

The Pulse Nightclub Shooting in Orlando, Florida:
A Peer Assessment of Preparedness Activities'
Impact on the Public Health and Medical Response



Acknowledgements

This project and report was supported by the Office of the Assistant Secretary for Preparedness and Response (ASPR) through ASTHO cooperative agreement 5 HITEP130002-03-00. Its contents are solely the responsibility of the authors, and do not necessarily represent the official views of ASPR or HHS.

ASTHO is a 501(c)(3) nonprofit membership association serving the chiefs of state and territorial health agencies and the more than 100,000 public health staff who work in those agencies. Its mission, from which its organizational strategy flows, is to transform public health within states and territories to help members dramatically improve health and wellness. ASTHO tracks, evaluates, and advises members on the impact and formation of policy—public or private—pertaining to health that may affect state or territorial health agencies' administration and provides guidance and technical assistance to its members on improving the nation's health. ASTHO supports its members on a wide range of topics based on their needs, including, but not limited to, ASTHO's leadership role in promoting health equity, integrating public health and clinical medicine, responding to emergencies, and bringing voluntary national accreditation to fruition.

ASTHO would like to thank all of the Florida peer assessment participants for their time, effort, and willingness to share their experiences and professional expertise, which greatly informed the contents of this report. We also want to thank Bruce Clements, MPH, director of Texas Department of State Health Services' Health Emergency Preparedness and Response Section, and Michael Loehr, MA, CEM, chief of emergency preparedness and response at Washington State Department of Health, for their willingness to serve as peer assessors for this project. Additionally, ASTHO would like to recognize the Florida Department of Health, specifically Cindy Dick, MBA, CPM, interim director of emergency preparedness and community support, and Christie Luce, MPA, chief of the Bureau of Preparedness and Response, for their outstanding support and assistance in planning and conducting this peer assessment.

We also acknowledge the following individuals for their time and dedication to sharing their experiences from the Pulse nightclub shooting response: Eric R. Alberts, corporate manager of emergency preparedness/emergency management at Orlando Health; Sheri Blanton, forensic senior program manager of the District Nine Medical Examiner's Office; Dave Freeman, executive director of the Central Florida Disaster Medical Coalition; Todd Stalbaum, Orange County ESF-8 and SMRT 5 deputy commander; and Joshua Stephany, MD, chief medical examiner of the District Nine Medical Examiner's Office in Orlando.

Jennifer Lumpkins, MPH, ASQ-CQIA, ASTHO's director of public health preparedness and response, was the lead ASTHO staff member on this project.

Table of Contents

Acknowledgements.....	2
Executive Summary.....	4
Background	5
Response Challenges.....	7
Response Successes	8
Preparedness Activities That Supported the Response	9
Unplanned Adaptations	10
Preparedness Lessons for Other Communities and States.....	11
Lessons Learned and Key Takeaways.....	11
Impact of the Office of the Assistant Secretary for Preparedness and Response’s Hospital Preparedness Program.....	12
Recommendations for Additional Needs that the Hospital Preparedness Program Grant Could Address	13

Executive Summary

This document summarizes the public health and medical preparedness activities that supported the response to the June 12, 2016 Pulse nightclub shooting in Orlando, Florida. It also explores preparedness program gaps brought to light during the response. This report is based on information gathered from an Orlando site visit conducted January 11-12, 2017 by two peer assessors and several subsequent conference calls with key responders. ASTHO provided analytical and technical support for this project.

The team conducted one-on-one interviews with representatives from the District Nine Medical Examiner's Office; the Orlando Health hospital network; Orlando Regional Medical Center; the Central Florida Disaster Medical Coalition; and Orange County's Emergency Support Function 8 (ESF-8) team. The report team initially focused on the initial 24-36 hours post incident, but the discussions also captured information about later demobilization and recovery efforts. The team collected information on the impact of ASPR's Hospital Preparedness Program (HPP) on the overall preparation and response to this mass casualty/mass fatality event to highlight how HPP contributed to successes and challenges before, during, and after the event.

Background

Community Context

Located in central Florida, the city of Orlando is the midpoint of the Orlando metropolitan area. It is the 24th-largest U.S. metropolitan area, the sixth-largest southern U.S. metropolitan area, and the third-largest metropolitan area in Florida. As of 2015, Orlando had an estimated city-proper population of 270,934, according to [March 2016 U.S. Census Bureau figures](#) making it the 73rd-largest city in the United States, the fourth-largest city in Florida, and the state's largest inland city.

