups also developed resources by compiling model documents from multiple sources. These include the emergency declarations, educational resources, and literature reviews from Active Shooter, Mental Health, and Burn focus groups. Another priority is to sustain learning by documenting and publishing our efforts. Several abstracts have been accepted at professional conferences to spur project dissemination (Appendix). Novel ideas pending implementation include:

- Rapid response mental health team
- State by state report card for disaster planning
- Adding a COVID-19 response chapter to a popular pediatric disaster planning/training manual [Loma Linda Childrens Hospital. 2013. Pediatric Neonatal Disaster Reference Guide Bridging the Gap Between EMS and Hospital Care. <https://asprtracie.hhs.gov/technical-resources/resource/3086/pediatric-neonatal-disaster-reference-guide-bridging-the-gap-between-ems-and-hospital-care>]

Leveraging our Learners

Responding to COVID-19 challenged the limits of clinical personnel. Learners (nurses, doctors, health care administrators) represent a huge potential for expanding available personnel, especially those who are close to graduating. Learners can also assist in project evaluation and academic activities. The Mental Health focus group already employed the assistance of a medical student who completed a systematic review of the impact of family unemployment on children's mental health during the COVID-19 response.

Cross Pollination

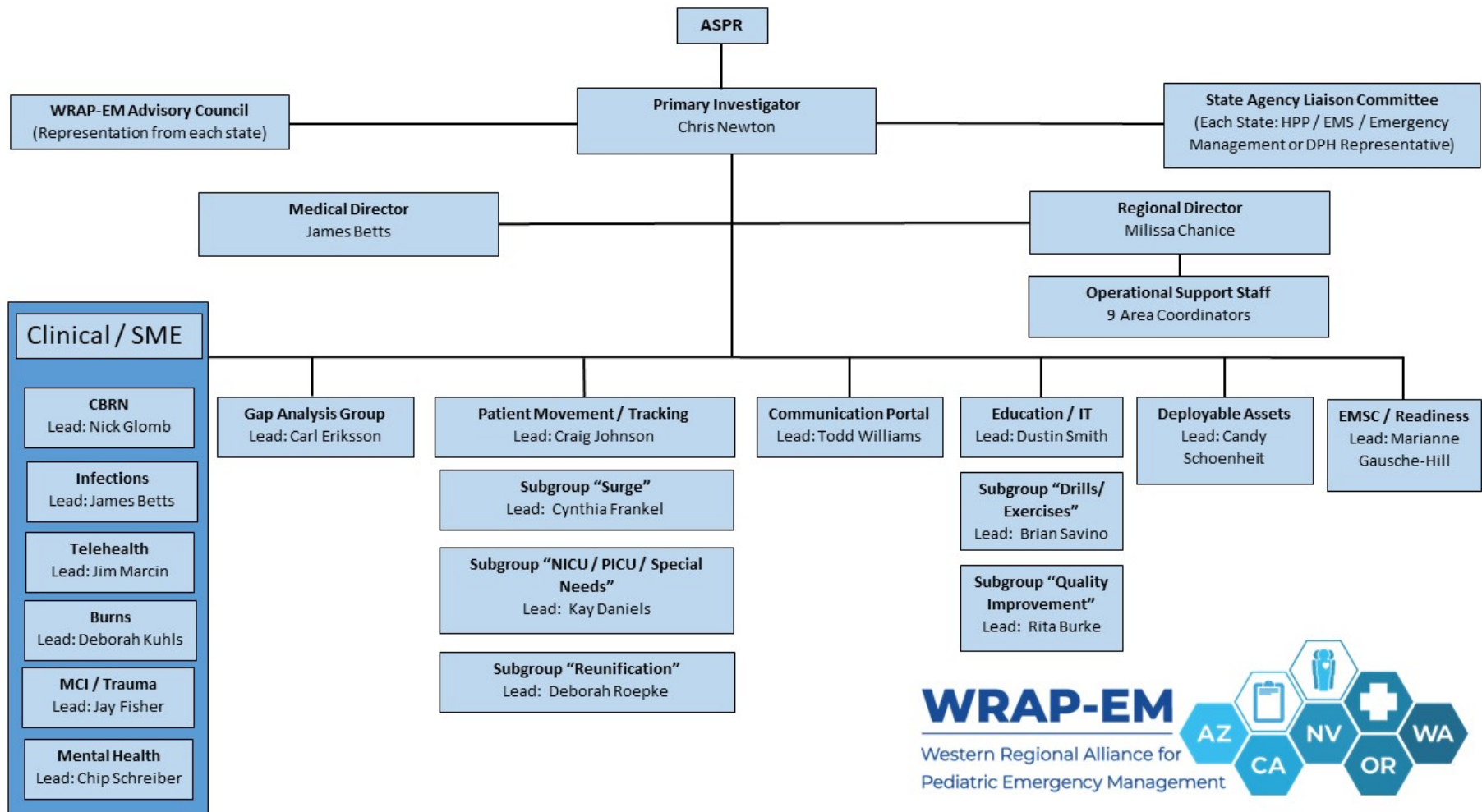
Learning from regions in real-time is a basic strategy for building capacity for disaster response. The relationships that are being built through WRAP-EM are facilitating regional coordination and collaboration as part of cross-pollination efforts. The Education focus group suggested that we develop real-time strategies to learn from emerging hot spots. This might include embedding an out-of-region representative in a hot spot command center to observe and document responses. Another idea is to learn retroactively from regions that were not hotspots to identify protective strategies. All these ideas hinge on establishing trusted relationships to encourage information and resource sharing.

