

## AD ASTRA NOTES

In Governor Kelly's Ad Astra plan to reopening Kansas issued on April 30, KDHE recommended local governments monitor the following health criteria to determine restrictions.

### DISEASE SPREAD

### HOSPITALS

### DEATHS

Stable or declining 14-day period. of new COVID-19 admissions. Downward trajectory of COVID-19 deaths population.

Decreasing number of new COVID-19 cases per 100,000 population. Downward trajectory within a V-day period.

Decreasing number of COVID-19 deaths. Rate of COVID-19 deaths population. Downward trajectory within a V-day period.

In a press conference on May 15, 2020, Gov Kelly clarified that due to the lag between gathering data and analysis, the State is "operating with data that lag about one week behind what's currently happening on the ground.."

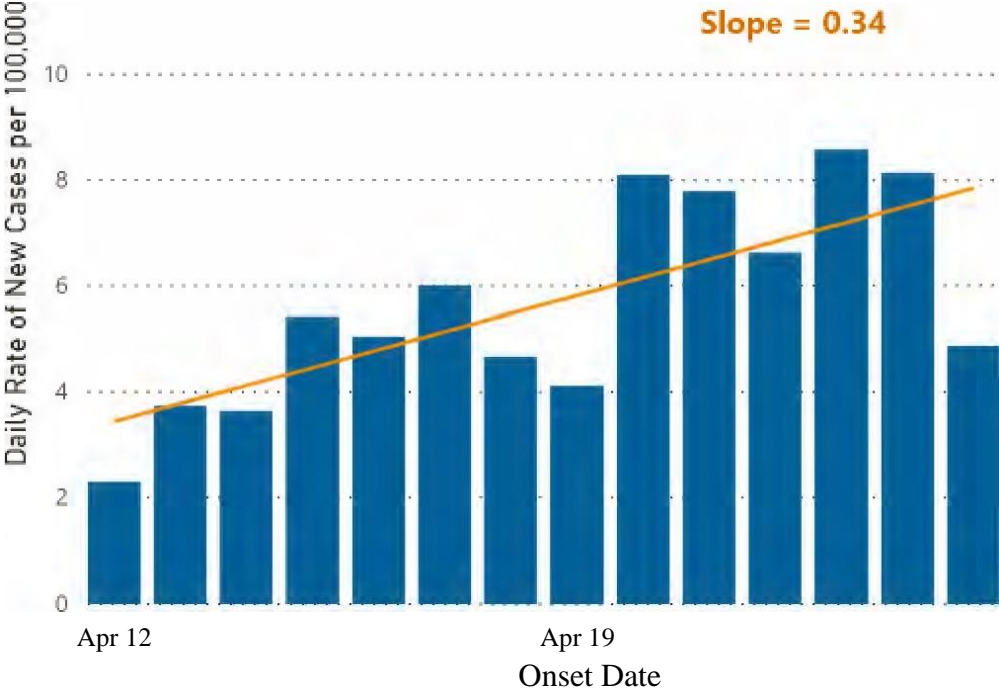
# AD ASTRA:

On KDHE's Reopen Kansas Metrics report KDHE states "For each of the metrics, the most recent five days are not included as data is expected to be incomplete,"

## DISEASE SPREAD

Disease spread is measured by looking at the 14 day trend of New Cases by Onset Date. Values are reported per 100,000. The Orange line on the graph indicates the trend line for the 14 day period provided

May 4 Phase 1 - Data Provided for Phase 1 Reopening



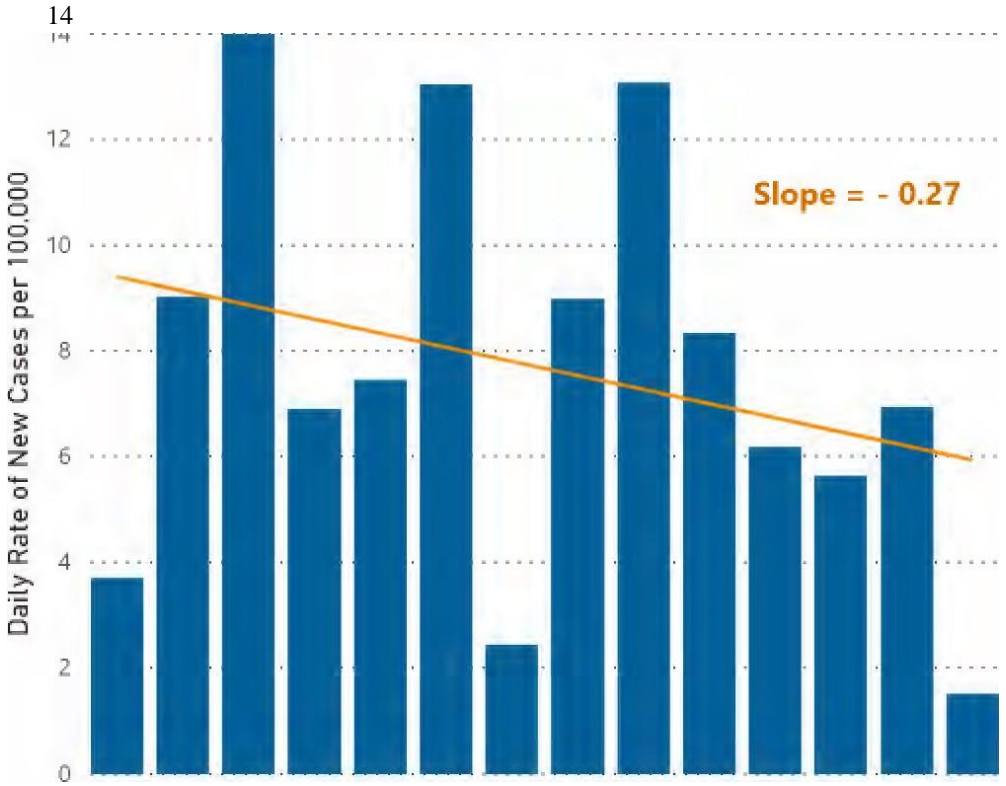
Slope Interpretations:  
positive slope increase; negative slope • decrease magnitude  
of slope indicates how fast it is falling rising

# AD ASTRA:

## HOSPITALIZATIONS

Hospitalizations are measured based on the number of admissions by Admit Date due to COVID-19.

May 18 Phase 1.5 - Data Provided for Adding an Additional Phase



Apr 26 May 03  
Onset Date  
The Ad Astra plan calls for stable or downward trajectories in Hospitalizations.

May 4 Phase 1 - Data Provided for Phase 1 Reopening



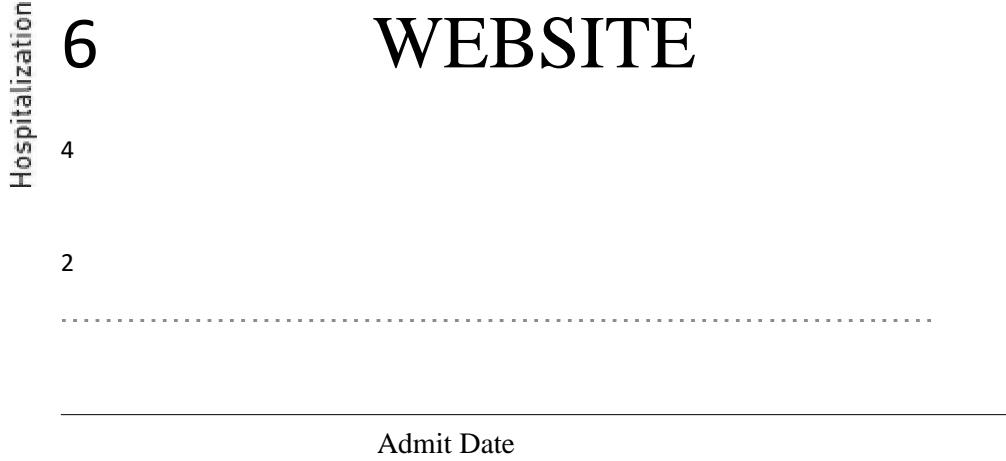
**THIS DATA IS NO LONGER**

### Slope Interpretations:

positive slope increase; negative slope • decrease magnitude of slope indicates how fast it is falling rising

AD ASTRA:

Ad 8 AVAILABLE ON THE  
KDHE...



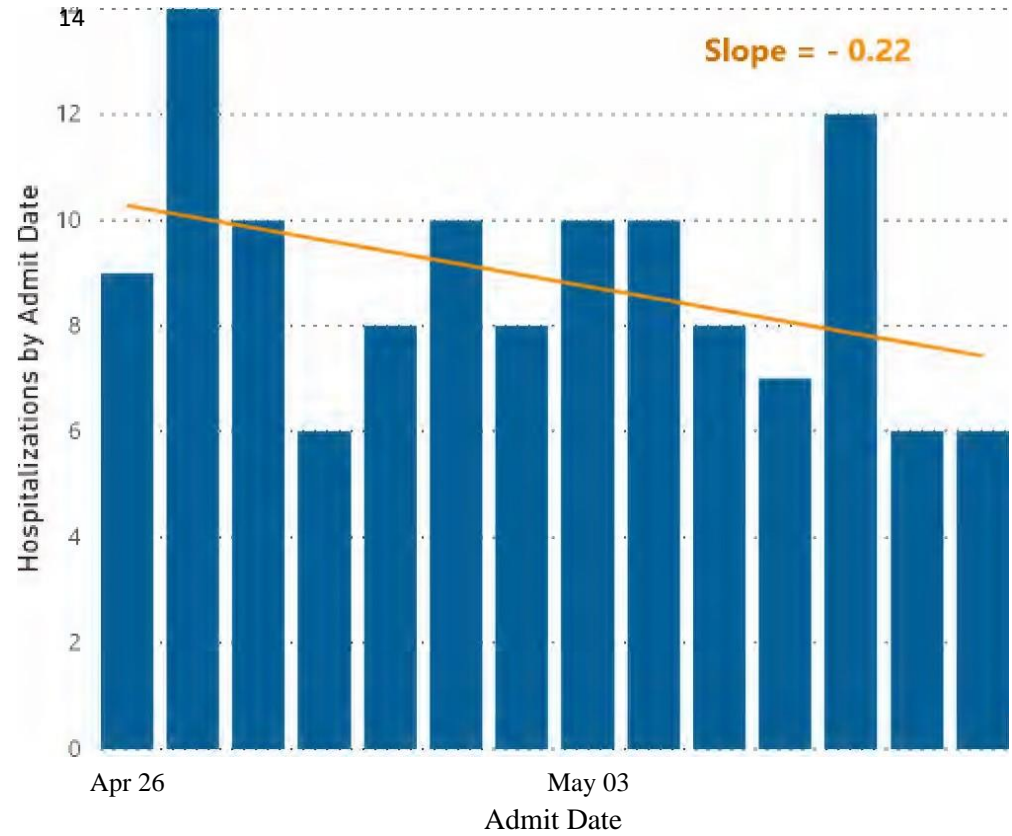
• or

### DEATHS

Deaths are measured by the Date of Death, The Ad Astra plan calls for stable or downward  
May 18 Phase 1.5 - Data Provided for Adding an  
Additional Phase

