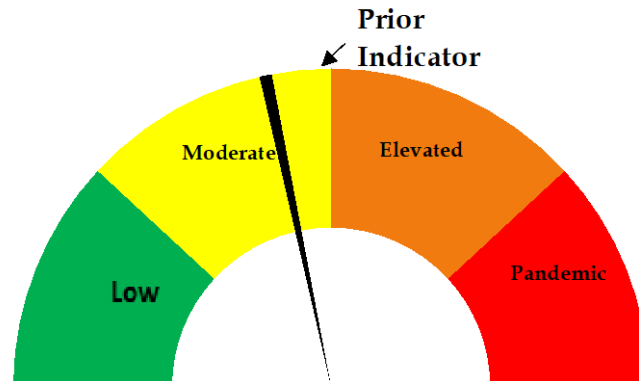




Risk Dial Feb 18, 2020



Risk Dial for COVID-19 Two Rivers Public Health Published February 18, 2021

- About 50% of all ICU beds across the district are currently available; COVID-related admissions account for only about 10% of all occupied beds; only one COVID case in the district is currently on ventilator support (see <https://www.trphd.org/> for details)
- Test positivity ratio dropped below 10% for all counties in Two Rivers Health Department in the last week, the first time since mid-August. Buffalo county recorded an outbreak of cases in the last week not due to residential facilities.
- COVID-19 vaccination was disrupted due to weather-induced delays across Nebraska in the past week. About 12,700 residents of TRPHD have received at least one dose of the vaccine as of February 16; over 66% of people vaccinated are aged 65 years and older. There are approximately 76,000 vaccine-eligible persons living in TRPHD.
- Although testing rates have fallen across all counties, test positivity rates seem to have dropped further. Isolated outbreaks continue to be detected in some cities, disseminated spread seems less prevalent. For more details on testing, see weekly report (Feb 10 – Feb 16) <https://www.trphd.org/covid-19/weekly-reports.html>).
- For these reasons, the risk dial is further downgraded to ‘moderate’ this week. TRPHD continues to monitor new cases and potential outbreaks across the district.



Weekly report Feb 10 – Feb 16, 2021

Overview

The weekly report will look at COVID-19 cases in TRPHD across different time periods, presenting graphs showing daily progress of cases and a weekly summary in conclusion

- The tables describe total tests conducted and positive cases across TRPHD. We show positive cases and tests conducted by county, age and gender from **February 3 – February 16** (1 week) and **January 19 – February 16** (4 weeks). We describe cases in residential facilities separately from other residents of the district.
- The first set of graphs look at the progress of the pandemic from **April 1 – February 16** (46 weeks) across all counties.
 - We describe the 7-day rolling average ¹ of positive cases across TRPHD since April, describing cases by age categories (**Apr – Feb**)
- The second set of graphs describe the **7-day rolling average/ 100,000 persons** by county in TRPHD. Data covers **April 1, 2020 – February 16, 2021**.
 - We present the first graph for Buffalo, Dawson & Phelps counties, and Franklin, Gosper, Harlan and Kearney counties in a separate graph ²
 - Also depicted are figures for Nebraska and the USA.
- The third graph describes the **average positivity rate(7-day rolling)**³ for all 7 districts in Two Rivers Health District
 - Positivity rate is for all tests conducted outside residential facilities ³
 - We present the first graph for Buffalo, Dawson & Phelps counties, and Franklin, Gosper, Harlan and Kearney counties in a separate graph.
- The fourth set of graphs describe the daily average of cases (7-day rolling average) from **January 19 – February 16**. Progress is described by age, county and city of residence. Also depicted are countywide rates per 100,000 population and citywide rates per 10,000 population.
- The fifth set of graphs look at Residential facilities in TRPHD (**Oct – Feb**) ⁴
 - We describe weekly positive cases detected in residential facilities (**Sep 30 – Feb 16**), and display each week's cases by the county where the facility is located.

Daily COVID case counts and positivity rates dropped below 10% for all 7 counties in Two Rivers Health district for the first time since mid-August. Over 17,300 residents of the district have received at least one dose of the vaccine, more than 66% of whom are aged 65 years and over. Those eligible for the vaccine are advised to contact their physician or register at TRPHD.org. In the meantime, residents are advised to continue to adhere to strict preventive measures (social distancing, correct and consistent masking) at all times to protect themselves and others.

¹ 7-day rolling average refers to the sum of the cases reported on that day and the preceding 6 days divided by 7.

This number is presented for each day to 'smooth out' the line for cases.

² For details on data sources, please see appendix 4

³ For a description of average positivity rate (7-day rolling), please see appendix 1

⁴ For information on residential facilities, please see appendix 3



Testing Overview

- As of Feb 16, around 42,500 residents of Two Rivers Health District were tested at least once for COVID-19. Over 102,000 tests have been conducted since March 1, and 10,462 of these tests were positive.⁵ TRPHD has publicly notified 113 deaths due to COVID across the district.
- About 54% of all tests conducted since March 2020 have been laboratory-based Polymerase Chain Reaction (PCR) tests.
 - However, 72% of tests in the past 4 weeks have been rapid, or antigen tests. These are easier to administer and provide immediate results, but are not as sensitive as PCR tests that are used for laboratory confirmation of COVID.²

Details of all tests conducted in Two Rivers' Health District the past 1 week and 4 weeks is displayed below

	Feb 10 - Feb 16 (1 week)			Jan 19 - Feb 16 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Hospital/ Clinic	623	76	12.2%	3016	417	13.8%
TestNebraska	134	11	8.2%	753	107	14.2%
Residential Facility	2061	6	0.3%	7816	20	0.3%
Lab/ Pharmacy	187	10	5.3%	1064	77	7.2%
Other	257	10	3.9%	672	45	6.7%
TOTAL	3262	113	3.5%	13,321	666	5.0%

- A total of 7816 tests were availed by residents and staff of long-term care and other **residential facilities** in the last 4 weeks. Details are provided below:

	Feb 10 - Feb 16 (1 week)			Jan 19 - Feb 16 (4 weeks)		
Residential Facility In:	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Buffalo	1357	4	0.3%	3830	10	0.3%
Dawson	195	0	0.0%	1209	0	0.0%
Franklin	0.0	0	0.0%	0.0	0	0.0%
Gosper	38	0	0.0%	356	1	0.3%
Harlan	104	1	1.0%	182	1	0.5%
Kearney	44	1	2.3%	749	7	0.9%
Phelps	225	0	0.0%	1064	0	0.0%
Outside TRPHD	98	0	0.0%	426	1	0.2%
TOTAL	2061	6	0.3%	7816	20	0.3%

⁵ Note: The minor differences between the numbers reported and totals displayed on www.trphd.org dashboards is explained by testing in residential facilities and isolated rapid test results that are not reflected in the state's public dashboards. Tests of persons missing date of birth are excluded from the analysis



Excluding residential facilities, a total of 5505 tests were conducted in the past 4 weeks. The following table gives details of positive cases in the past week and past 4 weeks by county, age categories and gender.

