

Kansas EMS Naloxone (Narcan) Administration



Kansas Board of Emergency Medical Services

August 2017

Executive Summary

The following pages denote an ongoing trending of naloxone administration by Kansas Emergency Medical Service (EMS) providers as reported into the Kansas EMS Information System.

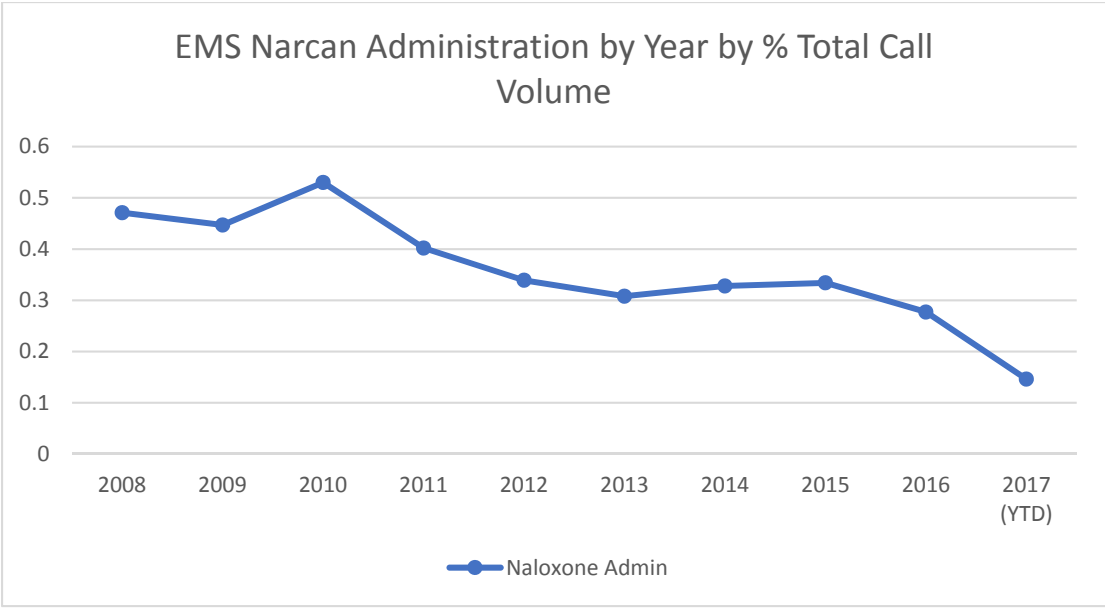
- Data demonstrates a 5-year trend of overall decreased naloxone administration in the EMS and/or pre-hospital setting within the state of Kansas – this includes a 47.2% reduction in EMS administration of naloxone from 2016 to 2017 (YTD).
- For the month of July, data shows a 43.5% reduction in EMS administration of naloxone from 2016 to 2017 and a 60.6% reduction from 2015 to 2017.
- Predominantly, patients receiving naloxone in the Kansas EMS setting are 51 years of age or older with a greater occurrence in the 45-64 range.
- 5-year trends show the demographic of more male patients than female patients in the first three quarters of the year with more female patients than male patients presenting in the last quarter of each year.
- Finally, in an effort to work collaboratively with other states, the New Hampshire Bureau of EMS was gracious enough to provide us with a potential method of scoring the positive impact that naloxone access and EMS usage have within the community. Through their scoring method, it has been determined that from 2008, through July 31, 2017, Kansas has had 1,882 patients experience improving symptoms and that 984 lives that initially presented in a life-threatening condition had a positive outcome due to having access to EMS and naloxone.

New Hampshire is just one state at the heart of the opioid crisis – with a population of approx. 1.3 million, their heroin related deaths increased from 38 in 2012 to 88 in 2015 and fentanyl related deaths increased from 18 in 2013 to 283 in 2015. New Hampshire experienced a 318% increase in EMS naloxone administration from 2012 through 2016 (information taken from “The Opiate/Opioid Public Health Crisis: Update on the State of New Hampshire’s Comprehensive Response” dated August 2016). Their method of scoring found upon the last page was developed to focus upon demonstrating the positive outcomes of naloxone access and administration.

If there is additional EMS information that you or your organization would find helpful in trending, please contact Joe House, KBEMS Executive Director, at joseph.house@ks.gov.

