

Arkansas Trauma System Update

August 19, 2019

Room A, MAC

Senate and House

Public Health, Welfare and Labor

Committees

Arkansas Department

Of

Health





Preventable Mortality

White – 72%, AA – 23% , Other – 5%

MVC 55%

Firearms 27%

- ½ homicide, ½ suicide

Other 21%

Unintentional 66%

Preventable Mortality

Preventable Mortality

2009 – 30% 2014-16% 2015 -14.5% 2016-14.5% 2017 - 16%

Care Appropriate

2009 – 16%; 2014 -28%; 2015 -31%; 2016 -41%; 2017-37%

Trauma Team

2009 -33%

2014 – 77%

Preventable Mortality 2014

Cause of Death < 24 hours

Hemorrhage	70%
Indeterminate	12%
Airway / Breathing	9%
CNS	6 %
Other	3%

Preventable and Non-Preventable Cause of Death <24 hours

2015

CNS Injury
Indeterminate
Hemorrhage
Airway/Respiratory

2016

CNS Injury
Hemorrhage
Indeterminate
Airway/Respiratory

2017

CNS Injury
Indeterminate
Hemorrhage
Airway/Respiratory

Preventable Mortality 2014

Cause of Death >24 hours

CNS	45%
Other	30%
Airway / Breathing	7%
Sepsis / Infection	7%
Hemorrhage	7%
Indeterminate	4%

Preventable and Non-Preventable Cause of Death >24 hours

2015

CNS Injury

Airway/Respiratory

Indeterminate

Sepsis/Infection

Hemorrhage

2016

CNS Injury

Indeterminate

Other

Airway/Respiratory

Sepsis/Infection

Hemorrhage

2017

CNS Injury

Indeterminate

Airway/Respiratory

Sepsis/Infection

Hemorrhage



Preventable Mortality 2014 – OFI

Pre – hospital

Pre-hospital Airway
Chest injury treatment
Fluid management
Excessive scene time

OFl: Pre-hospital Preventable Mortality and Non Preventable Mortality

2015

Scene Times
GCS <8 without
Definitive Airway
Airway Management
Documentation

2016

Airway Management
Scene Times
GCS <8 without
Definitive Airway
Documentation

2017

Airway Management
Scene Times
GCS <8 without
Definitive Airway

Preventable Mortality 2014 - OFI

Emergency Department
CT scanning
Failure to recognize injury
Chest injury management
Fluid management
Blood product management
Airway control

OFI: ED Preventable and Non Preventable Mortality

2015

Documentation
Delays in Treatment
Length of Stay
Chest Injury Treatment
Airway, Fluids,
Inappropriate
Imaging/Diagnostics

2016

Delays in Treatment
Fluid Resuscitation
Documentation
Length of Stay
Diagnosis
Missed
Hypotension/Chest
Injury Treatment

2017

Delays in Treatment
Other
Documentation
Length of Stay
Head, Infection
Chest Injury
Chest Injury
Evaluation

Preventable Deaths 2014– OFI Post ED

Delay to OR

Other therapeutic procedure delay

Inappropriate operation

Late complication (DVT)

Diagnostic procedure delay

OFI: Post ED Preventable and Non Preventable

2015

Other
Delay to OR
Monitor/Manage Head
Documentation
Fluid/Inappropriate
Operation

2016

Delay to OR
Other
Documentation
Head
Re-bleeding

2017

Other
Documentation
Airway/Fluid
Head, Infection
Delay to OR
Re-bleeding

Trauma Designated Hospitals 2019

Level I – 6

Little Rock 2; Springfield, MO. 2 ; Memphis, TN 2

Level II – 4

Little Rock 1; Hot Springs 1; Fayetteville 1; Springfield, MO. 1

Level III – 18

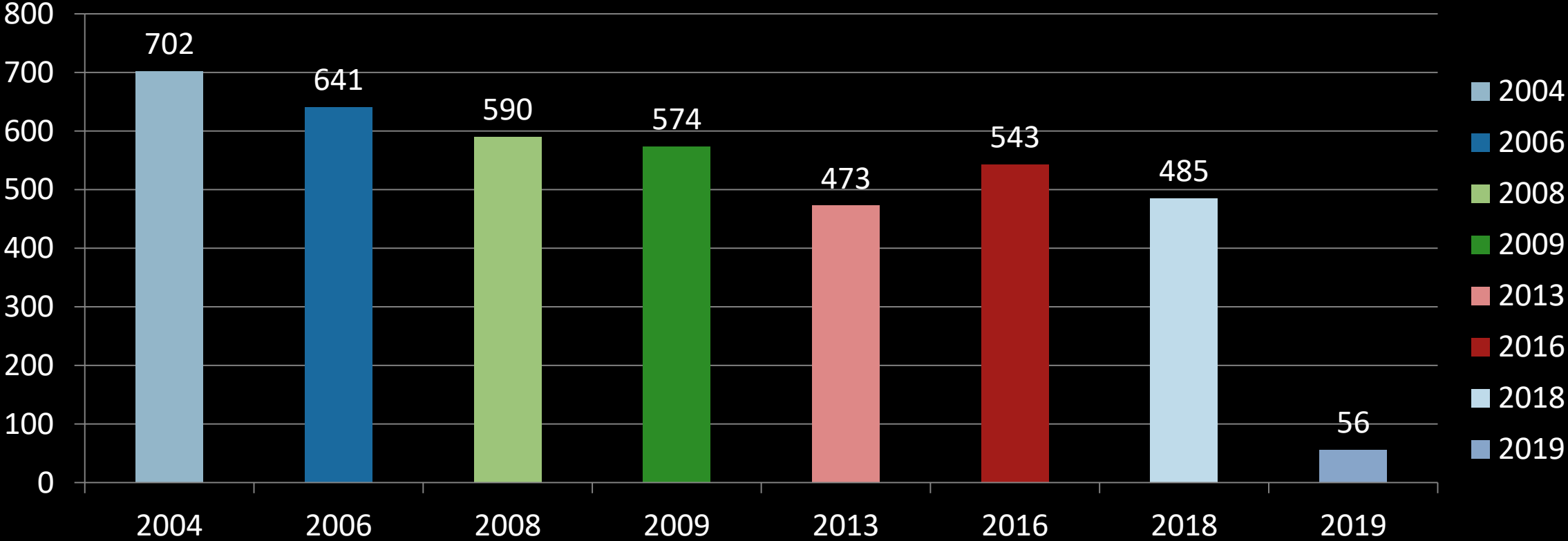
Level IV – 33

Total - 61

Fatal Crash Summaries

Deaths

(2019 deaths are through February 24th)



Cost Savings

- Before Trauma System (2006-2008)
- (excluding poison and suicide)

- After Trauma System (2014-2016)
- (excluding poisoning and suicide)
 - 185M cost savings over three year period after Trauma System implementation*

*Based on \$100,000 per person per year economic impact



Motor Vehicle Crashes Arkansas State Police

- Time Period
- 2006 – 2008
- Compared to
- 2014 – 2016
- 278 lives saved
- \$500 million in cost savings

Questions?

