



*Kansas Board of  
Emergency Medical Services*

**NATIONAL EMS QUALITY  
PERFORMANCE MEASURES**

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

**KANSAS**



# 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 Kansas to National EMS records using NEMSQA's National EMS Quality Measure Set (NEMSQMS):



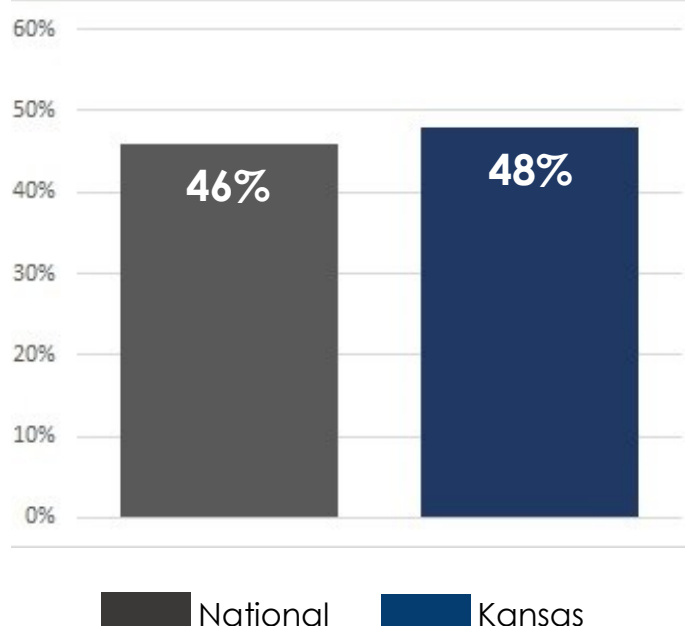
Measure ID	Description	National Quality Strategy Domain	Page
Hypoglycemia-01	Treatment Administered for Hypoglycemia	Clinical Process–Effectiveness	1
Pediatrics-01	Pediatric Respiratory Assessment	Clinical Process–Effectiveness	2
Pediatrics-02	Administration of Beta Agonist for Pediatric Asthma	Clinical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

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

Data Source: Biospatial; Incident Date Range 7/01/2020 - 6/30/2021

## TREATMENT ADMINISTERED FOR HYPOGLYCEMIA

48% of Kansas EMS responses received treatment to correct hypoglycemia.



Hypoglycemia-01	
State	% True
Kansas	48%
National	46%

Kansas EMS Region Comparison	
Region 1	33%
Region 2	64%
Region 3	50%
Region 4	48%
Region 5	44%
Region 6	69%

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

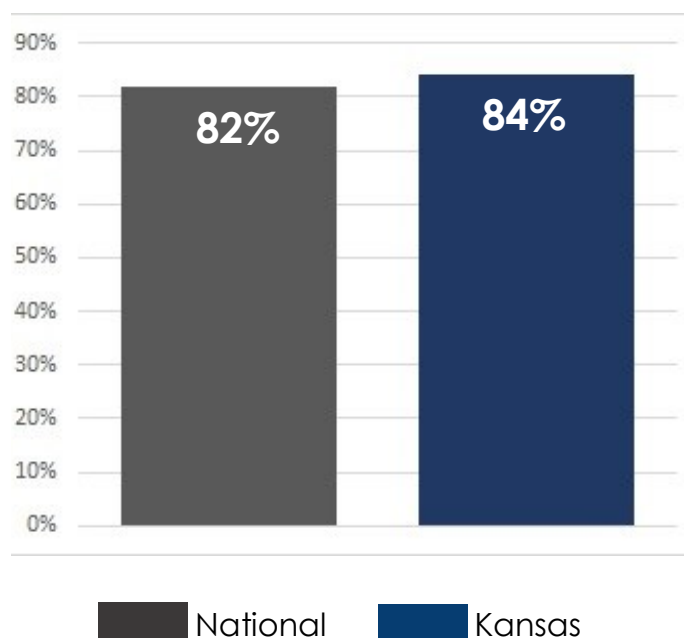
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients who received treatment to correct their hypoglycemia.

