



2017 Hurricane Season: Medical Reserve Corps Activity Overview



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2017 Hurricane Season — Medical Reserve Corps (MRC) Activity Overview

The 2017 Atlantic hurricane season produced 17 named storms of which 10 became hurricanes, including six major hurricanes (Category 3, 4, or 5). Three of those major hurricanes made landfall in the U.S. and its territories – Harvey, Irma, and Maria – affecting roughly 25.8 million people.¹

Federal, territory, state, and local government and non-governmental partners have worked tirelessly since the hurricane season began to prepare for, respond to, and recover from the storms. Approximately 100 Medical Reserve Corps (MRC) units in nearly all regions of the country stepped forward to assist in these efforts.

Key MRC preparedness and response activities included, but were not limited to:

- Behavioral health, medical, supportive care at shelters and clinics
- Dialysis support
- Veterinary transport and care
- Support services to call centers and reception/evacuation centers
- Emergency Operations Center (EOC) support
- Emergency communications support
- Patient movement support
- Commodity distribution support operations (e.g., water, food, mosquito repellent)
- Community education and outreach (e.g., vector control, sanitation, hand hygiene)
- Evacuee support (e.g., disaster assistance services center support)
- Recovery support (e.g., disaster case management; first responder vaccinations; donations management)

To gather data for this summary report, MRC Program staff compiled and reviewed all self-reported MRC unit activities for the period of August 24, 2017 – March 31, 2018. It is important to note that at the time of writing this report, units are still engaged in recovery activities and those activities may not yet be captured.

It is the intent of this report to give an overview of the MRC network's actions during the peak activity of these hurricane events. Due to the local nature of the MRC, a true accounting of all of the events and activities is difficult at the Federal level.

¹ Information for this summary narrative was extracted from data provided by the [National Oceanic and Atmospheric Administration \(NOAA\)](#) and the [Department of Homeland Security \(DHS\)](#).

Summary of Reported 2017 Hurricane Season Activities²

Hurricane	# of MRC Units	# of MRC Volunteers ³	# of MRC Activities	# of Volunteer Service Hours	Estimated Total Economic Value
2017 Hurricane Season Total	100	5,069	231	106,354	\$3,995,630
Harvey	41	4,029	81	94,599	\$3,566,033
Irma	58	880	110	9,993	\$370,970
Maria	14	212	48	2,524	\$84,115

Note: The sum of the data listed for each of the three hurricanes does not necessarily equal the “2017 Hurricane Season Total” data because of duplication across hurricane response efforts. For example, the Philadelphia MRC supported a disaster assistance service center for individuals displaced by both Hurricanes Irma and Maria. That activity, and affiliated data points, are included in both Hurricane Irma and Hurricane Maria numbers. Across all three hurricanes, the unduplicated numbers are listed in the first row of this table titled “2017 Hurricane Season Total” (with the exception of volunteer numbers as noted in footnote 3 below).

Example Local MRC Unit Activities – Hurricane Harvey

See the detailed report titled **2017 Hurricane Harvey: Medical Reserve Corps Unit Activities** for a full listing of all MRC Hurricane Harvey related activities. The below narrative simply includes examples.

Texas

Alamo Area MRC (Brooks City-Base, TX). The unit had 279 volunteers serve 2,137 hours. Physicians and nurses provided medical support at medical stations in four general population shelters, while non-medical volunteers supported scheduling and staffing for the medical stations.

Bell County MRC (Temple, TX). MRC volunteers provided mental health and medical services to the county reception center and shelters that accepted rescued and self-evacuated residents from Brazoria County, TX. The unit also coordinated with the county’s Emergency Operations Center on how to best assist those in need. After the response, volunteers participated in a hot wash to discuss what worked well and difficulties encountered. A total of 18 volunteers served 197 hours.

Dallas County MRC (Dallas, TX). The unit worked with Dallas County Health and Human Services and other volunteer agencies to support all shelters in the Dallas area for nearly a month. A total of 150 volunteers served 9,000 hours setting up and staffing shelters and providing medical services ranging from triage to mental health.