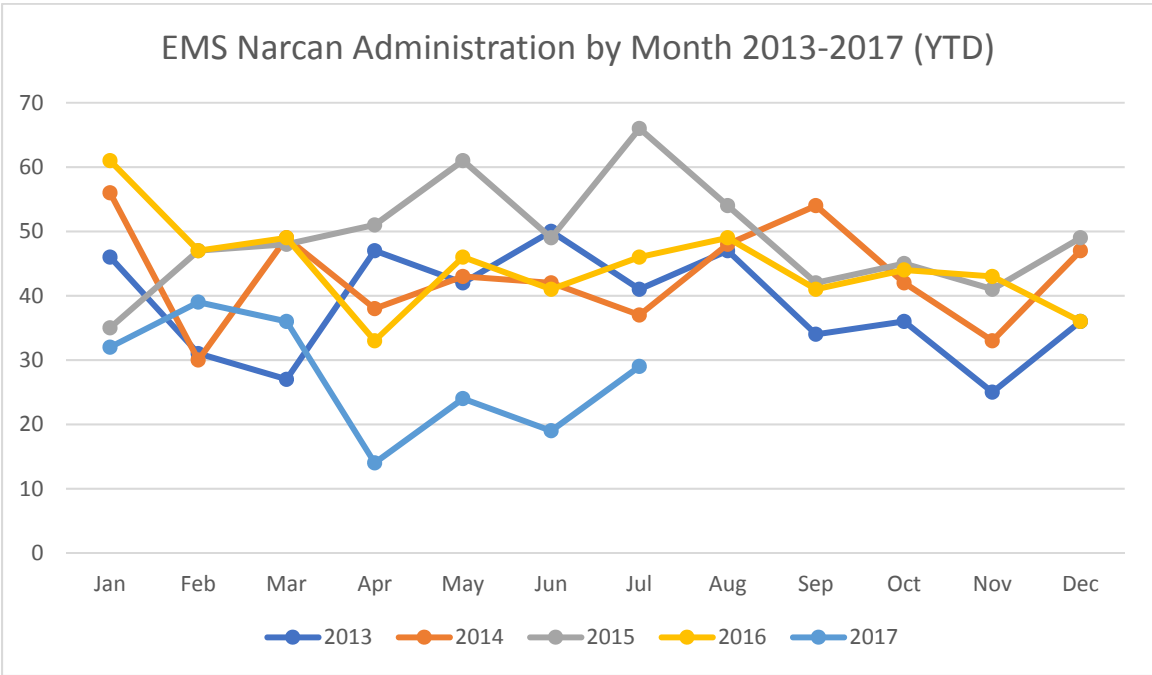
Kansas EMS Naloxone (Narcan) Administration*

Data Source: Kansas Board of Emergency Medical Services (EMS) – Kansas EMS Information System (KEMSIS)



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 (YTD)
Naloxone Given	94	185	303	397	488	462	519	588	536	193
Total 911 Calls	19,940	41,365	57,198	98,774	143,820	150,206	158,429	176,091	193,529	131,961
% Call Volume	0.471%	0.447%	0.530%	0.402%	0.339%	0.308%	0.328%	0.334%	0.277%	0.146%

