2021 BROWARD COUNTY EMS GRANT APPLICATION

"Funding to improve or expand prehospital EMS Systems"

Section I

1. **Project Title:** Broward Pre-Hospital Training and Education

   Is this a pilot project? ☐ Yes ☒ No

2. **Project Cost $:** 70,000

3. **Agency Name:** Hollywood Fire Rescue

   Address: 2741 Stirling Road, Hollywood, FL 33312

   Telephone: 954-976-4340 Fax: _____

4. **Project Manager:** The individual with direct knowledge of project and responsible for project implementation.

   Name: Chris Delcampo

   Telephone: 954-967-4340 Email: Cdelcampo@hollywoodfl.org

5. **Authorized Signatory:** The individual authorized to sign the application on behalf of the agency or entity.

   Name of Signatory: Chris Delcampo

   Title of Signatory: EMS Chief

6. **Projects Impacting Direct Services to Emergency Victims:** This may include, but is not limited to: vehicles, medical and rescue equipment, communications, dispatch, navigation, and other equipment that impacts on-site treatment. (Countywide projects must offer participation to all licensed EMS providers, based upon levels of service.) Attach Form A.

   Countywide: ☒ Yes ☐ No

   Multiple Agencies: ☐ Yes ☐ No How Many? ____

   Single Agency: ☐ Yes ☐ No

7. **Projects Impacting Indirect Services:** Training of all types (public, first responders, law enforcement personnel, EMS personnel and other healthcare staff), research, and documentation. (Countywide projects must offer participation to all licensed EMS providers.) Attach Form A.

   Countywide: ☒ Yes ☐ No

   Multiple Agencies: ☐ Yes ☐ No How Many? ____

   Single Agency: ☐ Yes ☐ No

8. Problem/Unmet Need Description: Provide a narrative of the problem or need and the population affected by describing the present situation and management (if any) and the potential adverse consequences if not addressed.

Trauma continues to be the leading cause of death and disability for people under 40 worldwide (de Schoutheete). High quality pre-hospital care is an integral component to any established trauma system and essential in the survival of a patient with a traumatic injury (Smith). As trauma systems and pre-hospital care continues to evolve, the number of potential life-saving procedures in the field continues to increase. Research by Meizoso et al., defined pre-hospital interventions (PHI) as intubation, needle decompression, tourniquet use, cricothyroidotomy, or Advanced Cardiac Life Support (ACLS), and found that approximately 3.5% of patients receive a PHI, most commonly a field intubation (Meizoso). According to data from the Broward County Trauma Agency, there were approximately 263,000 emergency medical service (EMS) calls in 2019; therefore, it can be estimated that a minimum of 9,200 PHIs were performed.

There is a paucity of data on the statistical decrease in pre-hospital provider skillset over time, however, Latman et al., report a 50% decrease within two years. Research by De Lorenzo et al. and Lantman et al., support that directed continuing education (CE) programs can not only help medical first responders to retain an estimated 11% of knowledge but also improve pre-hospital skills (De Lorenzo, and Lantman).

Continuing education requirements are built on the foundation that skills decay over time (De Lorenzo). Therefore, the basic level Emergency Medical Technician (EMT) recertification requires 40 hours of CE [20 national, 10 local and 10 individual] (National Registry of Emergency Medical Technicians). Despite trauma being the leading cause of death for individuals under 40, only 1.5 trauma hours are required for recertification (National Registry of Emergency Medical Technicians). Taking into account the gravity of traumatic injury and the minimal CE requirements, EMTs have the potential to benefit from additional education focused on the management of trauma patients.

