

DURHAM COUNTY OFFICE OF EMERGENCY SERVICES

ANNUAL REPORT FY 2020



TABLE OF CONTENTS

Page 3: Letter from the Director

Page 5: Fire Marshal Division

Page 7: Emergency Management Division

Page 9: EMS Division

Page 13: Business Services Division

Page 14: The Carbon Monoxide Crisis

Page 16: The Malware Attack

Page 17: The COVID-19 Pandemic

Page 19: Looking to the Future



NOTE FROM DIRECTOR GROVES

On behalf of the entire Office of Emergency Services (OES) team, it is my sincere honor to share with you our inaugural OES Annual Report.

After more than one year of research and benchmarking, the Office of Emergency Services (OES) was implemented as part of the County's approved FY 19/20 budget, citing the key benefits of consolidating Emergency Medical Services, Emergency Management, Fire Marshal, and a new Business Services Division was the ability to conduct meaningful departmental strategic planning. Additionally, the consolidated department will plan for more cost effective facilities and conduct enhanced emergency services data analysis that is better aligned with the County's Strategic Plan and our Managing For Results performance management work.

Perhaps one of the greatest benefits of this concept is the ability to have a single County Department that interfaces with City/County officials, volunteer fire agencies,, City Fire Department, City Police Department, County Sheriff's Office, universities, hospitals, private security, business, and residents. One Emergency Services Department allows for greater coordination in service delivery, developing response policies, procedures and tactics, and the unified development and delivery of prevention and preparedness outreach activities and communications.

After many months of planning and preparation, the OES went "live" on March 1, 2020. Within a few short days, the City and County governments experienced a significant cyber malware incident that required the full and focused attention of the new OES Department. Shortly thereafter, the COVID-19 pandemic began, which further necessitated OES to step up and coordinate the City and County's response to very complex issues involving food insecurity, non-congregate sheltering, remote work for employees, COVID-19 testing, rapid emergency response, resource management, logistical support, business services support, and a wide range of other activities. I'm incredibly proud of the entire OES team stepping up and leading the City and County through these very difficult events.

We are but one piece of our City and County emergency services system and our success would not be possible without the support of our Board of County Commissioners, the County Manager's Office, City and County Departments, our external partners and stakeholders, and especially our very talented and dedicated team. I hope that you enjoy and appreciate this inaugural Annual Report.

JAMES GROVES

Director of Emergency Services

The Five Strategic Plan Goals

Durham County's Strategic Plan has five overall goal areas:

1. Community Empowerment and Enrichment
2. Health and Well-Being for All
3. Safe Community
4. Environmental Stewardship and Community Prosperity
5. Accountable, Efficient, and Visionary Government

In this report, the following goal area symbols are used to indicate which parts of the strategic plan are being served by the particular division or program in question.

Goal Areas



COMMUNITY &
FAMILY



HEALTH &
WELL BEING



SAFE
COMMUNITY



ENVIRONMENT



VISIONARY
GOVERNMENT

FIRE MARSHAL DIVISION

The OES Fire Marshal Division consists of four fire marshals and a business services liason. They conduct inspections and review fire protection plans to make sure they are up to state fire code. Fire Marshals are also in charge of fire investigations in the county, including all public schools and county facilities. Interim Division Chief Mike Webb also oversees the Lebanon Volunteer Fire Department in the northern portion of the county.

As part of the federal "Operation Warp Speed" COVID-19 response, the Fire Marshal Division is prioritizing and expediting any COVID-19 related projects through the planning and zoning stages. In Durham County, this involves repurposing pharmaceutical laboratories in Research Triangle Park and Treyburn Corporate Park. Other major non-COVID projects include the redevelopment of a large portion of Research Triangle Park, reviewing a new retail/dining project created out of repurposed shipping containers called Boxyard RTP, and the investigation of an arson fire at Stagville Historic Plantation.

**Every year, the Fire Marshal
Division conducts approximately:**

800 INSPECTIONS

400 PLAN REVIEWS

80 INVESTIGATIONS



FIRE MARSHAL DIVISION



The Fire Marshal Division continues to carry out mandated and requested Fire Code inspections while implementing COVID-19 safety precautions. To a large extent, fire inspections must be in-person inspections to be able to properly assess property infrastructure and the associated work being done. Where possible, the Division has implemented virtual inspections to reduce the risk of possible COVID-19 exposures.

