The American College of Emergency Physicians (ACEP) believes that emergency physicians should assume a leading role in disaster preparedness and response throughout all phases of the disaster life cycle. Disaster telehealth refers to the use of telecommunication technologies and digital platforms to deliver healthcare services and support during or after a natural or man-made disaster. The capability allows physicians to remotely assess, diagnose, treat, and support patients who are affected by a disaster or those who are unable to access healthcare facilities due to disrupted infrastructure or mobility constraints. Disaster telehealth includes various services, such as virtual consultations, remote patient monitoring, prescription management, mental health counseling, and triage, among others. This approach helps to improve the quality of care, reduce the burden on emergency departments, and increase the accessibility and efficiency of healthcare services in disaster-prone areas. Disaster telehealth can also include peer-to-peer telehealth consults to support remote clinicians to enable access to subspecialist expertise not available in austere settings, as well as educational content such as webinars directed both to patients and to clinicians to extend knowledge exchange further into the disaster area. ACEP believes that disaster telehealth has a role as a force multiplier, capacity augmentation, and capacity building tool in disaster preparedness and response and offers measurable potential to improve the clinical outcomes of victims of, and those affected by, disaster events.

ACEP believes that:

1. Telehealth can improve access to care for those affected by disaster situations, including those who are underserved or in need due to healthcare disparities, financial burden, lack of physical access or transportation, and during and after disasters. Disaster telehealth should be available for utilization during all three phases of the disaster management cycle (readiness, response, and recovery) and can offer services and expertise that may otherwise not be available due to the immediate or lasting effects of the disaster. Disaster telehealth can assist first responders or first receivers to determine the need for lifesaving and damage control interventions and prioritize transport. During the post-disaster recovery phase, telehealth can improve the delivery of timely care and maximize the quality of care in the resource-scarce environment during the initial and prolonged response to a disaster. Remote resources can support affected areas during the recovery phase as the local healthcare delivery system recovers. It also has the potential to lower the cost of this health care by matching appropriate resources to identified needs. For disaster telehealth to be most effective and efficient, it must exist in the local healthcare delivery system before any disaster with ongoing and sustained continuous maintenance of equipment, training, credentialing, quality assurance, and competencies of
labeled healthcare professionals. Emergency physicians, including those experienced and knowledgeable in disaster medicine and emergency medical services, are best suited to supervise and deliver disaster telehealth care.

2. Funding for pilot projects and research/studies designed to implement, provide, and study clinical outcomes, key performance indicators, and limiting factors affecting disaster telehealth before and during declared disasters is paramount. Telehealth is just one type of care delivery model that should be included and financially supported in a care package for disaster response and recovery in locations with robust existing telehealth services. In a technologically robust environment, telehealth allows the clinician pool to rapidly respond and provide expertise to affected patients more rapidly and robustly than an in-person encounter can accomplish in a resource-scarce environment. The Federal Emergency Management Agency, Health Resources & Services Administration, Centers for Disease Control, Department of Health and Human Services, Center for Medicare Services, Department of Defense, Administration for Strategic Preparedness and Response, Advanced Research Projects Agency for Health, Veteran’s Health Administration, other federal and state, and private entities are key stakeholders in the process and should be engaged for collaboration, research opportunities, and financial partnerships. These sources are encouraged to financially support pilot projects and studies with the encouragement to assemble broad-based collaboration between and amongst first responders, first receivers, and health care delivery systems to include primary care and the whole gamut of health care professionals who have assets essential for a community to respond to and recover after a disaster.

3. Local emergency medical services (EMS) is already involved during the disaster cycle and is a logical choice to be a key partner to participate in disaster telehealth if they have developed telehealth capabilities. Educational programs and training of first responders and disaster workers to participate in the delivery of telehealth is essential. The education and training should be done by, or under the supervision of, those knowledgeable and experienced in emergency medicine, disaster medicine, and/or EMS. Special consideration for the inclusion of experts in pediatric emergency medicine, geriatric medicine, toxicology and environmental medicine, and infectious disease should be given as subject matter expertise is expanded. ACEP should develop a network of recognized experts in disaster telehealth to provide support to organizations that lack this expertise endogenously.

4. Disaster telehealth is hindered by significant challenges, and increasing the reach of telehealth will require focused attention to mitigate the limitations created by physical landscape disruption, geographical isolation, inclement weather, internet and other communications outages, as well as infrastructure disruptions such as electrical, water, transportation, and mass population displacement. Careful exploration of the appropriate circumstances that will most benefit from disaster telehealth should be conducted to ensure resources are allocated to the most impactful interventions in a disaster response. Disaster telehealth should be viewed as one potential response tool for disaster response, and identifying appropriate disaster scenarios and assessing telehealth systems that can respond to the situation are essential to prioritizing response capabilities. Research into mitigation strategies to address these operational challenges to the deployment of effective disaster telehealth is limited and should be encouraged and partnerships built with key players in the space.

5. As disaster telehealth expands and becomes an essential tool for disaster response, a federal lead agency must be established for disaster telemedicine. This agency will be tasked with addressing integration, data gathering, interoperability, and coordination issues. Disaster telehealth faces significant regulatory challenges that will require national-level advocacy to address, and ACEP should be a key player in these advocacy efforts. There currently exists a conflicting patchwork of state medical board licensing regulations on inter-state telemedicine, which must be resolved to allow disaster telehealth to work effectively across state lines. Currently, there is an absence of national digital interoperability standards for telemedicine equipment systems, which hinders the ability to work across response agencies and
6. Malpractice and licensing considerations are currently a barrier to a seamless disaster telehealth response system. Legislation to enable physicians to perform disaster telehealth across state lines to support impacted areas, as well as provide liability protections, should be introduced and supported to address state license limitations that would hamper interstate support of disaster areas, as well as ensure appropriate patient safety considerations.

7. Data safety and integrity safeguards must also be implemented to maintain privacy and data integrity during disaster operations. Disaster telehealth systems need to work in technology-rich environment, as well as austere environments, supporting full spectrum communication from real-time video and interactive assessments down to low-resource, low-bandwidth solutions. Systems must address acceptable use considerations, ensure appropriate practitioner credentialing, provide solutions for privacy concerns, and employ safeguards to protect against cybersecurity threats. Data sharing infrastructure, incorporation into the patient's medical record, and patient access should also be incorporated into systems as they are built to support seamless integration into existing electronic health records. Redundancy should be built into systems that will allow information sharing and data backup to ameliorate data compromises from natural disasters and in cases of cyberterrorism that targets critical medical infrastructure.

8. Ethical considerations of disaster telehealth should be paramount as new technology is developed and implemented. Social determinants of health show key impacts in disasters, as well as other areas of health outcomes, and disaster telehealth, has the potential to improve access to care for isolated and disadvantaged communities. As networks are developed, care must be taken to provide a full range of solutions for technologically robust and austere environments. Disaster telehealth systems must also be developed with careful consideration of health equity to ensure that resources are positioned to support patients across the spectrum of healthcare needs. A key principle of disaster medicine is local control of the support requests is the best way to match needs to available technology, and the deployment and positioning of telehealth resources should be built with this request deployment model in mind.

9. ACEP members possess key knowledge to serve as leaders in the development of disaster telehealth operations, and ACEP will continue to foster the development of this space through subject matter expert interactions, supporting in-person and virtual engagements, and encouraging research. ACEP will also advocate for appropriate legislative solutions required to enable telemedicine to serve as a force multiplier in disaster situations, as identified by experts in the field.