CONCLUSION

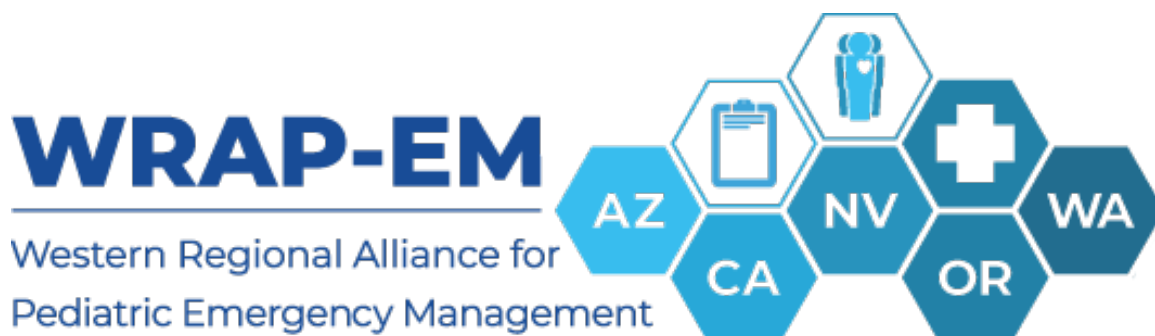
The original purpose of WRAP-EM was to develop a coordinated, collaborative and sustainable regional pediatric disaster response capability for large scale pediatric mass casualty events. This alliance represents the most extensive collection of pediatric preparedness and response experts ever conceived of, in a region with nearly 13 million children. Led by UC San Francisco Health System and UCSF Benioff Children's Hospitals, WRAP-EM now includes most of the Western States' pediatric medical centers, disaster coalitions, large community health care systems, representatives from state and local agencies, and coalition partners. The group also includes subject matter expertise in CBRN, trauma, burns, disaster mental health, telemedicine, education, EMS, obstetrics, ethics and law.

WRAP-EM's purpose and organization was tested starting in January 2020 with the first case of COVID-19 in Washington. Focus groups quickly redirected their attention to responding to real time needs. Group strengths included communicating quickly and effectively using the online portal and Zoom meetings, sharing resources, such as surge plans and educational videos, and providing cross-state consultation for telemedicine and mental health. The group also collaborated closely with Eastern Great Lakes Pediatric Consortium for Disaster Response (EGLPCDR), another grant awardee. Future work includes advocacy for standardization and surge capacity as well as development of common definitions.