**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

**84% of Kansas EMS pediatric patients who experienced respiratory distress received a respiratory assessment.**



Pediatrics-01	
State	% True
Kansas	84%
National	82%

Kansas EMS Region Comparison	
Region 1	60%
Region 2	68%
Region 3	88%
Region 4	72%
Region 5	85%
Region 6	56%

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

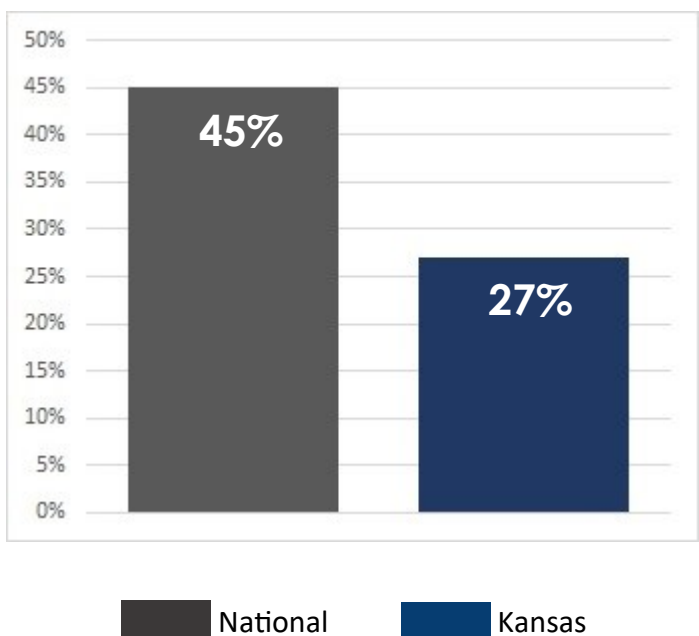
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients less than 18 years old with primary or secondary impression of respiratory distress who had a respiratory assessment.

**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 commonly associated with dyspnea.

# ADMINISTRATION OF BETA AGONIST FOR PEDIATRIC ASTHMA

**27% of Kansas EMS pediatric patients with a diagnosis of asthma had an aerosolized beta agonist administered.**



Pediatrics-02	
State	% True
Kansas	27%
National	45%

Kansas EMS Region Comparison	
Region 1	50%
Region 2	No Data
Region 3	23%
Region 4	No Data
Region 5	29%
Region 6	50%

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

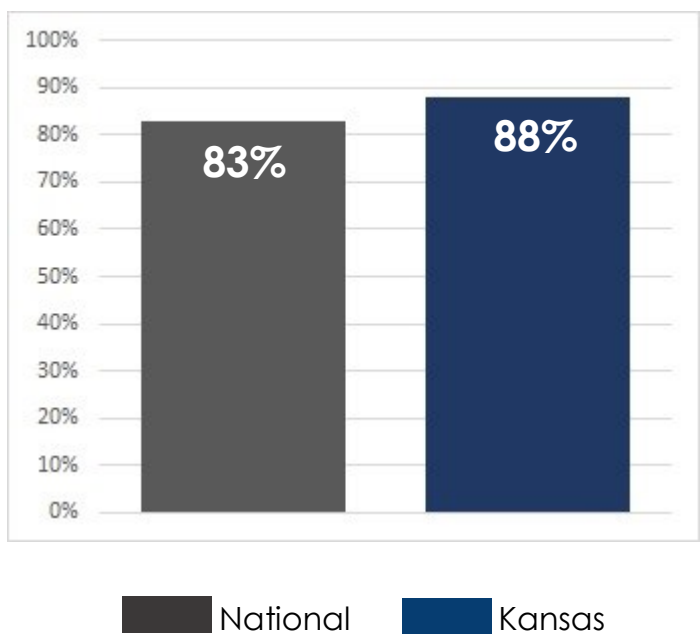
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients 2-18 years of age with a diagnosis of asthma who had an aerosolized beta agonist administered.

**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

**88% of Kansas EMS pediatric patients who received a weight-based medication had a documented weight in kilograms.**



Pediatrics-03	
State	% True
Kansas	88%
National	83%

Kansas EMS Region Comparison	
Region 1	56%
Region 2	50%
Region 3	93%
Region 4	76%
Region 5	93%
Region 6	57%