² A number of MRC units also reported general hurricane-related activities such as maintaining hurricane situational awareness with volunteers; participating in partner meetings that discussed hurricane response; and conducting emergency preparedness outreach. These activities are not included in the numbers listed in this table.

³ The tally for volunteers listed in this table and on subsequent pages of this report may not necessarily reflect a unique individual volunteer count. For example, an MRC volunteer who participated in multiple response activities with his/her unit would be counted separately in each activity.

Big Country MRC (Sweetwater, TX). Ten (10) volunteers served 28 hours supporting a 2-1-1 call center that was set up to provide information and resources to those impacted by the hurricane.

Brazoria County MRC (Alvin, TX). Forty-nine (49) volunteers served 384 hours setting up and supporting two shelters for county residents, and an animal shelter for domestic and farm animals. Twenty-five (25) volunteers also set up and operated the evacuation hub for Brazoria County, serving a total of 124 hours. The unit also held multiple orientation sessions and webinars with attendance from over 500 community members interested in joining the MRC to support the hurricane response. The unit has also supported recovery efforts and participated in shelter debriefing discussions.

- Five (5) volunteers served 16 hours distributing tarps to community members to cover roof damage as well as bug spray to prevent arbovirus.
- The unit partnered with Brazoria County Emergency Management to sponsor the Crisis Cleanup Hotline, a database that helps coordinate the recovery efforts of organizations with residents in need. Fifteen (15) volunteers served 90 hours answering phones and helping residents register for assistance.
- Volunteers completed training to become Case Management Specialists for the county following an increased need after the hurricane. Ten (10) volunteers served 144 hours conducting in-take assessment interviews in order to prepare files for case management.
- Volunteers were trained to collect and prepare well water samples for testing to ensure it was safe to drink following the hurricane. Eight (8) volunteers served 99 hours providing free well water testing to local residents.
- Volunteers assisted with cleaning out a Hurricane Harvey shelter site by filtering and organizing items as well as packing shelter go boxes for future needs. Fifteen (15) volunteers served 52 hours.

Collin County MRC (McKinney, TX). Nine (9) MRC volunteers served 150 hours at the Dallas Convention Center Mega Shelter: three nurses and two EMT volunteers worked in medical triage in the shelter's medical clinic; three engineers set up HAM radios and communications; and a non-medical volunteer supported the unified command post to identify staffing needs.

Galveston County MRC (Texas City, TX). Forty-four (44) volunteers served 666 hours supporting response and recovery efforts. Efforts included the following:

- Volunteers set up and supported operations at a local shelter with the assistance of the American Red Cross.
- MRC nurses staffed a Tetanus, Diphtheria, Pertussis (Tdap) vaccination clinic for first responders.
- Nurses and paramedics were requested to deploy with the county Community Emergency Response Team (CERT) and National Guard to conduct community assessments.
- The unit leader, along with a volunteer, participated in training on how to conduct landscape assessments of hurricane damaged areas and then served in teams to survey damage and meet with local officials.
- Volunteers participated in an MRC meeting that included discussion on the hurricane and Health and Social Services (HSS) Recovery Support Function (RSF) recovery operations.
- In December, volunteers worked alongside CERT to help distribute 500 holiday meal packages that were donated to citizens displaced by the hurricane.

Harris County Gateway to Care MRC (Houston, TX). Medical and non-medical volunteers supported multiple shelters that were opened for those displaced by the hurricane. The unit also disseminated 6,500 buckets with cleaning supplies, food, bottled water, clothing, and items for babies and toddlers. In addition, volunteers supported a food fair for a community impacted by the hurricane, as well as two health fairs signing-up victims of the hurricane for resources while sharing preparedness information for the upcoming hurricane season.

Rio Grande Valley MRC (Weslaco, TX). The unit had six volunteers stationed at the Emergency Operations Center from noon until midnight for two days in anticipation of Hurricane Harvey. Volunteers helped with documentation, social media monitoring, answering phones, and other general duties. MRC volunteers were a valuable asset due to their understanding of the Incident Command System and forms they had used during training with previous community events.

