



# NATIONAL EMS QUALITY PERFORMANCE MEASURES

High impact, practical, evidence-based measures for the assessment of EMS Performance.

**KENTUCKY**



# ABOUT

The National EMS Quality Alliance (NEMSQA), is an independent, non-governmental, organization that is the standard bearer for EMS quality measures.

Their mission is to develop and endorse evidence-based quality measures for EMS and healthcare partners that improve the experience and outcomes of patients and care providers. This report assesses the performance of EMS in Kentucky to National EMS records using NEMSQA's National EMS Quality Measure Set (NEMSQMS):



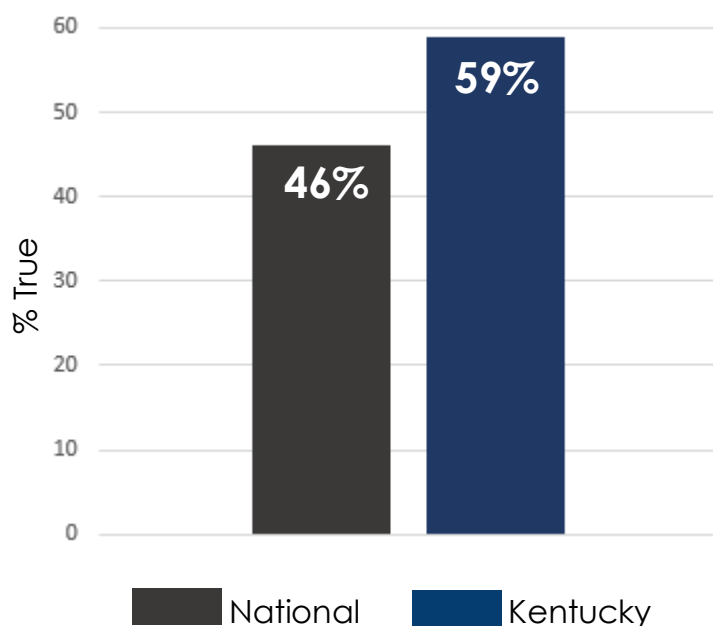
Measure ID	Description	National Quality Strategy Domain	Page
<b>Hypoglycemia-01</b>	Treatment Administered for Hypoglycemia	Clinical Process–Effectiveness	1
<b>Pediatrics-01</b>	Pediatric Respiratory Assessment	Clinical Process–Effectiveness	2
<b>Pediatrics-02</b>	Administration of Beta Agonist for Pediatric Asthma	Clinical Process–Effectiveness	3
<b>Pediatrics-03</b>	Documentation of Estimated Weight in Kilograms	Patient Safety	4
<b>Seizure-02</b>	Patient with Status Epilepticus Receiving Intervention	Clinical Process–Effectiveness	5
<b>Stroke-01</b>	Suspected Stroke Receiving Prehospital Stroke Assessment	Clinical Process–Effectiveness	6
<b>Trauma-01</b>	Injured Patients Assessed for Pain	Patient Experience	7
<b>Trauma-03</b>	Effectiveness of Pain Management for Injured Patients	Patient Experience	8
<b>Trauma-04</b>	Trauma Patients Transported to a Trauma Center	Clinical Process–Effectiveness	9
<b>Safety-01</b>	Use of Lights and Sirens During Response to Scene	Patient Safety	10
<b>Safety-02</b>	Use of Lights and Sirens During Transport	Patient Safety	11

Source: <https://www.nemsqa.org/>

Data Source: Biospatial; Incident Date Range 6/01/2020 - 5/31/2021

## TREATMENT ADMINISTERED FOR HYPOGLYCEMIA

59% of Kentucky EMS responses received treatment to correct hypoglycemia.