APPENDIX



WRAP-EM Organization Chart



COVID-19 RESPONSE REPORT

Portal Team edited and revised on June 13, 2020

ENTITY		RESPONSE
ADMINISTRATION		Created biweekly meetings on Tuesdays and Fridays for members to share experiences and lessons learned, consulted with legal counsel regarding declarations, there are ongoing efforts to share information and resources on our website, which is available to the public.
FOCUS GROUPS	ACTIVE SHOOTER/ MCI	Our focus group consists of a diverse cross-section of experts represented by members from all five states in the WRAP-EM consortium with backgrounds in Pediatric Surgery, Trauma Surgery and Critical Care, Governmental Emergency Management, Pre-hospital, and interfacility transport, and Pediatric Critical Care. We have been meeting twice a month in our virtual workspace, have reviewed the world's literature on Pediatric MCI with a focus on school shootings, and developed a beta version of an online, narrated learning module on community hospital MCI preparation. Since the start of the coronavirus pandemic, the WRAP-EM No Notice/MCI Focus Group has shifted some of our focus to the COVID-19 effort by participating in the weekly WRAP-EM COVID-19 calls as well as the calls of other focus groups such as the EMSC Focus Group and the Education Focus Group. In my role as the medical director of a Pediatric Emergency Department in Las Vegas, I have been actively participating in the pediatric emergency listserv, which consists of over 2000 pediatric emergency specialists from around the world as well as

		the AAP Disaster Committee listserv. Both list serve groups are continuously discussing strategies to combat the COVID-19 outbreak daily. We are also initiating research to examine the impact of seasonal viral outbreaks on the surge capacity of Pediatric Emergency Departments to help optimize future pandemic mitigation and response.
	BURNS	We postponed the Utah regional burn exercise scheduled for June until a later date. A literature review is underway to identify best practices and lessons learned in pediatric burn treatment. The Burns Focus Group is working on converting our literature review results for use in an academic paper for future presentations. Burns Centers and protocols will be the focus of HPP activities next year, providing opportunities to participate in planning, exercises, and presentations providing lessons learned and best practices on behalf of WRAP-EM.
	CBRN/ ID	The CBRD/ID Focus Group created an MCI scenario for a tabletop exercise for the WRAP-EM Regional Exercise, and the group is currently featuring COVID-19 related presentations by subject matter experts.
	DEPLOYABLE ASSETS	<p>In response to the COVID-19-19 Pandemic, the Deployable Assets Focus Group has the following goals:</p> <ol style="list-style-type: none"> 1. Collect information and gaps experienced by deployed assets. Although there was not much need for pediatrics, we are interested in lessons learned from those who experience deployment during this time. 2. Identify specialties from other WRAP-EM Focus Groups that may be available for consulting via phone telemedicine or actual deployment. 3. Incorporate this resource directory into the WRAP-EM portal and other support structures. <p>Our focus group changed the group's meeting frequency from every two weeks to monthly to accommodate members' COVID-19 response requirements.</p>
	EDUCATION/ IT/ REGIONAL EXERCISE	<p>In response to the COVID-19-19 Pandemic, the WRAP-EM Education Focus Group developed the following new deliverables:</p> <ol style="list-style-type: none"> 1. We produced two simulation videos related to COVID-19-19 encounters and uploaded them to

		<p>the WRAP-EM community portal for distribution. We are also planning to provide a written document that summarizes the patient care that will be available to both internal WRAP-EM organizations and external healthcare organizations. We invited all group members to upload similar resources from their organizations to the WRAP-EM portal.</p> <p>2. We are developing and executing simulations in our respective centers that are COVID-19-19 focused. At some point, our goal is to put those simulations to paper in a format that others could follow.</p> <p>Regional Exercise Team: Analyze weekly the WRAP-EM bi-weekly COVID-19-19 calls to develop an after-action report for the WRAP-EM COVID-19 response. In addition to this being a stand-alone deliverable, we will be using this to inform our exercise planning process. We have also decided to delay the WRAP-EM Exercise (Likely to the fall). The revised schedule will be discussed at our next Exercise Team meeting, April 14.</p>
	EMSC/ PEDS READINESS	The EMSC/PED's Readiness Focus Group has been dormant since early March because the leaders and most participants are heavily involved in the local response to COVID-19-19.
	GAP ANALYSIS	The Gap Analysis Focus Group has been dormant since early March because the leaders and most participants are heavily involved in the local response to COVID-19-19.
	MENTAL HEALTH	<p>-Collaborated w/ terrorism and disaster program of National child traumatic and stress network on COVID-19-19 parent fact sheet which was shared nationally</p> <p>-Mental Health Focus Group has created a list serve that has 70 people across all seven states (WRAP-EM and Great Lakes) group increasing with recent COVID-19-19 activities.</p> <p>-Weekly COVID-19-19 huddles (those from WRAP-EM and Great Lakes to share info, issues in real-time, resource sharing)</p>

