2021 Annual Report
A Year of Accomplishments.

Manatee County
Emergency Medical Services

www.mymanatee.org/EMS
Last year, our Annual Report and Board Presentation documented how our EMS Team banded together to respond to the once-in-a-lifetime public health crisis with the COVID-19 pandemic. Flash forward one year, COVID-19 continues to consume the headlines, controlling our everyday interactions and keeping us on our toes about what’s going to happen next. Following breakthroughs in vaccine research, EMS personnel across Manatee County once again stepped up to the plate in 2021, this time to lead vaccination efforts in our community. In collaboration with Public Health and other local first responders EMS staffed the County’s mass vaccination site. At the same time, the Community Paramedic Team provided mobile vaccinations for home-bound individuals day after day for months on end, making Manatee County a model system for Florida. It’s taking a toll on our entire EMS system to sustain this intense level of performance for 18 plus months straight. And thus recognize that no words can adequately reflect the gratitude, admiration, and deep respect for the individuals that comprise our EMS Division. Their ability to remain flexible and adaptive at the moment for whatever comes their way has helped save so many lives - all while risking their own.

Thank you for your resilience and service to Manatee County.

ORGANIZATION CHART AND STRUCTURE
OUR PERFORMANCE

“EMS Responding”... from the time that the tones sound to when your ambulance is responding is only an average of 59 seconds (chute time) ... that’s quick! Chute times have been focused on as an area for improvement system-wide. The 3-second improvement achieved in FY21 may be a small number but is a significant accomplishment when seconds matter. Once crews start responding, it takes an average of 8 minutes and 3 seconds (response time) to arrive on scene. Once on scene, EMTs and paramedics assess their patient, provide appropriate treatments, and package them for transport - which averages out to 18 minutes and 38 seconds (on-scene time) - before they begin transporting them to a local hospital. From start-to-finish (dispatch-to-available), the average call takes 46 minutes and 34 seconds to complete.

53,150
CALLS FOR SERVICE

Call Volume by Hour of Day per Fiscal Year

8am - 8pm
The busiest 12-hour time period throughout the day is between 8am-8pm, which is why additional ambulances are added into the "peak" staffing matrix strategically throughout this time period.
QUALITY OF TRAINING AND THE COMPETENCE OF OUR PERSONNEL

The quality of patient care is determined by the quality of infrastructure, quality of training, and competence of personnel.

PRIMARY IMPRESSION OF PATIENTS

The primary impression is a concise statement describing the symptom, problem, or condition that is the reason for a medical encounter.

- **2,599 Patients Transported**
  Total Patients Encountered Meeting COVID-19 Criteria Initial 6-foot assessments required EMS crews to wear, at a minimum, protective glasses & surgical masks for every patient encounter.

- **530 Home Bound Vaccinations**
  Homebound patients and caregivers may need the Covid-19 vaccine to come to them. The Community Paramedic Section negotiated complex logistics to vaccinate hundreds of patients without wasting any doses.

- **Public Safety Commitment**
  Early into the spread of the virus, EMS crews, 911 dispatchers, and 311 call-takers began screening patients for COVID-19 symptoms and dispatching Community Paramedic units - rather than ambulances - to further screen and direct patient navigation & care in order to reduce crew exposure risk and high system utilization.

COVID-19 IMPACT

COVID-19 has made an impact on the finance, logistics, operations, and planning aspects of the EMS Division. Unanticipated impacts as a result of this global pandemic have certainly been prominent around decreased call volume, supply chain hardships, and clinical practice deviations from normal medical operations. All of these have revolved around an increased need for personal protective equipment (PPE), process changes for symptom screening, and social/physical distancing practices affecting all aspects of our industry.

33,500
PATIENT TRANSPORTS TO LOCAL HOSPITALS

24%
Cardiac Arrest Survival Rate
National Average 10%

17,873
Individual Medication Doses Administered

91%
First-Pass Success Rate with an Advanced Airway Device

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The mission of our County’s COMMUNITY PARAMEDICINE program is to focus on patient outreach, wellness, and navigation within the healthcare system.