Hypoglycemia-01	
State	% True
Kentucky	59%
National	46%

Biospatial Southern State Participants	
Alabama	55%
Florida	52%
Georgia	55%
Mississippi	65%
South Carolina	38%
Virginia	42%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

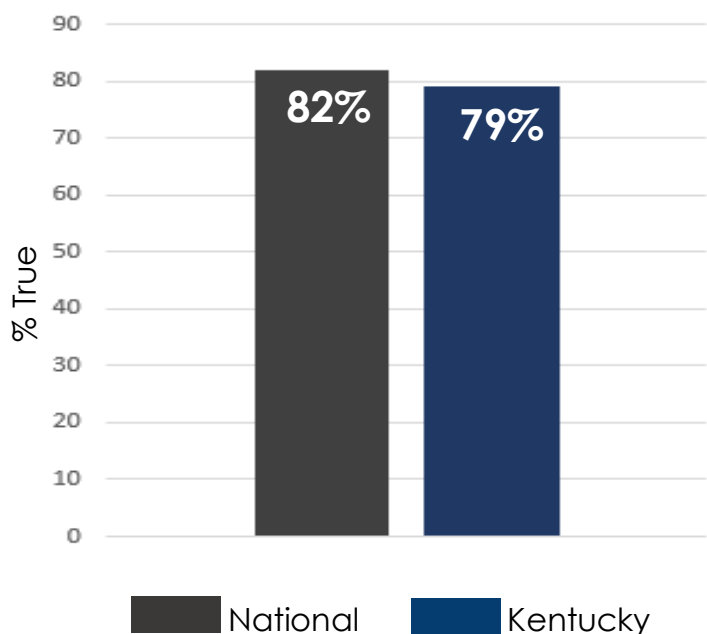
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients who received treatment to correct their hypoglycemia.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS responses originating from a 911 request for patients receiving treatment to correct their hypoglycemia during the EMS response. Treatments to correct hypoglycemia: <ul style="list-style-type: none"> <li>• Food</li> <li>• Oral glucose (tablets, glucose gel, tube of cake icing, etc.)</li> <li>• Dextrose IV/IN</li> <li>• Glucagon IM/IN</li> </ul>
<b>Denominator Statement</b>	All EMS responses originating from a 911 request for patients with hypoglycemia and a GCS of <15 or an AVPU of <A or patients with a primary or secondary impression of altered mental status and a blood glucose level of <60.

# PEDIATRIC RESPIRATORY ASSESSMENT

79% of Kentucky EMS pediatric patients who experienced respiratory distress received a respiratory assessment.



Pediatrics-01	
State	% True
Kentucky	79%
National	82%

Biospatial Southern State Participants	
Alabama	88%
Florida	89%
Georgia	83%
Mississippi	86%
South Carolina	81%
Virginia	83%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

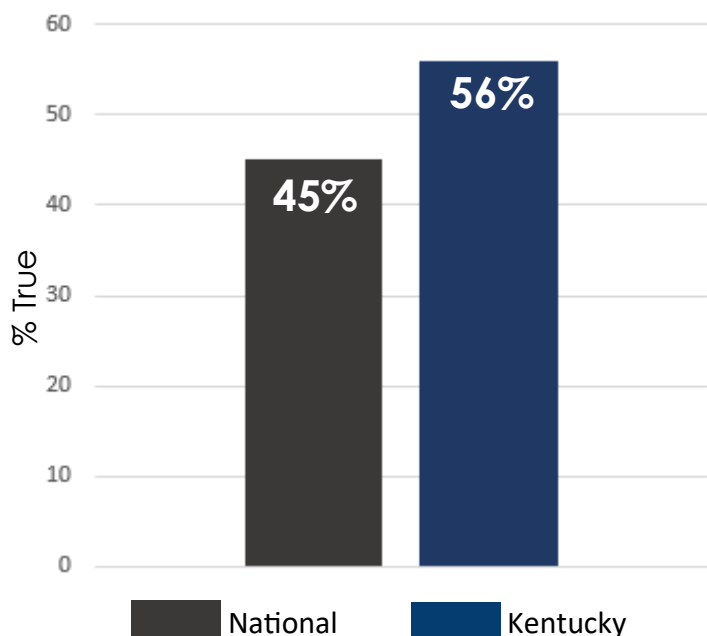
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients less than 18 years old with primary or secondary impression of respiratory distress who had a respiratory assessment.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS responses originating from a 911 request for patients who received both a SPO2 and respiratory rate measurement during the EMS response.
<b>Denominator Statement</b>	All EMS responses originating from a 911 request for patients <18 years of age with a primary or secondary impression of respiratory distress...  Respiratory distress may include impressions of: asthma, dyspnea, unspecified orthopnea, shortness of breath, diagnosis of a respiratory ailment, or complaint/condition