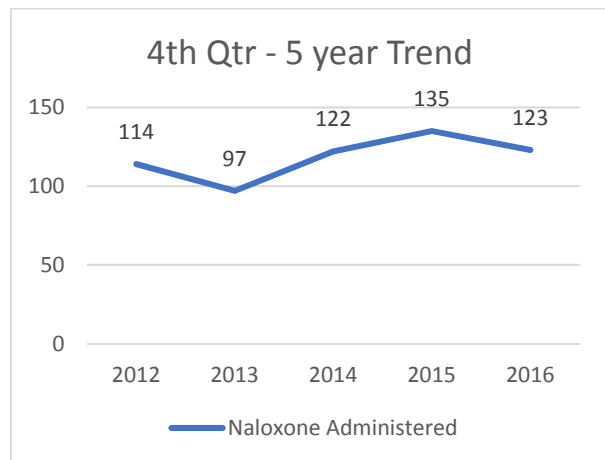
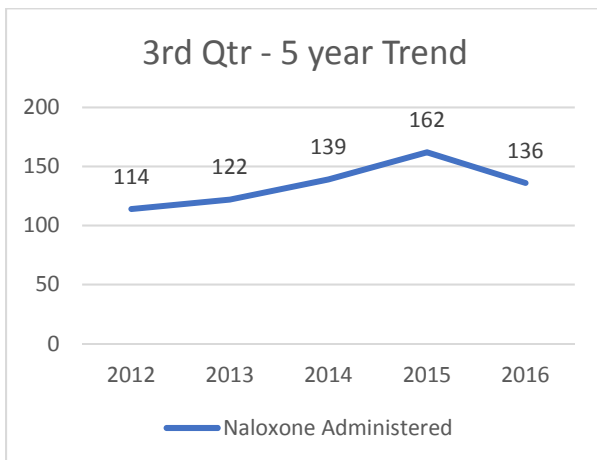
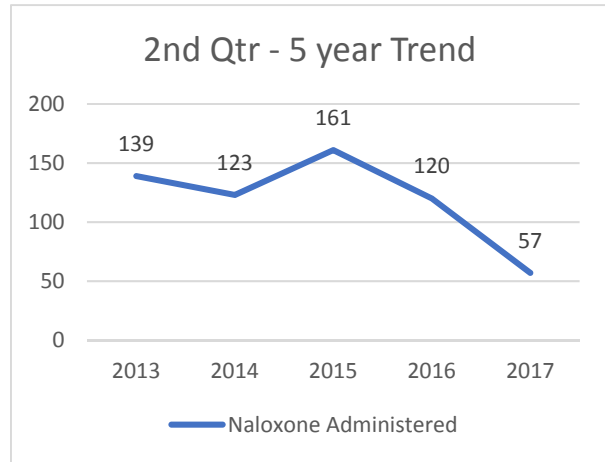
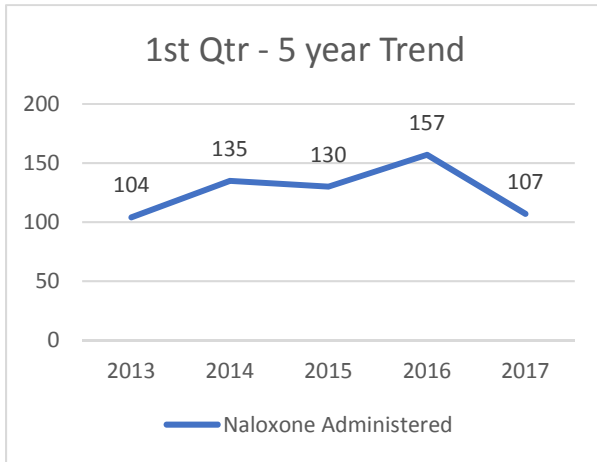
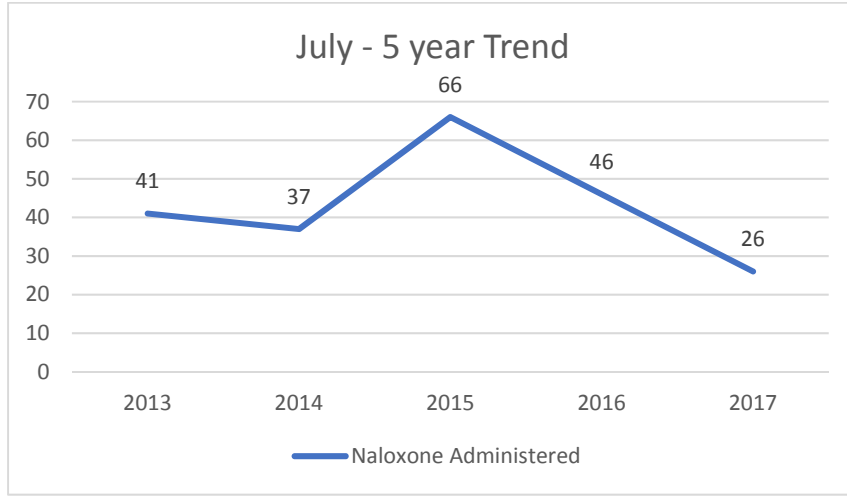
KEMSIS was developed in late 2007 and has been an ongoing building process to allow for services to report data into the system. The numbers above reflect all the records submitted into the state data system during the year indicated, however, it is not yet receiving data upon all 911 calls in Kansas.



*Naloxone administration data in this report involves the number of incidents where naloxone was administered, NOT the number of doses of naloxone during a certain time period. Multiple doses may be administered during an incident.