The Incident

At approximately 2 a.m. on June 12, 2016, a lone gunman, [identified](#) by police as Omar Mateen, entered the Pulse nightclub armed with a .223 caliber semi-automatic assault rifle and a 9 mm semi-automatic handgun. More than 200 patrons were inside the club at the time. Mateen began firing at patrons, killing 49 and injuring 53 others. The incident quickly became a hostage situation lasting several hours. At approximately 5 a.m., SWAT teams stormed the club, killing the shooter and rescuing surviving hostages.

The Pulse nightclub was only blocks from the Orlando Regional Medical Center (ORMC), the only Level I trauma center in the region. ORMC began receiving seriously injured patrons immediately after the initial shots were fired. The Orlando Emergency Operations Center was activated, with support from Orange County's ESF-8 public health and medical team.

Response Summary

The Florida Department of Health in Orange County provided personnel to support the Orlando Emergency Operations Center, Orange County's ESF-8 team, and a family reunification center. At the request of Orange County ESF-8, the Central Florida Disaster Medical Coalition (CFDMC) dispatched resources to provide responder rehabilitation on scene, including two air conditioned tents where responders could get out of the sun, rest, and rehydrate. The response transitioned to the recovery phase in midafternoon on June 12, 2016.

CFDMC provided more than 3,000 square feet of tentage and trailers for use by responders, FBI, public information officers, and city officials. This response was successful because of state and local partnerships, including those supported by the HPP funding provided through the state to the local

Family Assistance Center vs. Family Reunification Center

Family Assistance Center

Establishing a family assistance center (FAC) is necessary to facilitate information exchange and address families' needs in a centralized location. An FAC provides families with accurate information in an appropriate manner and setting. In some situations, responders may provide many FAC services virtually through a call center operation.

Family Reunification Center (FRC)

A family reunification center aims to provide accurate and timely information to the families and friends of victims in a private and secure environment. It also aims to protect families from the media, support family reunification, and provide death notifications to next of kin for identified victims who have died. FRCs also provide a mechanism to coordinate efforts between law enforcement, EMS, hospital, call center, and medical examiner personnel to facilitate identification of victim status and client notification.

healthcare coalitions. This funding aims to give local jurisdictions the authority to analyze their own capabilities and fill gaps.

District Nine Medical Examiner's Office

The District Nine Medical Examiner's Office (MEO) stockpiled supplies for mass fatality incidents using local resources (the District Nine MEO received HPP funds after the incident), which served the MEO well during this response. The morgue facility has a storage capacity of 150 bodies, while maintaining around 20-30 bodies on site daily. This is important to note because there was plenty of morgue space that could be used both for this response while maintaining its daily operational capacity.

Initial Notification of the Mass Casualty Incident

ORMC learned of the incident through EMS radio, and all hospitals in the healthcare system were notified through the "EMS Response" system. Law enforcement and ORMC staff notified the MEO, which is staffed 24/7, that a mass casualty incident had occurred. Orange County ESF-8 learned of the incident through EM Resource, a commercial information sharing platform supported through HPP funding that allows 911 dispatchers to send incident notifications to hospitals. When hospitals receive the notifications, they can input bed availability to help support rapid decision-making concerning patient transport.

Priorities During the First Three Hours of the Incident

District Nine Medical Examiner's Office

Upon initial notification, the MEO developed staffing plans (including staggering employees), devised a media strategy, and initiated planning to coordinate information with the victims' families.

Orlando Regional Medical Center

After learning of the incident, the medical center:

- Assessed hospital needs so staff could respond to the incident with appropriate supplies and equipment.
- Implemented medical surge plans to expand emergency department capacity for incoming patients.
- Identified additional staffing needs and coordinated with nearby Orlando Health hospitals to fill gaps.

Orange County Emergency Support Function #8

Once notified of the event, Orange County's ESF-8 team:

- Ensured that hospitals were notified and capable of accepting patients (i.e., that they had appropriate staffing and resources).
- Transitioned the event from a mass casualty incident to a mass fatality event. During this transition, the priority was to make sure that the team, county, and state were notified of the change and to

ensure that adequate personnel were available. Behavioral and mental health was promoted as a top priority.

- Brought in the MEO and ensured that it had surge capacity. In Florida, only the MEO can request FEMORS. In this case, Orange County ESF-8 made the request to the Division of Emergency Management and tasked it to the Florida Department of Health, which then activated FEMORS to support interviewing family members and morgue operations.

