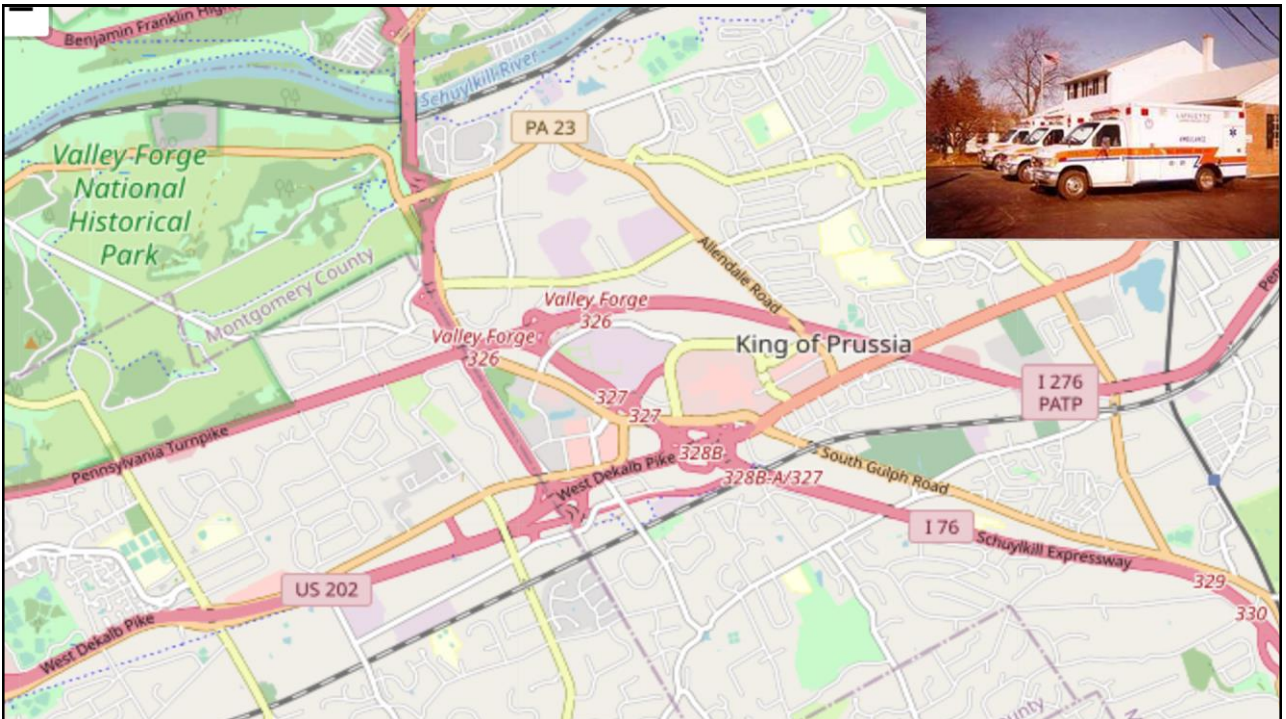




National Association of
State EMS Officials

Post-Crash Care: The Severely Injured Victim's Last Chance

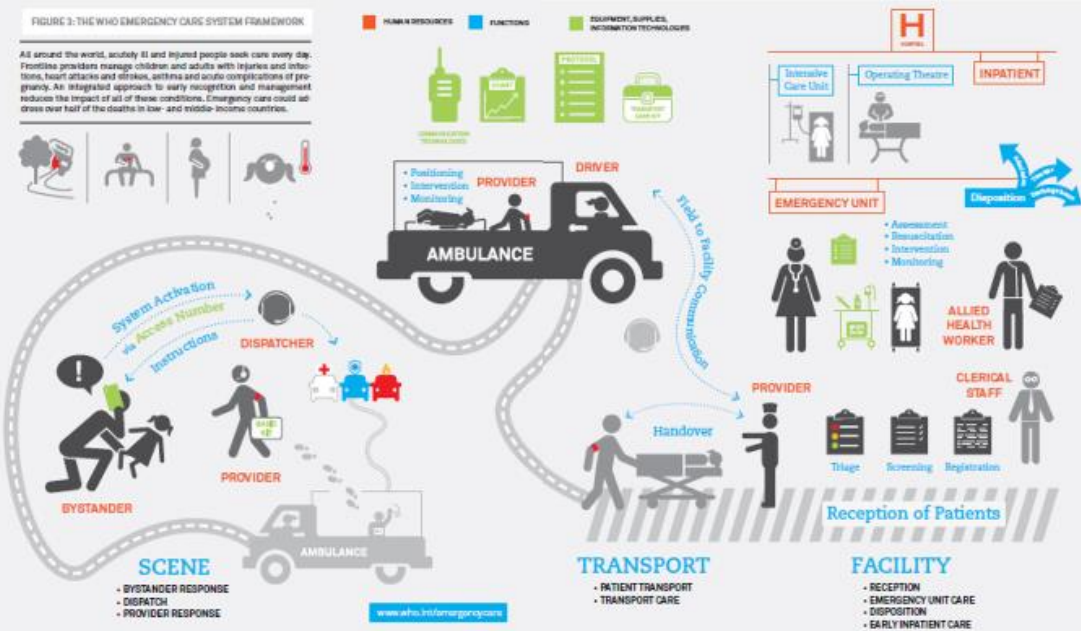
*Dia Gainor, MPA, Nationally Registered Paramedic (Ret.)
NASEMSO Executive Director*