Patients enrolled in our program have access to paramedic providers, a licensed clinical social worker, pharmacy interns & college faculty, and a resource coordinator.

We utilize countywide resources to help patients decrease their dependence on the 911 system, focus their attention toward establishing an individualized care network, and promoting their own holistic well-being through addressing the root causes behind their chronic care & social issues.

1,328 PROGRAM REFERRALS

910 SOCIAL SERVICE APPOINTMENTS

The Licensed Clinical Social Worker provides case management and integrated social services to residents referred to the Program. Addressing the day-to-day needs of some of the most complex, at-risk, and neediest patients that EMS responds to.

721 PROGRAM GRADUATES

On average, patients spend 65-68 days in the program. To graduate, patients must meet the health goals set by the community paramedics, be aligned with a primary care provider, and have not used the pre-hospital system or had an unplanned hospital visit in the last 30 days.
IN THE COMMUNITY

Our staff continues to roll up their sleeves when they see a need in the community. Over the past year, our personnel have championed multiple public outreach events and found time to help other organizations when called upon as well.

Some events that stand out are the continuation of “April Pools” (pediatric drowning prevention education), Feeding Empty Little Tummies food drive, a Coat Drive and our annual Breast Cancer fundraiser.

We continue to go beyond the 911 calls to help when we see an opportunity. We are thankful for our community, and are humbled by the citizens that drop off lunches to our stations or find other ways to say thanks you to our staff.

SAY HELLO TO RUCKER

Manatee County EMS introduced Rucker in 2019 to the Public Safety Department. Rucker is a 3-year-old Golden Retriever and has special training to recognize anxiety and PTSD cues exhibited by Public Safety employees. Rucker uses his training to help calm employees by nestling his head in their laps or by giving hugs. Rucker was donated to Manatee County Government by Valor Service Dogs and has been a tremendous help with making our employees smile.
A Results First project yielded terrific results. An internal and external performance dashboard was created through Microsoft Power Bi. This data visualization allows stakeholders to assess our performance in the community quickly. The External Dashboard is located at www.mymantee.org/ems

The 11:00 hour has overtaken the noon hour as the busiest average hour time period. 4 Ambulances provide coverage during “peak” time periods throughout the day, while 17 additional ambulances provide 24/7 coverage to the county.

90th percentile Ambulance Response Time to High Acuity Calls (mm:ss)
(Cardiac Arrest, Respiratory Arrest, Overdoses etc.)

83%
Ambulance responses involves lights and sirens

Of all 9-1-1 calls are transported to local emergency departments

62%

BY THE NUMBERS

EMS Data Report

<table>
<thead>
<tr>
<th>Incidents by Zip Code</th>
<th>Incidents Year over Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>59,492 Total Incidents</td>
<td>33,379 Transports</td>
</tr>
<tr>
<td>53,530 Total Incidents</td>
<td>15,888 High Acuity Incidents</td>
</tr>
</tbody>
</table>

Incidents Year over Year

January 2020 vs 2021

Sarasota Memorial
Manatee Memorial
Blake Medical Center
Lakewood Ranch Medical Center

TRANSPORTS

Of all 9-1-1 calls are transported to local emergency departments

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COVID forced the EMS division to discover creative ways to accomplish employee engagements, which resulted in staff enjoying old pastimes like drive-in movies and car washes.