	Feb 10 - Feb 16 (1 week)			Jan 19 - Feb 16 (4 weeks)		
	Total tests conducted	Positive cases	P. rate (%)	Total tests conducted	Positive cases	P. rate (%)
County						
Buffalo	613	54	8.8%	2990	362	12.1%
Dawson	377	32	8.5%	1407	133	9.5%
Franklin	22	0	0.0%	110	6	5.5%
Gosper	7	1	14.3%	47	8	17.0%
Harlan	17	1	5.9%	103	15	14.6%
Kearney	33	3	9.1%	283	35	12.4%
Phelps	127	15	11.8%	532	79	14.8%
Data missing/ not disclosed	5	1	20.0%	33	8	24.2%
Total	1,201	107	8.9%	5,505	646	11.7%
Age (in yrs)						
0-17	161	17	10.6%	733	76	10.4%
18-29	301	12	4.0%	1256	109	8.7%
30-39	168	19	11.3%	791	115	14.5%
40-49	165	16	9.7%	675	91	13.5%
50-59	139	14	10.1%	736	98	13.3%
60-69	136	16	11.8%	668	82	12.3%
70-79	69	11	15.9%	362	57	15.7%
80-89	48	2	4.2%	203	15	7.4%
90+	14	0	0.0%	81	3	3.7%
Total	1201	107	8.9%	5505	646	11.7%
Gender						
Female	708	51	7.2%	3019	325	10.8%
Male	488	55	11.3%	2455	317	12.9%
Data missing/ not disclosed	5	1	20.0%	31	4	12.9%
Total	1,201	107	8.9%	5,505	646	11.7%



- The graph below describes 7-day rolling average of COVID-19 across TRPHD from **April 1 - February 16**.
- The second graph describes 7-day rolling average of COVID-19 cases by age across TRPHD for the same time period. The height of the graph corresponds to total cases and the thickness of each colored band corresponds to each age group.