		<p>-Mental Health Focus Group responded to a request to review another info sheet to be distributed to parents who have lost a child due to COVID-19-19.</p> <p>-The Mental Health Focus Group provided expertise on a targeted COVID-19 consultation by the State of Nevada on specific COVID-19-19 cases. Mental Health Focus Group brought together the V.P. of Emergency Response, Mental Health, and Infectious Disease from the California Hospital Association as well as SAMSHA admin from HHS. Mental Health Focus Group brought these professionals together for consultation as well as facilitated meetings that occurred over a weekend.</p> <p>-New PsySTART Responder Plus for medical providers, made available for free to any hospital/state in 7 states within the two grant awardees (WRAP-EM and Great Lakes). The service is available for compassionate use due to COVID-19-19.</p> <p>-Discussion with SAMSHA region five and Great Lakes group with a COVID-19-19 focus.</p> <p>-Mental Health Focus Group is working on resource list with Great Lakes to be released by 4/10/19</p> <p>-Mental Health Focus Group held joint discuss with OR and W.A. (WA DOH & OHA health systems division)</p> <p>-Mental Health lead distributed situational awareness in pediatric issues related to COVID-19-19 to WRAP-EM leadership, sent daily</p> <p>-Mental health emergency manager for Tarrant County, TX (Ft Worth) asked for a consultation with Mental Health Focus Group and info for a real-world COVID-19-19 issue. Texas is a nationally based request to WRAP-EM.</p>
	PATIENT MOVEMENT	The Patient Movement Focus Group has been dormant since early March because the leaders and most participants are heavily involved in the local response to COVID-19-19.
	NICU/OB	The NICU/OB Focus Group initiated a weekly webinar to educate and provide an arena for discussion with obstetrics units throughout the country. These webinars include presentations by O.B. and NICU experts from the CDC, Stanford University, the University of Davis, followed by open discussion. The webinars have representatives from California, New York, Washington State, Iowa, Indian Health Service,

		Florida, Michigan, Idaho, Georgia, Texas, Wisconsin, and Mississippi.
	SURGE	<p>The Surge Focus Group, led by Cynthia Frankel, has collected many documents for surge plans and crisis standards of care plans from across the nation. Initial sessions provided an opportunity for participants to share their ideas and presentations regarding surge. With COVID-19-19, the focus has shifted to gathering information from participants on how they are implementing and adapting Surge plans and Crisis Standards of Care Plans. New best practices are in development and open discussions to respond to requests from participants for information and ideas. The group currently meets every other week on Monday. The next meeting is May 4, 2020, 11:30 AM-1:00 PM.</p>
	TELEMEDICINE	<p>The initial objective was structured to Identify Interstate and Regulatory Challenges, Create an Inventory of Existing Telemedicine Models: Identify Capability and Constraints, Create an Action Plan for year 2.</p> <p>The Telemedicine Focus Group has developed a survey and strategy to capture information about the participating members' inventory and models. Shortly, the data obtained in the Telemedicine Hub Site Surveys will inform a follow-up Spoke Specific Survey. Identifying and documenting the Network, Inventory, and Structure will be the next work product.</p> <p>A secondary objective has arisen because of the COVID-19 Pandemic. The Telemedicine Focus Group is searching for examples of Telemedicine use during the Pandemic. These examples and statistics will be collected and analyzed to produce a report on successes and failures and best practices. The collection of evidence may spur the examination of other topics.</p> <p>These two tracks will eventually cross to answer some of the questions we find ourselves asking now and applying it to Pediatric Emergency Response. These include items like:</p> <p>How can the Telemedicine system be structured to be more robust in the form of Intensive oversight? What can the network do to develop more "intensivists?"</p>

		How can Telemedicine be leveraged to reduce stress on the patient receiving less than intensive care? What are the most significant areas of reward for the Provider and Patient with the use of Telemedicine?
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Emergency Declarations – A Brief Overview