**Weekly and Monthly Updates and Awards**

We continue to recognize and honor the hard work our staff puts into help serve the community. During our monthly awards, we celebrated the actions of our paramedics, EMTs, and support staff. Staff received accolades for their care, customer service, cardiac arrest saves, years of service, and baby deliveries. Additionally, we continued to host monthly meetings for our staff. During these meetings, staff was provided with the latest insight on our metrics, system, and project updates. Staff was also encouraged to have an open dialogue with leadership about their needs and ideas.
NOTABLE 2021 ACHIEVEMENTS

- Adopted a 5 Year Strategic Plan
- Selected a Vendor to develop a Master Plan
- Developed a work plan to implement Basic Life Support (referred to as BLS, or "first responders") Ambulances
- Implemented "Just Culture" initiatives that encourages systems level of thinking, and capitalizes on accountability for the organization and each individual that works with the organization.
- Improved Training Opportunities for EMS Staff to include monthly skills credentialing, and continuing education with employees having access to 52-Continuing Education Hours annually
- Monthly Town-Hall style meetings with Division Staff
- Procured First Watch, a data surveillance software to assist with ambulance utilization and deployment
- Established Field - Driven Working Groups to assist with Public Outreach, Equipment, and Facilities, Quality Improvement, Special Operations, Employee Wellness along with Recruitment, Retention, and Recognition
- Established Quarterly Leadership Mindset Training for supervisory staff
- Invested in employee emotional wellness and behavioral health with PEER initiatives
- Purchased new platform to measure patient satisfaction through a survey tool
- Developed Employee skills and protocol compliance report cards to use to coach and mentor employees to national standards
- Absorbed the County's Health Services Section into Emergency Medical Services
- Instituted Defensive Tactics for EMS Employees (DT4EMS) to reduce workplace assaults/batteries
- Built a New Community Paramedic Office Space

The Best EMS Team
ANNUAL REPORT 2021
### Interpreting Results

The output of this calculation will be a decimal point representative of a percentage of Unit Hour Utilization. The commonly used benchmark for EMS is:

- **.55 - .45 – High Utilization**
- **.45 - .35 – Above Average Utilization**
- **.35 - .25 – Average Utilization**
- **.25 - .15 – Below Average Utilization**
- **.15 - .01 – Low Utilization**

### Term Definition

- **Unit Hour (UHU):** Equal to one hour of service by a fully equipped and staffed ambulance available for dispatch or assigned to a call.
- **Out of Service (OOS):** When the Unit is out of service, not available for assignment
- **Relocate:** When the unit is assigned to a different zone for ambulance coverage, based of historical call data

As unit hour utilization increases, not only are units less available for emergency responses; but also less likely to complete other duties, such as training & continuing education, public education, and increased employee fatigue.
The Demand Analysis Widget provides analysis of the "demand" for EMS services in a given geographical region for each hour and day of the week, and enables EMS Leadership to plan and allocate staff and resources according to the historical trends.

Call to Unit En Route provides analysis of the EMS response times for Ambulance to begin its response each hour of the day.
Data Appendix 3
Clinical Performance Analysis

**Return of Spontaneous Circulation (ROSC):**
during chest compression is generally detected by pulse palpation and end-tidal CO2 monitoring; however, it is necessary to stop chest compression during pulse palpation, and to perform endotracheal intubation for monitoring end-tidal CO2.

**Stroke Outcome 1:**
Assesses the agreement between EMS-suspected stroke and hospital-confirmed stroke.

**Sepsis Outcome 1:**
Assesses the agreement between EMS-suspected sepsis and hospital-confirmed sepsis.

**STEMI Outcome 1:**
Assesses the agreement between EMS-suspected STEMI and hospital-confirmed STEMI.

**Transported patients are transported with Lights and Sirens**

**Ambulance Responses are Emergent and include Lights and Sirens**
Data Appendix 4
Resuscitation Dashboard

Successful First Attempt
91%

Advanced Airway Device
24%

Cardiac Arrest Survival Rate in a Shockable Rhythm
Data Appendix 5
Overdose Dashboard

952
Suspected Overdoses
Incidents

1,142
Doses of Narcan
Administered by EMS

Race/Ethnicity Distribution (952 Persons)
2020-Oct-01 to 2021-Sep-30

Age and Gender Demographics
2020-Oct-01 to 2021-Sep-30
952 Persons