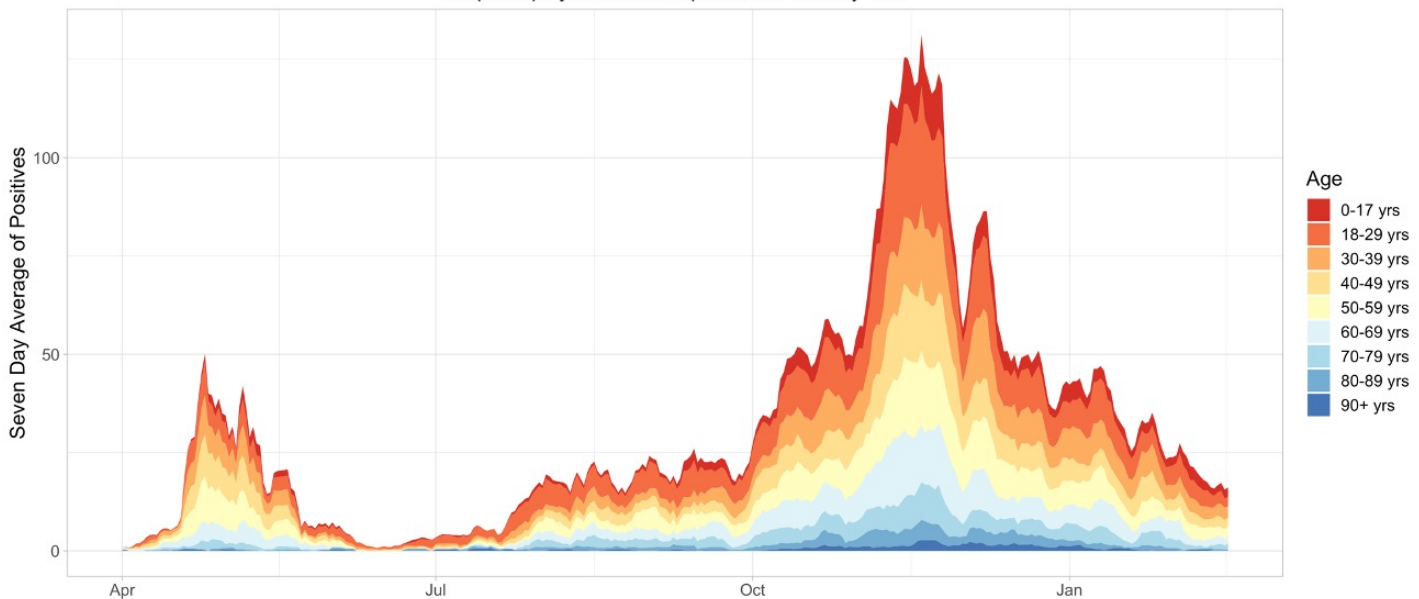
7 Day Rolling Average of Two Rivers

Graph displays data from April 1st to February 16th



7 Day Rolling Average of COVID-19 Cases in Two Rivers by Age

Graph displays data from April 1st to February 16th



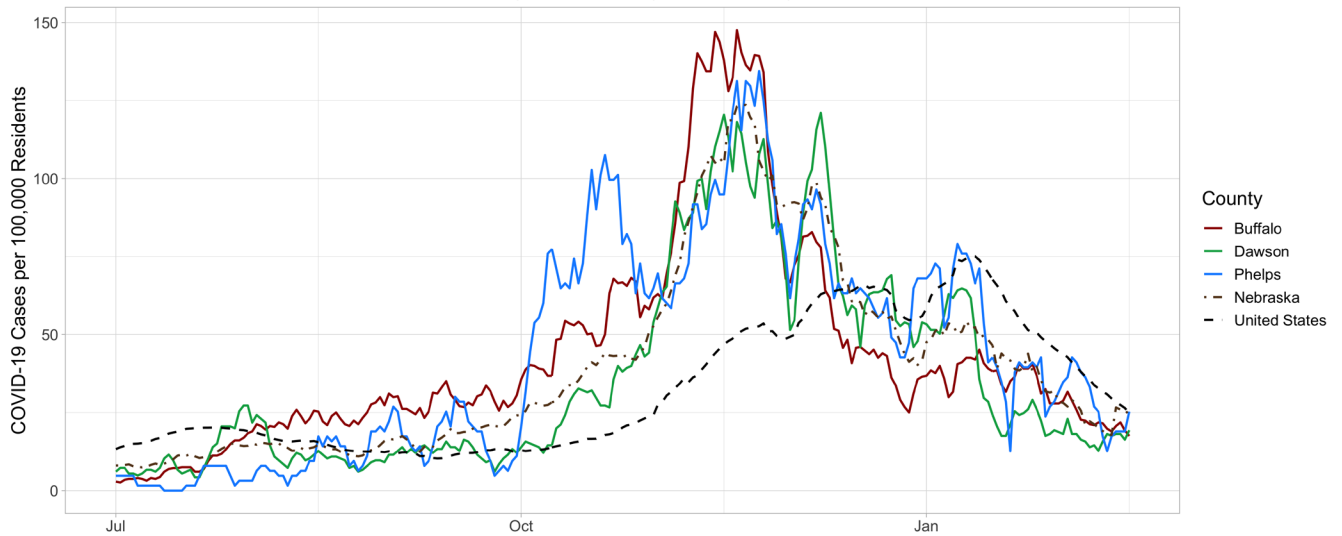
Information Updated as of 2/16 at 8 p.m.



- The graph below describes the **7 day rolling average/100,000 population** of positive cases across **each** of the 7 counties in TRPHD from **July 1 to February 16**.
- Graphs are presented separately for Buffalo, Dawson and Phelps, and for Franklin, Gosper, Harlan and Kearney counties. Nebraska state and the United States are also presented for comparison. Scales are different for both graphs.

**7 Day Rolling Average of COVID-19 Cases
Per 100,000 Resident in Buffalo, Dawson, and Phelps County**

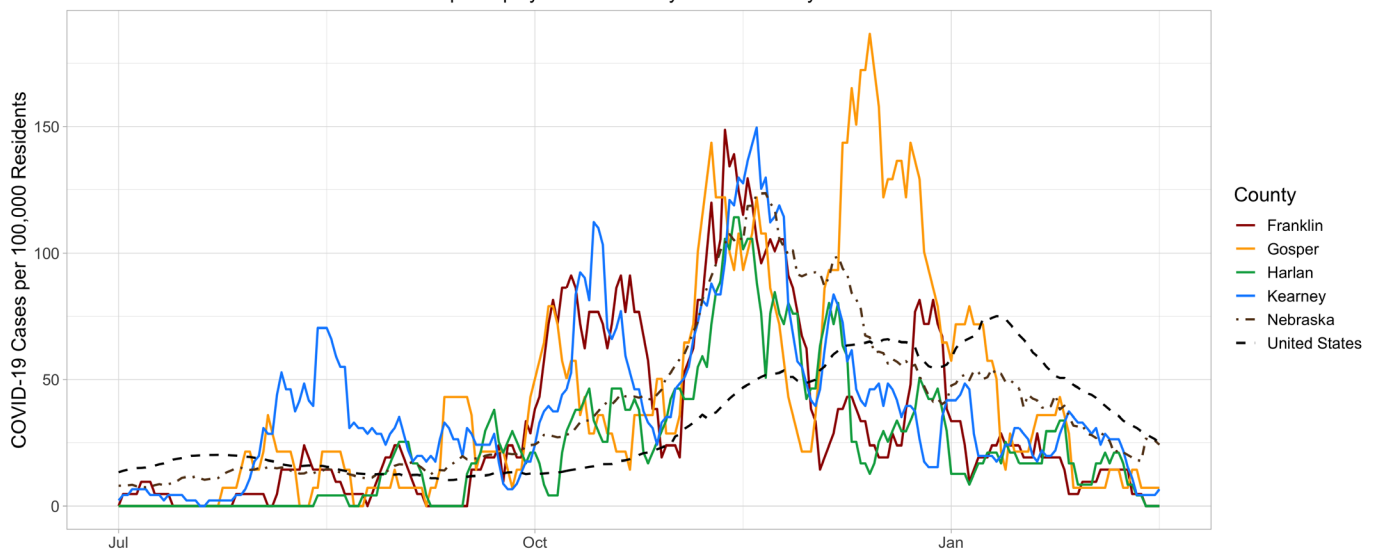
Graph displays data from July 1st to February 16th



Information Updated as of 2/16 at 8 p.m.

