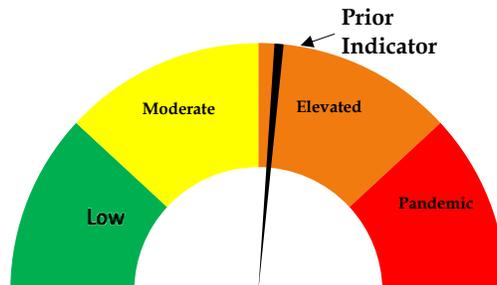




Risk Dial Feb 4, 2020



Risk Dial for COVID-19 Two Rivers Public Health Published February 4, 2021

- Half of all ICU beds across the district are available currently; COVID-related admissions account for only about 8% of all occupied beds (see <https://www.trphd.org/> for details)
- Although overall tests conducted in the district have dropped further in the past week, test positivity rate remains stable at around 15% for all non-residential facilities.
- COVID-19 vaccination continues to gather pace across the district. About 3.4% of all eligible people (aged 16 years and over) have received at least one dose of vaccine. Over 10,000 vaccines have been given by facilities in Two Rivers Health District, about a fourth of them being second doses to complete the vaccine regimen.
- Outbreaks in residential/ long-term living facilities throughout the district continue to be monitored closely. For more details on testing, see weekly report (Jan 27 - Feb 2) <https://www.trphd.org/covid-19/weekly-reports.html>).
- For these reasons, the risk dial is further downgraded towards moderate risk this week, and overall risk almost straddles the margin between 'Elevated' and 'Moderate'. TRPHD continues to monitor new cases and potential outbreaks across the district.



Weekly report Jan 27 - Feb 2, 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 **January 27 - February 2** (1 week) and **January 5 - February 2** (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 2** (44 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 infographics give an overview of tests conducted, positivity rate, hospitalization rate and mortality rate from **January 1, 2020 - February 2, 2021**.
 - We present the data separately for Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney and Phelps counties²
 - Also depicted are figures for entire Two Rivers Health District, Nebraska and the USA.
- The third graph describes the tests conducted and positives detected outside residential facilities ³ from **September 1 - February 2** for Two Rivers Health District.
 - The height of the bar denotes the number of tests conducted that day.
 - Also depicted is the **average positivity rate(7-day rolling)** for the same period.
- The fourth set of graphs describe the daily average of cases (7-day rolling average) from **January 5 - February 2**. 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**) ³
 - We describe weekly positive cases detected in residential facilities (**Sep 30 - Feb 2**), and display each week's cases by the county where the facility is located.

Daily COVID case counts drop as positivity rates remain steady across almost all seven counties in TRPHD. Outbreaks in long term residential facilities throughout the district are being closely tracked. Vaccination services have picked up speed across the district. About 3.4% of all eligible people (aged 16 years and over) in TRPHD have received at least one dose of vaccine. Those eligible are advised to contact their physician or visit www.trphd.org for details about registration. 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 information on residential facilities, please see appendix 3



Testing Overview

- As of Feb 2, over 41,000 residents of Two Rivers Health District were tested at least once for COVID-19. More than 96,000 tests have been conducted since March 1, and 10,216 of these tests were positive.⁴ TRPHD has publicly notified 109 deaths due to COVID across the district.
- About 55% of all tests conducted since March 2020 have been laboratory-based Polymerase Chain Reaction (PCR) tests.
 - However, 71% 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

	Jan 27 - Feb 2 (1 week)			Jan 5 - Feb 2 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Hospital/ Clinic	747	119	15.9%	2754	500	18.2%
TestNebraska	228	36	15.8%	1175	194	16.5%
Residential Facility	2115	12	0.6%	8513	31	0.4%
Lab/ Pharmacy	189	18	9.5%	1182	104	8.8%
Other	176	10	5.7%	437	69	15.8%
TOTAL	3455	195	5.6%	14,061	898	6.4%

- A total of 8513 tests were availed by residents and staff of long-term care and other **residential facilities** in the last 4 weeks. Details are provided below:

Residential Facility In:	Jan 27 - Feb 2 (1 week)			Jan 5 - Feb 2 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Buffalo	874	5	0.6%	3520	14	0.4%
Dawson	352	0	0.0%	1383	2	0.1%
Franklin	0	0	0.0	0	0	0.0
Gosper	122	0	0.0%	402	2	0.5%
Harlan	33	0	0.0%	272	0	0.0%
Kearney	427	6	1.4%	1021	8	0.8%
Phelps	211	0	0.0%	1500	3	0.2%
Outside TRPHD	96	1	1.0%	415	2	0.5%
TOTAL	2115	12	0.6%	8513	31	0.4%

⁴ 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 5548 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.