5 year Trends for Naloxone Administration

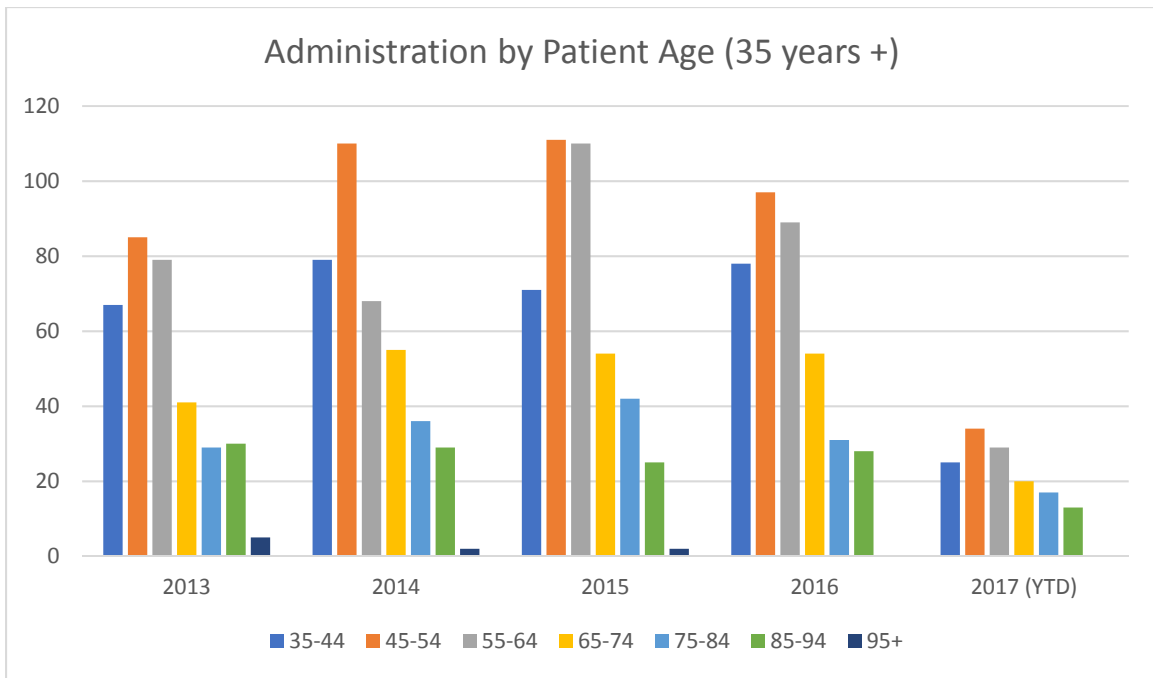
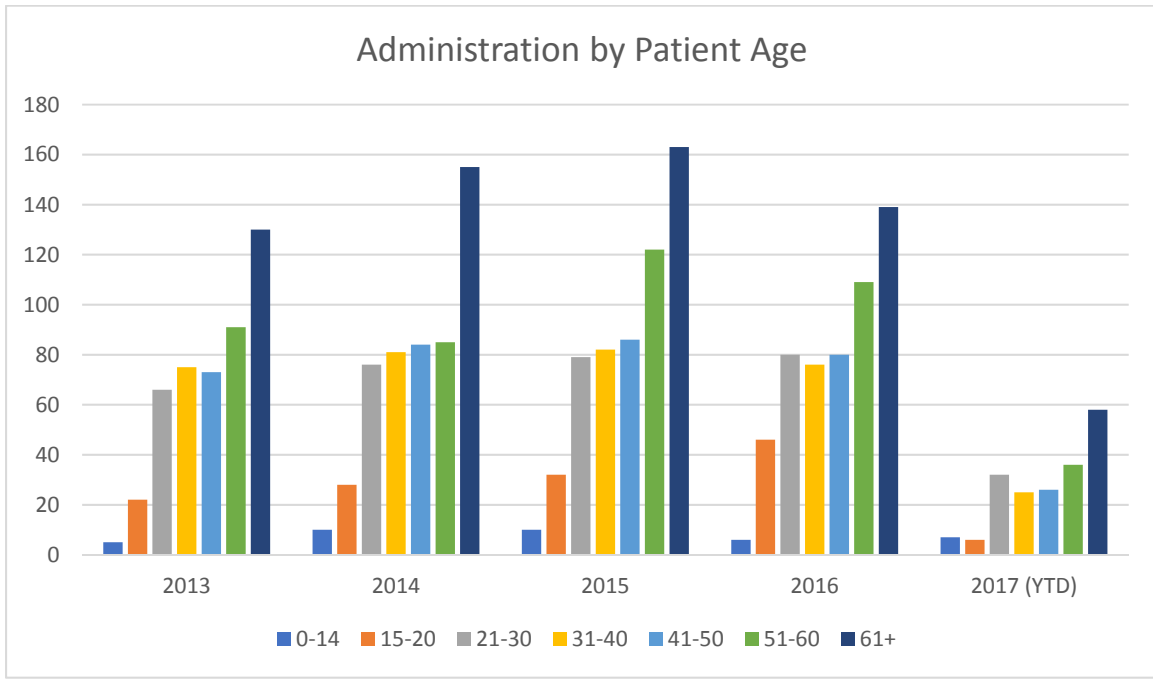
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Age 5 year Trend