# ADMINISTRATION OF BETA AGONIST FOR PEDIATRIC ASTHMA

56% of Kentucky EMS pediatric patients with a diagnosis of asthma had an aerosolized beta agonist administered.



Pediatrics-02	
State	% True
Kentucky	56%
National	45%

Biospatial Southern State Participants	
Alabama	45%
Florida	54%
Georgia	48%
Mississippi	34%
South Carolina	56%
Virginia	52%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

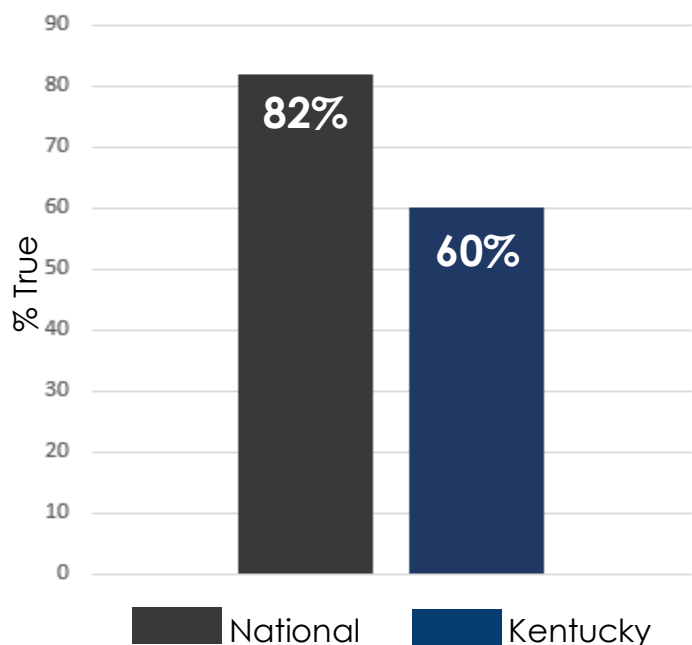
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients 2-18 years of age with a diagnosis of asthma who had an aerosolized beta agonist administered.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS responses originating from a 911 request for patients who had an aerosolized beta agonist administered by an EMS professional during the EMS response. Beta agonist medications may include: <ul style="list-style-type: none"> <li>• Albuterol</li> <li>• Levalbuterol</li> <li>• Metaproterenol</li> </ul>
<b>Denominator Statement</b>	All EMS responses originating from a 911 request for patients 2-18 years of age with a primary or secondary impression of asthma exacerbation or acute bronchospasm.

# DOCUMENTATION OF ESTIMATED WEIGHT IN KILOGRAMS

**60% of Kentucky EMS pediatric patients who received a weight-based medication had a documented weight in kilograms.**



Pediatrics-03	
State	% True
Kentucky	60%
National	82%

Biospatial Southern State Participants	
Alabama	92%
Florida	86%
Georgia	64%
Mississippi	83%
South Carolina	75%
Virginia	62%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

