

# MEDIC ONE/EMERGENCY MEDICAL SERVICES STRATEGIC PLAN & LEVY REAUTHORIZATION

Regional Services Subcommittee meeting 3/21/2024

## Summary

*Topics included the roles and responsibilities of the group, the proposed timeline, and overarching principles guiding the levy planning process. The EMS Division briefed the group on the various Training and Education programs that are supported by the EMS levy, after which partners shared their workforce challenges.*

## Attendees

*Chair: Angela Birney, City of Redmond*

Cynthia Bradshaw, King County EMS Division

Matt Burrow, Bellevue Fire

Brian Carson, Puget Sound RFA

Helen Chatalas, King County EMS Division

Andrea Coulson, King County Medic One

Tim Day, VRFA

Lisa Defenbaugh, South King Fire

Larry Doll, Seattle Fire

Chris Drucker, King County EMS Division

Becky Ellis, King County EMS Division

Jamie Formisano, Eastside Fire & Rescue

Jason Gay, Burien Fire

Jason Hammond, King County EMS Division

Cory James, NORCOM

Vonnie Mayer, Valley Com

Stephanie Miller, Lake WA School District

Amy Morehead, Redmond Fire

Kelly O'Brien, King County EMS Division

Andres Orem, Shoreline Fire

Michele Plorde, King County EMS Division

Josh Pratt, Kirkland Fire

Tom Rea, King County EMS Division

Mark Sawdon, King County Medic One

Adrian Sheppard, Redmond Fire

Melissa Vieth, NORCOM

Jim Whitney, Redmond Fire

Todd Wollum, Shoreline Fire

Ryan Woodey, Kirkland Fire

Rose Young, King County EMS Division

## Issues discussed:

### Roles and Timeline

The Regional Services Subcommittee will develop recommendations for the span of the next Medic One/EMS levy period (2026-2031). Its tasks are to review the programs needed to support all aspects of the regional EMS system and determine the levy funding needed to support these programs. This includes Regional Services, which are core programs that support the direct service activities and key elements of the system, and Strategic Initiatives, which are innovative pilots that aim to improve the quality of EMS service and contain costs.

- Programmatic findings will be developed by the end of the 3rd meeting (May 2024). These findings will proceed to the Finance Subcommittee for review and input and then go to the *EMS Advisory Task Force* later that month for feedback.

- Subsequent meetings will focus on turning these findings into recommendations and providing financials to support them. These draft recommendations will go to the Finance Subcommittee and then to the *Task Force* in late July 2024 for feedback.
- The Subcommittee will continue meeting to finalize its recommendations which the *Task Force* will endorse in mid-October.

## **Principles**

At the February 15, 2024, *EMS Advisory Task Force* meeting, Shannon Braddock asked participants to agree to basic principles that will help guide the levy reauthorization process. The Regional Services Subcommittee reviewed the principles and were asked to work within them.

Principles:

EMS partners remain committed to these fundamental principles:

1. Regional system
2. Tiered medical model-based system
3. Equity-led
4. Innovative, efficient and effective
5. Funded via an EMS levy

## **Training and Education Programs**

The EMS Division has broken its Regional Services and Strategic Initiatives into “Lines of Business” and will brief the Subcommittee on these Lines of Business during the first three meetings. The EMS Division briefed participants on the Training and Education Line of Business after which the group discussed workforce challenges and considerations.

Training Programs highlighted:

- Regional EMT training
  - Initial and continuing education
- Paramedic support and training
  - Continuing education
  - Airway report and cardiac arrest surveillance
- STRIVE Strategic Initiative - modernization of EMS Online platform
- Certification and record-keeping
- EMD training
  - Initial and continuing education
- CPR/AED training
  - School CPR Program

### Discussion:

There is great support across the region for increased training opportunities for all first responders. Hiring, retention and having enough instructors for needed training were concerns brought up by regional partners.

1. Increased hiring means increased training needs. Agencies are hiring a younger workforce with limited experience who would benefit from more practical/hands-on training. **Drills that focus on ALS/BLS interactions are excellent for grounding new hires in understanding how agencies work together. Extending the 5-week Initial EMT Training to six weeks would help ensure a more solid foundation for these new hires.**
2. With the region losing seasoned CBT instructors, there is an even greater need for on-going CBT instructor training. **It would benefit the region to provide funding to agencies for this specific on-going training.**
3. Dispatch centers are also experiencing increased hiring and training needs amid a shortage of instructors. Com Centers promoted investing in 9-1-1 professionals through additional **'in person' training opportunities, advanced training classes and mental wellness support programs.**

### **OTHER:**

- There was interest in knowing the number of school districts that have expanded CPR training to middle and elementary schools.
- The King County Fire Chiefs Association's (KCFCA) Mental Wellness Subcommittee is developing a **Mental Wellness proposal** to come to the Regional Services Subcommittee for consideration. This proposal will most likely also go to the BLS Subcommittee for review. In addition, the KCFCA's DEI Subcommittee has developed a **DEI proposal** that will also come to the Regional Services Subcommittee and BLS Subcommittee for consideration.

### **Next Meeting**

April 18, 2024:      1:00 – 3:00 pm      Mercer Island Community Center Room 103

Topics include a review of Community-Centered programs, the Vulnerable Populations Strategic Initiative, and Regional Leadership and Management.