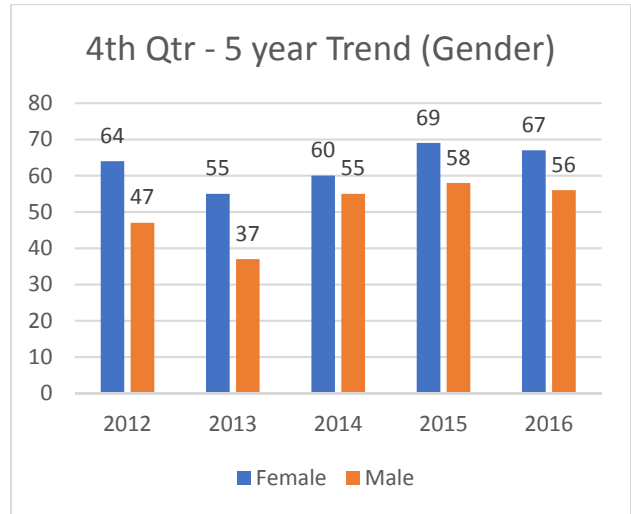
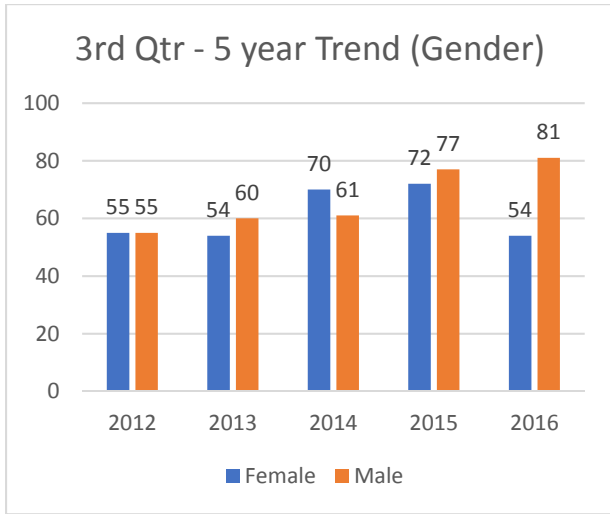
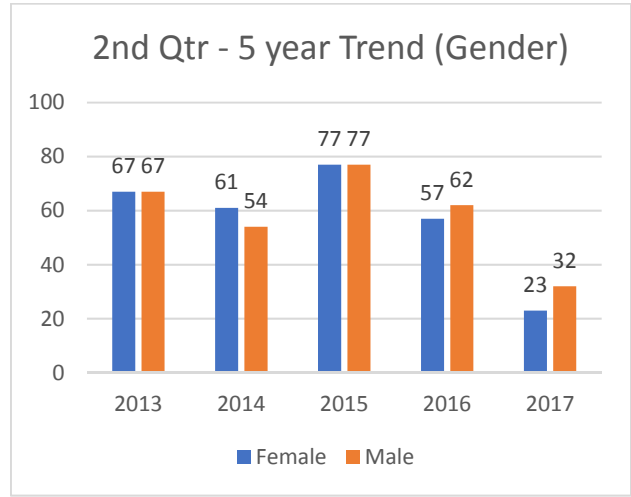
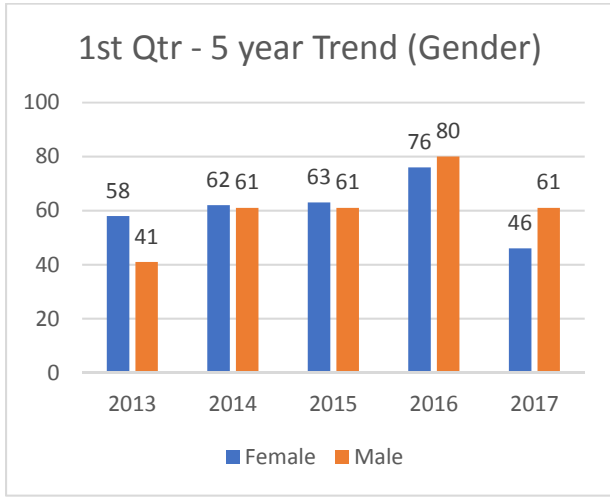
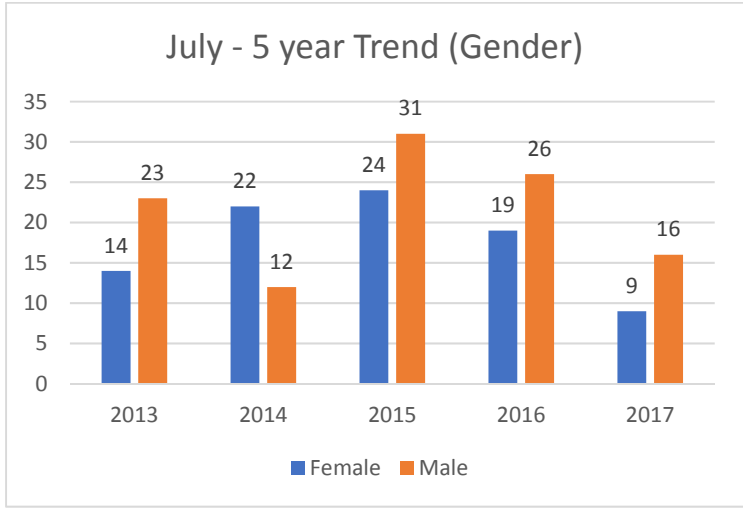
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Gender 5 year Trend

