The Data that Drives Emergency Medical Care
Speaker: James Augustine
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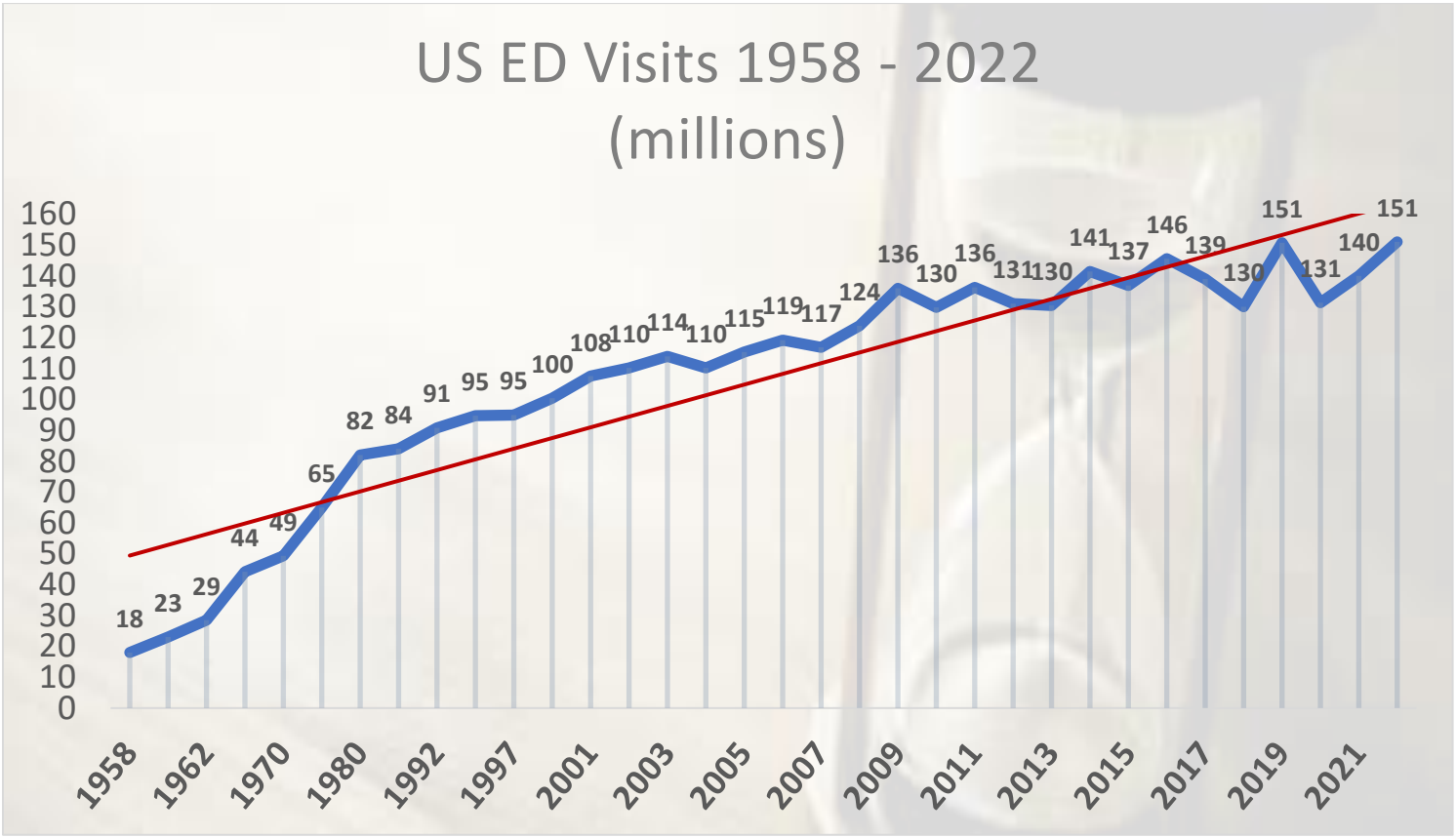
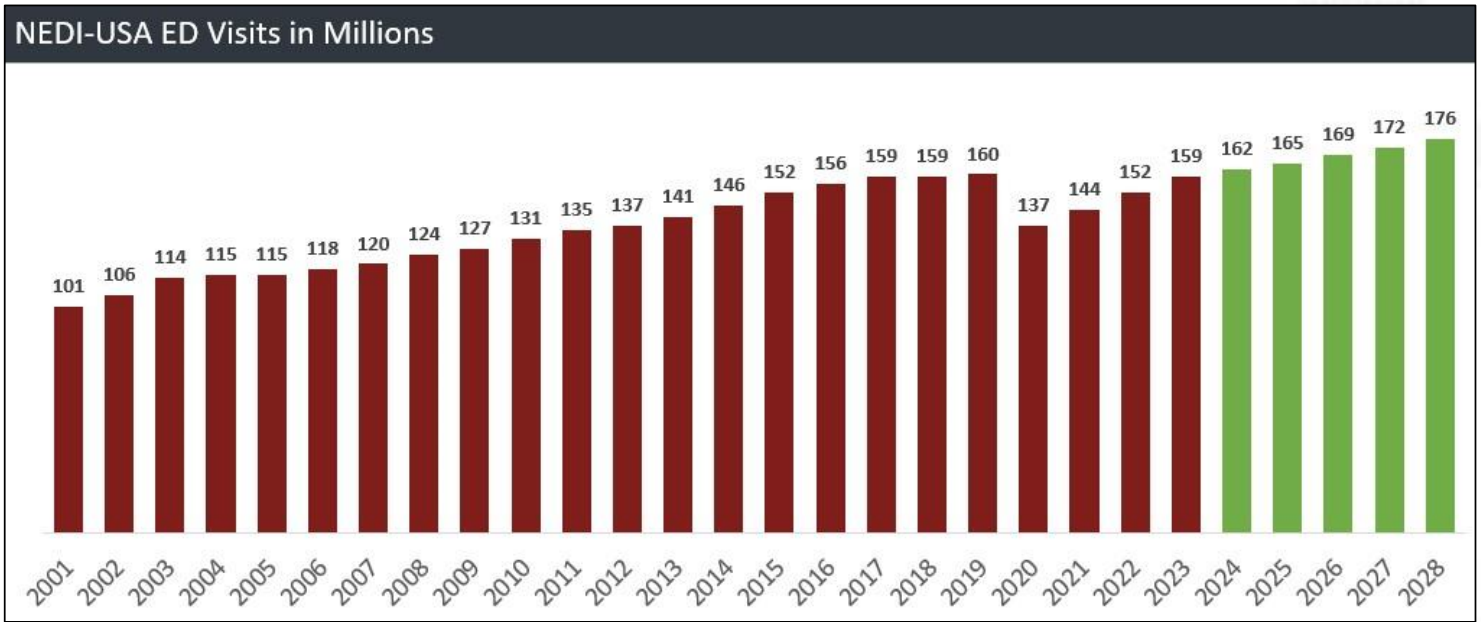
Objectives