# Regional Services Subcommittee considerations for the 2026-2031 levy planning process

For discussion at the 3/21/2024 Regional Services  
Subcommittee meeting

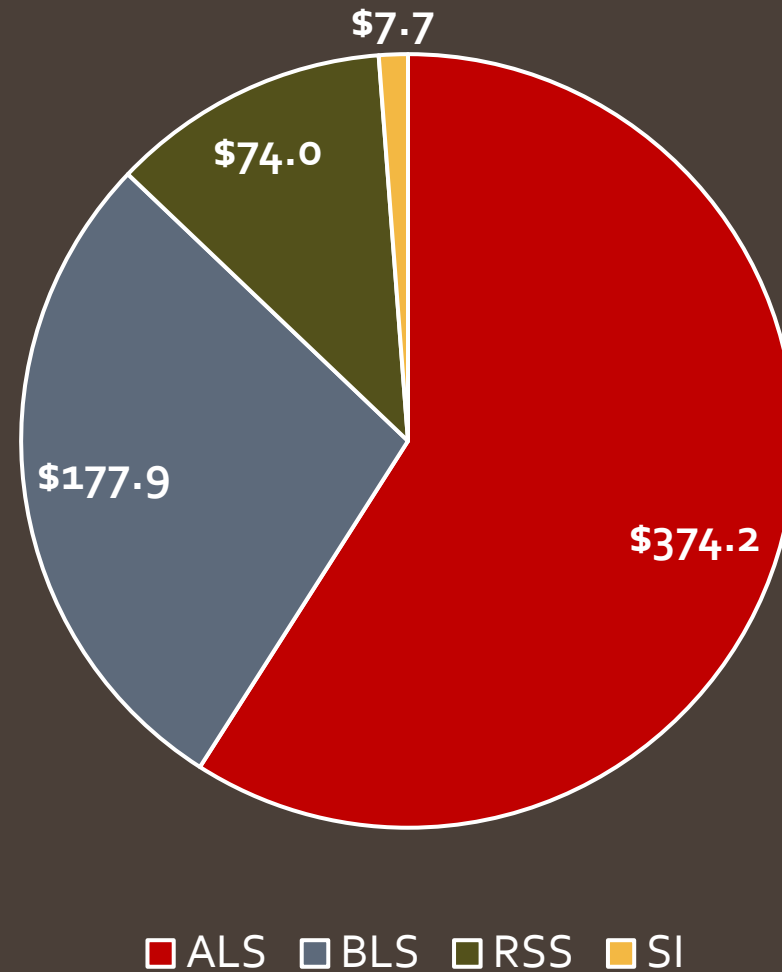
Medic One/EMS Levy  
King County EMS Fund

2020-2025 levy period

Average by year

## 2020-2025 Medic One/EMS Levy

Average Expenses by Program Area  
*(in millions)*



# EMS Division: Purpose and Principles

## PURPOSE:

Administer and provide oversight of EMS services in King County, outside the City of Seattle, through regional programs.

## PRINCIPLES:

- Engage regional partners
- Build consensus
- Monitor performance
- Utilize best practices
- Support quality training
- Manage levy funds

# Subcommittee Tasks

Review programs and initiatives needed to support our system in the next levy period.

Determine the EMS levy funding necessary to support these programs and initiatives.

# Regional Services: Lines of Business

## Regional Services Lines of Business

A. Training and Education

B. Community-Centered Programs

C. Regional Medical Quality Improvement

D. EMS Data Management

E. Regional Leadership and Management

F. Indirect and Infrastructure



# FINANCIALS

## Regional Services

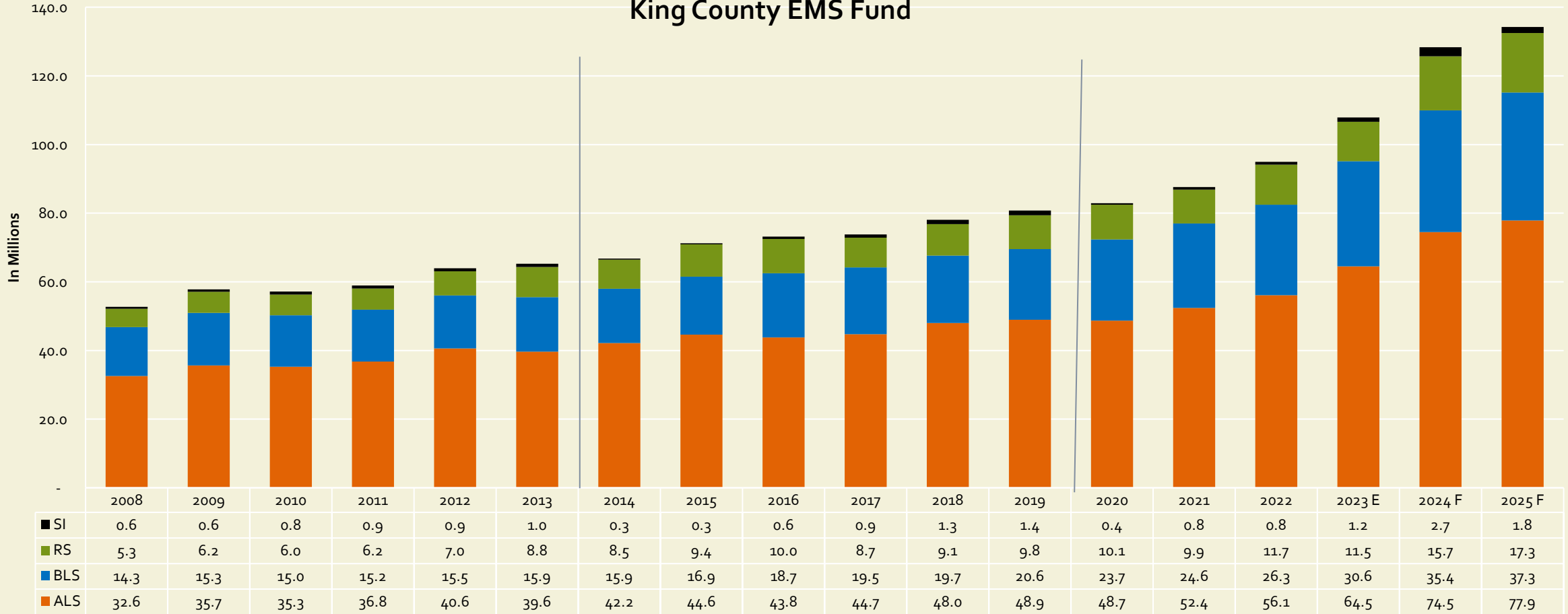
- Budgeted at standard yearly level
- Increased yearly by inflation at CPI-W + 1%

## Strategic Initiatives

- Budgeted at initiative level *for full levy period*
- Yearly budget adjusted to project needs