Louisiana

Calcasieu MRC (Lake Charles, LA). Over six days, 1,532 MRC volunteers served 10,268 hours. The unit set up and managed four shelter operations with three of them eventually being consolidated into one at the Lake Charles Civic Center. The unit's medical teams ran operations in support of the shelter's medical and special needs clinics and non-medical volunteers provided shelter support alongside the local Volunteer Organizations Active in Disasters (VOAD) chapter. The unit also supported the Burton Coliseum shelter by triaging evacuees from Texas that were being transported to another shelter location.



Figure 1: Angela Jouett, Calcasieu MRC (LA) unit leader, had the opportunity to meet President Trump during his visit to Lake Charles, LA, during Hurricane Harvey response efforts

Louisiana State Animal Response Team (LSART) Veterinary MRC (Baton Rouge, LA). Seventy-five (75) volunteers served 681 hours providing care to more than 490 cats and dogs. The unit was requested by the Louisiana Department of Agriculture and Forestry to provide volunteer veterinarians and veterinary technicians to perform services such as de-worming, de-fleaing, microchipping, and wellness checks to the pets of Texas residents evacuated to shelters in Alexandria, LA, and Houghton, LA.

New Orleans MRC (New Orleans, LA). Five (5) volunteers supported medical providers with providing care and vaccinations to individuals impacted by the hurricane at a clinic in Beaumont, TX. Eleven (11) volunteers assisted in preparing supplies for possible shelter openings in Louisiana and joined health department staff in enrolling individuals in the special needs registry. These 16 volunteers served 140 hours.

Northwest Louisiana MRC (Shreveport, LA). Five (5) volunteers opened and supported a medical shelter that operated within an evacuee shelter run by the Department of Children and Family Services.

Oklahoma

Oklahoma Region 7 – Tulsa County MRC (Tulsa, OK). The unit had 205 volunteers serve 1,365 hours in support of animals that were moved from Texas shelters to the Bixby Animal Shelter in Oklahoma. The unit's State Animal Response Team cared for the animals in the Bixby shelter that acted as a hub for animals to rest and receive medical care before moving on to partner agencies throughout the nation to find permanent homes. Volunteers also participated in a stakeholder meeting that included a presentation from the MRC Coordinator on the statewide animal response team activation for the hurricane.

Oklahoma Region 8 – Oklahoma County MRC (Oklahoma City, OK). Six (6) volunteers were on stand-by to provide psychological first aid to potential patients and caregivers arriving in Oklahoma City through the National Disaster Medical System (NDMS).

Oklahoma Veterinary Medical Association (OVMA) State Animal Response Team (SART) MRC (Oklahoma City, OK). Seventeen (17) volunteers from the unit's Humane Emergency Animal Response Team were activated statewide by the Humane Society of Tulsa to care for more than 160 dogs and cats that had been temporarily relocated from the Houston Humane Society in Texas. Volunteers served 108 hours caring for animals before they could be transported to other areas of the country for adoption.



Figure 2: OVMA SART MRC (OK), a veterinary MRC unit, provided care to animals in the aftermath of Hurricane Harvey

Tennessee

Nashville MRC (Nashville, TN). Three (3) volunteers supported a tetanus immunization clinic for more than 70 responders supporting search and rescue efforts in Texas in response to Hurricane Harvey.

Example Local MRC Unit Activities – Hurricane Irma

See the detailed report titled **2017 Hurricane Irma: Medical Reserve Corps Unit Activities** for a full listing of all MRC Hurricane Irma related activities. The below narrative simply includes examples.

Florida

Duval County MRC (Jacksonville, FL). The unit was activated to support water distribution to community members.

Flagler County MRC (Palm Coast, FL). Volunteers supported evacuation efforts as well as a special needs shelter assisting with set-up, transportation, and food preparation. The unit also supported the Emergency Operations Center volunteer reception desk and call center. In addition, volunteers assisted with county-wide recovery efforts by cleaning up beach debris, tarping, and conducting muck out. Volunteers also participated in meetings to discuss hurricane response and long-term recovery procedures and efforts. A total of 23 volunteers served 212 hours during the response.

Florida Keys MRC (Marathon, FL). Six (6) volunteers assessed Monroe County special needs patients who were evacuated to a staging area at a local high school in Upper Keys. Patients were assessed for their wellness, stability, and medical needs before being transported to a special needs shelter in Miami. After the hurricane, the unit coordinator and administrator attended the Keys Health Ready Coalition meeting with all public health preparedness organizations in the county, which included a debriefing of the hurricane response and resulted in the identification of future training and equipment needs.