- Discuss the most important data sources for the strategic planning of Emergency Medical Services, and the opportunities to best utilize those sources.
- Present recent results of emergency service utilization, performance metrics, acuity, and other data points that drive the demand for emergency care
- Discuss the importance of segmenting communities by type and volume for the best practices in evaluating emergency service performance
- Identify new practices that allow fire service leaders to improve emergency medical service performance, as well as staff satisfaction and retention

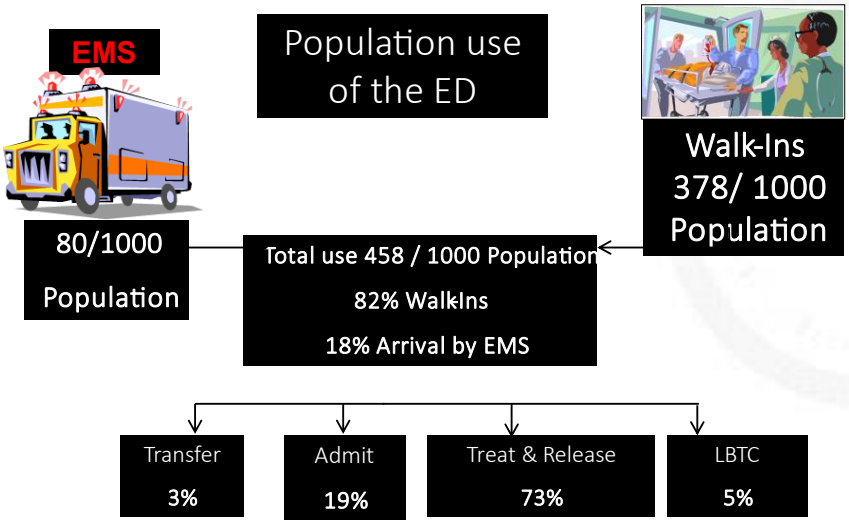
Data Sources, and Drivers

Volumes collapsed 2020, now nearly back to 2019 volumes
Every Indication of Higher Acuity
Mental health cases and patient violence against emergency workers up significantly
Great ED flow initially, now "Boarding" is crippling. Boarding burden crashed all types of ED's, and led to very high EMS "wall times" and conflict with EMS
When flow is awful → walkaways have more than doubled
Diagnostic Testing (esp CT) is Increasing

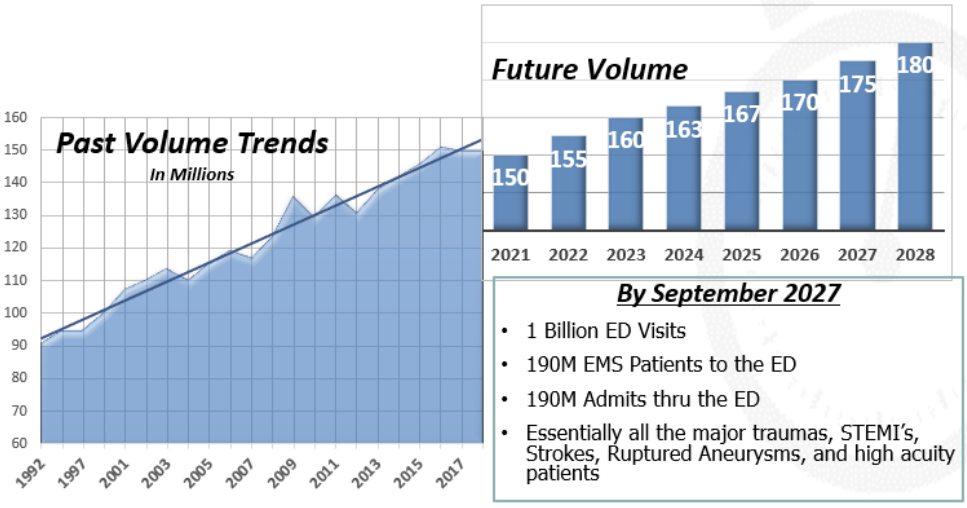




Predictable Patient Flow, and Disposition

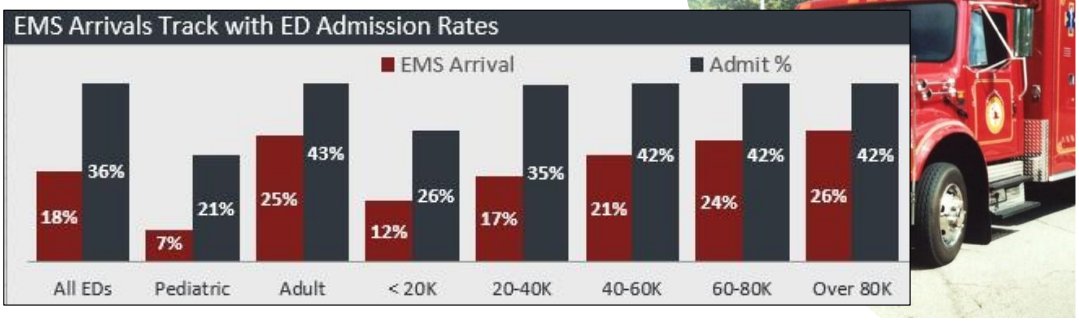


Predicting volumes into the Future



Who Defines the Emergency System? Federal Government? Hospitals and Medical Community? Insurance Companies, or the Community?
Customers Define EMS as the way to Access the Emergency System at Highest Levels of Acuity for Illness or Injury