# Expenditures by Program Area

## King County EMS Fund



- ❖ Low inflation 2008-2013 related to mortgage crisis; Increased inflation 2014-2019 during recovery
- ❖ Generational high inflation 2020-2025 levy
- For 2020-2025 levy, slower implementation of programs moved some expenditures to later years of levy (ex: STRIVE, Training)

## Regional Services & Strategic Initiatives By Levy Period



## Changes/Program Investments

### 2008: New programs & SI conversions

- Creation of Medical QI Section

### 2014: Expanded programs, converted SIs\*

- Investments in technology supporting programs including SEND (data management & repository)
- Expansion of community centered programs

### 2020: New Programs & SI conversions

- Continued investments in technology supporting programs, expanding in-person training
- During levy period, expanded support for EMT & paramedic initial training (reviewed and recommended by EMSAC)

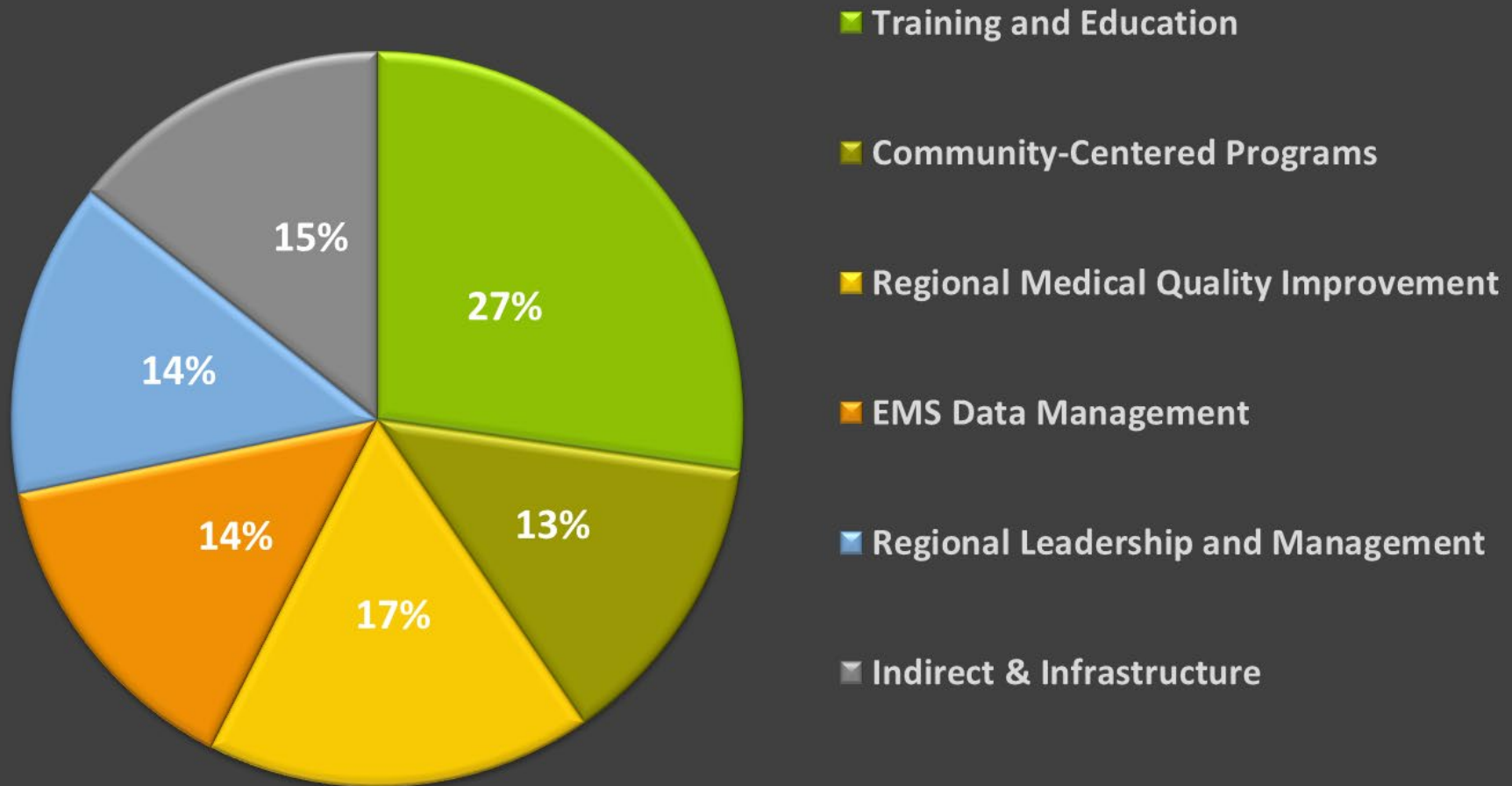
\*2014 – also discontinued 5 projects

❖ RS & SI increases: inflation, changes in funding level of existing programs and new programs (usually converted SIs)

# PROGRAMS

TRAINING AND EDUCATION

## Regional Services Line of Business (based on 2022 actuals)



# Training and Education

(Line of Business)