The Fire Marshal Division conducts smoke detector canvassing in the community to replace outdated detectors and install new detectors where they are not observed in the home.

They also conduct fire extinguisher, CPR, and other life safety training opportunities.



EMERGENCY MANAGEMENT DIVISION



The five employees of the Emergency Management (EM) Division found themselves facing unexpected crises as the Durham Housing Authority carbon monoxide event, County malware attack, and COVID-19 Countywide response hijacked the latter half of the fiscal year. Fortunately, unexpected crises are their area of expertise.

In the first half of the fiscal year, EM continued to work on the previously awarded Complex Coordinated Terrorist Attack training. They coordinated delivery of the US Department of Homeland Security Active Shooter Incident Management (ASIM) hands-on course for Wake, Durham, and Orange Counties.

EM also continued work on their Emergency Management Accreditation Program, Eno-Haw Regional Hazard Mitigation Plan, Emergency Operations Plan, and Recovery Plan.

The Emergency Management Division also continued their efforts to spread important information via digital methods and social media, @alertdurham. The Alert Durham program allows anyone who signs up to receive texts and phone calls about emergencies, severe weather conditions, and community notifications near their home or business.

EMERGENCY MANAGEMENT DIVISION

Emergency Management is currently administering the following grants: three (3) Emergency Management Preparedness Grants, Local Emergency Planning Committee Tier II Non-competitive grant, and a Department of Homeland Security Complex Coordinated Terrorist Attack Grant; these grants total near \$1,150,000. Additionally, Emergency Management received donations from Duke Energy and the Research Triangle Foundation for \$60,000.

The Emergency Management Division spent over 700 hours completing training and special events.

	Number of Meetings	Sum of Contacts	Number of Hours
Stakeholder Committees	22	367	40.5
Exercise	21	496	157
Outreach	24	476	49
Planning	65	408	107.75
Training Received	29	551	279
Training Delivered	18	778	67
Grand Total	179	3076	700.25



EMS DIVISION



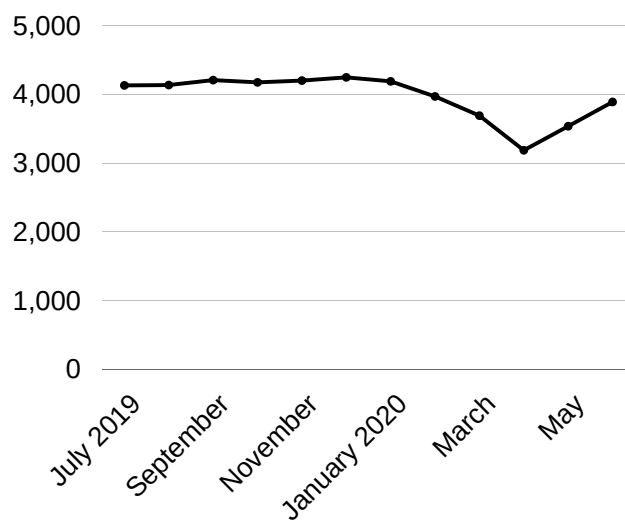
OPERATIONS

The EMS Division has 166 credentialed employees, running a maximum of 18 ambulances during the daytime, including 6 peak hour trucks during the busiest times of day, and 11 at night. All units provide advanced life support at the paramedic level; many are staffed with two paramedics and the remainder with a paramedic and an EMT or Advanced EMT.



Call Volume Per Month

July 2019-July 2020





EMS DIVISION PROGRAMS

COMMUNITY PARAMEDICS

Community Paramedics are integrated with our local partners in providing care to our county's most vulnerable populations. Durham County's Community Paramedics provide specialized care for opioid use disorder intervention along with other high-volume users of the 911 system by providing naloxone kits and providing an interface with trained peer counselors. In August of 2020 the Community Paramedics started a falls program modeled on the evidence-based Centers for Disease Control "STEADI" curriculum to address the all too common problem of falls in the elderly.

EDUCATION AND PROFESSIONAL DEVELOPMENT

EMS hired 28 new field paramedics and EMTs in FY 2021, all of whom were cleared through the Field Training and Evaluation process and are now independently functioning providers. Working with local fire departments, the Education unit developed a scenario-based clinical clearance process for system first responders. EMS Division and local first responders trained together for Pit Crew cardiopulmonary resuscitation with the Mobile Simulation Unit. After COVID-19, the Education unit and Academy instructors designed and constructed a simulated ambulance in the lobby of their training area on the fifth floor of the Admin 2 building.