Slope Interpretations:

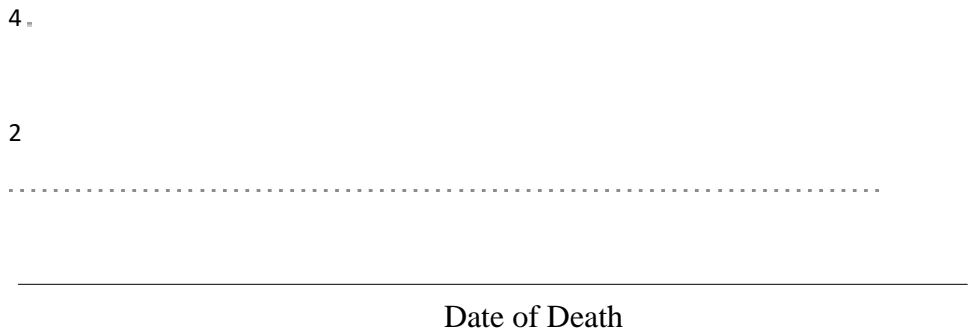
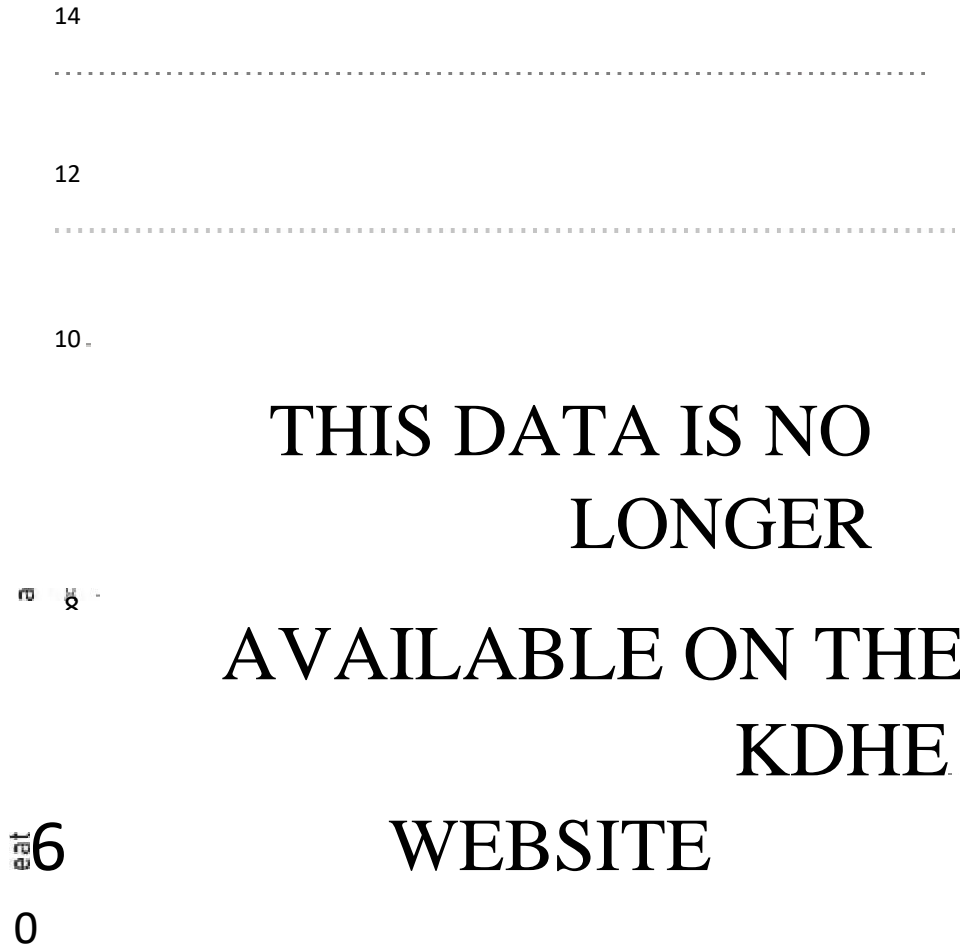
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trajectories in deaths.

# AD ASTRA:

May 4 Phase 1 - Data Provided for Phase 1 Reopening



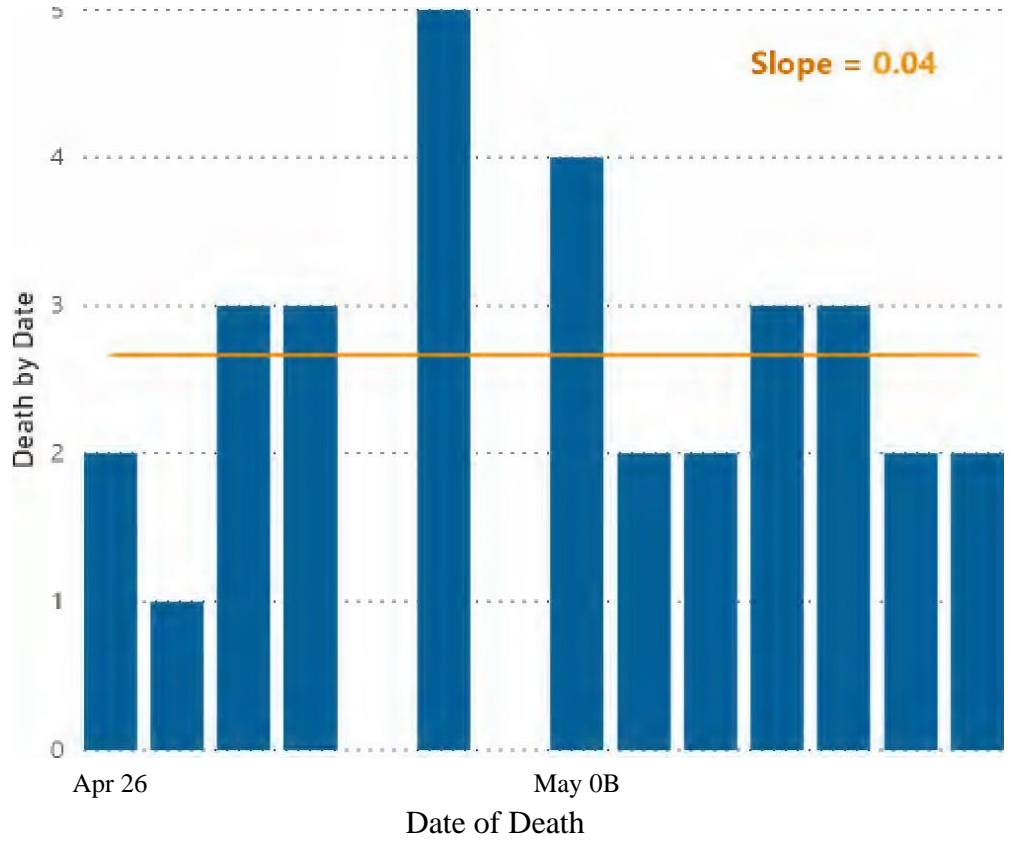
- or  
 May 18 Phase 1.5 - Data Provided for Adding an Additional Phase

5

Slope Interpretations:

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# AD ASTRA:

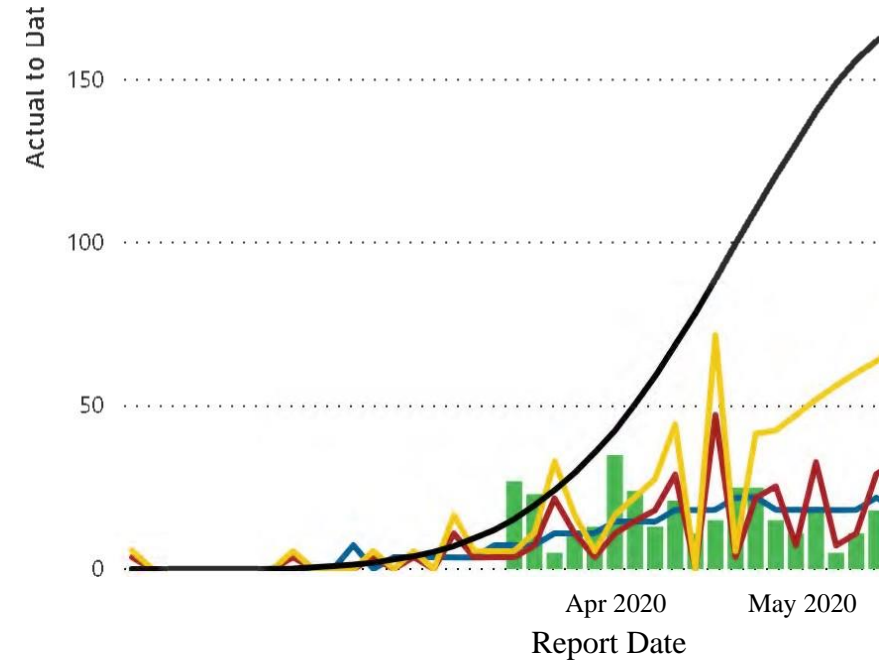
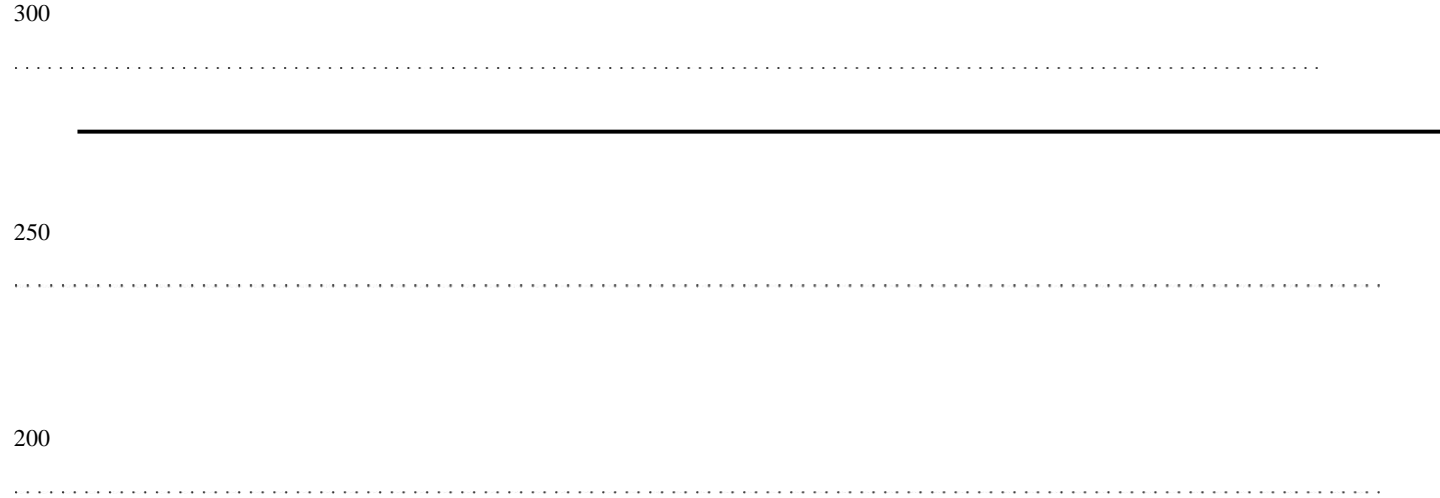


## Slope Interpretations:

positive slope increase; negative slope • decrease magnitude of slope indicates how fast it is falling rising

## Kansas Hospitalizations by Report Date

'Actual to Date 'ICU Available 05/4 IHME 04/28 IHME '4/12 IHME '3/27 IHME



We pulled the IHME Model to show the projections over time verse actual hospitalization data around significant milestones in the Kansas COVID timeline.

IHME calculated an expected capacity measurement of ICU beds in the State. They used the American Hospital Association's data to obtain the number of licensed hospital beds and ICU Capacity. Then they took the average utilization by state and extrapolated the number of beds that might be available in the pandemic.

They projected 279 ICU beds available - and that Kansas would not exceed that number.

May 6 Update:

IHME updated their model and projection process significantly on May 4 2020. We pulled that data to see how it compares. Projections continue to be lowered and now begin to look closer to the actual data seen in Kansas.

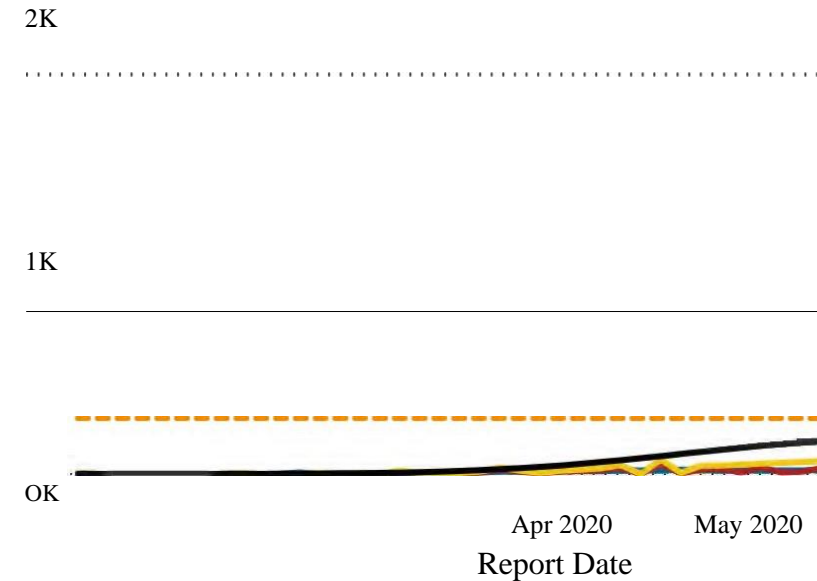
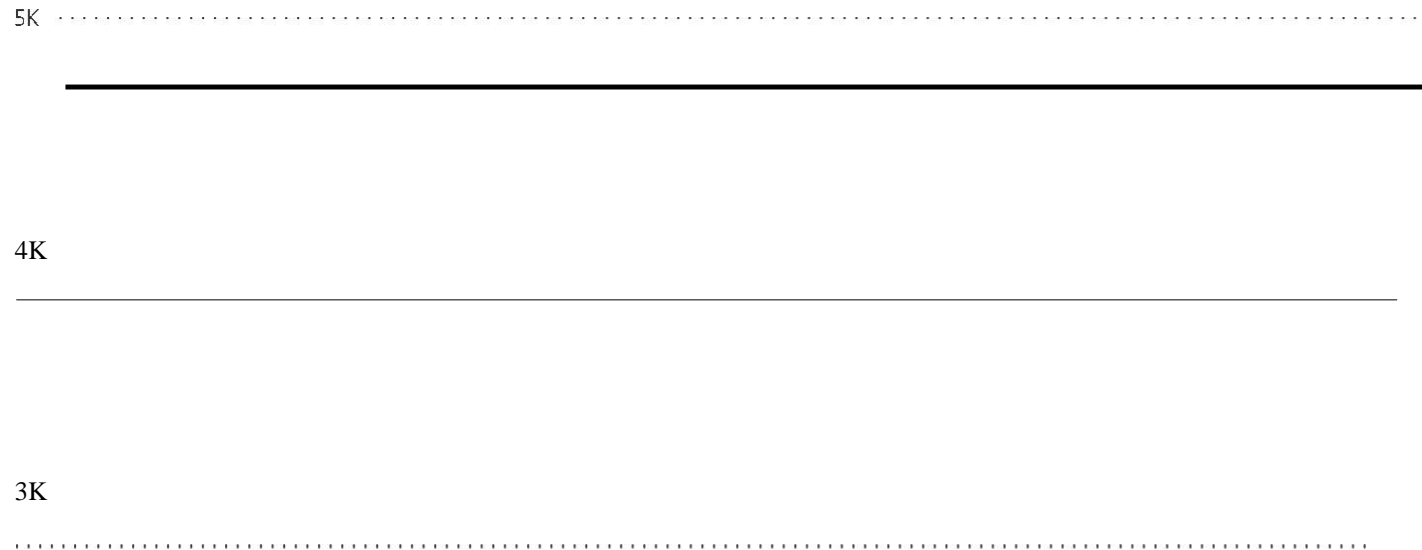
The new projections no longer include peaks or time since peak information.

May 9 Update:

The state of Kansas began updating data three times a week instead of 7. The new data will include multiple days of data.

### Kansas Hospitalizations by Report Date

'Actual 'Beds Available 'ICU Available 05/4 IHME 04/28 IHME 04/12 IHME 03/27 IHME



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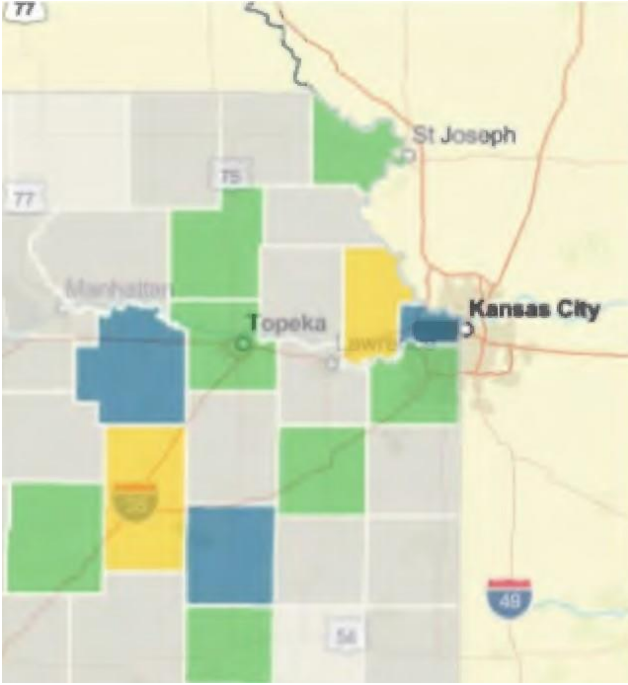
The took the average utilization by state and extrapolated the number of beds that might be available in the pandemic.



# ADDITIONAL CONTEXT

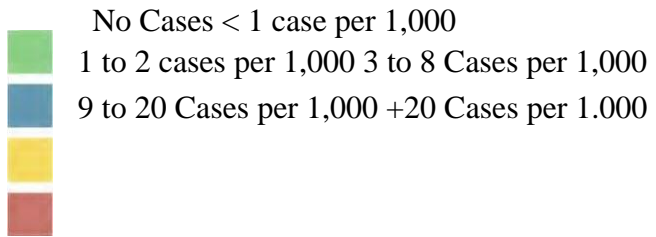
They projected 4,811 hospital beds available - and that Kansas would not exceed that number. We have included that line to demonstrate the difference between projected need and use.