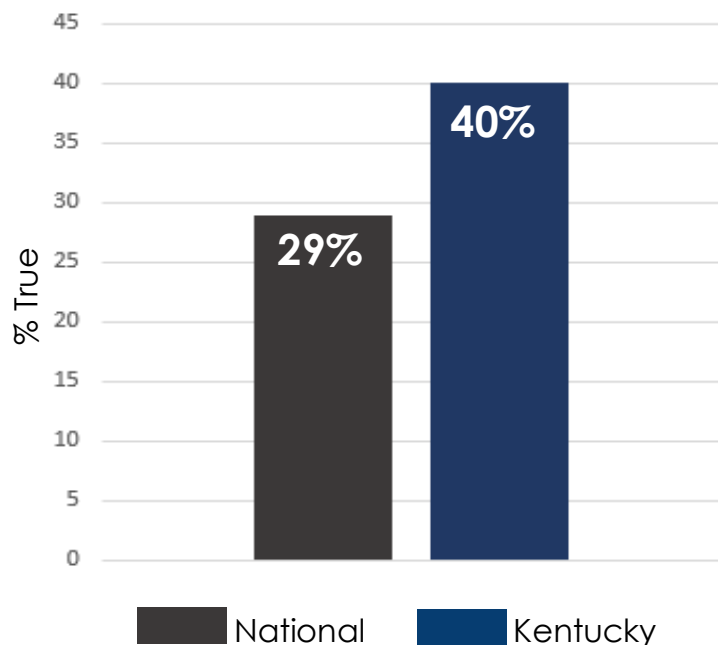
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients less than 18 years of age who received a weight-based medication and had a documented weight in kilograms or length-based weight estimate documented during the EMS response.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS responses originating from a 911 request for patients in which a weight value was documented in kilograms or a length-based weight was documented during the EMS
<b>Denominator Statement</b>	All EMS responses originating from a 911 request for patients less than 18 years of age who received a weight-based medication during the EMS response.

# PATIENT WITH STATUS EPILEPTICUS RECEIVING INTERVENTION

40% of Kentucky EMS 911 responses for patients with status epilepticus received benzodiazepine aimed at terminating their seizure.



Seizure-02	
State	% True
Kentucky	40%
National	29%

Biospatial Southern State Participants	
Alabama	19%
Florida	18%
Georgia	27%
Mississippi	25%
South Carolina	48%
Virginia	36%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

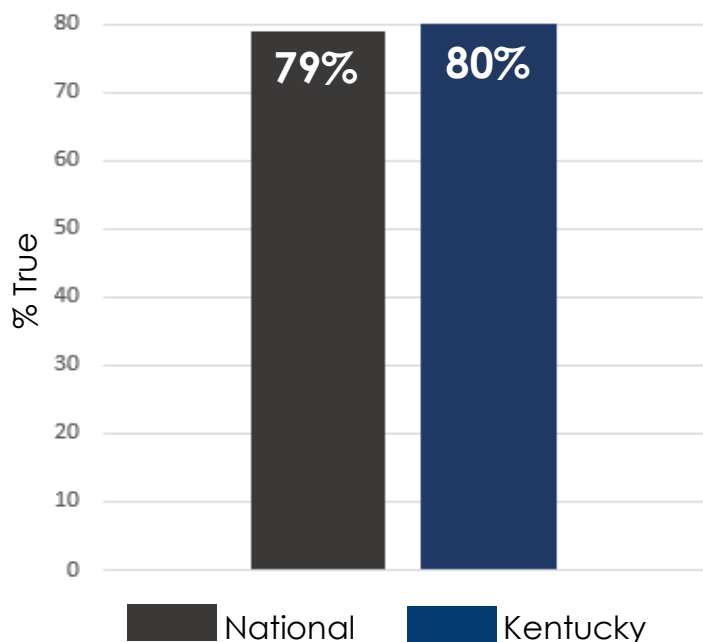
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients with status epilepticus who received benzodiazepine aimed at terminating their status seizure during the EMS response.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS responses originating from a 911 request for patients who received benzodiazepine aimed at terminating their status seizure during the EMS response. Benzodiazepines may include: Diazepam Lorazepam Midazolam
<b>Denominator Statement</b>	All EMS responses originating from a 911 request for patients with a primary or secondary impression of status epilepticus.

# SUSPECTED STROKE RECEIVING PREHOSPITAL STROKE ASSESSMENT

80% of Kentucky EMS patients suffering from a suspected stroke received a stroke assessment.



Stroke-01	
State	% True
Kentucky	80%
National	79%

Biospatial Southern State Participants	
Alabama	62%
Florida	61%
Georgia	82%
Mississippi	98%
South Carolina	93%
Virginia	86%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients suffering from a suspected stroke who had a stroke assessment performed during the EMS response.