## Regional EMT training

- Initial and continuing education

## Paramedic support and training

- Continuing education
- Airway report and cardiac arrest surveillance

## STRIVE Strategic Initiative

- Modernization of EMS Online platform

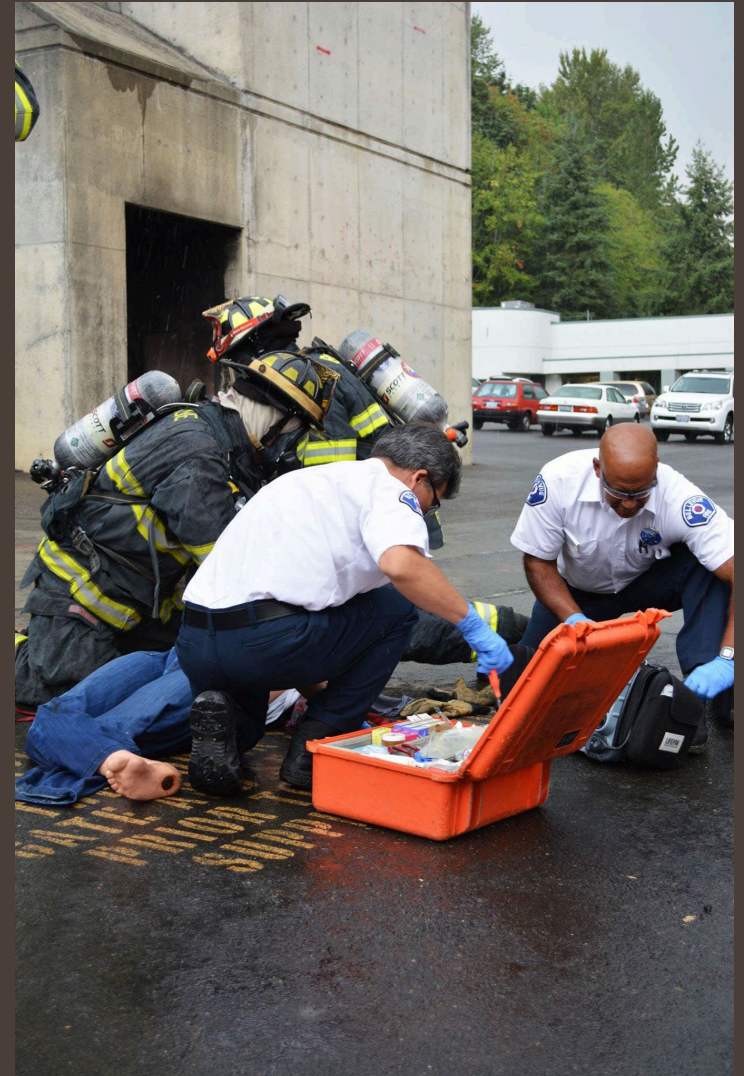
## Certification and record-keeping

## EMD training

- Initial and continuing education

## CPR/AED training

- School CPR Program



# EMT and Paramedic Training and Education Information

General stats:

- Approximately 5,000 EMTs and paramedics
- 26 BLS agencies / fire depts.
- 5 ALS agencies
  - 4 fire depts.
  - 1 municipal agency
- 4 private ambulance services ground transport
- 2 law enforcement agencies
  - police, SAR & ski patrol



# Regional Training Offerings:

- Initial EMT training courses

- Minimum 8 classes teaching approximately 250 students annually

- Ongoing certification

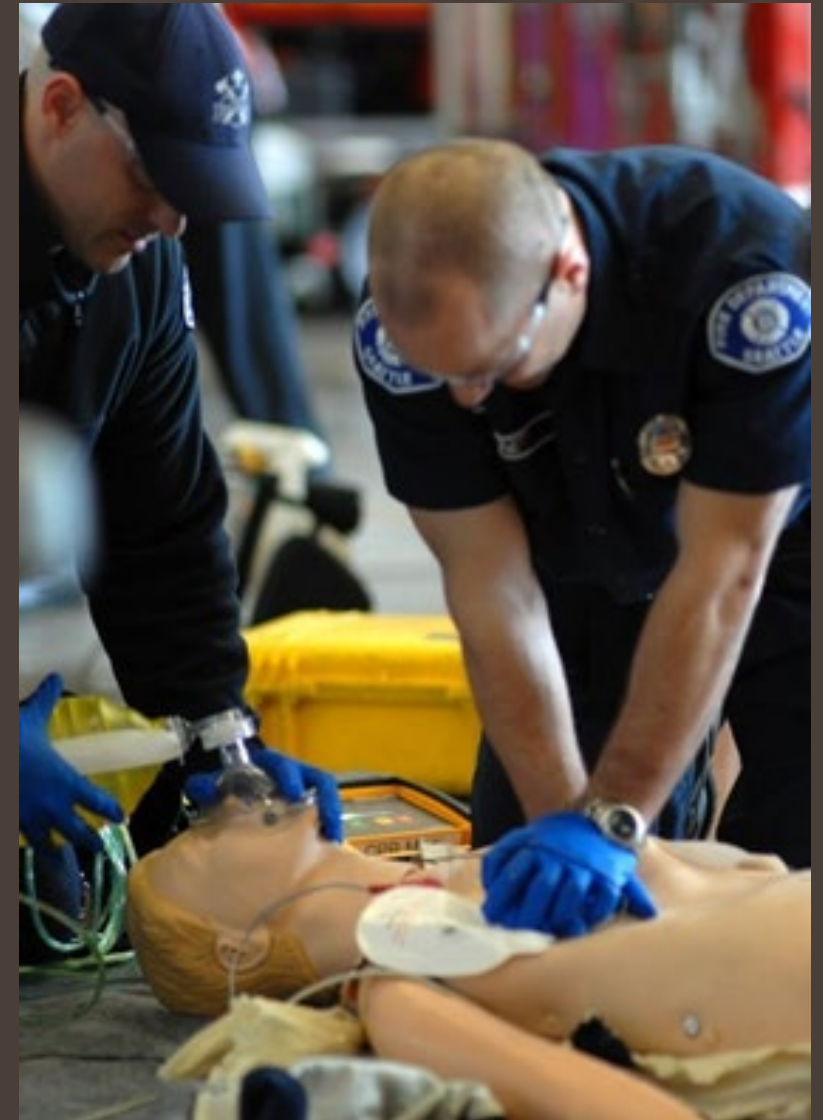
- 8-10 online learning modules, quarterly skills assessments

- Annual “train-the-trainer” workshops

- Approximately 500 EMT evaluators trained annually

- Identification and promotion of Senior EMT Instructors

- Provide support for training and recertification of 10-12 SEIs across the Zones





# Initial EMT Training

Initial EMT training hosted by  
4 agencies

- EMT-G: Bellevue
- NKCTC: Shoreline
- SKCFTC: Puget Sound  
RFA
- King County EMS  
Division

2019: 4 classes training  
approximately 120 students

2022: 6 classes training  
approximately 255 students



## Initial EMT Training Goals:

Improve patient outcomes with a world-class EMT product that exceeds national standards.