THE WHO EMERGENCY CARE SYSTEM FRAMEWORK

FIGURE 3: THE WHO EMERGENCY CARE SYSTEM FRAMEWORK

All around the world, acutely ill and injured people seek care every day. Frontline providers manage children and adults with injuries and infections, heart attacks and strokes, asthma and acute complications of pregnancy. An integrated approach to early recognition and management reduces the impact of all of these conditions. Emergency care could address over half of the deaths in low- and middle-income countries.





What Do State EMS Offices Do???

- ✓ License paramedics & EMTs (>1 million nationally)
- ✓ License ground & air ambulance AGENCIES (18,000 ground / 750 air)
- ✓ Mandate or incentivize patient care records submission (NEMSIS)
- ✓ Maximize systems of care for time-sensitive emergencies
- ✓ Implement innovative programs to improve safety & outcomes



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NHTSA's Office of Emergency Medical Services Mission



Eliminate death & disability
from health emergencies



Provide leadership & coordination
to EMS & 911 communities



Assess, plan, develop, & promote
comprehensive, evidence-based, people-centered
EMS & 911 systems

Key DOT Post-Crash Care Actions in NRSS



- Improve EMS delivery focusing on delivering quality care quickly and safely



- Improve the availability & quality of national EMS data, expand use of and support for NEMSIS (National Emergency Medical Services Information System)



- Improve EMS personnel on-scene safety through technology and training

PROBLEM IDENTIFICATION



911 DISPATCHED EMS TO

1.5 MILLION CRASHES¹

National EMS Information System (NEMIS)



40%

WERE ALIVE
WHEN FIRST RESPONDERS
ARRIVED, BUT LATER DIED³

FARS



42,939

PEOPLE DIED
IN TRAFFIC CRASHES
IN 2021²

Fatality Analysis Reporting System (FARS)

PROBLEM IDENTIFICATION



8,747

EMS RESPONSES TO
CRASHES IN WHICH A VEHICLE
OCCUPANT WAS PARTIALLY OR
COMPLETELY EJECTED⁴

NEMIS



48,517

INCIDENTS
INVOLVED VEHICLE
EXTRICATION⁵

National Fire Incident Reporting System (NFIRS)