Arnold et al., note that the goal of emergency response education is to develop the learner's ability to respond appropriately during an emergency situation and identified several factors that influence the successes of emergency response education. Although didactic teaching provides fundamental knowledge and principles, the classroom setting does not adequately prepare students for a clinical setting (Landers, Arnold). Skill laboratories provide the opportunity for students to practice and master the desired emergency response skill in an isolated environment and similar to didactic learning, does not resemble a "real world" scenario (Arnold). Alternatively, full-scale simulation with high-fidelity manikins are the preferred method to teach emergency response as they allow students to respond to a realistic emergency situation in a controlled practice environment (Arnold).

Providing EMS with CE opportunities, specifically simulation or combined (didactic with skills practice) will allow EMS to stay current on PHIs, provide advanced level care in the field, support the trauma system, and save innumerable lives.

9. EMS Improvement and Expansion to Resolve Problem or Address Needs: Describe proposed solutions to the problem and/or need (question #8 – problem description). State the improvements that are reasonably foreseeable and measurable. Use data, scientific, or anecdotal information to support the agency's request. Explain how the project will improve and/or expand prehospital EMS in Broward County. Be specific.

As EMS systems continue to evolve, the need for targeted pre-hospital provider training will continue to increase. Despite the ongoing debate between "scoop and run" and "stay and play", most EMS have adopted a balanced approach "play without extended stay" which requires critical thinking and competence in the most common PHIs to ensure the most critical patients receive intervention without increasing scene times (Meizoso).

Taking into consideration the burden of traumatic injury and the decrease in clinical skills over time, there is a growing need to allocate resources to ensure EMS retain knowledge and practice life-saving PHIs in a controlled education setting. Therefore, in an effort to address the need for ongoing EMS education, traumatic injury mortality, and most common PHI, we propose a continuation of the initiative offering advanced airway training to each of the 18 municipal EMS agencies. Each EMS agency will have the opportunity to send pre-hospital providers to participate in offered trainings.

Dynamic Airway Labs (Advanced Airway Class)
Dynamic Airway Labs has developed a 4-hour advanced airway course designed specifically for pre-hospital providers. The course includes both a didactic and simulation component. During the didactic session, attendees will review critical airway management, pitfalls, and proper technique. Once in the simulation session, attendees will use three-dimensional printed tracheas, simulation skin, and human interactions to practice basic airway management (e.g. bag-valve-mask ventilation and oxygenation with cadaver lungs) and advanced airway management (e.g. using a vomit simulator and cricothyrotomy training device). Airway equipment to stay at Memorial Regional Hospital to be used during scheduled classes.

10. Measurable Outcomes: Outcomes should be viewed from the perspective of the project and provide for: improved conditions/service - for patients as well as EMS personnel; expanded services; new knowledge; or improved knowledge. **Outcomes must be measurable and attainable. (Attach additional pages, as needed.)**	
A. Project	• Purchase required training materials to host Advanced Airway Class (e.g. advanced/difficult airway heads) • Offer advanced airway classes to pre-hospital providers
B. Activities	• Train 306 pre-hospital providers in advanced airway management
C. Outcomes	• Two airway heads purchased • 306 pre-hospital providers educated in advanced airway management • Sign in sheets collected in every training to track number of participants from each EMS agency
D. Indicators	• Increased access to affordable, relevant EMS education
E. Data Source	Arnold, J. J., Johnson, L. M., Tucker, S. J., Chesak, S. S., & Dierkhising, R. A. (2013). Comparison of three simulation-based teaching methodologies for emergency response. Clinical simulation in nursing, 9(3), e85-e93. De Lorenzo, R. A., & Abbott, C. A. (2007). Effect of a focused and directed continuing education program on prehospital skill maintenance in key resuscitation areas. The Journal of emergency medicine, 33(3), 293-297. de Schoutheete, J. C., Idrissi, S. H., & Watelet, J. B. (2016). Pre-hospital interventions: introduction to life support systems. B-ENT, 12(26/1), 41-54. Latman, N. S., & Wooley, K. (1980). Knowledge and skill retention of emergency care attendants, EMT-As, and EMT-Ps. Annals of emergency medicine, 9(4), 183-189. Meizoso, J. P., Valle, E. J., Allen, C. J., Ray, J. J., Jouria, J. M., Teisch, L. F., ... & Proctor, K. G. (2015). Decreased mortality after prehospital interventions in severely injured trauma patients. Journal of Trauma and Acute Care Surgery, 79(2), 227-231. National Registry of Emergency Medical Technicians. Emergency Medical Technician Recertification Information. Retrieved from https://www.nremt.org/rwd/public/document/emt-recert. Accessed on August 27, 2019. Smith, R. M., & Conn, A. K. (2009). Prehospital care− Scoop and run or stay and play?. Injury, 40, S23-S26.
F. Data Collection Method	Sign in sheets collected in every training to track number of courses delivered and participants trained from each EMS agency.