Promote standardization across zones through regionalization in training.

Effectively meet the needs of our adult learners.

Ability to respond to emerging issues.



# Exceeding National Training Standards

- **Initial EMT Training**
  - Start with the National Registry of EMT (NREMT) curriculum
  - Expand up to 150 hrs. to cover state-based requirements
  - KCEMS- approximately 190 hrs.
    - **Expanded BLS scope of practice**
    - Includes 10 hrs. of emergency department observation time

# Expanded BLS Scope of Practice

- Intramuscular administration of epinephrine
- Nasal administration of naloxone
- Insertion of supraglottic airway device
- High-performance trauma management
  - Wound packing / hemostatic gauze
  - Tourniquets- placement and conversion



# Continuing Education to Maintain Certification

- **Ongoing recertification**
  - State EMT requirement- 30 hrs. / 3 years
    - KCEMS- 45-50 hrs. / 3 years
  - State paramedic requirement- 150 hrs. / 3 years
    - Support Harborview Paramedic Training with Tuesday Series
- **Annual "train-the-trainer" workshops**
  - King County Medical Program Director's conditions of focus
  - Topics for the upcoming year
  - Instructor development

# EMS Online

## EMS Online

- Started in 2007
- Delivery of online content to tens of thousands of users
- Annual recertification requirements
  - 4-5 modules of new content
  - 4-5 modules of ongoing content
- Impromptu state-based requirements
  - Travis Law Training
- Supplemental materials for each module
  - Scenarios, presentations, skills check sheets
- Data warehouse for regional updates
  - COVID-19, medical protocols, skills videos

## See What's Online

### EMS Online

Online course demonstration

<https://www.emsonline.net/Login.aspx>

Skills video demonstration:

3-person CPR

[3 person CPR with AED \(youtube.com\)](#)

EMS Online  
emsonline.net

**EMS Online** is a continuing education resource that offers online, interactive courses and content for emergency medical service professionals.

June 2010	
Complex Pediatrics Dr. Hood	42:16
ARDS in Children Dr. Brogan	52:39
Prehospital Dr. Hurley	50:37

Tuesday Series paramedic training, features lectures by nationally recognized experts

### EMS ONLINE SUBSCRIBER

username

password

[Forgot your username or password?](#)  
[Question? Contact Tech Support...](#)

### COVID-19 / Update 10/2/2023



**KC EMS Directives and Information**  
Learn more...

STRIVE  
Strategic  
Initiative:

Improving  
Technology

- **EMS Online modernization project**
  - Identify and transition to an external Learning Management System (LMS)
  - Implement a Learning Records Store (LRS)
  - Train the region's current EMS Online user base
  - Complete implementation by 2025
  - Offer expansion capabilities up to 7,500 users as the region grows



# Support of ALS Training

- CONTINUING EDUCATION
  - Tuesday Series at Harborview
  - 500+ lectures and associated exams
  - More than 375 hours of ALS content
  - Largest repository of online ALS training in the world
  - Regional CME
- INITIAL PARAMEDIC TRAINING
  - Funding for ALS agency paramedics to support Initial Paramedic Training at Harborview