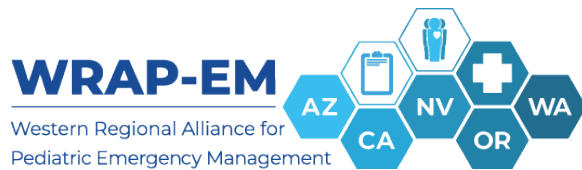
MARCH 26, 2020

Please see below brief explanations of emergency declarations in response to COVID-19 at federal, state/tribal, and local levels. Link to our [Network website](#) for considerable, additional information:

- **Federal Public Health Emergency** – Under §319 the Public Health Services Act ([42 U.S.C. 247d](#)), the Secretary of Health and Human Services (HHS) may declare a federal public health emergency (PHE) in response to “significant outbreaks of infectious disease or bioterrorist attacks.” A PHE declaration enables HHS to accelerate procurements and federal fund distribution, investigate causes and solutions, promote coordination and social distancing measures, and temporarily waive some federal laws. This declaration also speeds the use of medical countermeasures by allowing for emergency use authorization of products under [21 U.S.C. 360bbb-3](#).
- **Federal Stafford Act Emergency/Disaster** – The President may make an emergency or disaster declaration under the Stafford Act, [42 U.S.C. 5121–5208](#), triggering the Federal Emergency Management Agency (FEMA) to provide financial and other assistance to help affected communities respond and coordinate federal responses. Usually made at the request of specific states, Stafford Act declarations frequently respond to natural disasters, but have also been issued [during COVID-19](#) to engage FEMA support and funding, among other authorities.
- **Federal National Emergency Act** – Under [50 U.S.C. 1601–1651](#), the President may declare a national emergency to access [myriad powers](#), expressly defined in law or potentially implied by Constitutional authority. These powers may include redirecting federal funding or staff to address emergencies and some waivers of specific federal laws. In the COVID-19 pandemic, an [emergency declaration](#) on March 13, 2020 resulted in select waivers of federal regulations to increase access to health services, testing, and other interventions.
- **State/Tribal Emergency or Disaster** – State and tribal governments may draw on their sovereign [police powers](#) (e.g., powers to protect the public’s health and safety) and statutory or constitutional authorizations to declare emergency or disaster declarations. Once declared, resulting powers include ready allocation of funds, coordination tools, and facilitating emergency services. Additional powers granted vary by jurisdiction and type of emergency, but may include [public health powers](#) such as surveillance, travel restrictions, or quarantine and isolation.
- **State/Tribal Public Health Emergency** – [Over 30 states](#) and various tribes have statutes and rules enabling them to declare PHEs based in large part on the [Model State Emergency Health Powers Act](#). PHEs specifically enable responses to bioterrorism or infectious agents, like COVID-19, that present a high probability of causing death or disability. State and tribal PHEs grant powers such as closing roads or businesses, imposing social distancing, testing and screening,

quarantine and isolation, or licensing reciprocity and liability protections for health care workers.

- **Local Emergency or Public Health Emergency** – Depending on authorities provided via state governments, cities and counties may enact ordinances to invoke declarations of local emergencies entailing [various powers](#) such as freeing up resources, coordinating local responses, or rapidly issuing emergency policies. Several localities have used these powers during the COVID-19 pandemic, for example, to enact [shelter-in-place orders](#). Local emergency powers must generally align with state-based exercises of powers for purposes of uniformity.



COVID-19 Medical Personnel Mental Health Resources:

Quick Reference Guide V.1

Collated by behavioral health specialists from ASPR's Eastern Great Lakes Pediatric Consortium for Disaster Response and the Western Region Alliance for Pediatric Emergency Management. This guide will be updated as evolving pandemic response information becomes available.*