169,462

EMS RESPONSES
TO SERIOUSLY INJURED
CRASH PATIENTS⁶

NEMIS

COUNTERMEASURES



**EMERGENCY
MEDICAL
DISPATCH**
(EMD) 911 PROTOCOLS



**TIMELY
ON-SCENE CARE**
USING MODEL EMS
CLINICAL GUIDELINES



**TRANSPORTATION
TO A TRAUMA CENTER**
BASED ON NATIONAL FIELD TRAUMA
TRIAGE GUIDELINES



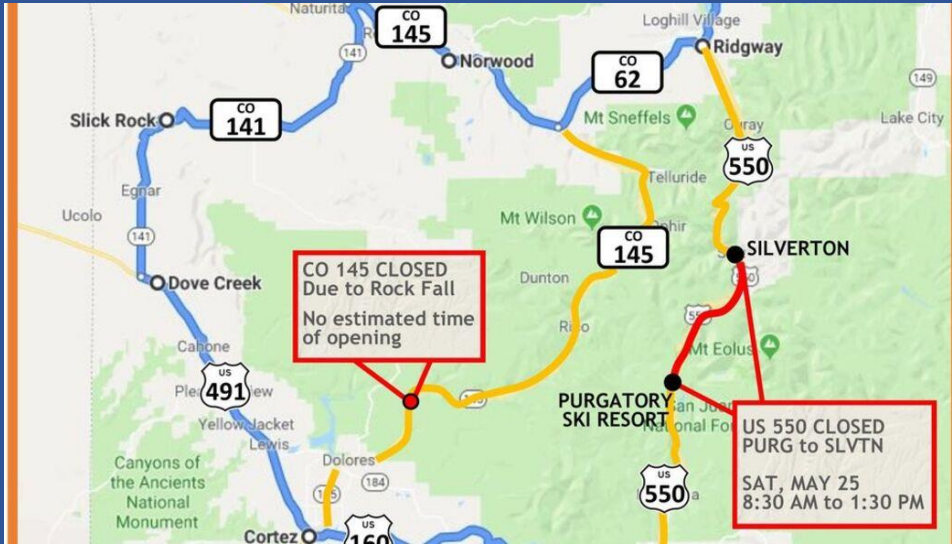
**PERFORMANCE
MEASUREMENT**
FOR CONTINUOUS QUALITY
IMPROVEMENT AND SEAMLESS,
LINKED AND DATA-DRIVEN CARE

Emergency Medical Services' "DRIVERS" (of change)

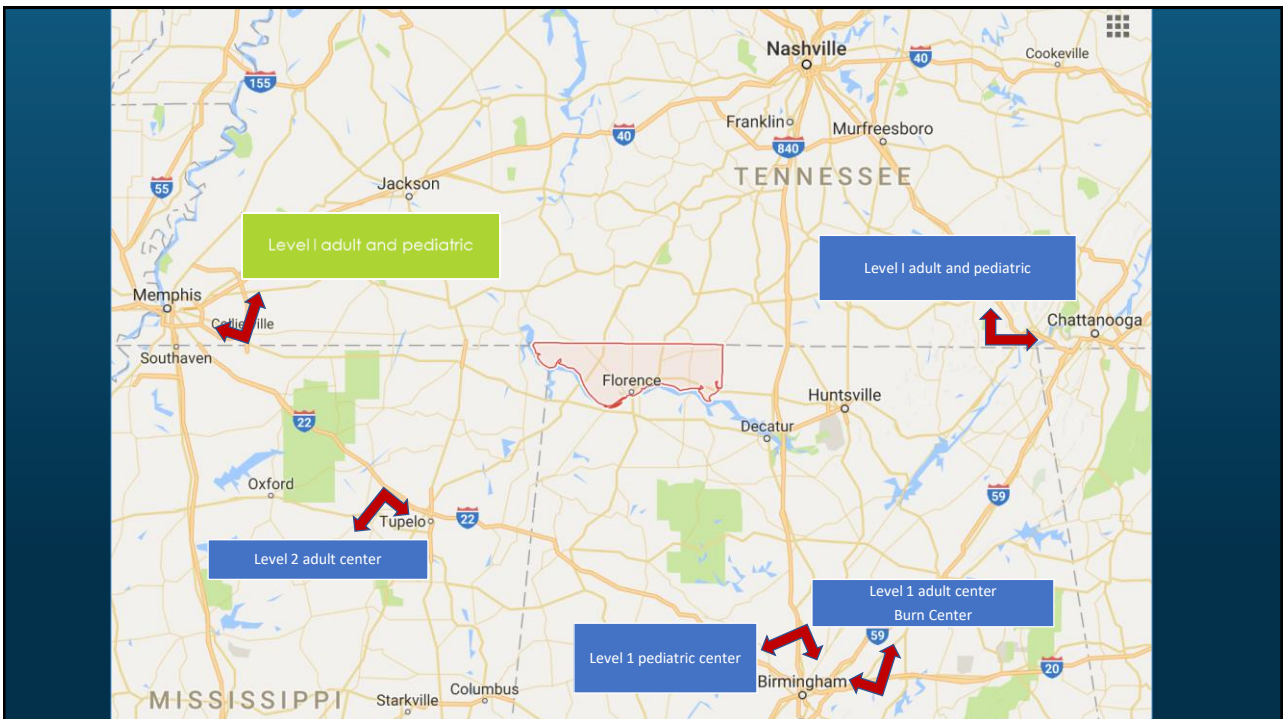
- Distance
- Destination Determinations
- Delivery of Care
- DATA



DETOURS



Source: KUTV



Delivery Of Post-Crash Care

- TIM Trained EMS Personnel???
- National Model Clinical Guidelines
- Evidence Based Guidelines
- Field Trauma Triage Guidelines
- Roadway Mass Casualty Plans
- How do we change the choices/decisions 14 000



Source: Boston MedFlight



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Why Do These Choices Matter?