# CERTIFICATION & RE-CERTIFICATION

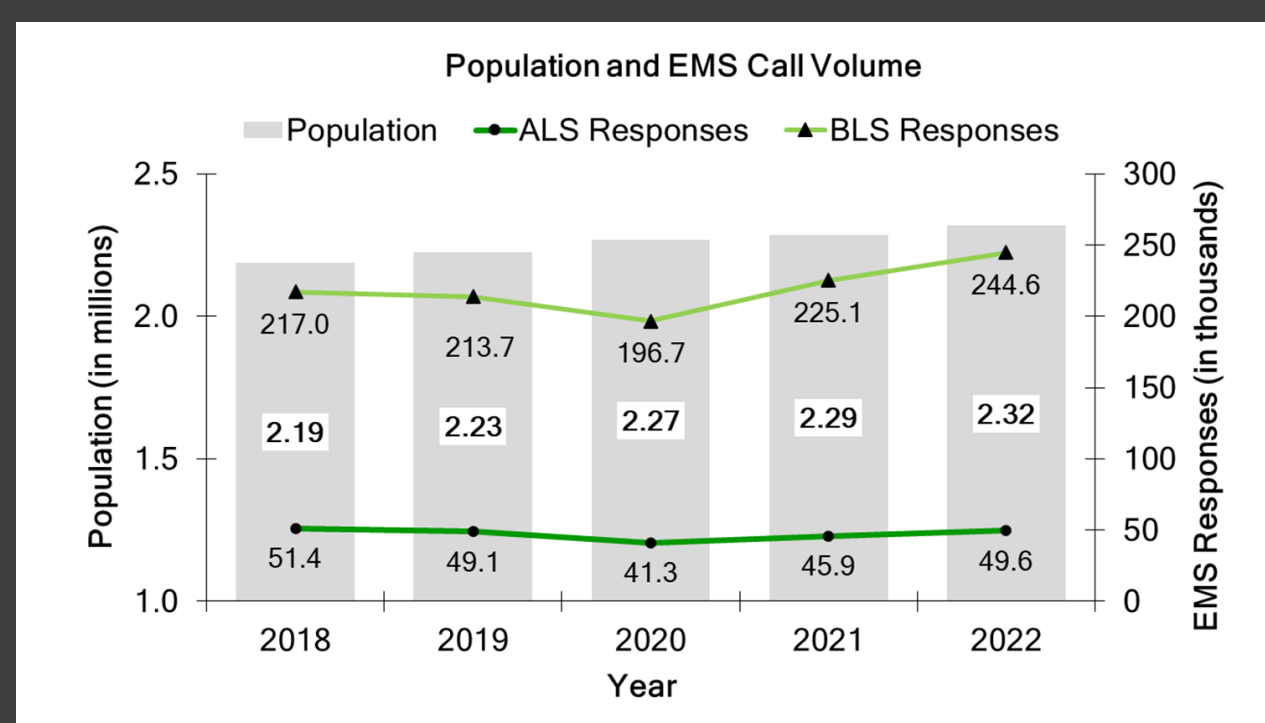
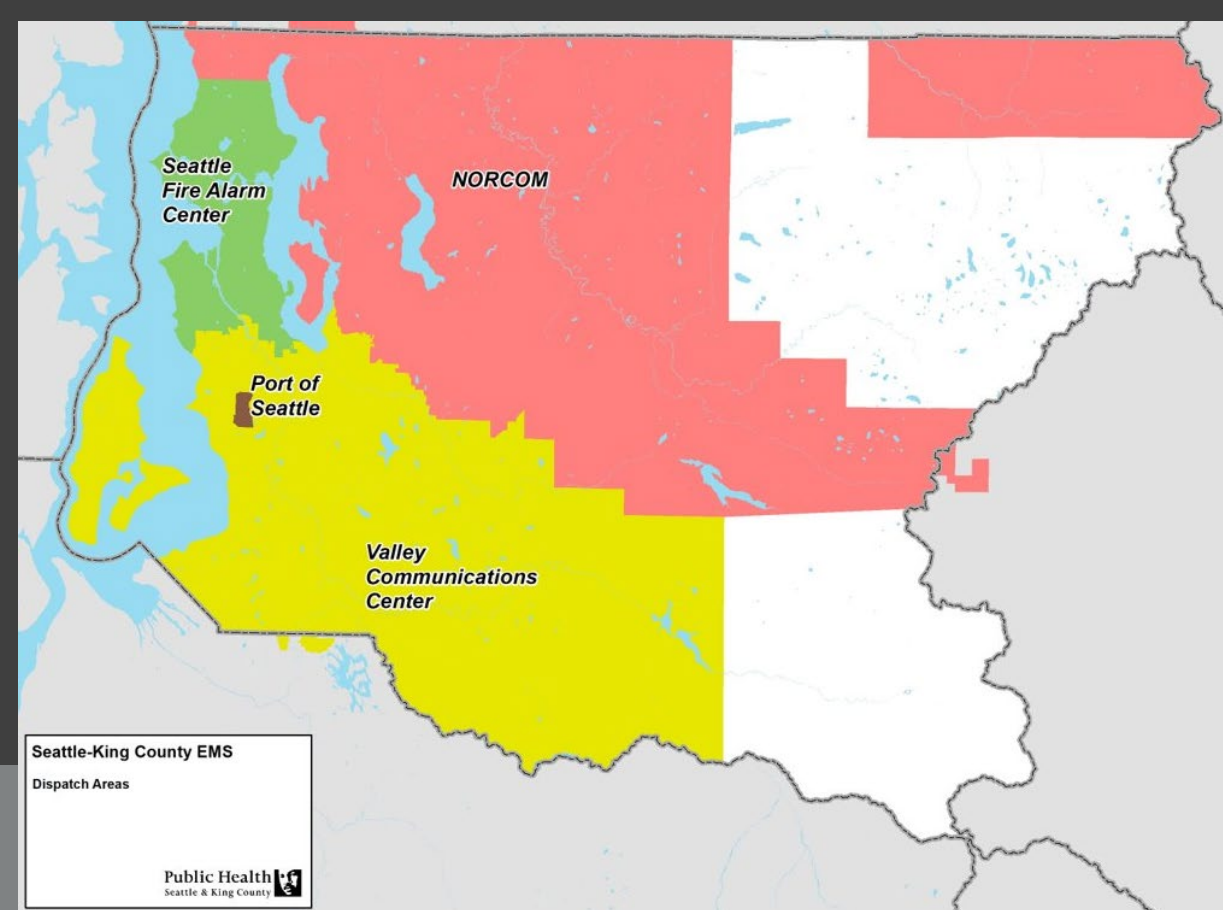
- Administrative infrastructure
  - Every training opportunity requires documentation
  - EMS Online makes online reporting available
  - Every EMT and paramedic recertification passes through the EMS Division offices
    - More than 15,000 individual documents annually
    - Requiring various levels of verification, authorization, and signature
- Regional facilitation
  - Host Training Agency workgroup
  - SEI workgroup

# EMT TRAINING - Challenges

- GENERAL
- INITIAL EMT
- CERTIFICATION / DATA MANAGEMENT
- CONTINUING EDUCATION

# Emergency Medical Dispatch Training: Initial and Continuing Education





# Regional communication centers



# EMD Training: Initial and Continuing Education



- EMS Division provides:
  - Medically-approved CBD guidelines
    - Aligns signs and symptoms with appropriate responses and resources
    - Revised every 3 years
  - Training instructors/materials for Initial Dispatch Basic Training
    - (40-hour course, offered 4x/year)
  - Continuing education (8 hours annually)
    - Online learning modules, videos, reading material
- EMS Division funding supports:
  - EMD core services (advanced training, ad-hoc needs)
  - QI/QA and research activities to inform trainings and CE

# Telecommunicator impact in King County



**Journal of the American Heart Association**  
**Volume 13, Issue 2**  
 Jan 2024

ARTICLE

## Pediatric Out-of-Hospital Cardiac Arrest: The Role of the Telecommunicator in Recognition of Cardiac Arrest and Delivery of Bystander Cardiopulmonary Resuscitation

Pediatric Telecommunicator CPR Lewis et al

[View article page](#)

Miranda M. Lewis, Killian Pache, Sally Guan, Jenny Shin, Megin Parayil, Catherine R. Counts, Chris Drucker, Michael R. Sayre, Peter J. Kudenchuk, Mickey Eisenberg and Thomas D. Rea



2024 King County EMS Quality Improvement Report

March 12, 2024

**Pediatric Resuscitation: The Role of 9-1-1 Telecommunicator**

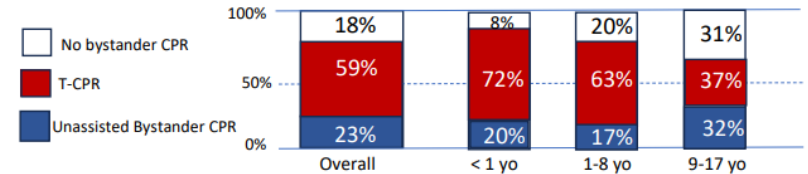
**Background:** In King County, the telecommunicator at the emergency communication center serves as an important part of the chain of survival by helping to identify the cardiac arrest patient and coaching CPR, a lifesaving activity termed “T-CPR”. This evidence comes from evaluation of the care of adult cardiac arrest patients. As a consequence, the rate of bystander CPR in King County approaches 75%, a level that is substantially greater than most communities or systems. However, little is known about how the telecommunicator is involved and impacts the relatively rare event of pediatric cardiac arrest.