## KANSAS - COVID-19 TOTAL CASES PER 1,000





Wk.\*tota



Note that one of the larger population areas in the state, Sedgwick County, has fewer than 1 case per 1000 people while areas on the extreme southwest pation of the state run up over 30 per 1,000

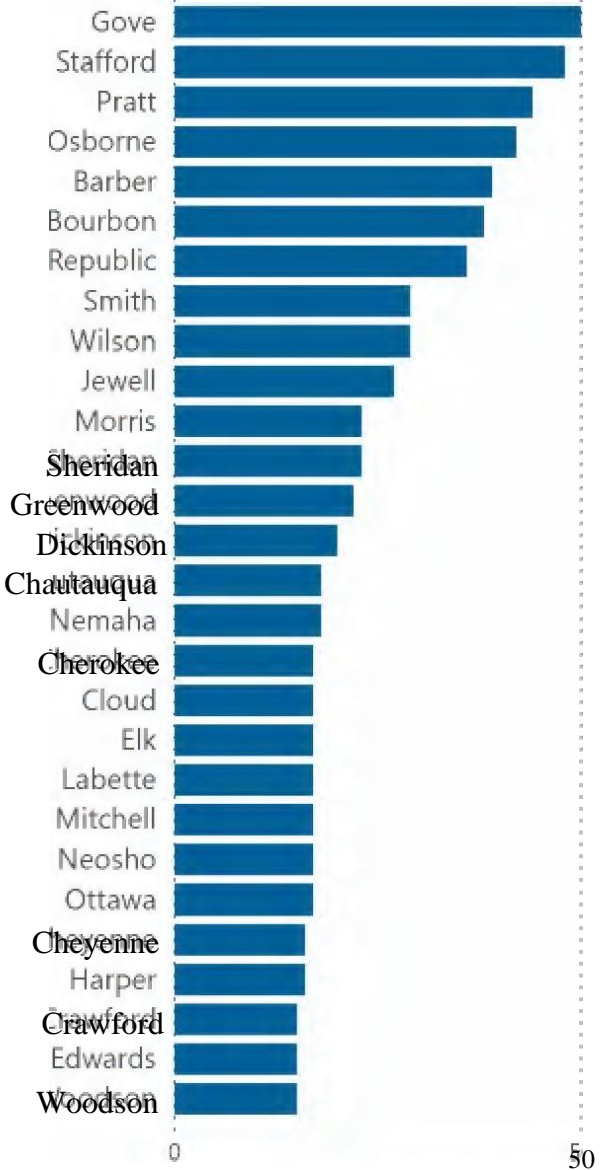
in order to compare data between counties, we need to look at the rate of cases per 1,000 people.

This visual illustrates the total cases reported to date per 1,000 people in each county.

ADDITIONAL CONTEXT

- DISEASE SPREAD

Counties with No New Cases Reported in 14 Days



Counties with No Cases	
Allen	
Comanche	
Decatur	
Graham	
Greeley	
Hodgeman	
Kingman	
Lane	
Lincoln	
Logan	
Marshall	
Ness	
Pawnee	
Rawlins	
Rush	
Russell	
Thomas	
Trego	
Wallace	
Wichita	

# ADDITIONAL CONTEXT

Last Updated 5/15/2020

According to the CDC,

'the incubation period for COVID-19 is thought to extend to 14 days, with a median time of 4-5 days from exposure to symptoms onset,"

We track the time since the last case was reported in each county as a measure of the active spread in the State of Kansas.

47 counties -

o

Active Counties - Last 7 Days

1,385 new cases

Counties with Last Activity 8 to 14 days Ago

Last Updated 5/15/2020

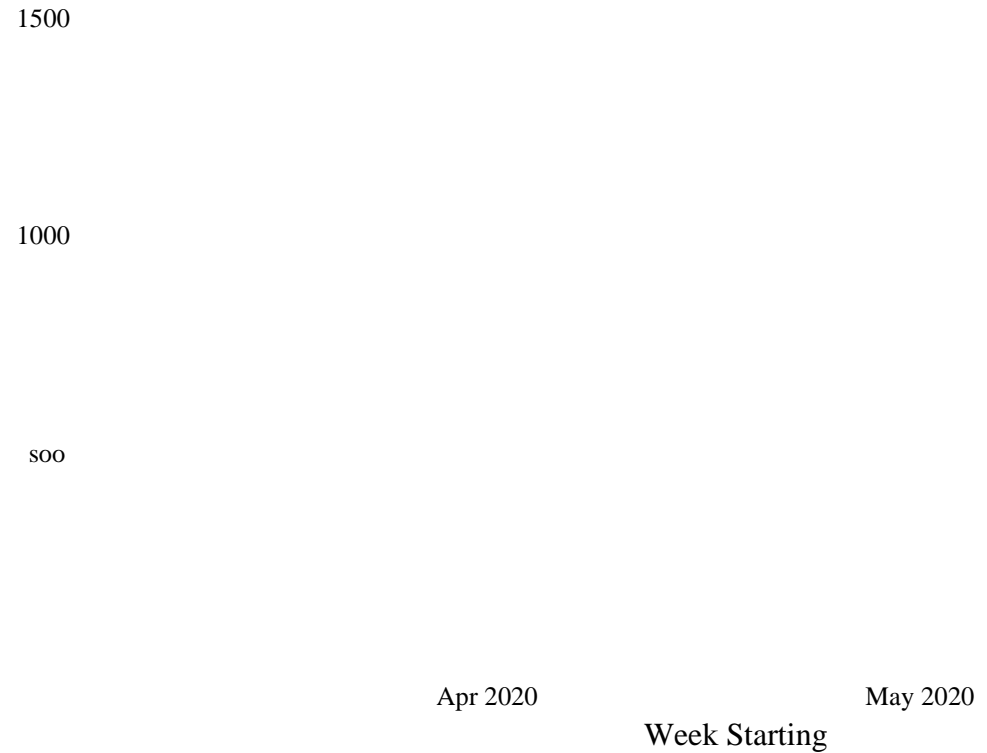
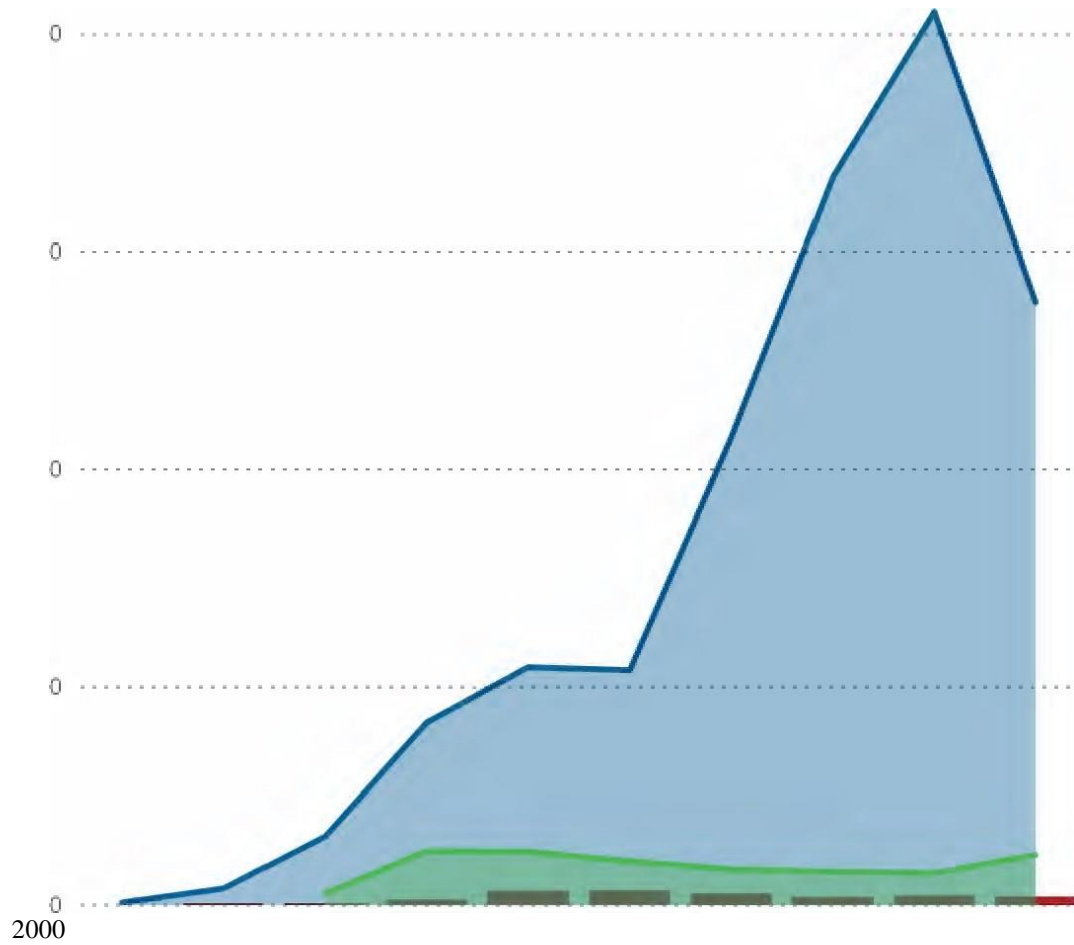
48

Days Since Last Report of COVID-19  
- DATA BY WEEK

Counties with No Activity Last 14 Days

Death • New Cases Hospitalizations

# ADDITIONAL CONTEXT



We have been tracking daily new cases, hospitalizations and deaths,

KDHE made the following changes in the way data is presented:

- k May 7 - Data now includes probable cases. See below for KDHE's definition of probable cases.
- k May 9 - KDHE began reporting data three times a week instead of 7. Due to this change, our numbers per day now have gaps as 2 to 3 days worth of data

are presented on the same day. In order to better understand the new number of cases represented, we are showing data by week.

Red bars indicate the number of deaths reported in a given week.

The green line indicates the total number of hospitalizations reported in that same week.

The blue line indicates the total number of new cases reported by KDHE in that week,

Total Hospitalizations as of May 11, 2020

NOTE: The dates used here are Report Date - these are the dates commonly available from KDHE's website. They are different than onset date, admit date or date of death.

KDHE said probable cases are determined through local health departments/ investigations of confirmed cases. The probable cases are defined as those with either:

- Presumptive laboratory evidence (serology) with compatible symptoms or epidemiologically linked to a confirmed case.
- No laboratory testing for COVID-19 in a person with COVID-19 compatible symptoms and epidemiologically linked to a confirmed case.