11. Project Schedule: Please complete the table below. Insert additional rows if needed.

Months after Grant is Executed	Activity
0-2 months	Order materials and equipment
1-4 months	Schedule courses
4-12 months	Deliver advanced airway courses to EMS

12. Supporting Research or Literature? ☒ Yes (Attachment A) ☐ No
(Required if this is a Pilot Project.)

13. Letters of Support or Reference? ☒ Yes (Attachment B) ☐ No

14. Budget: Do not use brand names when listing items. Use only generic names. Round up/down to the nearest dollar. Please use the table below. Insert additional rows if needed. Do not include extended warranties.

Item	Unit Cost	Quantity	Total
See budget attachment			
Delivery charges, if any			
Total			$

15. Future Expenses: Estimate the maintenance or other required recurring expenses per unit after the first grant year (if applicable). Note: No funding will be provided for these expenses under this grant program and must be absorbed by the grant recipient(s). Discuss this issue with your agency as it may affect its budget.

Items	Cost
None	

Grant monies cannot be used to replace existing equipment.

CD _____

Initials of authorized signatory acknowledging the individual understands this statement.

16. Medical Director Approval: For all projects requiring approval from the agency's Medical Director in accordance with Chapter 401, Florida Statutes, or Chapter 64J-1, Florida Administrative Code.

The undersigned, as Medical Director for this agency, supports and approves this project.

Signature: _____ Date: 9/14/2020

Printed Name: Dr. Randy Katz

17. Partial Funding: Will the agency accept partial funding?
(Note: If the agency is awarded partial funding, an amendment to the outcomes and budget forms must be submitted).

☒ Yes, the agency will accept partial funding

☐ No, the agency will not accept partial funding

Signature: _____
(Authorized Signatory)

Printed Name: Chris Delcampo

AGENCY NAME: Hollywood Fire Rescue

AUTHORIZED SIGNATORY: Chief Chris Delcampo

DATE: 9/14/2020

PRINT AUTHORIZED SIGNATORY NAME: Chief Chris Delcampo

TITLE: EMS Division Chief

PROJECT MANAGER'S SIGNATURE: _____

PRINT PROJECT MANAGER'S NAME: Candace Pineda

TITLE: Trauma Admin Director

TELEPHONE: 954-265-4026

EMAIL: Canpineda@mhs.net

If this is a Single Agency Project, this is the last page of the application.

If this is a Multiple Agency/Countywide Project (excluding Countywide training projects), please continue by completing the Participating Agency Summary Sheet (Form A) and Section II for *each* Participating Agency.

Grant Application Submission Deadline:

Tuesday, September 15, 2020 at 2 p.m.