Resources for Supporting Healthcare Providers, Their Colleagues, and Families

- ✓ This one-page resource developed by the Center for the Study of Traumatic Stress lists tips for sustaining the well-being of healthcare personnel during infectious disease outbreaks, including taking care of yourself, your family, and colleagues.
 - https://www.cstsonline.org/assets/media/documents/CSTS_FS_Sustaining_WellBeing_Healthcare_Personnel_during_Infectious_Disease_Outbreaks.pdf
- ✓ This four-page handout from the U.S. Department of Veterans Affairs' National Center for Post Traumatic Stress Disorder (PTSD) focuses on healthcare workers' stress associated with the COVID-19 virus outbreak; tips are given for fighting stress through preparedness, identifying sources of stress, and dealing with stress during and after the outbreak.
 - <https://www.ptsd.va.gov/covid/COVID19ManagingStressHCW032020.pdf>
- ✓ This interactive site, PTSD Coach Online, from the same source as above, offers options to choose what to work on, e.g., "Deal with trauma reminders" and "Form good sleep habits," and then users can watch a brief video along with responding to tailored prompts for behavioral strategies and quizzes to build knowledge and skills.
 - https://www.ptsd.va.gov/apps/ptsdcoachonline/tools_menu.htm#
- ✓ This 6-page handout from the World Health Organization, "Mental health and psychosocial considerations during the COVID-19 outbreak," contains messages for healthcare workers, for team leaders or managers in health facilities and for people in isolation.
 - <https://www.who.int/publications-detail/mental-health-and-psychosocial-considerations-during-the-covid-19-outbreak>
- ✓ This easy-to-read 24-page guide for Listen, Protect, and Connect (LPC)¹ offers providers with skills for being supportive of their families and colleagues. LPC is based on the principles of Psychological First Aid for listening to others' concerns, trying to help out, and connecting them with resources as needed.
 - [https://www.fema.gov/media-library-data/1499092051917-115ad4c12a44f04a93b4a37c17e99211/PFA\(1\).pdf](https://www.fema.gov/media-library-data/1499092051917-115ad4c12a44f04a93b4a37c17e99211/PFA(1).pdf)

Resources for Supporting Children

- ✓ This collection of six one-page tip sheets from the World Health Organization addresses parenting in the time of COVID-19 and covers planning one-on-one time, staying positive, creating a daily routine, avoiding bad behavior, managing stress, and talking about COVID-19.
 - <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/healthy-parenting>
- ✓ This one-page caregiver tip sheet from the National Child Traumatic Stress Network (NCTSN) lists strategies for helping young children with traumatic grief.
 - https://www.nctsn.org/sites/default/files/resources//helping_young_children_with_traumatic_grief_caregivers.pdf
- ✓ This 22-minute long YouTube video from the American Academy of Pediatrics is created for pediatricians and provides effective communication strategies for ways to talk with and support children during the COVID-19 pandemic. Strategies for helping parents communicate with their children are also included.
 - <https://www.youtube.com/watch?v=FcYZWiF3PNc&feature=youtu.be>
- ✓ This 21-page parent booklet from the National Center for School Crisis and Bereavement reviews how caregivers can help children better understand and adjust to a death.
 - <https://www.schoolcrisiscenter.org/resources/loved-one-dies/>

Pediatric Exit Care Instructions (COVID-19)

- ✓ Rainbow Babies & Children's Hospital in Cleveland, Ohio has created a set of medical and psychosocial instructions for children with suspected or confirmed COVID-19 who are discharged to home isolation from urgent care, the emergency room, or hospital. These resources are provided in a Word document format so hospitals may download them to add their own logo and formatting.
 - <https://emscimprovement.center/domains/preparedness/covid-19-coronavirus/hospital-preparedness/>

For More Resources and the Most Current Version of this Guide

- ✓ WRAP-EM Western Regional Alliance for Pediatric Emergency Management
 - <https://wrap-em.org/>

National Contacts

- ✓ National Parent Helpline (Monday through Friday 10 a.m.–7 p.m. PDT) – call 1-855-427-2736 for emotional support and advocacy for parents
- ✓ Substance Abuse and Mental Health Services Administration (SAMHSA's) free 24-hour Disaster Distress Helpline -- 1-800-985-5990
- ✓ National Suicide Prevention Lifeline (24/7) – Call 800-273-TALK (8255); online chat support
- ✓ National Domestic Violence Hotline (24/7) – Call 800-799-SAFE (7233)
- ✓ Merritt D. Schreiber, Ph.D. m.schreiber@ucla.edu - ASPR's Western Regional Alliance for Pediatric Emergency Management
- ✓ Carolyn E. Levers-Landis, Ph.D. Carolyn.Landis@UHHospitals.org – ASPR's Eastern Great Lakes Pediatric Consortium for Disaster Response

1. Listen, Protect and Connect: family to family, neighbor to neighbor was customized by Merritt Schreiber, Ph.D. and Robin Burwitch, Ph.D. for the County of Los Angeles Department of Public Health Emergency Preparedness Response Program.