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

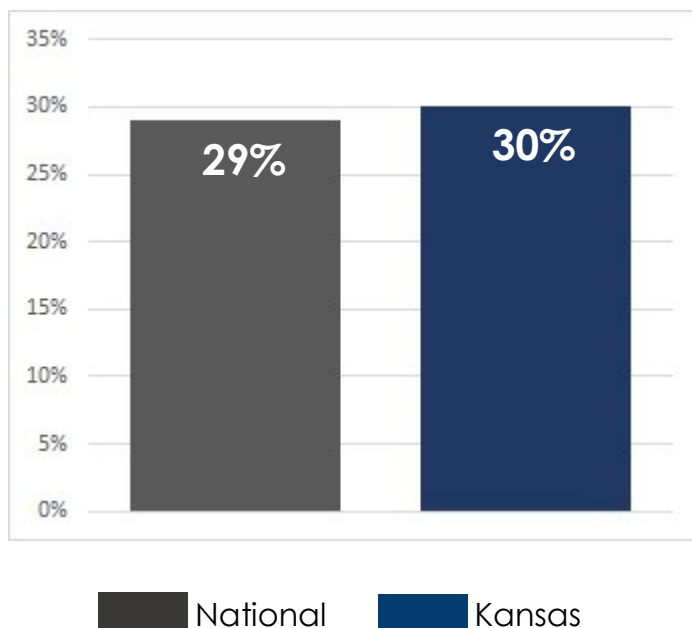
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients less than 18 years of age who received a weight-based medication and had a documented weight in kilograms or length-based weight estimate documented during the EMS response.

**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 response.
<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

30% of Kansas EMS 911 responses for patients with status epilepticus received benzodiazepine aimed at terminating their seizure.



Seizure-02	
State	% True
Kansas	30%
National	29%

Kansas EMS Region Comparison	
Region 1	9%
Region 2	14%
Region 3	32%
Region 4	13%
Region 5	43%
Region 6	29%

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

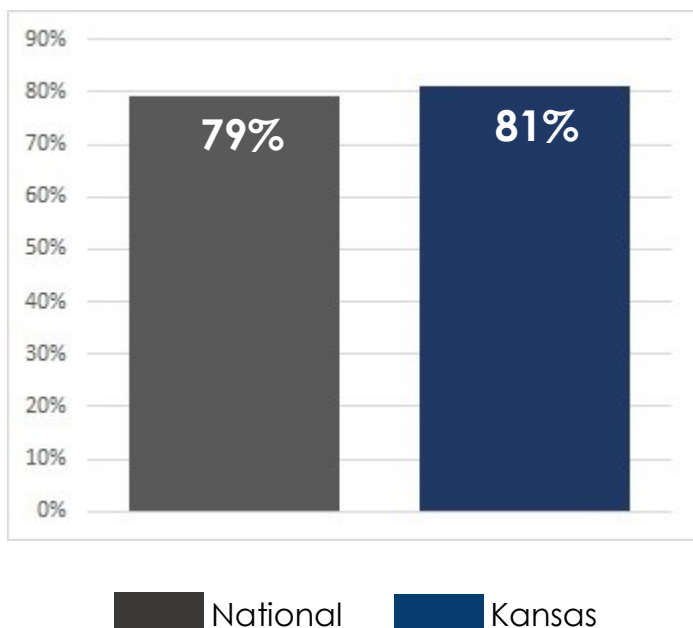
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients with status epilepticus who received benzodiazepine aimed at terminating their status seizure during the EMS response.

**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
<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

81% of Kansas EMS patients suffering from a suspected stroke received a stroke assessment.



Stroke-01	
State	% True
Kansas	81%
National	79%

Kansas EMS Region Comparison	
Region 1	83%
Region 2	70%
Region 3	77%
Region 4	55%
Region 5	88%
Region 6	71%

**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.

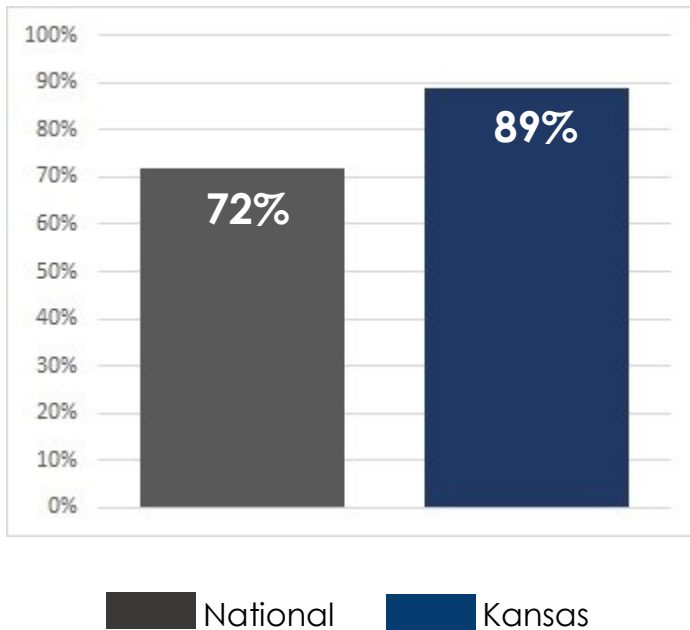
**MEASURE COMPONENTS:**

<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

89% of Kansas EMS patients with injury were assessed for pain.