Family Assistance and Reunification

Initially, a hotel near ORMC served as a family notification center. On June 13, a family reception center (FRC) was opened at a nearby senior center. A few days later the FRC transitioned to a family assistance center (FAC) at a sports stadium. Staffing for the FAC and FRC was provided by multiple agencies, including Orange County Health Services, District Nine MEO, FEMORS, Florida Department of Law Enforcement, Aspire Mental Health, Victims Service Center of Central Florida, Orange County Department of Health, the Red Cross, Veteran’s Affairs, and FBI. In the first few days after the incident, the FAC provided assistance to 1,480 family members.

Response Challenges

Peer assessment participants were asked to identify characteristics of the Pulse nightclub shooting that challenged their ability to accomplish their objectives during the response. These challenges included:

Dynamic nature of the incident. Because this was primarily an FBI scene, it was a slow and methodical process to completely clear the scene.

Interagency coordination among federal, state, and foreign consulate offices. Particularly among state and federal agencies.

Communications. At the local level, emergency preparedness stakeholders already know each other and have experience communicating during crises. When outside agencies come in, communications tend to be more challenging. As a result, Orange County is currently developing a standardized regional process for requesting information and communications during events. Additionally, stakeholders recognize that the county needs a process for quickly communicating with the public about what and how to donate or volunteer during a crisis.

Florida Emergency Mortuary Operations Response System

The Florida Emergency Mortuary Operations Response System (FEMORS) was established in 2002 through a collaboration of the University of Florida, Maples Center for Forensic Medicine and supported by the Florida Department of Health with funding from HPP and the CDC Public Health Emergency Preparedness program.

Mission

FEMORS aims to support the district medical examiner’s office, the Florida Department of Law Enforcement, and other responding agencies in the event of a mass casualty incident, as directed by the Florida Department of Health.

Staffing

FEMORS employs five full time staff who are state employees, and engages more than 250 other individuals as temporary intermittent employees. When activated, these workers become temporary state employees, and the state of Florida covers any related workers’ compensation, salary, benefits, and liability costs.

Task Force Duties

FEMORS duties include initial scene response and evaluation, processing the scene, temporary morgue operations and administration, forensics, victim identification, disposition of human remains and personal effects, and collecting evidence.

Proximity of scene to the hospitals. ORMC's location two blocks from the incident was beneficial for victims in reducing transport times, but it also didn't allow the hospital to prepare for patients' arrival.

Difficulty of establishing a reunification center for victims' families. Due to a delay in establishing a separate FRC, ORMC became the default FRC for the MEO and all hospitals that received patients and deceased patients' families and friends. This quickly strained ORMC's capacity, and warranted activation of an offsite FRC to accommodate needs. Peer assessment participants noted that it would also have been beneficial to develop a regional response team through CFDMC to quickly set up and operate a family assistance center.

Mass casualty assumptions were not met. The initial wave of patients consisted mainly of major trauma patients instead of "walking wounded" patients, which is contrary to mass casualty assumptions.

Lack of timely information to give families. There was a time gap between when the victim's families arrived at hospitals and when responders could share information with them. This was due to the ongoing processing of the crime scene and the time needed for law enforcement to permit responders to begin body recovery and removal from the scene. Responders at the MEO and the hospitals also needed time to identify all victims and pinpoint their locations.

Response Successes

Peer assessment participants were also asked to identify successes from the overall Pulse nightclub incident response. These successes included:

Location of the incident. Participants noted that being in such close proximity to a large trauma center (ORMC) and the MEO was fortunate because it reduced travel times (and, thus, response times) to the scene.

Coordination among the local responders. There was great coordination among the local responders due to the regular preparedness drills and exercises they had done with together.

Pre-existing partnerships and relationships. Participants noted that having established relationships among the relevant county, city, ESF-8, law enforcement, emergency management, hospital, EMS, CFDMC, and other personnel and community partners aided in the success of this response.

Efficient victim identification and autopsies. MEO was able to identify and perform full autopsies on all 49 victims within 48 hours of the incident. Thanks to law enforcement assistance, MEO was able to identify the bodies more quickly than those patients identified within the hospital.

FEMORS support. FEMORS provided helpful surge capacity in the form of medical examiners, autopsy staff, interviewers, and data collection personnel. In addition, FEMORS staff were collocated within functional groups alongside MEO staff, which minimized the need for just-in-time training and enabled FEMORS staff to make immediate contributions to the response.

Centralized situational awareness. The county ESF-8 team collected information across all hospitals within the region and helped establish routine situational awareness.