**7 Day Rolling Average of COVID-19 Cases
Per 100,000 Resident in Franklin, Gosper, Harlan, and Kearney County**

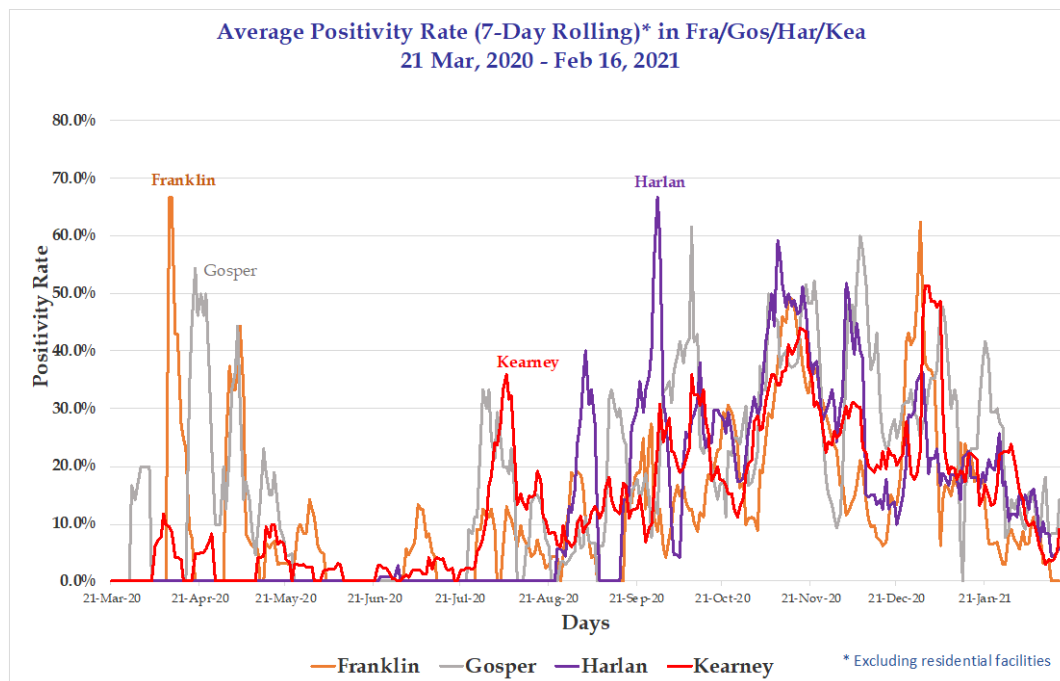
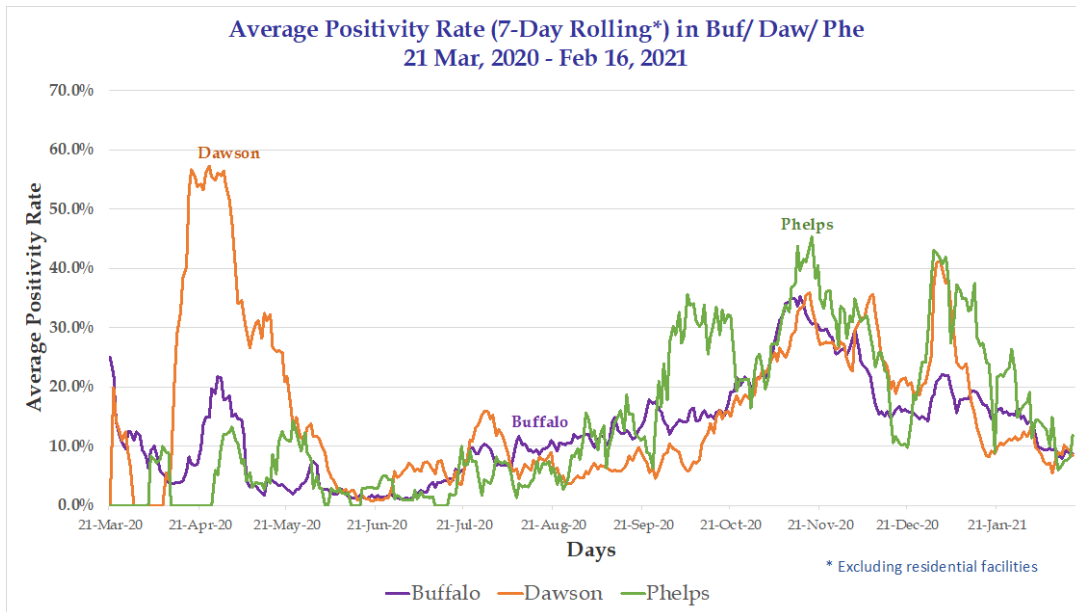
Graph displays data from July 1st to February 16th



Information Updated as of 2/16 at 8 p.m.



- The graphs below describe the COVID-19 **test positivity rate (7-day rolling)** in each of the 7 counties in Two Rivers Health District from **March 15 - January 5**. Only tests outside of residential facilities are included. ⁶
- The first graph shows Buffalo, Dawson and Phelps counties, and the second displays Franklin, Gosper, Harlan and Kearney counties. Scales are different for both graphs.



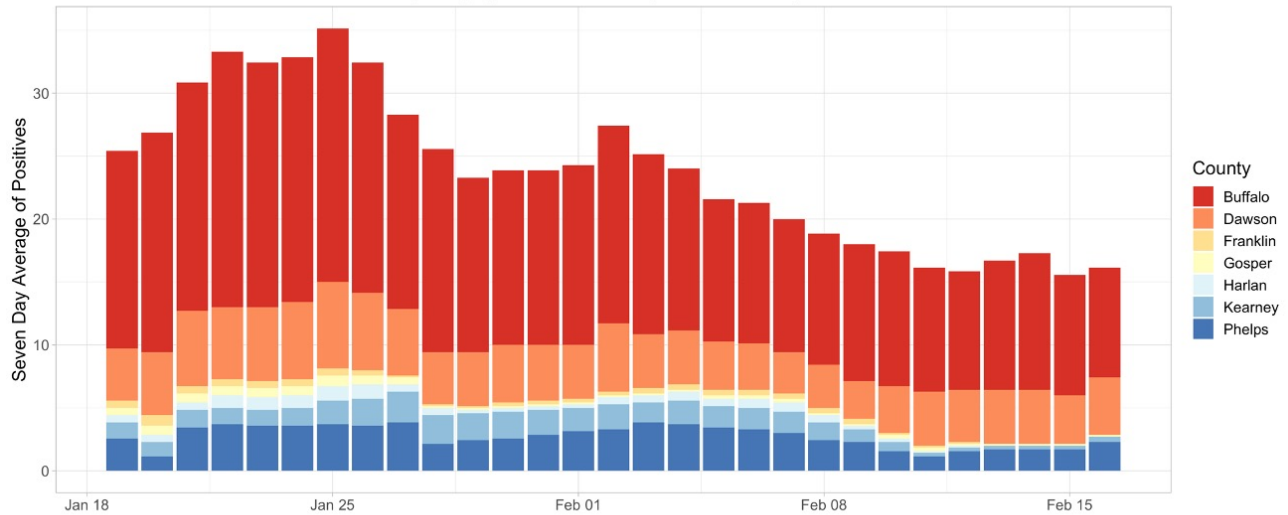
⁶ For information on residential facilities, please see appendix 3
516 W 11th Street, Suite 108
Kearney, NE 68845



- The following bar graph describes the 7-day rolling averages of COVID-19 cases by county for the past four weeks (Jan 19 - Feb 16).
- The second graph describes the same data per 100,000 population.⁷ The graph also depicts the line for the United States and Nebraska.