	Jan 27 - Feb 2 (1 week)			Jan 5 - Feb 2 (4 weeks)		
	Total tests conducted	Positive cases	P. rate (%)	Total tests conducted	Positive cases	P. rate (%)
County						
Buffalo	743	104	14.0%	3060	480	15.7%
Dawson	275	38	13.8%	1444	190	13.2%
Franklin	18	1	5.6%	107	13	12.1%
Gosper	8	1	12.5%	55	12	21.8%
Harlan	26	4	15.4%	111	20	18.0%
Kearney	63	10	15.9%	230	41	17.8%
Phelps	199	23	11.6%	511	106	20.7%
Data missing/ not disclosed	8	2	25.0%	30	5	16.7%
Total	1,340	183	13.7%	5,548	867	15.6%
Age (in yrs)						
0-17	179	17	9.5%	645	72	11.2%
18-29	267	36	13.5%	1202	169	14.1%
30-39	202	27	13.4%	848	150	17.7%
40-49	170	26	15.3%	704	122	17.3%
50-59	183	22	12.0%	755	124	16.4%
60-69	193	35	18.1%	659	123	18.7%
70-79	99	16	16.2%	395	79	20.0%
80-89	35	4	11.4%	225	21	9.3%
90+	12	0	0.0%	115	7	6.1%
Total	1340	183	13.7%	5548	867	15.6%
Gender						
Female	741	99	13.4%	3050	441	14.5%
Male	592	83	14.0%	2461	422	17.1%
Data missing/ not disclosed	7	1	14.3%	37	4	10.8%
Total	1,340	183	13.7%	5,548	867	15.6%



- The graph below describes 7-day rolling average of COVID-19 across TRPHD from **April 1 - February 2**.
- 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.