Training and drilling with partners. Having prior FEMA National Incident Management System training for all Hospital Incident Command System (HICS) staff and regular drills with partners were key to a successful response. All key staff in the HICS structure must take FEMA Incident Command Structure courses 100, 200, 700, and 800, and each hospital within the system maintains certified decontamination trainers. Additionally, each facility completes two full-scale drills and two tabletop exercise annually. One of these drills is community-wide, encompassing four counties and 15 hospitals.

Availability of alternate care sites. Using MMRS and UASI funds, the county purchased response trailers, Zumro tents, and structural equipment needed to set up an alternate treatment center that could be deployed and set up as needed. Orange County and CFDMC provide trainings on how to use the alternate care sites and encourage each hospital to have a plan on how to use this capability.

CFDMC support. The CFDMC was well positioned to respond to the incident. As a result, Orlando responders requested few resources from the state besides FEMORS. The merger with the State Medical Response Team has increased the coalitions' ability to respond to public health and medical emergencies.

Activation of a centralized call center. One of the greatest successes for FEMORS was the activation of a centralized call center to support data collection five hours after arriving at the incident. The call center was operational by 3 p.m. on the same day as the incident.

FEMORS' integration with the MEO. FEMORS members were integrated with the MEO prior to the incident, and were therefore able to initiate interviews with family members within two hours of arriving on scene. Also, many of the family assistance FEMORS team members are funeral directors and highly experienced in dealing with individuals who have suffered a loss.

Preparedness Activities That Supported the Response

Peer assessment participants identified the following preparedness activities as “most important” in the Pulse nightclub shooting response:

Overall

- Region 5 health and medical providers actively participate in planning, training, and exercising for mass casualty incidents (MCI). The annual hospital exercise sponsored by CFDMC aims to ensure that hospital personnel are prepared to respond to an MCI.

Medical Examiner's Office

- The District Nine MEO participates in annual preparedness planning, training, and exercising with CFDMC.

- The State Medical Examiner’s Association hosts an annual conference where participants discuss disaster response issues.
- The District Nine MEO representative sits on the CFDMC board, which allows him or her to have regular input into activities.
- MEO’s preparedness exercises enhanced coordination and were instrumental in establishing the relationships needed to effectively coordinate between the MEO, FEMORS, and local partners during the Pulse nightclub incident.

Central Florida Disaster Medical Coalition

- Since 1998, preparedness relationships in Orange County and Orlando have been established and sustained through healthcare coalition activities via CFDMC.
- During this response, CFDMC leveraged the medical response capability that had been built out since 1998 (including field hospitals and ancillary support): stakeholders were able to establish two mobile facilities for responder rehab, and one for FBI operations (which was a state asset).
- CFDMC convenes one annual exercise that meets specific grant requirements. This exercise is typically tied to a hurricane scenario or a mass casualty event.

Unplanned Adaptations

Peer assessment participants identified the following items as unplanned adaptations they experienced during this incident and unexpected issues that others responders could experience during mass casualty incidents:

Orlando Regional Medical Center

- Patients’ high acuity level of and their sudden arrivals at the hospital so soon after the initial notification of the incident.
- The number of staff on site and available beds.
- Having to assist families and friends of patients from other hospitals and the MEO.
- The significant and impactful amount of media presence for days after the incident.
- Donations of all types and sizes showing up at the hospital.

Orange County ESF-8

- Setting up the FRC. Originally, Emergency Support Function (ESF) #6 team, Mass Care, was going to establish the center. However, this activity was assigned to and provided through ESF-8, Public Health and Medical Services responders, who had not previously managed this activity.
- Setting up a responder rehab onsite per FBI’s request.
- Within the first 24 hours, ESF-8 staff were overwhelmed.

Central Florida Disaster Medical Coalition

The fact that CFDMC became a logistical support element for law enforcement and fire services, when they originally anticipated providing more support for the public health and medical response.

Preparedness Lessons for Other Communities and States

Peer assessment participants identified the following lessons for other communities that might face similar incidents in the future:

Anticipate needs of the staff. Responders may have Employee Assistance Program counseling needs, which may last for several years, depending on the type of incident. These services should be built into the response plan, particularly for a mass casualty event.

Anticipate health information security challenges. Anticipate challenges with how, when, and under what circumstances patient data may be shared.

Anticipate the need for additional resources. A variety of needs may arise during a response, such as interpreters for non-English speaking families.

Mass casualty incidents of this type and magnitude will have long-lasting impacts. Responders should plan for continued care of patients within the hospital, families and friends, and have strategies for how to deal with the media, VIPs/dignitaries, donations, and security posture changes.