7 Day Rolling Average of COVID-19 Cases in Two Rivers by County

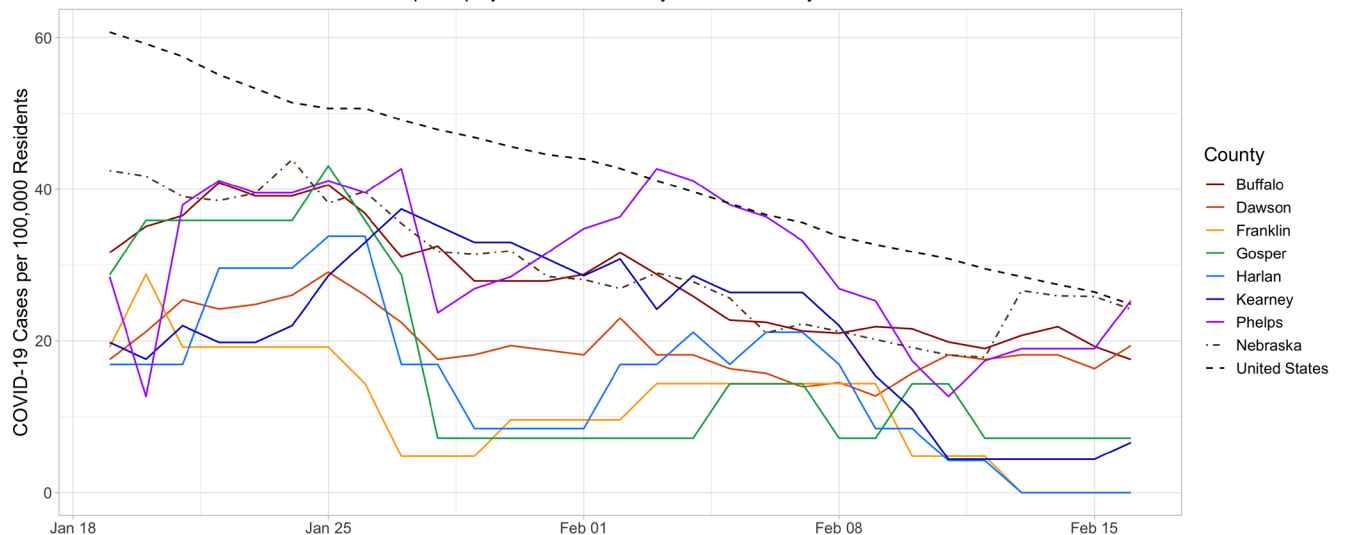
Graph displays data from January 19th to February 16th



Information Updated as of 2/16 at 8 p.m.

7 Day Rolling Average of COVID-19 Cases Per 100,000 Resident in Two Rivers by County

Graph displays data from January 19th to February 16th



Information Updated as of 2/16 at 8 p.m.

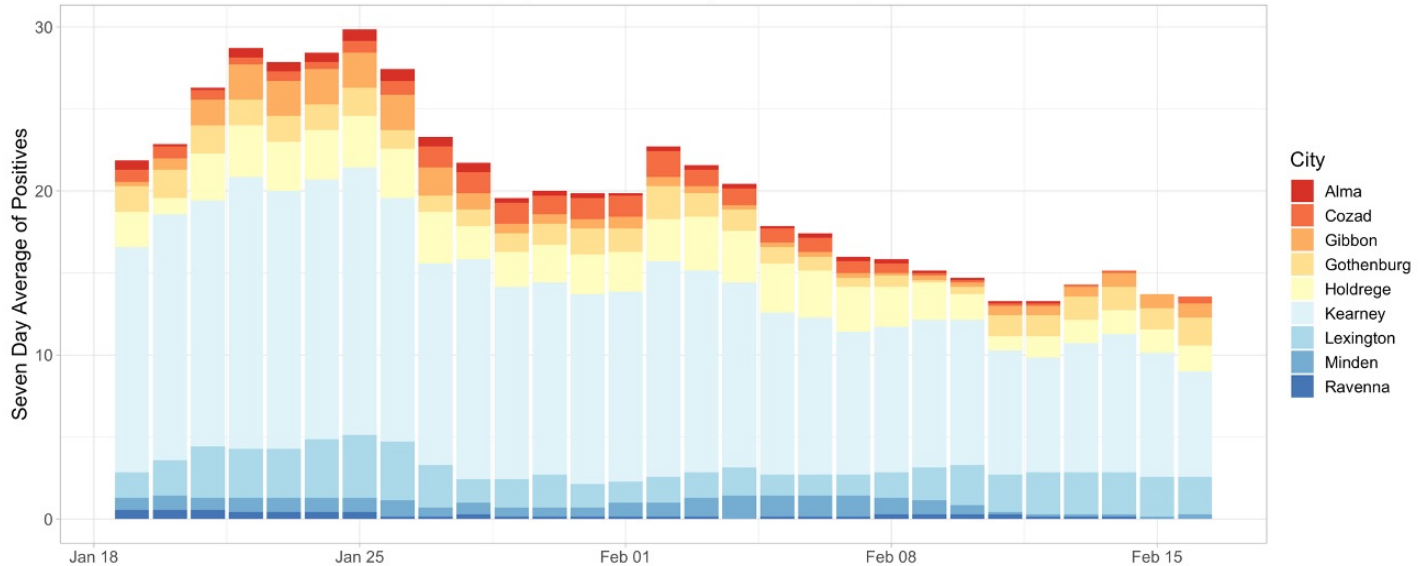
⁷ Please note: When comparing counties, we describe rates per 100,000 population. This is roughly equal to the total population of Two Rivers Health Department (~97,000)



- The following bar graphs describes the 7-day rolling averages by city for the past four weeks (Jan 19 - Feb 16) in TRPHD. The graph above shows cities with population above 1100 and the one below shows the graph for cities with less than 1100 residents. The scale is different for both graphs.