Last Updated 5/15/2020

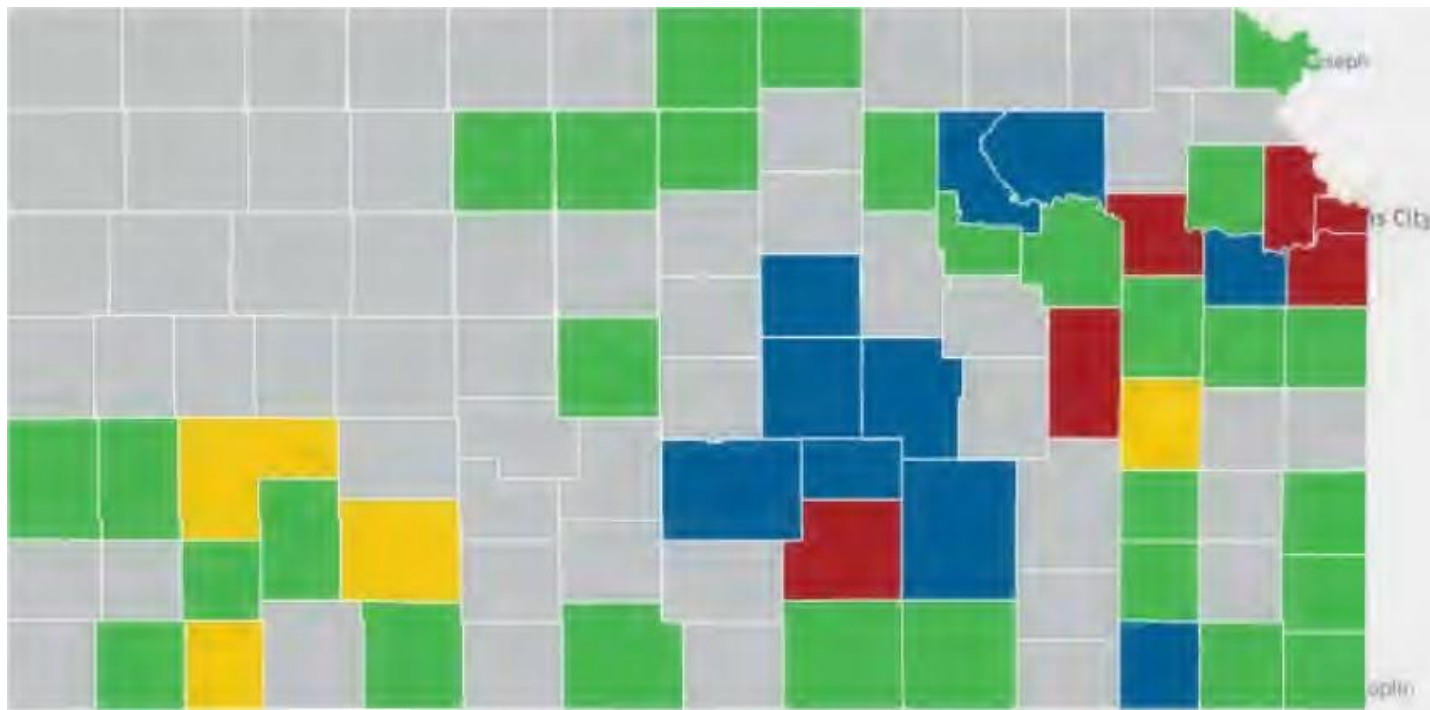


# ADDITIONAL CONTEXT

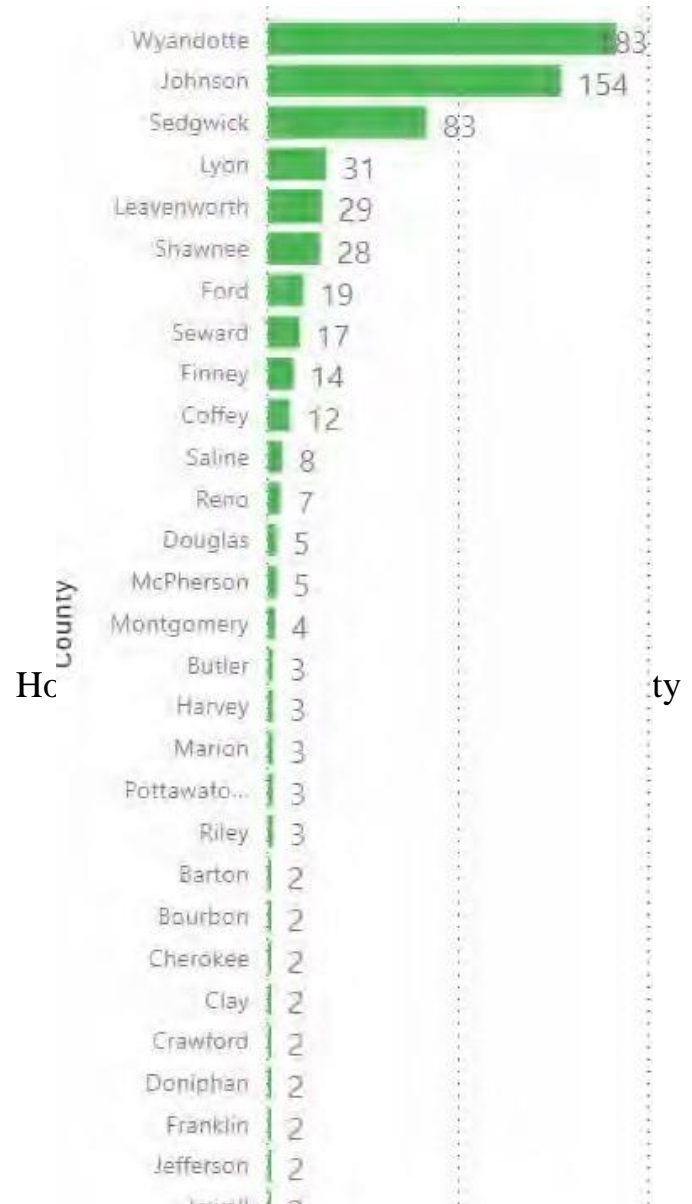
Hospitalizations	# Counties
None	56

I to 2	29
3 to 10	10
11 to 20	4
1 1 to 20	
+20	6
Total	105

# ADDITIONAL CONTEXT



Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS | Esri, HERE, Garmin, FAO, NO...



LEGEND



# ADDITIONAL CONTEXT

0 100 200

Hospital Admit Totals as of ,

# CREATE YOUR OWN GRAPH - KANSAS

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## BY COUNTY

We've presented this data to allow you to create

graph for one or more counties. Simply select a county from the drop-down box below. 14 Day Moving  
Average per 1,000

To select multiple counties, hold the Ctrl  
button down and click multiple counties.

Make your own visuals to show your friends and  
family what the data in your county looks like.  
We've created one to help you get started.