The current project reviewed nearly 200 9-1-1 calls for pediatric cardiac arrest that occurred prior to EMS arrival during a 7-year time period in Seattle and King County to understand how the telecommunicator interfaces with the layperson callers and impacts T-CPR. The specific goals of evaluation were to determine how often and how quickly telecommunicators help identify pediatric cardiac arrest and coach CPR.

**Key Findings:** Overall bystander CPR was performed in 82% of all pediatric cases, the majority due to active telecommunicator involvement (Figure 1). The telecommunicator was essential in identifying cardiac arrest and coaching CPR in 59% of all cases. The bystander provided unassisted CPR in about 23%. There was evidence that arrest recognition and bystander CPR was more challenging among older pediatric patients as bystander CPR occurred in 69% of 9-17 year olds compared to 80% among 1-8 year olds and 92% among those <1 year received bystander CPR.

**Figure.** Bystander CPR among Pediatric Arrest: Overall and according to Age Group



Among cases requiring telecommunicator assistance, the median interval from call receipt to cardiac arrest recognition was 59 seconds and the median time from call receipt to the start of CPR was 115 seconds – performance comparable to T-CPR best practices among adult OHCA. The coached compression rate was 93 per minute, a compression rate that rivals CPR by well-trained laypersons.

**Summary:** The telecommunicator is integral to increase timely arrest recognition and bystander CPR in cardiac arrest, providing a key strategy to improve survival following pediatric cardiac arrest.

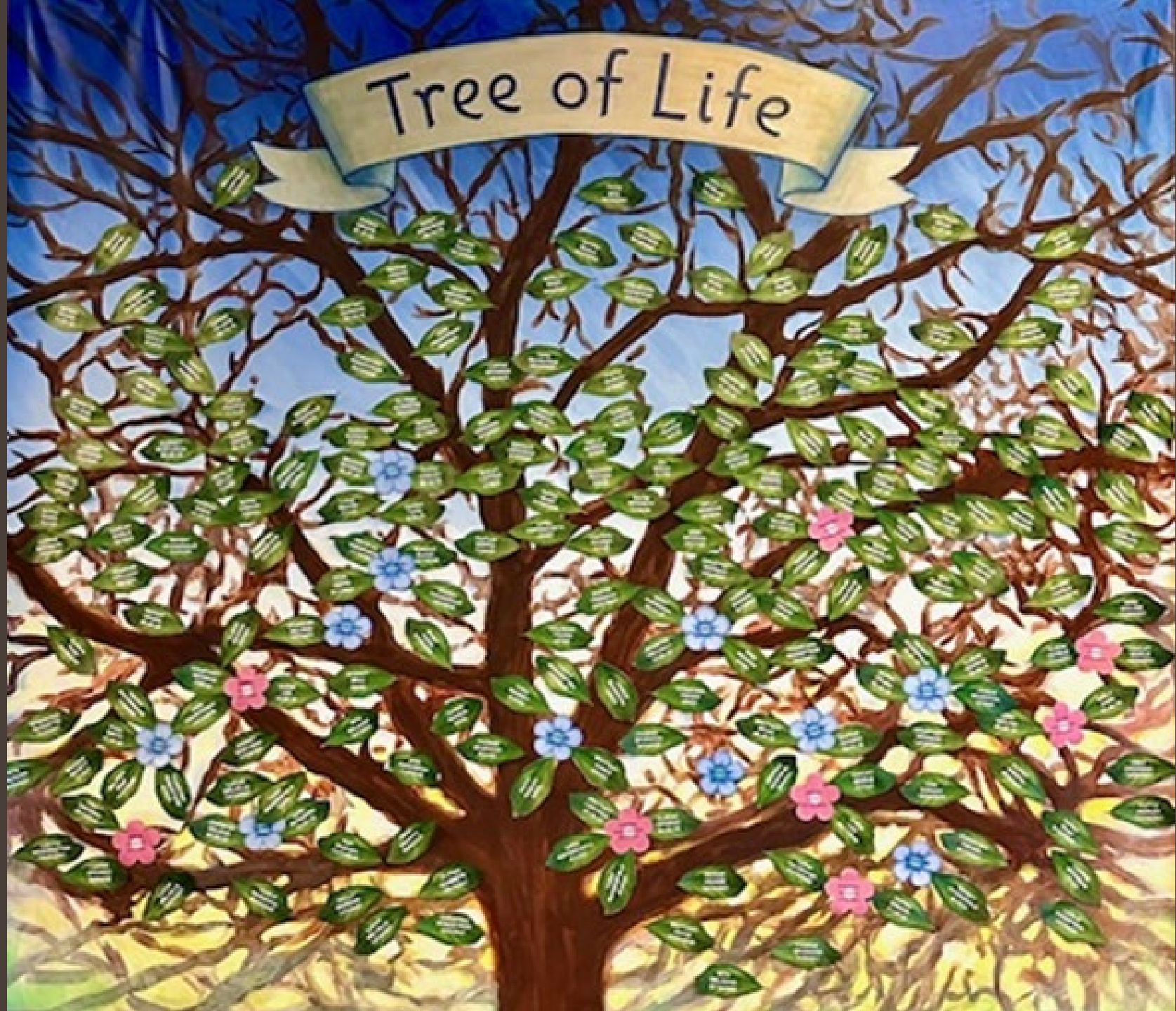
**Medical Director Comment:** Although a common take-home, the project’s findings underscore (again) the team effort involved in successful cardiac arrest resuscitation. We have long appreciated the important role of T-CPR in adult arrest, and this evaluation highlights similar impactful participation by the telecommunicator in pediatric arrest. The telecommunicator efforts help sustain patient physiology which in turn provides for more effective EMS treatment.