7 Day Rolling Average of COVID-19 Cases in Cities > 1,100 Residents

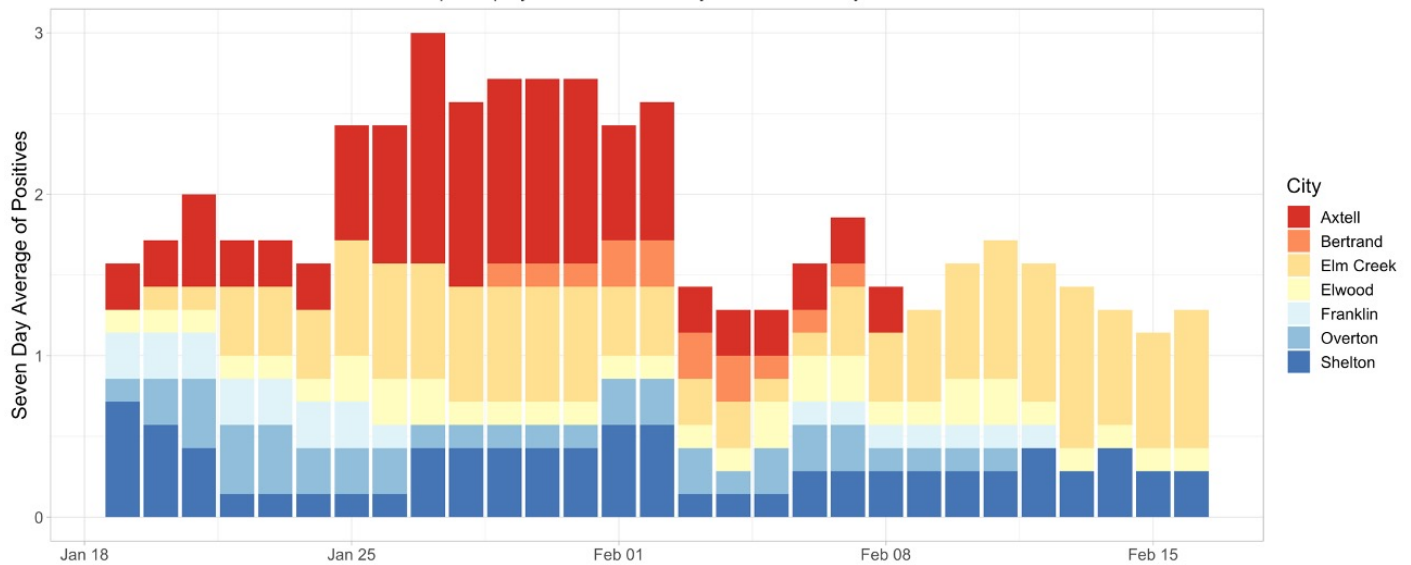
Graph displays data from January 19th to February 16th



Information Updated as of 2/16 at 8 p.m.

7 Day Rolling Average of COVID-19 Cases in Cities with 500-1,099 in Residents

Graph displays data from January 19th to February 16th



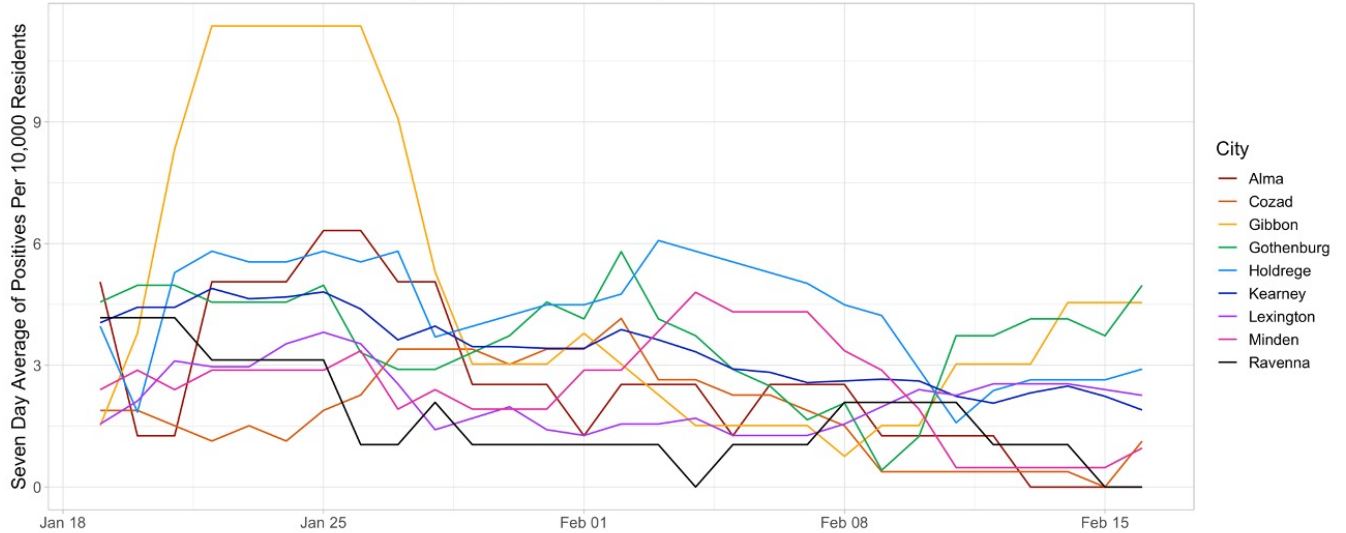
Information Updated as of 2/16 at 8 p.m.



- The following line graph describes the 7-day rolling average of COVID cases per 10,000 population in cities across TRPHD for the past four weeks (Jan 19 - Feb 16) ⁸
- The graph above shows cities with population above 1100 and the one below shows the graph for cities with less than 1100 residents. The scale is different for both graphs.