Okaloosa - Walton MRC (Fort Walton Beach, FL). As part of the unit's *Lean on Me Project*, volunteers performed visits to community members' homes and assisted with preparation for the hurricane. Volunteers also made phone calls during the hurricane to community members for wellness check-ins. One (1) MRC volunteer nurse deployed for six days with staff from county health departments to support a special needs shelter in Clay County. The volunteer provided medical support at the shelter and assisted with preparing an evacuation staging area in response to flooding near the shelter.

Pinellas County MRC (St. Petersburg, FL). Fourteen (14) of the unit's medical volunteers were deployed to support staff of the Pinellas County Department of Health and provide care to occupants of three special needs shelters. Most volunteers served 72 hours working 12-hour

Okeechobee MRC (Okeechobee, FL). Twenty-six (26) volunteers served 284 hours in support of the response to Hurricane Irma, including the following:

- Six (6) volunteers served 30 hours in preparation for the hurricane by preparing a response trailer, shelter supplies, and generators.
- Eleven (11) volunteers served 90 hours supporting FEMA distribution of meals ready-to-eat (MREs), water, ice, and tarps.
- A volunteer manned the ESF#8 desk for a 12-hour overnight shift, which allowed for Department of Health employees to be in the field for post-hurricane activities.
- Local emergency management requested the unit support the EOC call center. Two (2) volunteers provided support before, during, and after the hurricane for a total of 96 hours.
- Four (4) volunteers served 40 hours conducting house-to-house damage assessments as an MRC/Community Emergency Response Team (CERT) team.
- Two (2) MRC volunteers helped with post-hurricane inventory and clean-up serving 16 hours.

shifts. In addition, a volunteer who is a mental health physician provided two trainings for the MRC and Department of Health staff supporting these shelters that focused on developing coping strategies when exposed to trauma during a response. As part of the training, participants received a packet with a self-assessment and compassion fatigue worksheet. Overall, volunteers served 772 hours.

Sumter County Florida MRC (The Villages, FL). MRC volunteers called clients on the special needs registry to inform them of the potential opening of a special needs shelter and made follow-up calls once it opened. Volunteers also helped staff a special needs shelter for eight days serving more than 100 patients. After the hurricane, volunteers met to conduct a hot wash of their participation in the response that will be included as part of the Florida Department of Health-Sumter County After Action Report for Irma. Overall, 44 volunteers served a total of 332 hours.

Puerto Rico

MRC of Puerto Rico (San Juan, PR). Seventy (70) medical and non-medical volunteers served 458 hours supporting dialysis patients evacuated from the U.S. Virgin Islands, as well as assisting with the verification of medical supplies packaging.

Georgia

MRC of West Georgia (LaGrange, GA). The Georgia Department of Public Health Emergency Operations Center requested licensed medical and non-medical personnel to support sheltering operations in Augusta, GA. The MRC deployed five volunteers to provide shelter support for access and functional needs patients serving 108 hours.

MRC Georgia East Metro (GEM) (Dacula, GA). Eleven (11) volunteers deployed to support shelters in Augusta and Columbus, GA, for seven days, serving 371 hours. In addition, volunteers participated in a review of the hurricane response with local health department staff discussing their roles, experiences, and suggested improvements.



Figure 3: MRC GEM (GA) volunteers provided shelter support in response to Hurricane Irma

University of Georgia MRC (Athens, GA). Eleven (11) MRC volunteers were requested by the local Emergency Management Agency to support the county's Hurricane Irma Damage Assessment Call Center and Hurricane Irma Call Center along with the Community Emergency Response Team (CERT). MRC volunteers served a total of 108 hours. The unit also participated in state conference calls that updated volunteers during the response.

Alabama

Autauga/Prattville MRC (Prattville, AL). The unit provided phone bank and call center support to the Autauga County Emergency Management Agency (EMA). Two (2) volunteers served 64 hours answering phones and provided information to Hurricane Irma evacuees regarding open shelters, hotel rooms, campgrounds, and livestock shelters.