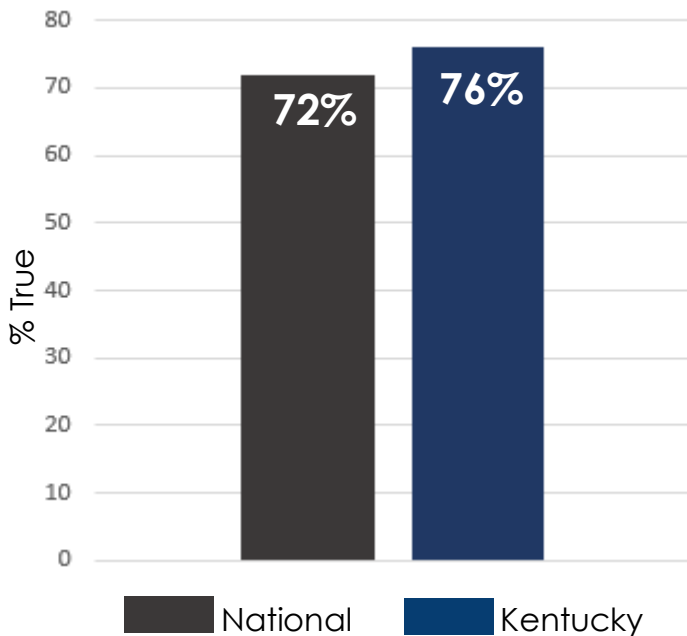
**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS responses originating from a 911 request for patients who had a stroke assessment performed on scene during the EMS Response.
<b>Denominator Statement</b>	All EMS responses originating from a 911 request for patients with a primary or secondary impression of stroke.



# INJURED PATIENTS ASSESSED FOR PAIN

76% of Kentucky EMS patients with injury were assessed for pain.



Trauma-01	
State	% True
Kentucky	76%
National	72%

Biospatial Southern State Participants	
Alabama	70%
Florida	75%
Georgia	70%
Mississippi	89%
South Carolina	78%
Virginia	68%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

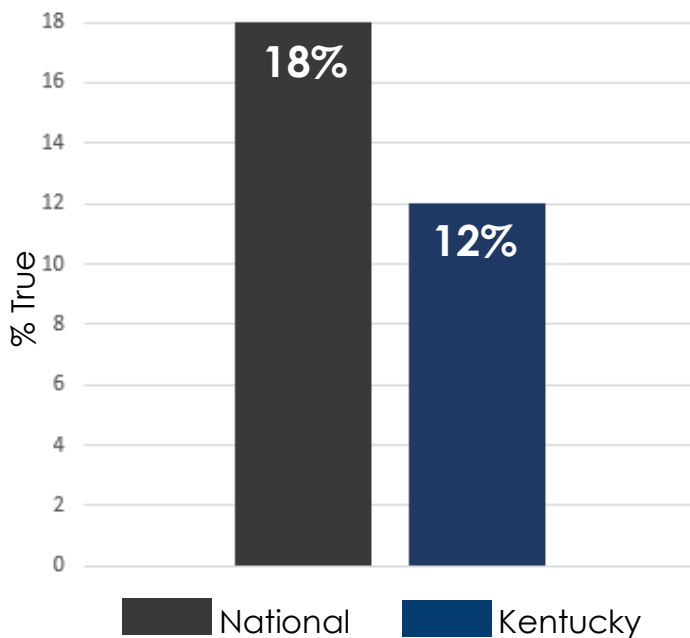
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients with injury who were assessed for pain.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS responses originating from a 911 request for patients with any pain scale value documented during the EMS encounter.
<b>Denominator Statement</b>	All EMS responses originating from a 911 request for patients with injury and a Glasgow Coma Score (GCS) of 15 or an Alert Verbal Painful Unresponsiveness (AVPU) of A.