- Over one-third of seriously injured crash victims ARE NOT taken directly to a Level I or II Trauma Center



- There is a 25% increase in the odds of survival at a Level I trauma center

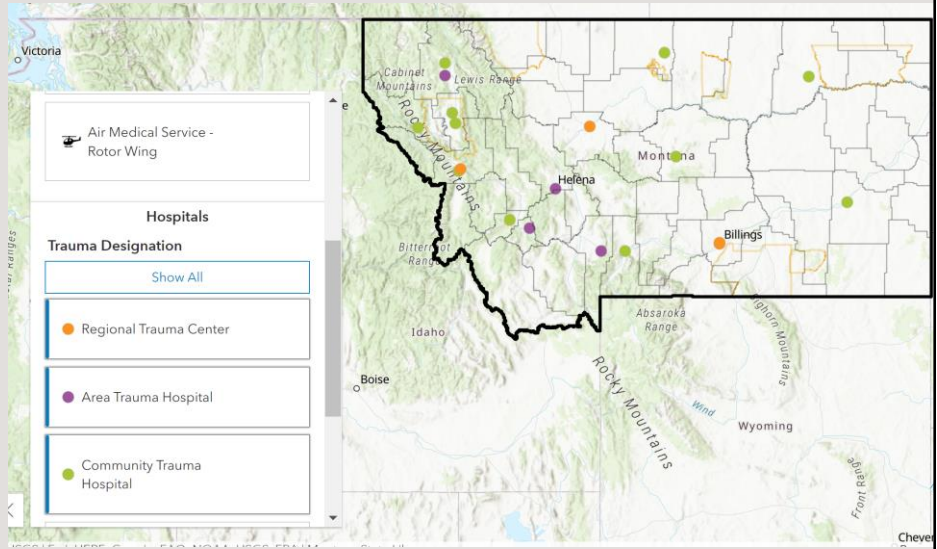


- 20% of trauma deaths are preventable with optimal EMS and trauma care



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Post-Crash Care is a TRANSPORTATION issue