**7 Day Rolling Average of COVID-19 Cases
Per 10,000 Residents in Cities > 1,100 Residents**

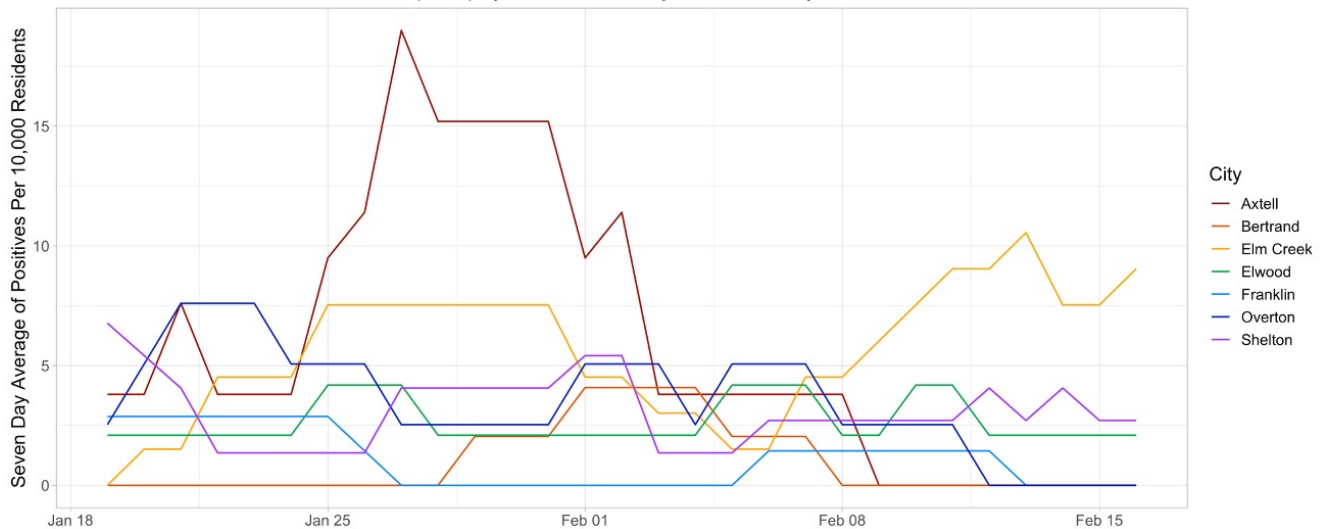
Graph displays data from January 19th to February 16th



Information Updated as of 2/16 at 8 p.m.

**7 Day Rolling Average of COVID-19 Cases
Per 10,000 Residents in Cities with 500-1,099 in Residents**

Graph displays data from January 19th to February 16th



Information Updated as of 2/16 at 8 p.m.

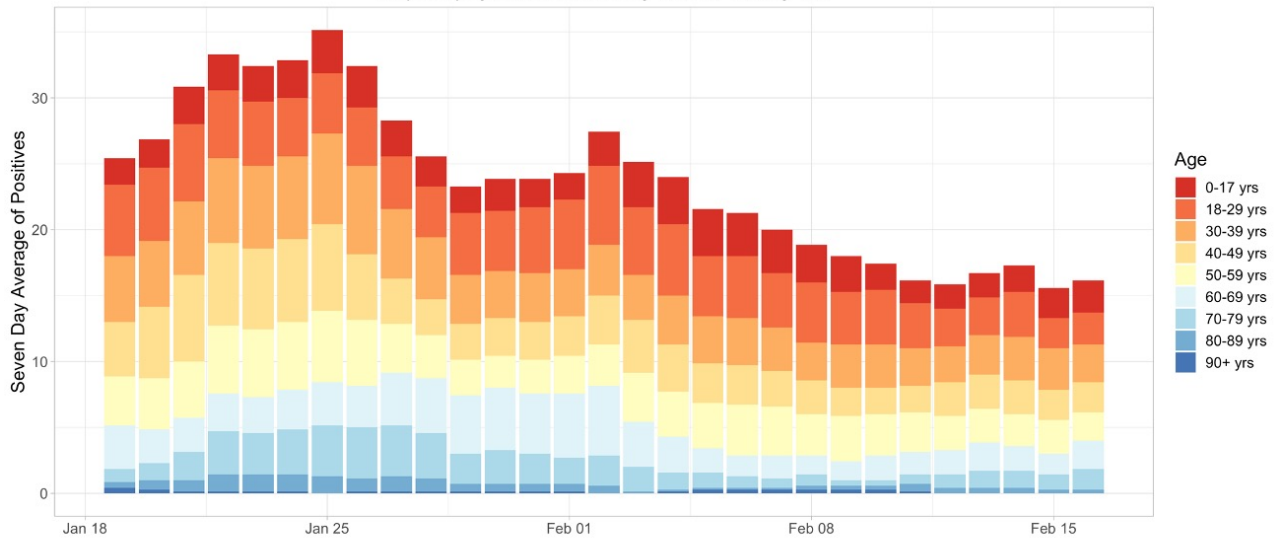
⁸ Please note: When comparing cities, we describe rates per 10,000 population. This is roughly equal to the total population of Lexington (~10,000)



- The first graph below describes the **7-day rolling average** of cases from **January 19 - February 16** by age. The height of the graph corresponds to total cases and the thickness of each colored band corresponds to each age group.
- The second graph shows the distribution of cases per week in **residential facilities** in the district, broken up by county (**Sep 30 - Feb 16**). Regular and widespread testing in long term care facilities in TRPHD began in early October.

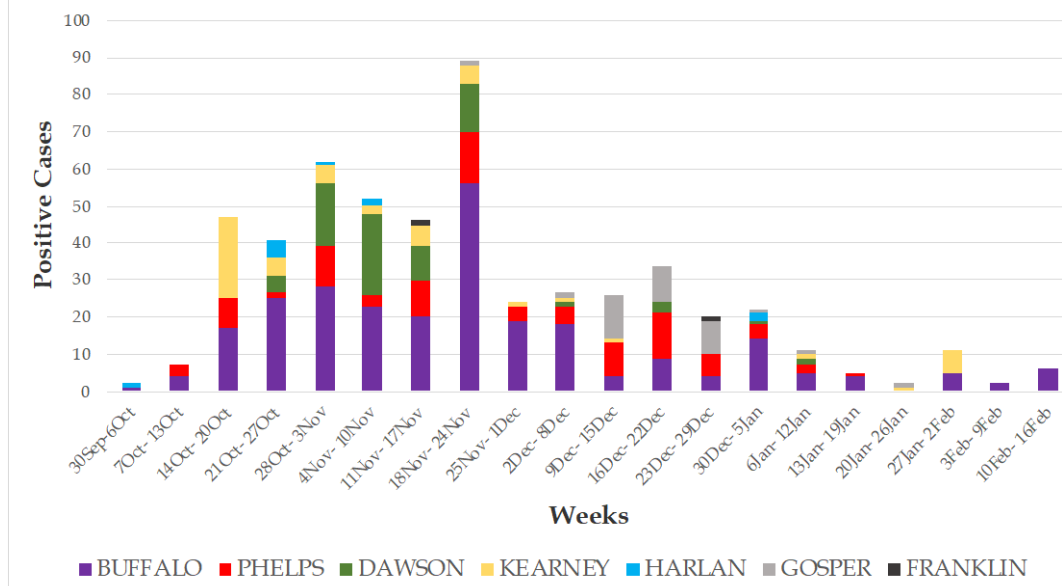
7 Day Rolling Average of COVID-19 Cases in Two Rivers by Age

Graph displays data from January 19th to February 16th



Information Updated as of 2/16 at 8 p.m.