Arrive by EMS Have Higher ED Admission Rate



The Finances of Emergency Care

EMS and ED's were created by Federal law 50 years ago. Emergency services have been Institutionalized by Federal law, COBRA, EMTALA. MCR and MCD will not pay doctors for house calls. Under ACA, CMS will not currently pay for EMS housecalls, and for services other than transport
Fire and EMS Must use these terms Precisely: Charges, Reimbursement, Cost
Sources of Fire EMS Funding. Revenues are not Going Up for our Units of Service (Transportation). Tax Funding is stressed. Fire is reimbursed for certain services – Hazmat, Extrication
EMS receives no Pay for on-site service and no transport, no pay for Prevention, No Pay for Public Health, Public EMS System Costs include the Cost of People and their Training, Equipment, Vehicles, Buildings, Standby Costs
Preparing for Big Events, Collecting EMS Revenue is Expensive
Cost Issues: The Challenging Group of Frequent Flyers, "Lift Assist", Nursing Homes that keeps calling, Mental Health and Substance Abuse persons
Some regions have experimented with Substitute lower cost transport service (Private Service Ambulance, Ambulette, Taxi, Uber), some try Charges for Non-Transports, some try "Hard" billing practices
What services can provide reliable funding?
MIHC and Demand Management – DC Fire EMS "Street Calls"
New programs may be funded locally for MIHC, for services needed in the community
Pancake and ice cream fund raisers still used by some suburban and rural fire EMS services

The Future of Fire EMS = Solving Problems

Using Data and Building Evidence Bases

- Our Customers
- Our Members
- Multi-function Facilities, Vehicles, and Equipment
- Sustainability and Resilience

The Hope of RAES Regional Accountable Emergency Systems

Design and Deliver to the Community a New System for Unscheduled Care
Functions:
Prevention
Improve Appropriate Access to Care
Design Systems of On-Site Care
Quality Improvement Activities that Include Data Analysis and Regional Planning
Continuing Public Education

Coordination/Access Special Resources (Lab, X-Ray, Medical Equipment, Oxygen, Pharmaceuticals)
Regionalization of Key Services

Managing into the Coming Years

What are the most important takeaway/lessons?

This presentation for Fire EMS leaders will discuss data from current sources related to emergency care in America, and the trends in emergency service utilization to forecast future needs for Emergency Medical Services. This will allow fire EMS leaders to project the impacts of health system reform efforts and the need for unscheduled care options in their region. This will improve the Chief's ability to understand, communicate, and lead applications of the Fire EMS service in the regional health care system, and work to develop Mobile Integrated Health Systems.

There simply is no better time to develop Community Paramedicine in fire services across the country, and no other single place where fire leaders can get as much information to create their program.

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References:

- Boggs, Krislyn; Augustine, James; Sullivan, Ashley; Espinola; Janice, Camargo, Carlos. Changes in the Number of United States Emergency Departments and Their Annual Visit Volumes Since 2001. AnnalsEM. 82(6) Nov 202. Pp 760-1
- https://doi.org/10.1016/j.annemergmed.2023.07.005 Montgomery, Michael. Community paramedicine: What, why and how? Fire Rescue 1. Sept 15, 2022
- Augustine, James. A Sobering Year for ED's and Their Patients. Boarding times in 2022 EDBA data. ACEP NOW 42(12) Dec 2023. Pg 19
- Cairns C, Kang K. National Hospital Ambulatory Medical Care Survey: 2021 emergency department summary tables. www.CDC.gov