# EFFECTIVENESS OF PAIN MANAGEMENT FOR INJURED PATIENTS

12% of Kentucky EMS injured patients lowered their pain score during the EMS encounter.



Trauma-03		
State	% True	% Unknown
Kentucky	12%	43%
National	18%	30%

Biospatial Southern State Participants		
Alabama	13%	36%
Florida	16%	23%
Georgia	16%	19%
Mississippi	17%	22%
South	14%	34%
Virginia	14%	46%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

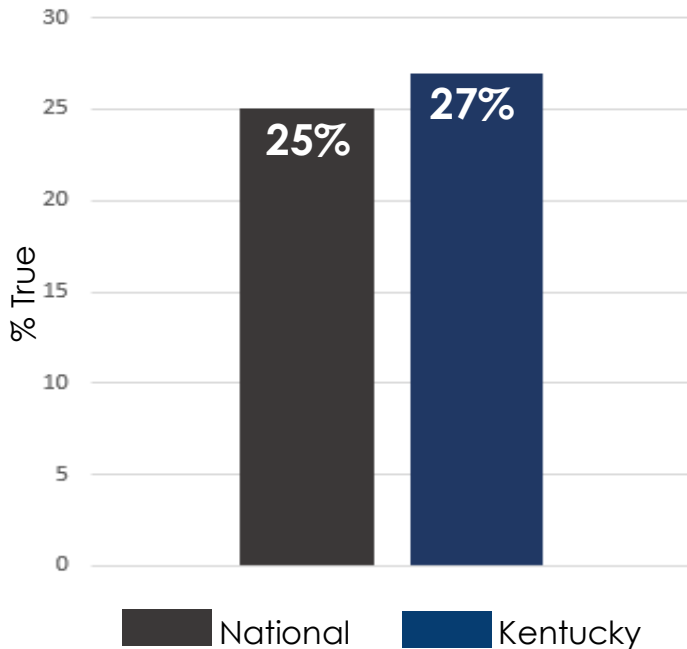
**MEASURE DESCRIPTION:** Percentage of EMS transports originating from a 911 request for patients whose pain score was lowered during the EMS encounter.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS transports originating from a 911 request for patients with two or more documented pain scores and a final pain score value less than the first documented pain score.
<b>Denominator Statement</b>	All EMS transports originating from a 911 request for patients with injury and a Glasgow Coma Score (GCS) of 15 or an Alert Verbal Painful Unresponsive (AVPU) of A who had an initial pain score of greater than zero.

# TRAUMA PATIENTS TRANSPORTED TO A TRAUMA CENTER

27% of Kentucky EMS trauma patients are transported to a trauma center.



Trauma-04		
State	% True	% Unknown
Kentucky	27%	51%
National	25%	45%

Biospatial Southern State Participants		
Alabama	26%	52%
Florida	15%	67%
Georgia	33%	35%
Mississippi	25%	37%
South Carolina	27%	36%
Virginia	12%	77%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

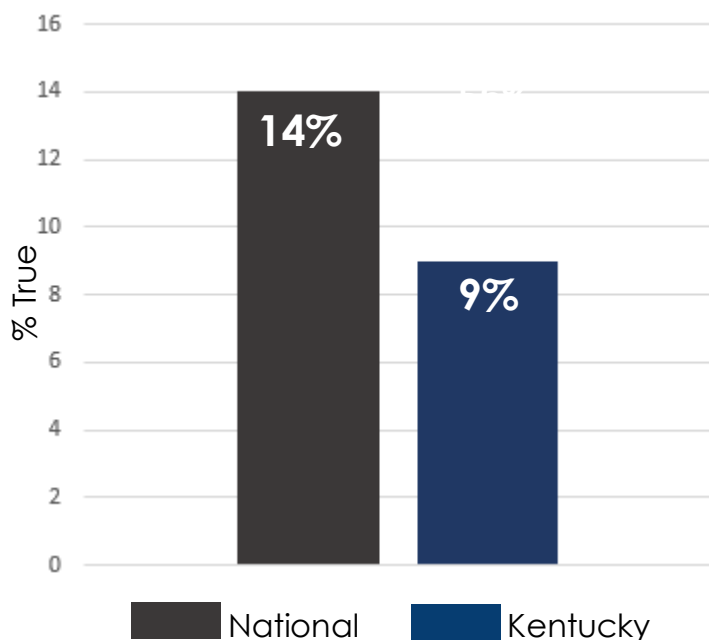
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients who meet CDC criteria for trauma and are transported to a trauma center.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS transports originating from a 911 request for patients transported to a trauma center.
<b>Denominator Statement</b>	All EMS transports originating from a 911 request for patients who meet 2011 CDC Step 1 or 2 criteria for trauma.