**The U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Preparedness and Response (ASPR) cooperative agreement established the Eastern Great Lakes Pediatric Consortium for Disaster Response led by UH Rainbow Babies and Children's Hospital of Cleveland and the Western Region Alliance for Pediatric Emergency Management led by University of California, San Francisco (UCSF) Health System and UCSF Benioff Children's Hospitals across two HHS regions with nearly 20 million children.*

Impact of the COVID-19 Pandemic on Telemedicine - The Western Regional Alliance for Pediatric Emergency Medicine (WRAP-EM) Telemedicine Group Survey

Background: The ongoing COVID-19 pandemic has significantly altered medical practice. The Telemedicine group of the WRAP-EM consortium, as part of a larger initiative to address telecommunication during disasters, sought to evaluate the impact of the pandemic on how care is delivered.

Methods: A short survey was sent to the membership of WRAP-EM through a secure web portal. Current changes in tele-health practice resulting from COVID and its projection in the future along with standard demographic data were queried. Qualitative results were analyzed by a group of 7 members of the Telemedicine group for general tone and common themes.

Findings: 52 respondents included physicians (19, 37%), patients (12, 23%) and nurses (10, 19%). Respondents were from 12 different states, most from Arizona (21, 40%) and California (9, 17%). Most respondents had a positive impression (50, 96%). Major themes included a large increase in utility, with most going from minimal use to 70-80% of all clinic visits, enhanced safety during pandemic, increased access for patients and healthcare providers, more flexibility and timeliness of appointments, and decreased distractions during visits. Negative responses included concerns over billing and need for future in-person visits. Table shows novel ways telemedicine is being utilized by respondents.

Conclusions (implications for practice): The use of telemedicine has dramatically increased during the COVID pandemic. It will have a lasting impact on the future delivery of healthcare. Its broad application during emergency operations has demonstrated its utility. Future directions should work toward limiting barriers to implementation.

The Program Committee of the Pediatric Trauma Society has selected this work for a **Display ePoster** at the 7th Annual Meeting of the Pediatric Trauma Society to be held November 4 - 7, 2020 at the Sheraton New Orleans Hotel in New Orleans, LA.

Specialty	Novel Application of Telemedicine
Burn Care	Teaching outside medical providers basic burn care to limit transfers
Emergency Medicine	Screening patients for symptoms before allowing entrance to waiting room Use for general registration in waiting room Home visits via Emergency Medical Technicians communicating with providers
Education	Tele-Objective Structured Clinical Examinations (OSCE)



External Meeting Schedule / CMEs / Training (portal calendar)

1. **Update: Preparedness Summit**, August 25- 27, virtual (Schreiber)
2. **NDMS Summit**, September 3-5, Orlando, FL (Newton)
3. **North American Congress of Clinical Toxicology**, September 10- 14, virtual
4. **Update: EMS World Expo**, September 14-18, virtual
5. **Update: AAP National Conference & Exhibition**, October 2-6, virtual
6. **Update: ACS Clinical Congress**, October 4-8, Chicago, IL- possibly virtual
7. **REACH EMS Symposium Keeping the Tiny Humans Alive: Pediatric Emergencies**, October 20, Sacramento, CA
8. **Pediatric Trauma Society (PTS)**, November 4-7, New Orleans, LA (Burke, Newton)
9. **International Association of Emergency Managers (IAEM) Conference**, November 13-20, Long Beach, CA (Burke, Smith, Schreiber)
10. **National Healthcare Coalition Preparedness Conference (NHCCPC)**, December 1-December 3, Las Vegas, NV (Paris)
11. **Update: REACH California Pediatric Emergency Care Conference (CPECC)**, December 18, Fairfield, CA
12. **Trauma Centers Association of America (TCAA)**, May 2- 8, 2021, Albuquerque, NM (Escobar)
13. **POSTPONED: CDP Medical Response to Overwhelming No Notice Trauma**, No date yet, Anniston, AL (UNLV and UW Leads)

Updated: July 2, 2020

ⁱ Ghinal I, McPherson TD, Hunter JC, et al. (2020). First known person-to-person transmission of SARS-CoV-2 in the USA. *Lancet*. 395(10230):1137-1144. Doi:10.1016/S0140-6736(20)30607-3

ⁱⁱ Stewart N. A worrying plunge in child abuse cases. *New York Times*. 6.10.20, Sec. A, Page 6.