Residential Facilities: TRPHD Positive Cases by Week: Oct 2020 - Feb 2021





Weekly summary

- Test positivity ratio dropped below 10% for all counties in Two Rivers Health Department in the last week, the first time since mid-August. However, non-residential facilities in Buffalo county recorded an outbreak of cases in the last week.
- Although testing rates have fallen across all counties, test positivity rates seem to have dropped further. Although isolated outbreaks continue to be detected in some cities, disseminated spread seems less prevalent.
- About half of all ICU beds across the district are currently available; COVID-related admissions account for only about a tenth of all occupied beds; only one COVID case in the district is currently on ventilator support (see <https://www.trphd.org/> for details)
- COVID-19 vaccination was disrupted due to weather-induced delays across Nebraska in the past week. Vaccination continues to be provided via through private clinics, hospitals, and Vaccines for Children (VFC) clinics across the district, including at Two Rivers Health Department.
- About 12,700 residents of TRPHD have received at least one dose of the vaccine as of February 16; over 2/3rds of people vaccinated are aged 65 years and older. There are approximately 76,000 vaccine- eligible persons living in TRPHD.

Daily COVID case counts and positivity rates dropped below 10% for all 7 counties in Two Rivers Health district for the first time since mid-August. Over 17,300 residents of the district have received at least one dose of the vaccine, more than 66% of whom are aged 65 years and over. Those eligible for the vaccine are advised to contact their physician or register at [TRPHD.org](https://www.trphd.org). In the meantime, residents are advised to continue to adhere to strict preventive measures (social distancing, correct and consistent masking) at all times to protect themselves and others.



APPENDIX 1

Background

The Two Rivers Public Health Department (TRPHD) covers 7 counties in central Nebraska, reaching 97,132 people who live and work in the health district spread across roughly 4663 square miles. Over three quarters of residents live in Buffalo and Dawson county, a tenth live in Phelps county, and the remaining 15% is spread somewhat comparably among the four counties of Kearney, Harlan, Franklin and Gosper in decreasing order of population. The largest cities are Holdrege (pop. 5408), Lexington (pop. 10115) and Kearney (pop. 33867) meaning that well over half the residents of TRPHD live in three cities, and over a third are in Kearney alone. The population of all 7 counties in TRPHD are shown below.

County	Population
Buffalo	49,659
Dawson	23,595
Franklin	2,979
Gosper	1,990
Harlan	3,380
Kearney	6,495
Phelps	9,034
TRPHD total	97,132
Nebraska state	1,934,408
United States	328,239,523

- Data is presented as 7-day rolling averages for daily numbers and absolute counts for cumulative cases. The 7-day rolling average is the sum of all cases reported on that day plus the previous six divided by 7.
- Total (cumulative) cases refer to all COVID cases that have been confirmed by testing in the district since the beginning of the pandemic in TRPHD (March 19)
- All tests refers to all types of tests conducted across the Health District, including laboratory-based PCR and rapid antigen.
- Average positivity rate refers to a seven-day rolling average positivity rate, which is the sum of all cases for that day and the previous six divided by the sum of all tests done in that day and the previous six. This is also the same as the “weekly positivity rate”
- In cases that call for comparison across larger areas (counties v/s state of Nebraska, for eg), we present the count per 100,000 population. 100,000 roughly corresponds to the population of Two Rivers Health District (97,132)
- In cases that call for comparison between cities, (Kearney v/s Minden for eg), we present a count per 10,000 population. 10,000 roughly corresponds to the population of Lexington (10,115), the second largest city in TRPHD.
- Deaths due to COVID-19 are identified in death certificates (usually COVID -19 is the Underlying Cause of Death) and attested by the attending physician or medical examiner/ coroner. Each case is further investigated by TRPHD over telephone - the next



of kin is contacted, condolences conveyed and exit interviews conducted by Department staff before releasing a public notification. For further details on the procedure for COVID-19 death certification, please see <https://www.cdc.gov/nchs/data/nvss/vsrg/vsrg03-508.pdf>

- For calculation, we use the 2019 mid-year census estimate (American Community Survey, ACS) and data from The Atlantic's COVID tracking project (<https://covidtracking.com/data>)

APPENDIX 2

Total (cumulative) cases per 100,000 population

The total/ cumulative case counts are the **total** cases confirmed by testing in an area (county, city, state or health district) calculated from the first recorded case (in case of TRPHD this is March 19, 2020). This is expressed as a fraction of the total population of the area and standardized to 100,000 persons. A population of 100,000 is used to compare counties as it is comparable to the overall population of Two Rivers Health District (97,032).

Total (cumulative) cases / 100,000 persons is calculated as:

[(Total positive test results for residents in the region)] / (mid-year population) * 100,000

Daily average of cases per 100,000 population

The daily average (7-day rolling) of cases is the sum of all cases reported on that day plus the previous six divided by 7. This is expressed as a fraction of the total population of the area and standardized to 100,000 persons. A population of 100,000 is used to compare counties as it is comparable to the overall population of Two Rivers Health District (97,032).

Daily average of cases / 100,000 persons is calculated as:

[(7-day rolling average of cases among residents)] / (mid-year population) * 100,000

APPENDIX 3

About a third of all tests conducted since March in the district have been availed by residents or staff of residential facilities. "Residential facilities" include long-term care facilities, in-patient psychiatry services, retirement villages, veterans' homes and correctional facilities within Two Rivers Health District.

Considering the specific nature of COVID risk of long-term residents of institutional facilities and taking into account the frequent testing performed at facilities, we present numbers separately for long term care facilities and others in the district.