EMS DIVISION

RESEARCH AND CLINICAL AFFAIRS

Clinical Affairs is responsible for infection control at the EMS Division. This has been a challenging year for all healthcare providers with the advent of a global pandemic. Clinical Affairs has provided guidance for protective equipment and procedures during this crisis. Working closely with the Medical Directors, Clinical Affairs was able to facilitate print and web-based educational materials for the EMS Division team when a malware attack crippled the County's information systems at the beginning of the pandemic.

As part of the ongoing commitment to research, EMS Division teams present posters at national and international conferences in addition to publishing academic research abstracts and manuscripts. Last year, a DCEMS employee received the award for best research poster at the International Scientific Symposium while multiple EMS personnel provided oral research and educational sessions.

**The EMS Division completed 4,075 hours of training in
FY 2020.**

EMS DIVISION



Durham EMS added Stryker Power-Pro Stretchers and Power-Load Cot Fasteners to all ambulances in hopes of reducing lifting-related injuries.



Ongoing quality management at the EMS Division has paid off with recognition from the American Heart Association in the form of the Mission: Lifeline “EMS Gold Plus” award for outstanding quality cardiac care.

Agencies earn Gold recognition with a minimum patient volume of at least eight STEMI (heart attack) patients transported directly to a STEMI Receiving Center for Primary PCI (stent) and/or STEMI Referring

Hospital for fibrinolytic administration and for achieving 75% or higher adherence over at least one consecutive 24-month interval. To earn Gold Plus

recognition, in addition to meeting the above requirements, the agency also achieved at least 75% on the 2019 Plus Measure – percent of adult Out-Of-Hospital Cardiac Arrest patients resuscitated on scene with sustained return of spontaneous circulation for at

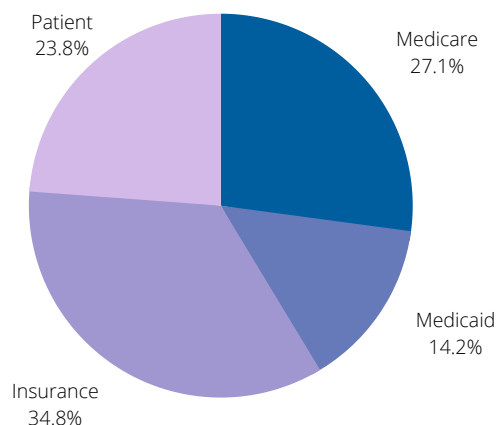
least 20 minutes, maintained to arrival at the emergency department, who had a 12-lead ECG performed in the field.

BUSINESS SERVICES DIVISION



The mission of the Business Services Division is to provide full-service and comprehensive financial and administrative management to the Office of Emergency Services. This includes budget development, analysis and management, revenue management and analysis, compliance, human resources management, IT support, fleet, and administrative support to the department.

**28,248 TRIPS BILLED WORTH
\$20,415,511.62
\$7,144,012.52 IN REVENUE
COLLECTED**



THE EVENTS OF THE YEAR

The Carbon Monoxide Crisis

In December 2019, EMS personnel were reviewing calls when they noticed something unusual. There had been a disproportionate number of people transported for the symptoms of carbon monoxide poisoning in McDougald Terrace, the Durham Housing Authority's largest public housing complex.



Seven people transported from the sprawling complex had elevated levels of the deadly gas in their blood. EMS alerted the Housing Authority and the City Fire Department. Teams of fire and EMS personnel went door to door testing both the air quality in the apartments and the levels of carbon monoxide in the residents' blood.

Durham Housing Authority made the decision to relocate residents in order to allow emergency repairs and renovations. All residents were relocated to hotels by EM for at least six weeks and were then slowly moved back into the complex as units were repaired. Other Durham Housing Authority complexes were checked for high monoxide levels as well.