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Form A

Participating Agency Summary Sheet
(Attach a copy of negative responses)

Agency Name	Not Interested	No Response	Quantity Requested
Broward Sheriff's Office Fire Rescue	☐	☐	
Coral Springs Fire Department	☐	☐	
Davie Fire Rescue	☐	☐	
Ft. Lauderdale Fire Rescue	☐	☐	
Hollywood Fire Rescue	☐	☐	
Lauderhill Fire Rescue	☐	☐	
Lighthouse Point Fire Department	☐	☐	
Margate/Coconut Creek Fire Rescue	☐	☐	
Miramar Fire Rescue	☐	☐	
North Lauderdale Fire Rescue	☐	☐	
Oakland Park Fire Rescue	☐	☐	
Pembroke Pines Fire Rescue	☐	☐	
Plantation Fire Rescue	☐	☐	
Seminole Tribe of Florida, EMS	☐	☐	
Southwest Ranches EMS	☐	☐	
Sunrise Fire Rescue	☐	☐	
Tamarac Fire Rescue	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

SECTION II
(Complete for ALL "Multiple Agencies" or "Countywide" Projects, EXCLUDING Countywide Training Projects)

Does your agency desire to participate in the grant project?

If No, ignore the remaining questions and return the form to the Project Manager (GRANTEE).

_____
Initials of authorized signatory for Participating Agency

If Yes, complete remaining items and return to:

Project Manager (name) Candace Pineda canpineda@mhs.net 954-265-4026

The undersigned Participating Agency _____
(Agency name)
agrees to enter into an ADDENDUM TO BROWARD COUNTY EMS GRANT FUNDING AGREEMENT and acknowledges that it has joined in with the
Hollywood Fire Rescue (GRANTEE) on a Project Application for

(Project Title and Summary) Broward Pre-Hospital Training and Education:
Airway training and equipment for EMS training

as part of the BROWARD COUNTY EMS GRANT FUNDING. The Participating Agency acknowledges that, to be included as a Participating Agency under the agreement between BROWARD COUNTY and GRANTEE for BROWARD COUNTY EMS GRANT FUNDING ("Agreement"), it will be required to agree to the terms and conditions for the funding.

1. Medical Director Approval:

For projects requiring approval from the agency's Medical Director in accordance with Chapter 401, Florida Statutes, or Chapter 64J-1, Florida Administrative Code, the agency's Medical Director must complete the following**:**

As Medical Director for above Participating Agency, I support and approve this project.

AUTHORIZED SIGNATURE: _____

PRINT NAME: Randy Katz **DATE:** 9/14/20

2. Recurring Expenses after the grant year:

The estimate for maintenance or other required expenses per unit after the first grant year, if applicable, are listed below. These costs will be absorbed by the grant recipient(s) (including each Participating Agency) and not paid from grant funds.

Item _____ Cost $ _____

_____ **Initials of authorized signatory for** _____
(Participating Agency)

3. State the number of items requested or Training Participants. _____

4. PARTICIPATING AGENCY AUTHORIZED SIGNATORY:

_____ **DATE:** _____

PRINT NAME: _____

TITLE: _____

5. PARTICIPATING AGENCY PROJECT LEADER SIGNATURE:

_____ **DATE:** _____

PRINT NAME: _____

PARTICIPATING AGENCY PROJECT LEADER TITLE:

_____

EMAIL: _____

6. PROJECT MANAGER (GRANTEE'S RESPONSIBLE AGENT) SIGNATURE:

_____ **DATE:** _____

PRINT NAME: _____

PROJECT MANAGER TITLE: _____

DATE: _____ **TELEPHONE:** _____

EMAIL: _____

FY 2021 Budget

Airway Equipment	$5,454
Airway Training	$64,546
TOTAL	**$70,000**

Advanced Airway Class by Agency

Durable Equipment and Airway Class	**Number**	**Cost per unit**	**Total**
AirTrac Video Laryngoscope	1	$700	$700
King Vision Video Laryngoscope	1	$1,000	$1,000
Life/Form “Airway Larry” Adult Head	1	$800	$800
Trucorp AirSim Combo X Difficult Airway Trainer	1	$2,154	$2,154
Silicone Skin Materials (Cric Training Supplies)	2	$400	$800
Airway Class	306	$211	$64,546
Airway Allowance per Agency	17	-	-
TOTAL	-	-	**$70,000**