Data Source: Kansas Board of Emergency Medical Services (EMS) – Kansas EMS Information System (KEMISIS)



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Revised OverDose Score (R.O.D.S) v1.0

Provided by the New Hampshire Bureau of Emergency Medical Services (EMS)

Currently, the Kansas Board of EMS is researching out the R.O.D.S. method to determine the accuracy by which a positive improvement for out-of-hospital Naloxone administration can be shown. A considerable amount of time is spent upon the lives lost due to the nation's opioid crisis and New Hampshire has been at the heart of this crisis. With a population of just under 1.3 million people, the state of New Hampshire has seen a 318% increase in EMS Naloxone administration from 2012 through 2016. In 2015, EMS providers in New Hampshire administered Naloxone to approx. 2700 patients (Kansas administered to approx. 588 patients in 2015 with a population just over double the size of New Hampshire). The New Hampshire Bureau of EMS desired to find a method to promote the positive and developed the R.O.D.S. method of determining when a life has been "saved" by access to Naloxone.

In this method, a life saved means that the patient had a life-threatening or critical presentation and administration of naloxone significantly improved their outcome. Some improvement means that the patient had minimal improvement, or did not present in a life-threatening manner and naloxone administration improved their condition. The other scores are no change and negative improvement. Currently, we are reviewing each of the negative improvements in Kansas due to an area that we believe can be improved upon in future revisions to this scoring method.

The numbers below reflect all administrations of Naloxone that were reported during the listed time frame – due to the growth of data submission into KEMSIS during this same period of time, you will note significant increases in overall call volume submitted as time progresses. Also to note, in the EMS setting, naloxone is administered in cases of cardiac arrest when the cause of arrest cannot be determined. It therefore cannot be concluded that all of the reported naloxone administrations involved an overdose situation. The data source for the below information is the Kansas EMS Information System (KEMSIS) and is current for data submitted prior to 08/03/2017 12:01am.

R.O.D.S. - KANSAS

R.O.D.S.	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017(YTD)	Grand Total
Lives Saved	19	36	47	110	132	124	141	145	169	61	984
Some Improvement	18	35	78	96	119	113	114	156	112	57	898
Negative Improvement	9	24	45	51	78	56	77	90	80	30	540
No Change	47	88	132	138	153	164	184	190	161	43	1300
Missing Data	1	2	1	2	6	5	3	7	14	2	43
Grand Total	94	185	303	397	488	462	519	588	536	193	3765
Submitted 911 calls	19,940	41,365	57,198	98,774	143,820	150,206	158,429	176,091	193,529	131,961	1,170,987

The interpretation of this method is that of the 1,882 people with improving symptoms from 2008 through July 31, 2017, 984 lives presented in a life-threatening condition and had a positive outcome due to having access to EMS and Naloxone in Kansas.

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