Baldwin County MRC (Robertsdale, AL). Four (4) volunteer physicians were deployed to provide medical support at a shelter for evacuees for three days.

South Carolina

South Carolina Veterinary Reserve Corps (Columbia, SC). The unit's lead veterinarian volunteer supported a temporary emergency pet shelter that also served as a distribution hub providing assistance to impacted animals from Georgia and Florida. The volunteer assisted with examining animals and performing preventive care necessary for evacuation. The unit leader also served as the head liaison for ESF 17: Animal/Agriculture Emergency Response during the hurricane response, which involved working with partners in other state agencies.

Example Local MRC Unit Activities – Hurricane Maria

*See the detailed report titled **2017 Hurricane Maria: Medical Reserve Corps Unit Activities** for a full listing of all MRC Hurricane Maria related activities. The below narrative simply includes examples.*

Puerto Rico

MRC of Puerto Rico (San Juan, PR). Forty-eight (48) volunteers supported response and recovery efforts for Hurricane Maria, serving 322 hours. Volunteers performed medical evaluations of community members; hosted water management safety orientations; and distributed supplies such as food, Zika virus prevention kits, and mosquito repellent at site visits to 15 municipalities. In addition, volunteers assisted with the transfer of patients from the Puerto Rico Medical Center to the USNS Comfort.



Figure 4: MRC of Puerto Rico volunteers performed medical evaluations of community members in the aftermath of Hurricane Maria

Pennsylvania

Philadelphia MRC (Philadelphia, PA). From October 12 to December 22, 2017, 30 volunteers served 318 hours supporting a disaster assistance services center. The center was activated by the City of Philadelphia to provide information on available services (e.g., health and medical, housing, education, state benefit programs) for individuals displaced from Puerto Rico and other locations due to the hurricanes.

Mississippi

Central Mississippi MRC (Jackson, MS). Nine (9) volunteers assisted the Department of Veterans Affairs with the set-up of a National Disaster Medical System (NDMS) Patient Reception Center at the Air National Guard Base in Flowood, MS, for the receiving of patients from Puerto Rico and the U.S. Virgin Islands. In addition, the unit supported the placement of patients received at the reception center. Volunteers served 720 hours.

Massachusetts

Boston MRC (Boston, MA). From November 3 through December 27, 2017, 59 volunteers supported pop-up centers and a shelter in the Greater Boston area to assist evacuees. Volunteers served 360 hours, assisting with call center support, translations, donation sorting, and data entry.

Connecticut

MRC at Yale New Haven Center of Excellence (CoE) (New Haven, CT). The unit assisted with receiving and welcoming individuals from Puerto Rico who were arriving in Connecticut as a result of Hurricane Maria. The group met direct flights from Puerto Rico two times a week for several weeks to assess needs, as well as distribute blankets, snacks, and informational materials.

Appendix A

The following is a complete list of MRC units that supported preparedness, response, and recovery activities related to the 2017 hurricane season.

MRC Unit	State	Hurricane Supported
Autauga/Prattville MRC	AL	Irma
Baldwin County MRC	AL	Irma
Dallas Co. Medical Reserve Unit	AL	Irma
Mobile MRC	AL	Harvey, Irma, Maria
North Alabama MRC	AL	Irma
Yavapai County MRC	AZ	Harvey, Irma
Fairfield Easton MRC	CT	Irma
MRC at Yale New Haven Center of Excellence (CoE)	CT	Maria
Alachua Area MRC	FL	Irma
Broward County MRC	FL	Irma
Central Florida MRC	FL	Irma, Maria
Collier County MRC	FL	Irma
Duval County MRC	FL	Irma
Flagler County MRC	FL	Irma
Florida Keys MRC	FL	Irma
Hillsborough County MRC	FL	Irma
Manatee County MRC	FL	Irma
Marion County MRC	FL	Irma
Martin County MRC	FL	Irma
MRC of Sarasota County	FL	Irma
North Florida MRC	FL	Irma
Okaloosa - Walton MRC	FL	Irma
Okeechobee MRC	FL	Irma
Palm Beach County MRC	FL	Irma