THE EVENTS OF THE YEAR

The Carbon Monoxide Crisis



Response:

- 296 units visited by DCEMS with DFD and DHA
- 378 total detectors installed (smoke and carbon monoxide)
- 356 individual encounters
- 98 individuals monitored for CO
- 14 symptomatic with elevated CO readings treated
- Coordination between EMS, EM, DFD and DHA



THE EVENTS OF THE YEAR

The Malware Attack

On Friday, March 6, both the City and County suffered a devastating malware attack on their computer systems. While no confidential data was breached, there was widespread damage to both systems from the Ryuk ransomware. County IS&T and City TS immediately shut down all City and County servers to contain the spread of the virus.

The Emergency Management (EM) Division worked quickly to create internet networks and secure laptops for Continuity of Operations. Chatham and Person Counties, as well as North Carolina Emergency Management, provided equipment and personnel to assist in the response. Additionally, EM coordinated with County Public Information to utilize the Alert Durham system to keep employees informed of the status of the County.



THE EVENTS OF THE YEAR



The COVID-19 Pandemic

At the end of 2019, scientists in Wuhan, China identified an outbreak of severe respiratory disease caused by an unknown pathogen. The disease, soon to be known as COVID-19, was caused by a novel coronavirus - the family of viruses responsible for not only the common cold, but previous epidemic outbreaks like SARS and MERS.

Despite mitigation efforts, the virus quickly spread around the world. The first case was diagnosed in the United States on January 20, 2020, the first case in North Carolina on March 3, and the first case in Durham County on March 14. That same day, public schools closed across the state, and Durham County declared a state of emergency the next day. On March 22, Durham County issued a stay-at-home order, followed by a mask mandate.

In an attempt to contain the spread of the virus within the department, many administrative personnel worked from home or other locations spread across the county. However, the department's largest division, Emergency Medical Services, could do no such thing; instead, they faced an ever-increasing demand for services and personal protective equipment as the outbreak spread through nursing homes and into the wider community. Three Durham nursing homes had outbreaks that infected 100+ residents.

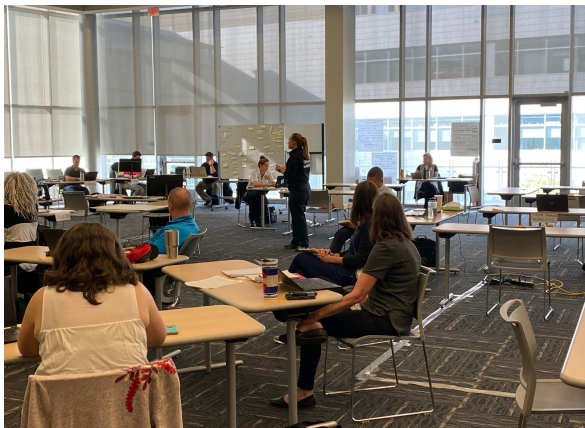
As of July 1, EMS had responded to 3,493 suspected novel coronavirus patients, 394 of whom were confirmed to have COVID-19.

THE EVENTS OF THE YEAR

The COVID-19 Pandemic, Part II

Incident Command for the COVID-19 response was transferred to the Emergency Management Division (EM) in mid-March.

With the assistance of the Fire Marshal Division, the Emergency Operations Center relocated to the Human Services Complex to account for increased staffing and social distancing. FM continued to operate as the Logistics section, Business Services assisted with Finance operations, and EMS served in the Planning Section as well as Public Safety Branch.



As the coordinating agency, EM worked to keep City and County elected officials, leadership, and department heads updated on the status of COVID-19. The pandemic response presented many challenges to be solved by over 200 employees and volunteers, including business continuity, individuals experiencing homelessness, and individuals facing food insecurity.

Due to the rolling malware and COVID-19 crises, the Emergency Operations Center operated for a record 115 consecutive days in FY 2020.

Looking to the Future

The Office of Emergency Services is looking forward to a brighter tomorrow and planning for FY 2021. The Fire Marshal Division hopes to continue to help Durham grow safely through thorough inspections and investigations, and to resume some of the community outreach programs that were affected by COVID-19. The Emergency Management Division plans to continue to pursue EMAP accreditation, finalize their hazard mitigation and emergency operations plans, and further their preparation for complex coordinated terrorist attacks. The EMS Division intends to continue building on its success of education, professional development, and community paramedic programs while ensuring that all residents and visitors receive exceptional prehospital care from dedicated and talented professionals. Whatever challenges the next year will bring, the Office of Emergency Services will rise to the occasion.