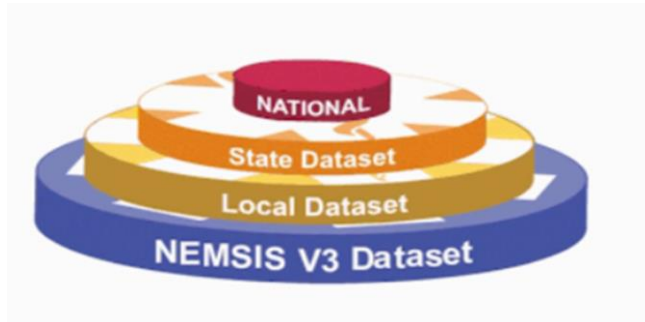
EMS Agency



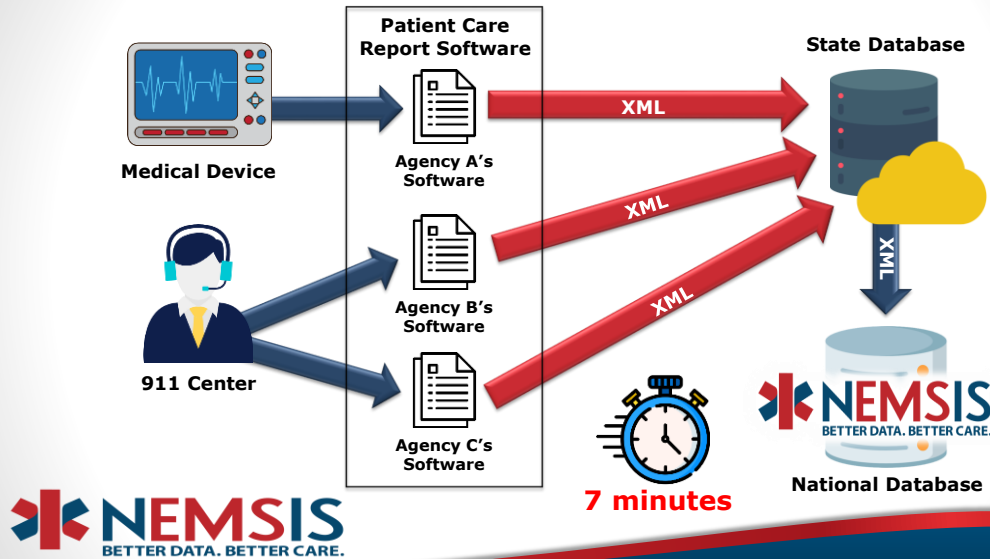
State Office of EMS



National EMS Database



The Portability of EMS Data



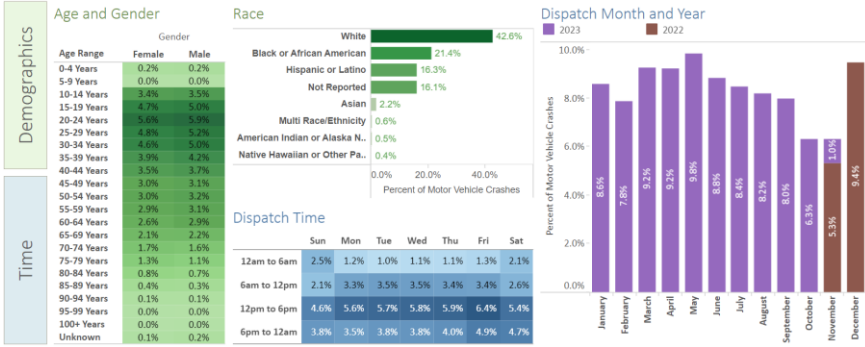
State NEMESIS Systems

- 54 states and territories participating via 14,000 local EMS agencies
- 51.4 million patient care reports submitted by states for responses in 2022
- 50.5 million submitted to date in 2023
- 95% of all responses captured (estimated)
- 99% of all responses are uploaded by states within 12 days

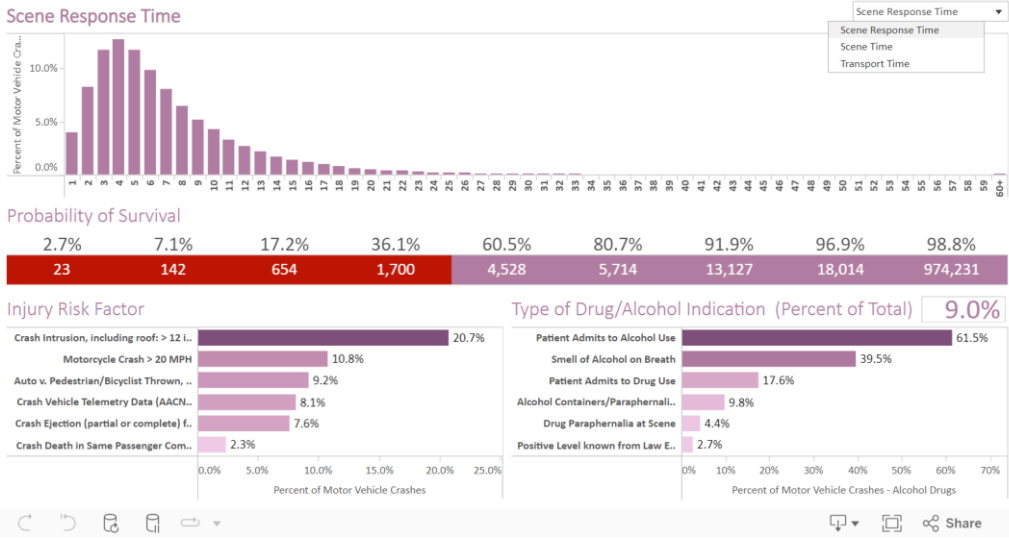
Public V3 Motor Vehicle Crash Dashboard



Type: (All) Incident/Patient Disposition: (All) Urbanicity: (All) NHTSA Region: (All) Unit Dispatch Date: 11/13/2022 - 11/9/2023