Trauma-01	
State	% True
Kansas	89%
National	72%

Kansas EMS Region Comparison	
Region 1	79%
Region 2	92%
Region 3	92%
Region 4	85%
Region 5	88%
Region 6	81%

**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.

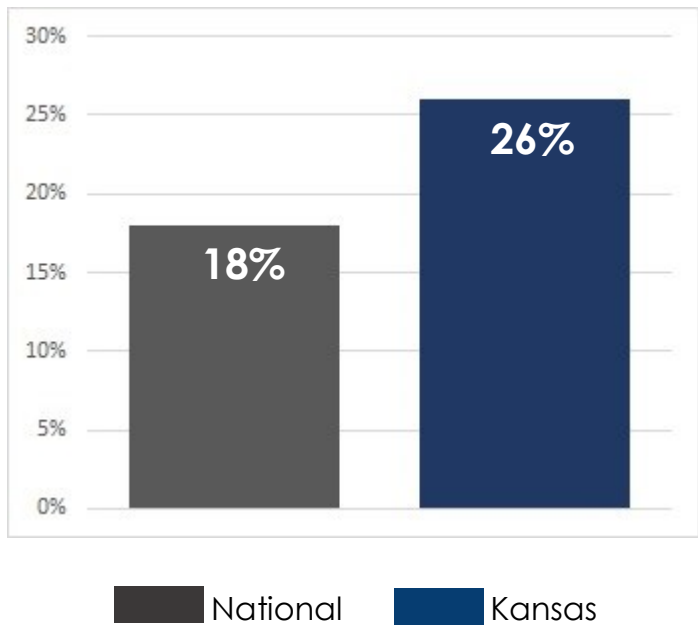
**MEASURE COMPONENTS:**

<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

26% of Kansas EMS injured patients lowered their pain score during the EMS encounter.

Trauma-03		
State	% True	% Unknown
Kansas	26%	26%
National	18%	30%



Kansas EMS Region Comparison		
Region 1	19%	41%
Region 2	14%	51%
Region 3	28%	11%
Region 4	24%	36%
Region 5	24%	32%
Region 6	28%	31%

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

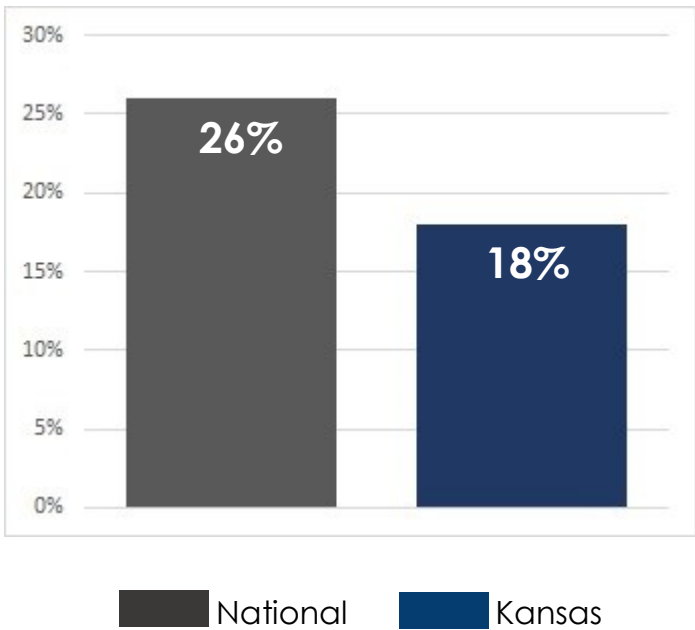
**MEASURE DESCRIPTION:** Percentage of EMS transports originating from a 911 request for patients whose pain score was lowered during the EMS encounter.