County

n Elk

Ellis

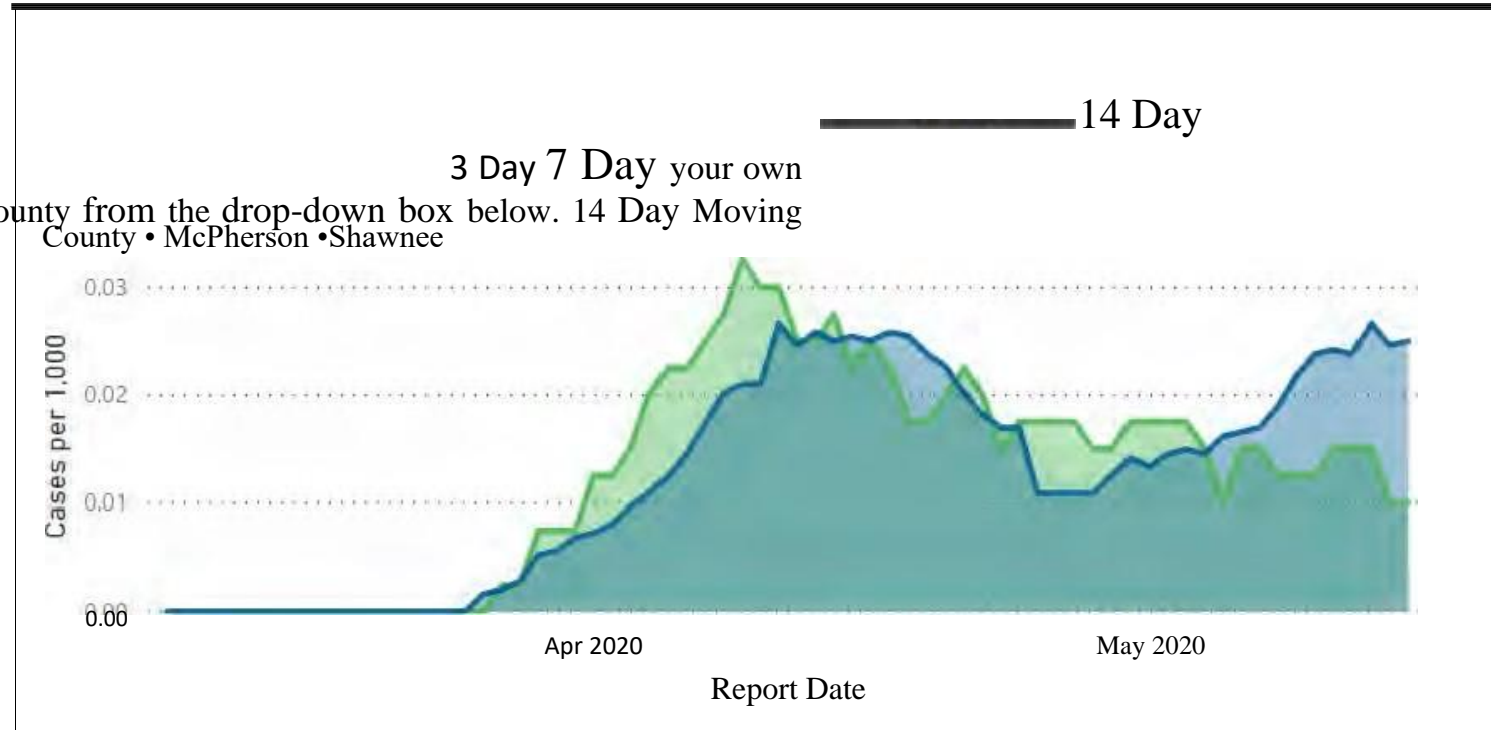
D Ellsworth

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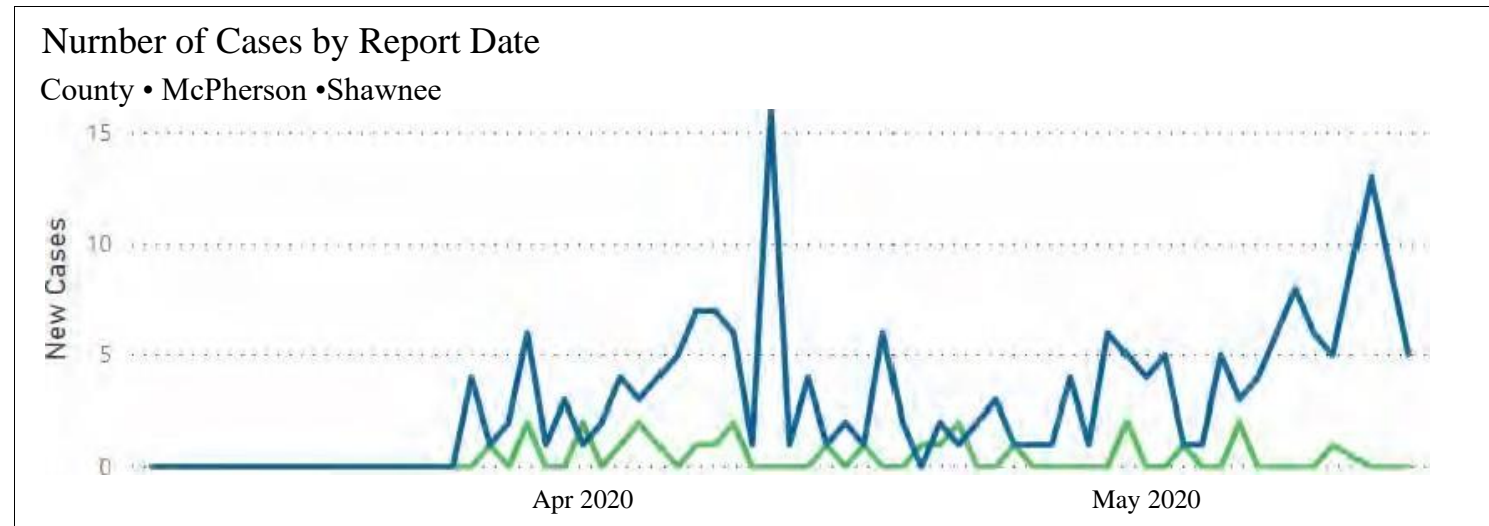
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Average per 1,000

3 Day 7 Day your own



Last Updated 5/15/2020



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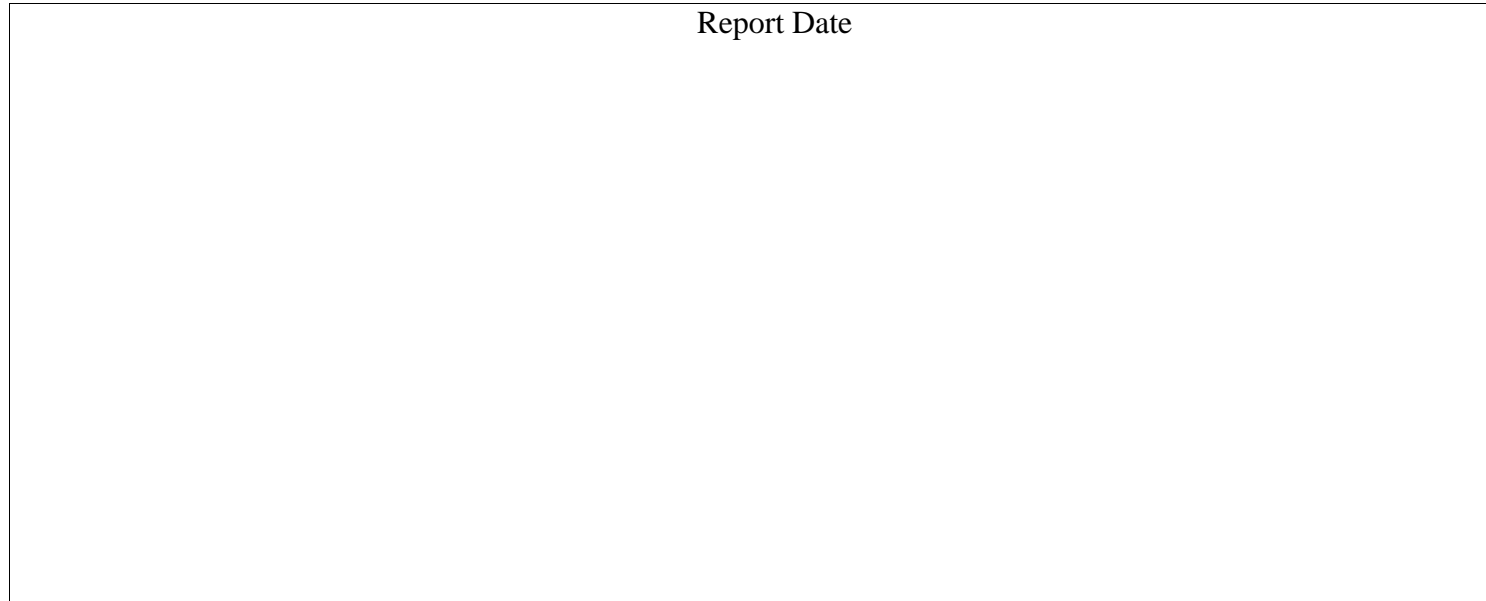
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3 Day 7 Day your own

- Finney
- Ford
- Franklin
- Geary
- Gove
- Graham
- Grant
- Gray
- Greeley
- Greenwood
- Hamilton