# 9-1-1 professionals are people helping people

- Critical-link
- First of the First Responders
- High-stress
- Burnout
- Turnover

## And they too need help

- Further training & investments
- Mental health/Well-being





# EMD Training: Challenges

- STATE-MANDATED TRAINING REQUIREMENTS
  - 9-1-1 Professionals are First Responders under state law
    - Effective date: 6/9/2022
  - Training standards, certification, and recertification requirements forthcoming.
- TRAINING/CE INFORMED THROUGH QA/QI
  - Currently reviewing approximately 2% of all calls.
- WORKFORCE
  - Projected King County annual openings similar to Fire/EMS (~18 %).
- EXPAND CURRENT TRAINING/CE
  - e.g., Advanced dispatch training



## CPR/AED Training: School CPR Program

# School CPR Program

- RCW 28A.230.179
- Funding to school districts and fire departments
- Medically-approved curriculum (*not just training*)
- Reach and impact to our shared communities
  - ~23K 9th grade students throughout King County
  - 21 cardiac arrests on school property since 2018
  - Improve chances for survival



## Shoreline native credits King's High School and a television show for helping him save a friend's life

TUESDAY, MARCH 5, 2024

[Shoreline Area News](#)



# Lake Washington School District

EMS Division provides:

- Curriculum (5 lessons tailored to students)
  - 1-2 weeks on unit
  - Favorite among students

EMS Division funding supports:

- CPR training for health teachers
  - Use of curriculum
  - CPR certification
- Equipment and supplies
  - Manikins/AED trainers

LWSD instructs middle schoolers as well



# School CPR Program: In Summary

## 1. MAINTAIN INNOVATIVE AND RELEVANT CURRICULUM

- Revamp materials as evidence changes

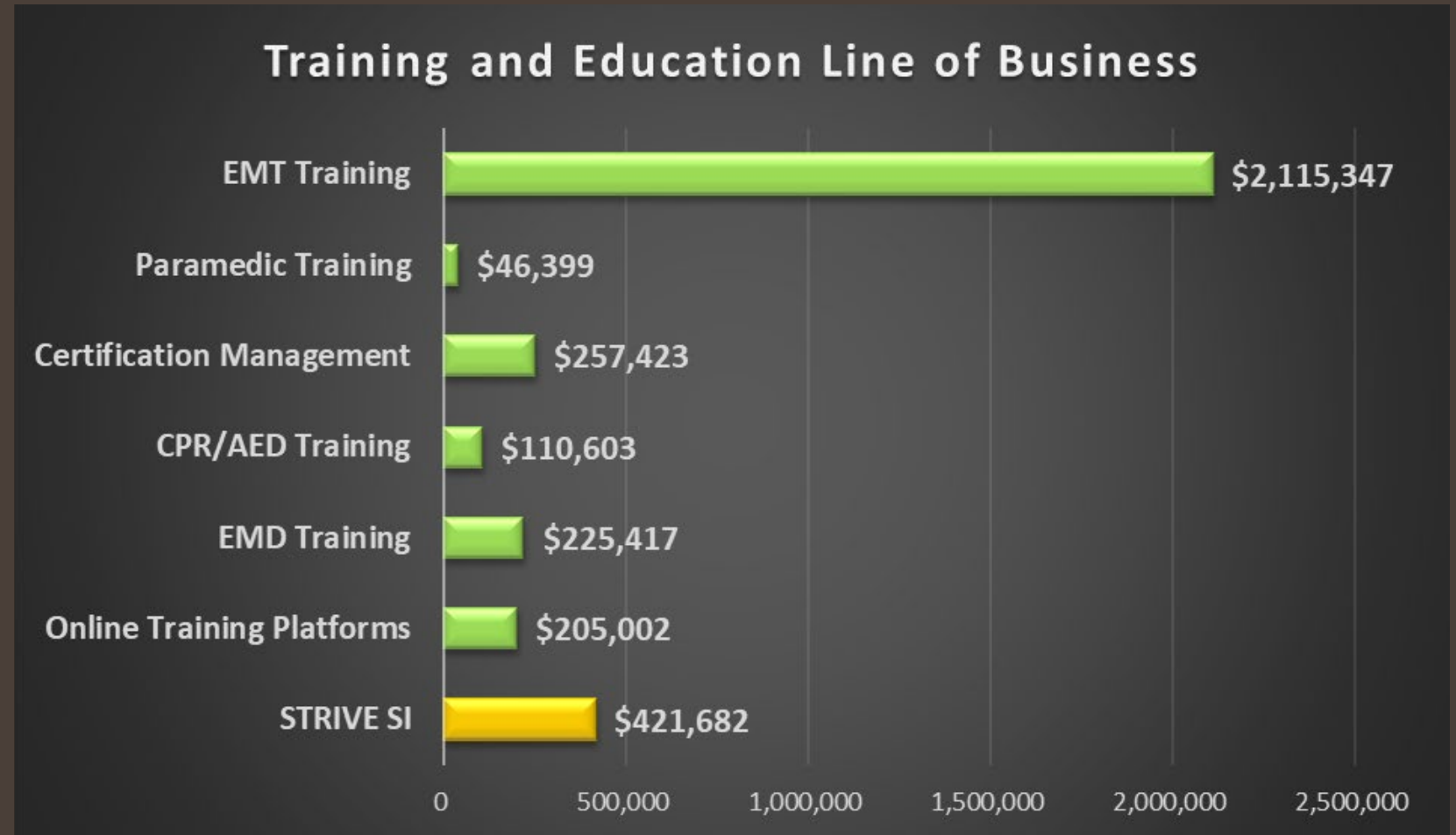
## 2. MITIGATE COMMUNITY INEQUITIES

- School districts are not all the same
- Education leading to health disparities

## 3. COMPETENT AND WELL-TRAINED EDUCATORS

# Training and Education

(Line of Business)



2022 Actuals