**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

**18% of Kansas EMS trauma patients are transported to a trauma center.**



Trauma-04		
State	% True	% Unknown
Kansas	18%	35%
National	26%	45%

Kansas EMS Region Comparison		
Region 1	30%	11%
Region 2	0%	4%
Region 3	14%	21%
Region 4	38%	30%
Region 5	18%	56%
Region 6	36%	25%

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

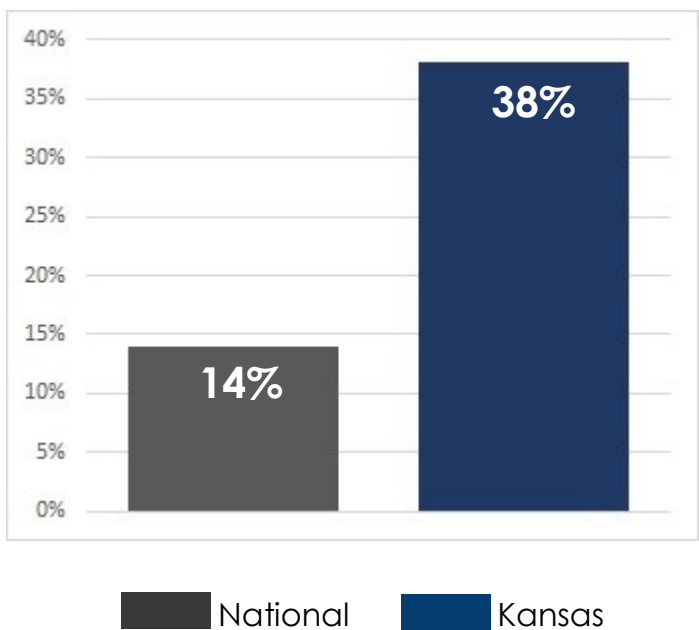
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request for patients who meet CDC criteria for trauma and are transported to a trauma center.

**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

38% of Kansas EMS 911 responses did not use lights and sirens during response.



Safety-01		
State	% True	% Unknown
Kansas	38%	16%
National	14%	29%

Kansas EMS Region Comparison		
Region 1	33%	41%
Region 2	9%	33%
Region 3	55%	10%
Region 4	14%	68%
Region 5	33%	10%
Region 6	31%	35%

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

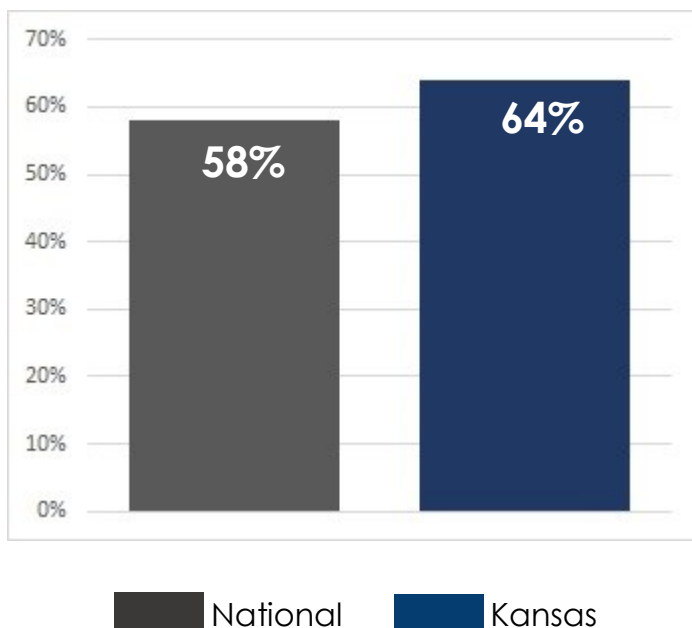
**MEASURE DESCRIPTION:** Percentage of EMS responses originating from a 911 request in which lights and sirens were not used during response.

**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

64% of Kansas EMS 911 responses did not use lights and sirens during transport.



Safety-02		
State	% True	% Unknown
Kansas	64%	25%
National	58%	25%

Kansas EMS Region Comparison		
Region 1	47%	38%
Region 2	46%	37%
Region 3	85%	9%
Region 4	25%	71%
Region 5	57%	29%
Region 6	63%	31%

**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.

Special thanks to the Kansas Board of EMS for allowing us to use their template to edit and publish our performance



## Kansas Board of Emergency Medical Services



connect with us:

[ksbems.org](http://ksbems.org) | Facebook: Kansas Board of EMS | Twitter: @ksbems  
900 SW Jackson Street, Suite 1031, Topeka, KS 66612-1228 | 785.296.7296