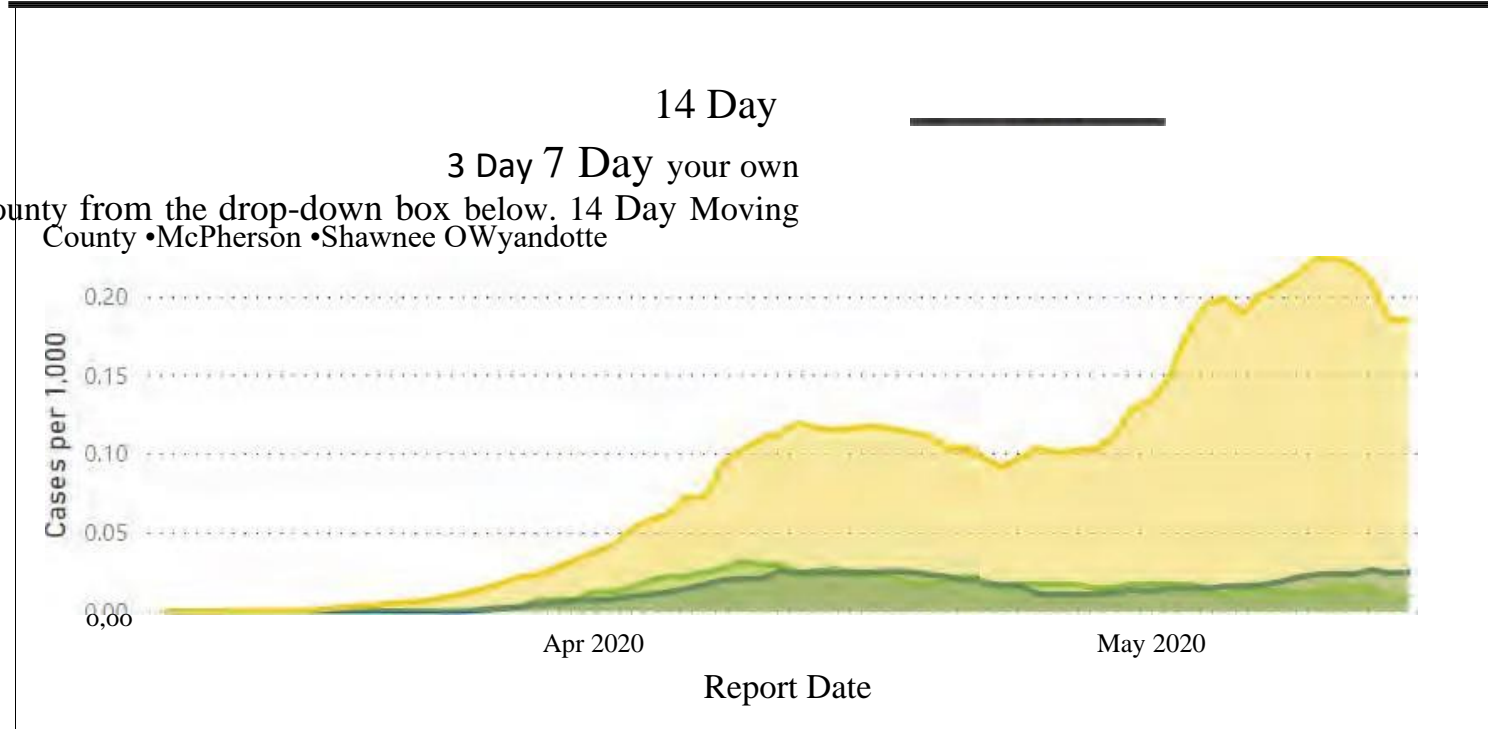
Report Date



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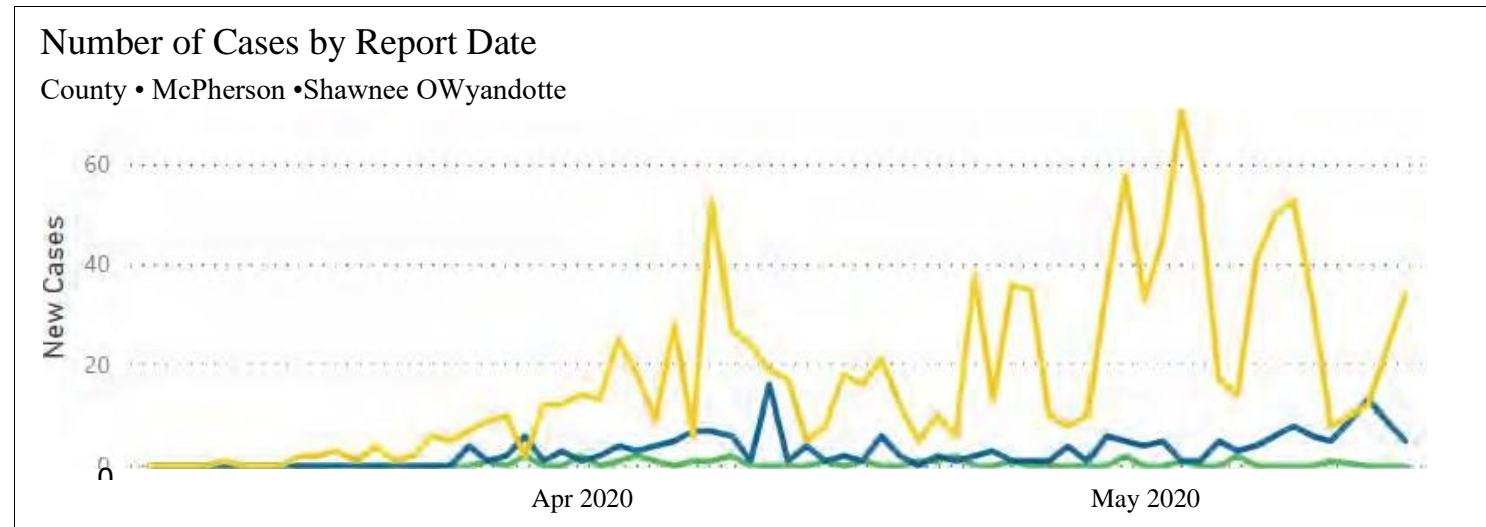
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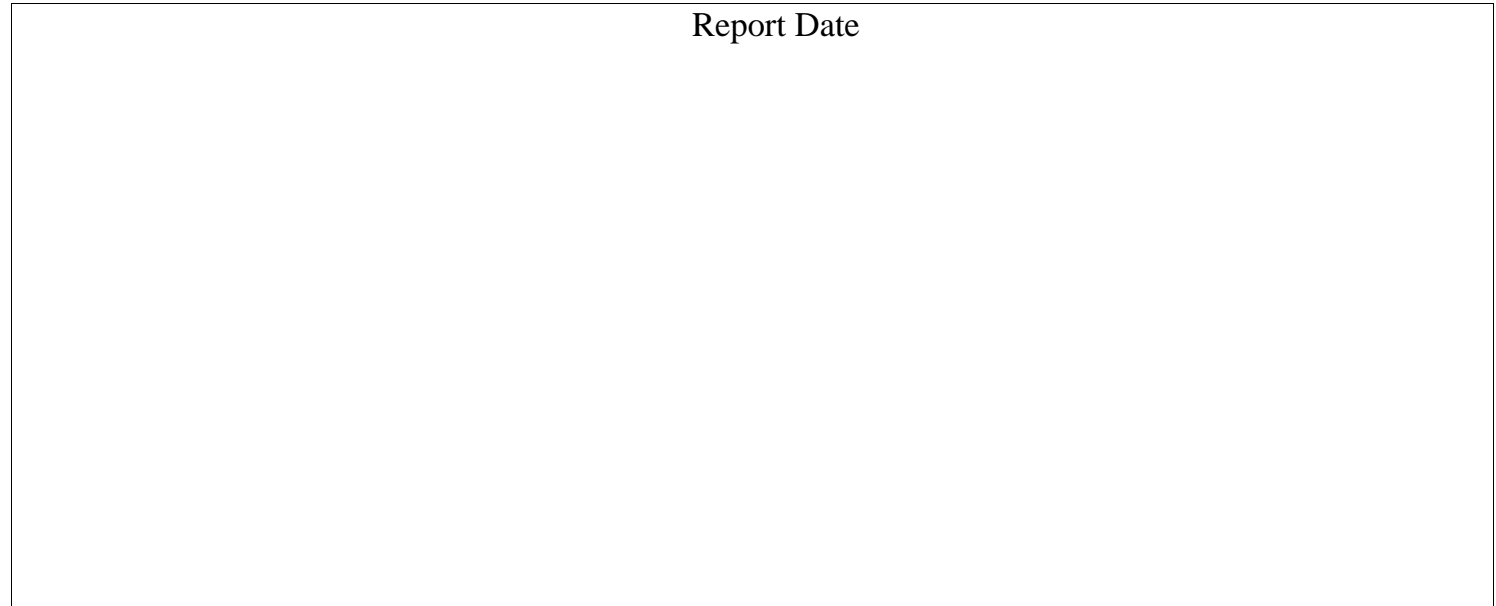
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3 Day 7 Day your own

Report Date



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3 Day 7 Day your own

County

C Smith

LJ Stafford

Stanton

Stevens

Sumner

Thomas

Trego

Wabaunsee

Wallace

Washington

Wichita

n Wilson

Woodson

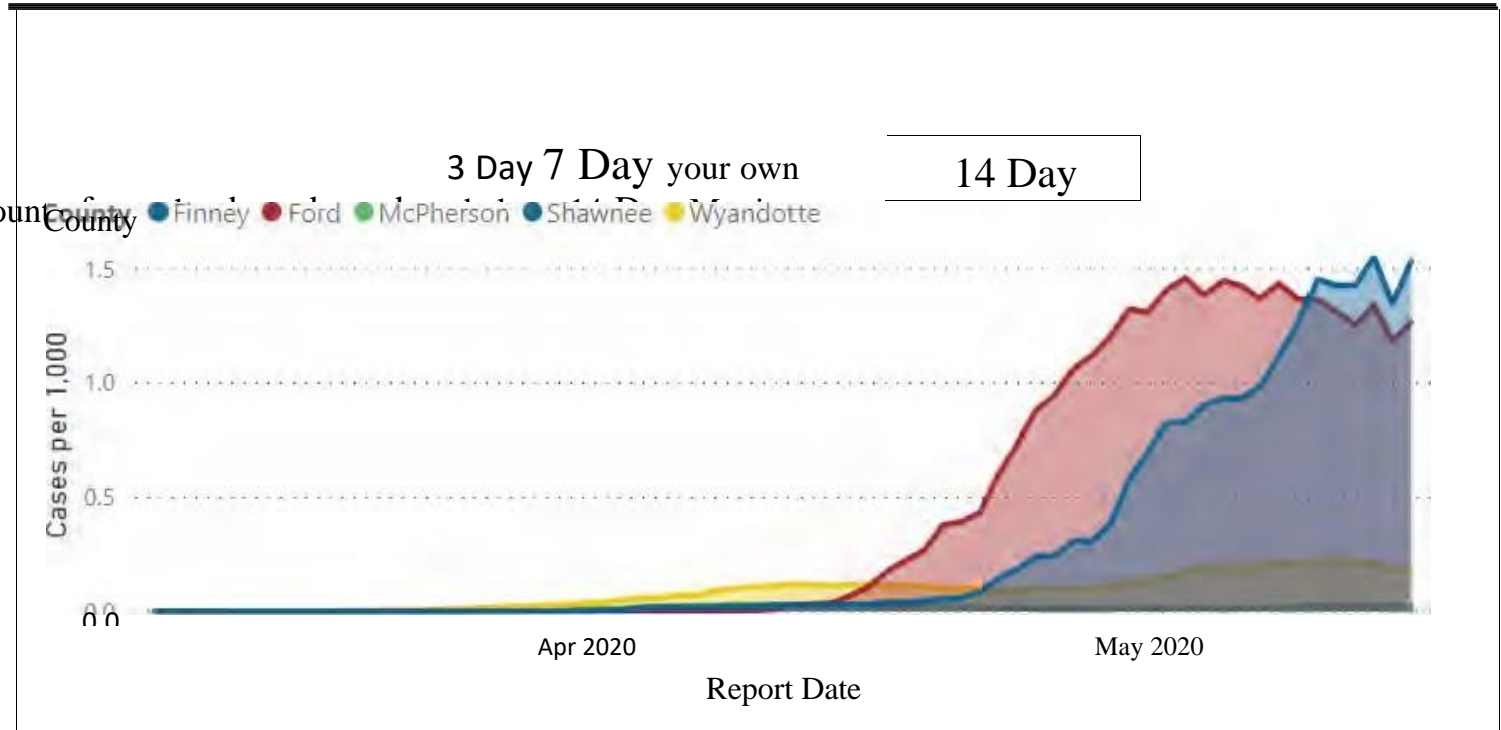
Wyandotte

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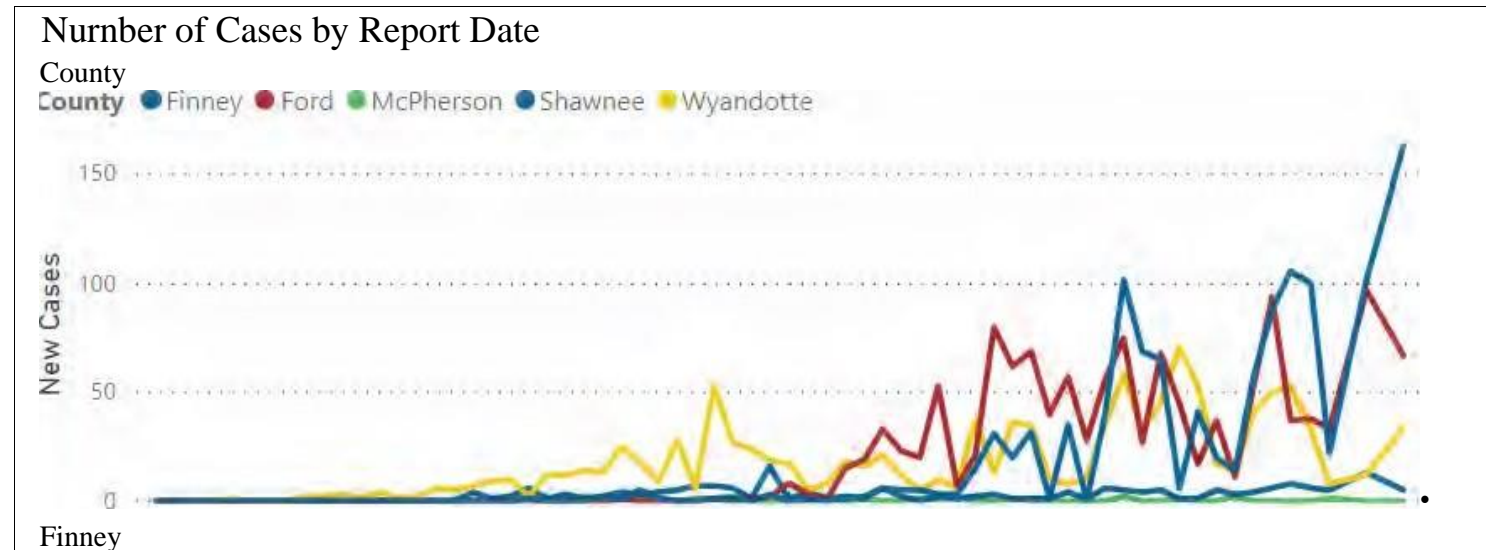
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3 Day 7 Day your own