# USE OF LIGHTS AND SIRENS DURING RESPONSE TO SCENE

9% of Kentucky EMS 911 responses did not use lights and sirens during response.



Safety-01		
State	% True	% Unknown
Kentucky	9%	14%
National	14%	29%

Biospatial Southern State Participants		
Alabama	7%	27%
Florida	8%	41%
Georgia	10%	41%
Mississippi	15%	5%
South	9%	28%
Virginia	9%	2%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

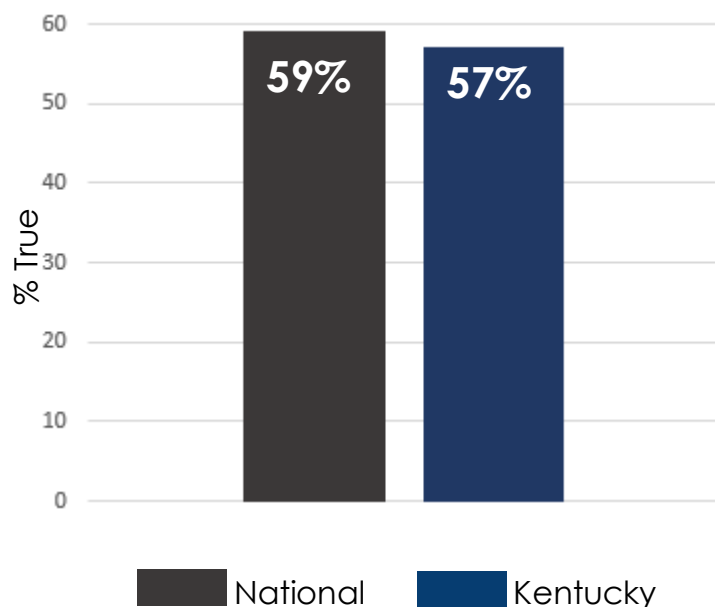
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request in which lights and sirens were not used during response.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS responses originating from a 911 request during which lights and sirens were not used.
<b>Denominator Statement</b>	All EMS responses originating from a 911 request.

# USE OF LIGHTS AND SIRENS DURING TRANSPORT

57% of Kentucky EMS 911 responses did not use lights and sirens during transport.



Safety-02		
State	% True	% Unknown
Kentucky	57%	14%
National	59%	25%

Biospatial Southern State Participants		
Alabama	67%	14%
Florida	44%	32%
Georgia	59%	31%
Mississippi	89%	4%
South	68%	23%
Virginia	60%	1%

**MEASURE SCORE INTERPRETATION:** For this measure, a higher score indicates better quality.

**MEASURE DESCRIPTION:** Percentage of EMS transports originating from a 911 request during which lights and sirens were not used during patient transport.

**MEASURE COMPONENTS:**

<b>Numerator Statement</b>	EMS transports originating from a 911 request during which lights and sirens were not used.
<b>Denominator Statement</b>	All EMS transports originating from a 911 request.



connect with us:

[kyems.com](http://kyems.com) | [support.kyems.com](http://support.kyems.com) | Facebook & Instagram @kyboardems | Twitter @kbems

2464 Fortune Drive, Suite 195, Lexington, KY 40509 | 859.256.3565 | 1.866.97KBEMS

#kyemsforward

The Kentucky Board of Emergency Medical Services, a division of KCTCS, is an equal educational and employment opportunity institution.