MRC Unit	State	Hurricane Supported
Pinellas County MRC	FL	Irma
Polk/Hardee County MRC	FL	Irma
St Lucie County MRC	FL	Irma
Sumter County Florida MRC	FL	Irma
Volusia County MRC	FL	Irma
West Central Florida MRC	FL	Irma
Cobb/Douglas MRC	GA	Maria
East Central Health District MRC	GA	Irma
MRC of West Georgia	GA	Irma
MRC Georgia East Metro (GEM)	GA	Irma
University of Georgia MRC	GA	Irma
West Central Health District MRC	GA	Irma
Calcasieu MRC	LA	Harvey
Louisiana State Animal Response Team (LSART) Veterinary MRC	LA	Harvey
New Orleans MRC	LA	Harvey, Irma
Northwest Louisiana MRC	LA	Harvey
Boston MRC	MA	Maria
Bristol-Norfolk MRC	MA	Harvey, Irma
Central Hampden County MRC	MA	Irma
Greater New Bedford MRC	MA	Irma
Greater Taunton MRC	MA	Irma
Hampden/Wilbraham MRC	MA	Irma
North Shore-Cape Ann Emergency Preparedness Coalition MRC	MA	Harvey
UMass Amherst MRC	MA	Maria
Upper Merrimack Valley MRC	MA	Irma, Maria
Kent County MRC	MI	Harvey
Central Mississippi MRC	MS	Irma, Maria

MRC Unit	State	Hurricane Supported
Mississippi Behavioral Health MRC	MS	Irma
Capital MRC	NC	Irma
MidCarolina State Medical Assistance Team (SMAT)	NC	Maria
Mountain Regional MRC	NC	Irma
North Carolina Baptist Men MRC Central Region	NC	Harvey, Irma
Atlantic County Public Health MRC	NJ	Irma
Essex County Public Health Reserve Corps	NJ	Irma
Middlesex County MRC	NJ	Irma, Maria
Morris County MRC	NJ	Irma
Sussex County MRC	NJ	Irma
Livingston County MRC	NY	Maria
Choctaw Nation MRC	OK	Harvey, Irma
Oklahoma Region 4 - Okmulgee County MRC	OK	Harvey
Oklahoma Region 6 - McClain County MRC	OK	Harvey
Oklahoma Region 7 - Tulsa County MRC	OK	Harvey
Oklahoma Region 8 - Oklahoma County MRC	OK	Harvey
OKMRC Stress Response Team	OK	Harvey
Oklahoma Veterinary Medical Association (OVMA) State Animal Response Team (SART) MRC	OK	Harvey
Philadelphia MRC	PA	Irma, Maria
MRC of Puerto Rico	PR	Irma, Maria
Lowcountry Public Health Reserve Corps	SC	Irma
Midlands Public Health Reserve Corps	SC	Maria
Pee Dee Public Health Reserve Corps	SC	Irma
South Carolina Veterinary Reserve Corps	SC	Irma
Upstate Public Health Reserve Corps	SC	Irma
Madison County MRC	TN	Harvey

MRC Unit	State	Hurricane Supported
Nashville MRC	TN	Harvey
Alamo Area MRC	TX	Harvey
Anderson County MRC	TX	Harvey
Bell County MRC	TX	Harvey
Big Country MRC	TX	Harvey
Brazoria County MRC	TX	Harvey
Cameron County MRC	TX	Harvey
Central Texas MRC	TX	Harvey
Collin County MRC	TX	Harvey
Dallas County MRC	TX	Harvey
Denton County MRC	TX	Harvey
Fort Bend County MRC	TX	Harvey
Galveston County MRC	TX	Harvey
Harris County Gateway to Care MRC	TX	Harvey
Kingsville & Kleberg County MRC	TX	Harvey
MRC of Gregg County Texas	TX	Harvey
Montgomery County MRC	TX	Harvey
Pearland Area MRC	TX	Harvey
Rio Grande Valley MRC	TX	Harvey
Tarrant County MRC	TX	Harvey
Texas State Guard Medical Brigade MRC	TX	Harvey
Texas Veterinary MRC	TX	Harvey
The University of Texas at Austin MRC	TX	Harvey