Use real events for tabletop exercises. Other jurisdictions could use the Pulse nightclub incident for a tabletop exercise to prepare for a mass casualty/fatality incident. It is not always going to be the large mass gathering event such as a football game or a fair.

Practice medical surge. Practice medical surge and ensure that trauma centers are prepared for a mass casualty incident.

Peer assessments are useful tools. The Florida Department of Health noted that peer assessments (such as this report) are helpful in thinking through the programmatic successes, challenges and impacts of an event. More jurisdictions are encouraged to receive a peer assessment.

Identify additional space for a FRC and FAC. All jurisdictions should be encouraged to identify additional space for a FAC or FRC and work through how you will handle badging, donations and goods, and security inside and outside the building.

Enhance the capability and capacity of healthcare coalitions. Healthcare coalitions like CFDMC should be expanded and involved in strategic preparedness planning and resource and information sharing.

Allow healthcare coalitions to fill capability gaps. The state should not adopt a “one size fits all” approach to preparing for mass casualty incidents, but rather give the healthcare coalitions the authority to determine the best ways to fill gaps and increase capability within their jurisdictions.

Lessons Learned and Key Takeaways

After reflecting on their experiences, the peer assessment participants noted the following as important takeaways from the Pulse nightclub incident:

Major gaps exist in fatality management and response. There have not been sufficient resources invested in the U.S. to develop mass fatality plans or plans to build capabilities for response and family assistance. The result for local jurisdictions is a response effort during disasters that is not well coordinated or tested.

Major gaps exist in mass casualty plans in victim identification and family reunification. The United States has not invested sufficient resources to develop mass casualty plans, specifically for victim identification and family reunification. The result for local jurisdictions is a response effort during disasters that is not well coordinated or tested.

Preparedness stakeholders should value broad integration among local and regional response partners. CFDMC includes a large number of diverse organizations, and the depth of integration, coordination, and trust among these organizations was a major factor in the success of the Pulse nightclub shooting response. For example, the district medical examiner is a CFDMC board member, which has helped build trust among partners, and helped identify resources immediately available for support.

Build trust in advance between federal, state, and local agencies including hospitals. It is important to develop relationships and trust in advance through joint preparedness planning, training, and drills. Knowing one's own roles and responsibilities is not enough: responders must develop a mutual understanding of agency/entity capabilities and build trust to ensure a unified, coordinated response during an incident.

Prioritize disaster exercises. CFDMC maintains an aggressive, comprehensive annual mass casualty exercise schedule. Exercises involve hundreds of patient transports, dozens of hospitals, and multiple healthcare sectors. This proved invaluable to Orlando's regional trauma center, MEO, local ESF-8 lead agency, and emergency medical service agencies in coordinating resources, decision-making, and sharing information during this real-world response.

Rethink capability build-out. States and localities should rethink the build-out of their preparedness capabilities and determine state and local priorities, how they align with federal priorities, and how to appropriately allocate resources to achieve overall objectives.

Secure sustainable funding for response activities. It is important to maintain federal funding for public health and healthcare preparedness. Local and state capacity to resource these efforts is limited, although the return on investment from this work is significant.

Impact of the Office of the Assistant Secretary for Preparedness and Response's Hospital Preparedness Program

Peer assessment participants identified the following as HPP impacts on the Pulse nightclub shooting response:

The ability to purchase supplies to support mass casualty and mass fatality response. Although there are other funding sources for preparedness and casualty response supplies, including Urban Area Security Initiative (UASI) and Metropolitan Medical Response System (MMRS), having HPP funds has allowed the Florida Department of Health and the entities it supports to enhance and expand healthcare preparedness capabilities.

The ability to regularly plan with and conduct exercises with local partners. Having the capacity to leverage HPP funds to support training and exercises across the region has aided Orange County's ability to coordinate across the region to support public health and medical emergencies.

The ability to identify resource capabilities through CFDMC, which encourages regional collaboration. CFDMC has played an integral role in encouraging regional preparedness collaboration since 1998. HPP funding has allowed the coalition to enhance its response capability and foster relationships between Orange County's ESF-8 team, emergency medical services, and emergency management and the healthcare systems in the region.

Recommendations for Additional Needs that the Hospital Preparedness Program Grant Could Address

Peer response interviewees provided the following recommendations for additional needs that the HPP grant could address:

- Support to plan for FACs and victim identification services.
- Immediate support from federal agencies for incidents involving huge demands exceeding a state or locality's capacity.
- Support for hospitals to develop their own flexible preparedness plans, not just to buy equipment, but to focus more on how to develop and implement plans and how to coordinate with other hospitals.