Apr 2020

May 2020

Report Date

County

- Decatur
- 
- 
- 
- Dickinson
- Doniphan
- Douglas n
- Edwards
- Elk
- n
- Ellis





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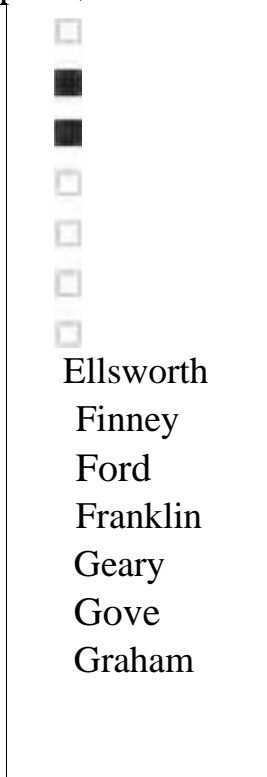
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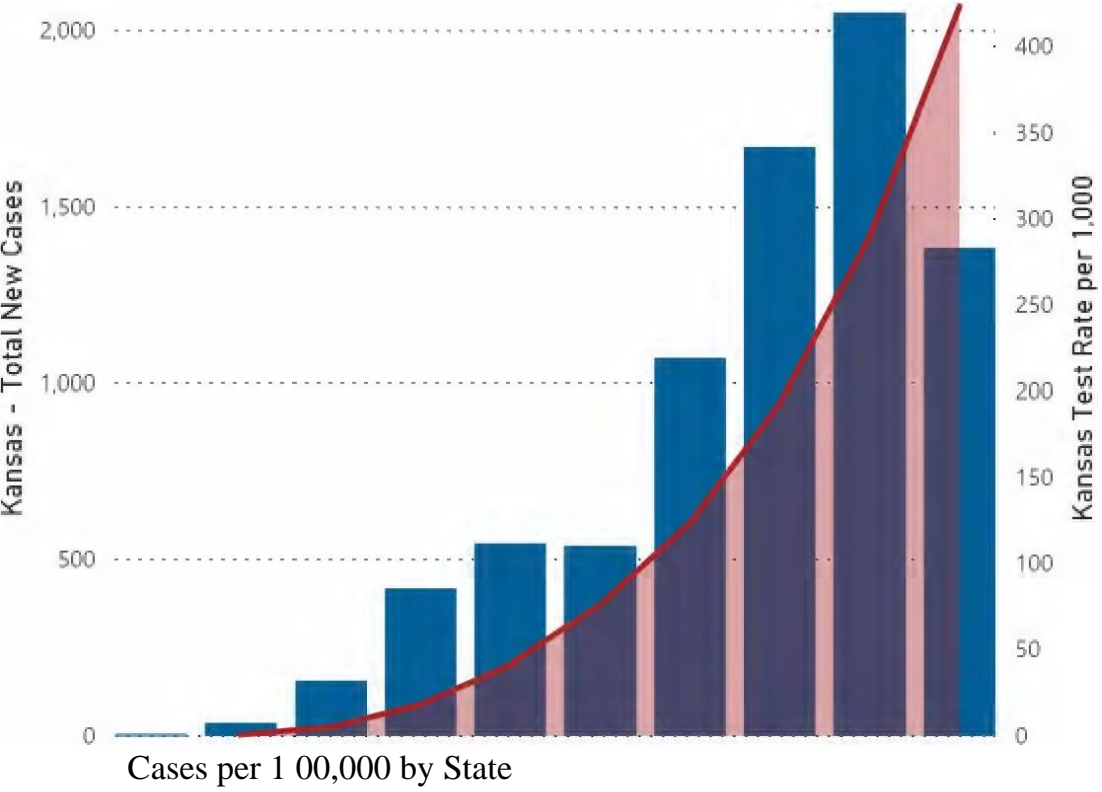
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<input checked="" type="checkbox"/>	Finney
<input checked="" type="checkbox"/>	Ford
<input type="checkbox"/>	Franklin
<input type="checkbox"/>	Geary
<input type="checkbox"/>	Gove
<input type="checkbox"/>	Graham

# AD ASTRA: DISEASE SPREAD - TEST RATES AND NEW CASES

Last Updated 5/15/2020

Total Cases and Test Rates by Report Week

e Kansas • Total New Cases e Kansas Test Rate per 1,000



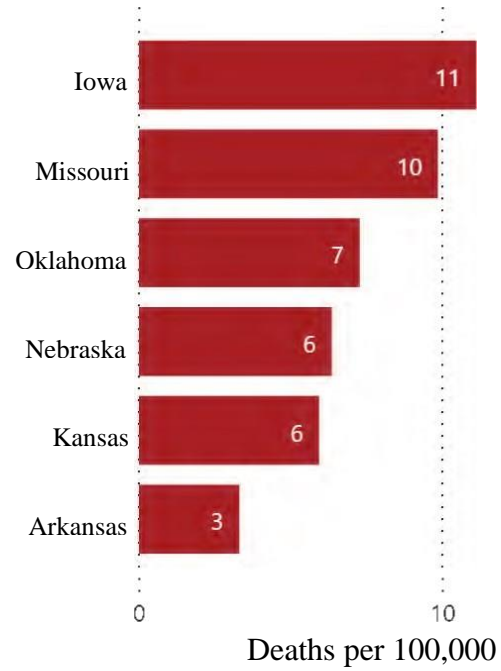
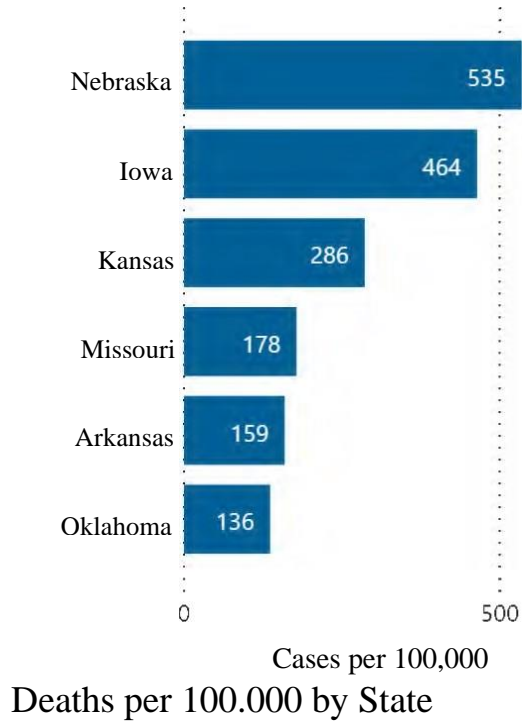
We have been tracking daily total new cases reported. Beginning the week of May 9, KDHE began reporting data three times a week instead of 7. Due to this change, our numbers per day now have gaps as 2 days worth of data are presented on the same day, In order to better understand the new number of cases represented, we are showing data by week.

The red line indicates the change in Test Rate per The Test Rate has continued to accelerate as new resources are added.

The blue columns denote the total cases reported that week - this graph shows data by report date.

Apr 2020      May 2020  
By Report Week

## AD ASTRA: COMPARISON TO NEARBY STATES



State	Population	Total Cases 5/18	Total Deaths 5/18
Arkansas	3,017,804	4,813	100
Iowa	3,155,070	14,651	351
Kansas	3,840,000	8,340	109
Missouri	6,137,428	10,945	173
Nebraska	1,934,408	123	605
Oklahoma	3,956,971	5,398	288

Last Updated:  
5/18/2020

# Citations

- Sedgwick County Data - Compiled daily from Sedgwick County Facebook Daily Update posts. Test result data found at <https://sedgwickcounty.maps.arcgis.com/apps/opsdashboard/index.html#/7b2b4364a5fa4ba315d52450acfeOd>
- Johnson County Data - Compiled daily from Johnson County COVID-19 dashboard: [https://public.tableau.com/profile/mapper.of.the.day.mod#!/vizhome/covid19\\_joco\\_public/Dashboard](https://public.tableau.com/profile/mapper.of.the.day.mod#!/vizhome/covid19_joco_public/Dashboard)
- Kansas Statewide and County Data - Compiled daily from PDF reports and dashboards published at <https://www.coronavirus.kdheks.gov>
- United States Case Rate Per State • Downloaded from The COVID Tracking Project - <https://covidtracking.com/>
- IMHE Projections - Institute for Health Metrics and Evaluation (IHME). United States COVID-19 Hospital Needs and Death Projections. Seattle, United States of America: Institute for Health Metrics and Evaluation (IHME), University of Washington, 2020.
- AD ASTRA: A PLAN TO REOPEN KANSAS - published May 14t 2020, <https://www.coronavirus.kdheks.gov/DocumentCenter/View/1057/Plan-to-Reopen-Kansas-Framework-PDF---Full-Plan---5--14-20>
- Population Estimate Source: Annual Estimates of the Resident Population for Counties in Kansas: April 1, 2010 to July 1, 2019 (U.S. Census Bureau)