Incident Details

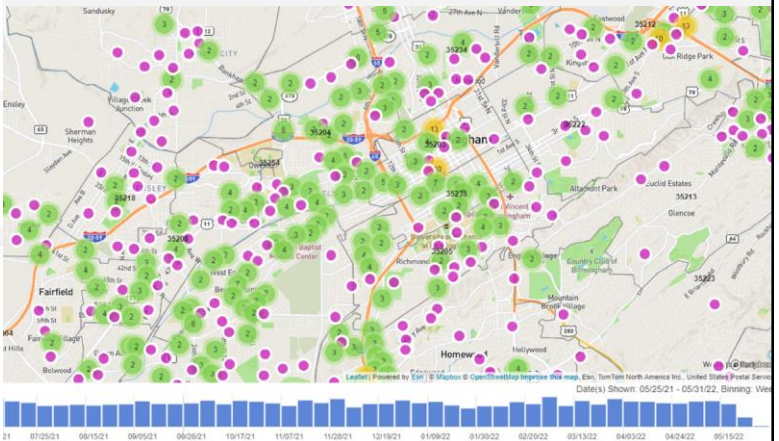


Accessing MVCs using National EMS Data Through the NEMSIS TAC

V3 PUBLIC MOTOR VEHICLE
CRASH DASHBOARD



STATE NEMSIS GRAPHICAL ANALYSIS EXAMPLES



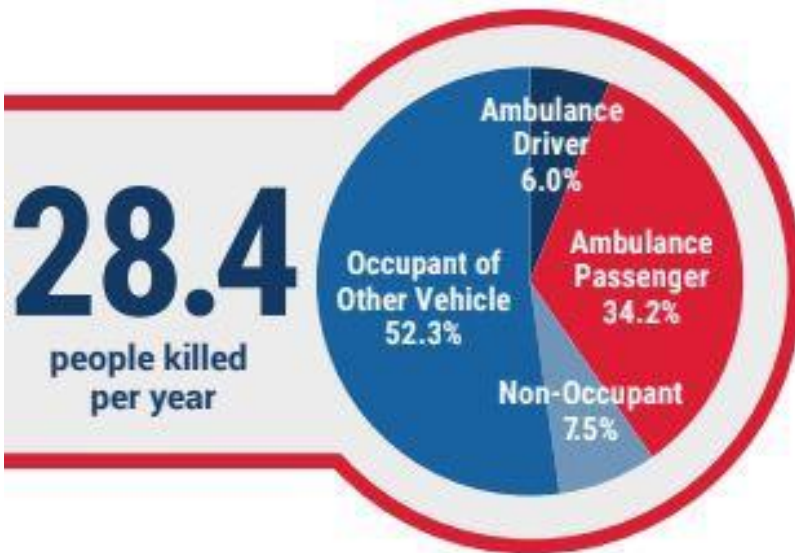


Ambulances. Are. Dangerous. Vehicles.

- Crash Prone
- Crashworthiness
- Lights and Sirens Use
- Clinician Restraint
- Fatigue
- Pediatric Restraint
- [Bitly.com/TIMtrained](https://bitly.com/TIMtrained)

2
8

Fatal Crashes Involving Ambulances (2012-2018)



EMS Clinician Restraint in Fatal Incidents (2012-2018)

91.9%

OF THE 37 EMS CLINICIANS IN THE PATIENT COMPARTMENT



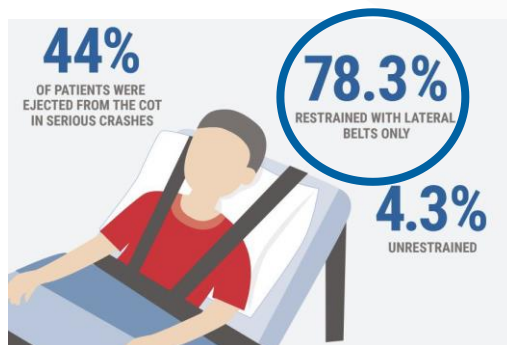
WERE NOT RESTRAINED

Patient Restraint in Fatal Ambulance Crashes (2012-2018)

ONLY 17.4%
OF THE 23 PATIENTS

WERE SECURED

WITH SHOULDER AND LAP RESTRAINTS





HIGHWAY SAFETY PLANNING



1. ACCESS 911 AND EMS DATA THROUGH YOUR STATE'S EMS DATABASE



2. COORDINATE POST-CRASH CARE BETWEEN HIGHWAY SAFETY, EMS AND 911



3. INTEGRATE POST-CRASH CARE INTO YOUR HIGHWAY SAFETY PLAN



QUESTIONS?

Dia Gainor

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