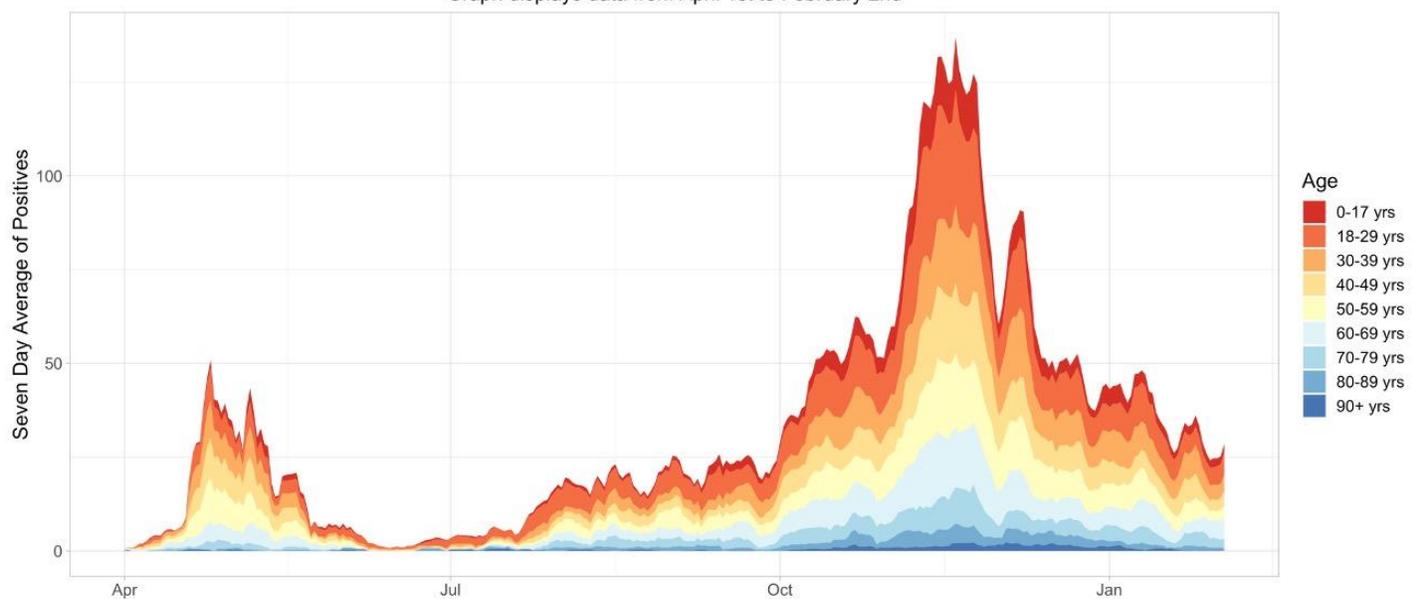
7 Day Rolling Average of Two Rivers

Graph displays data from April 1st to February 2nd



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

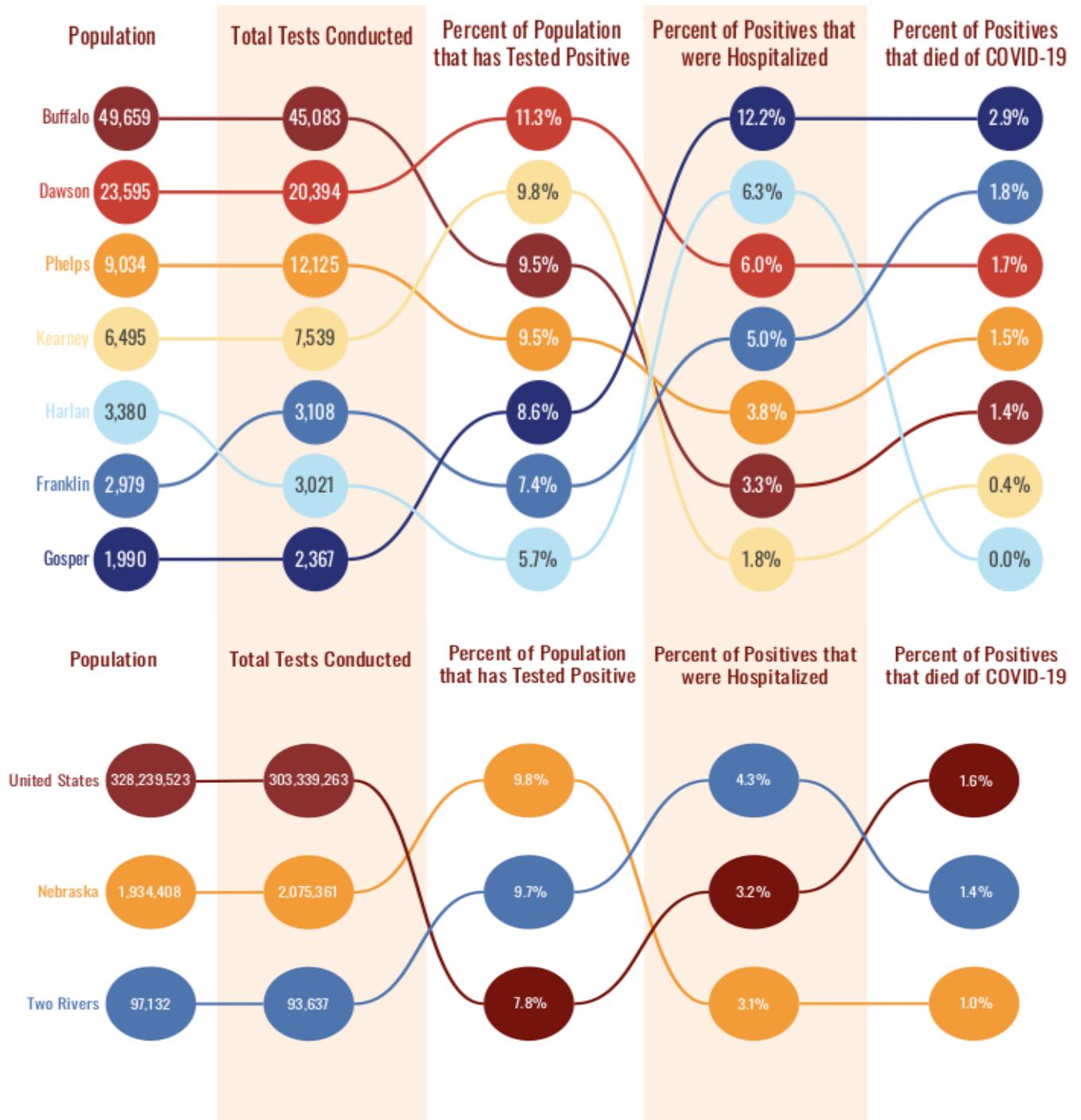
Graph displays data from April 1st to February 2nd



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

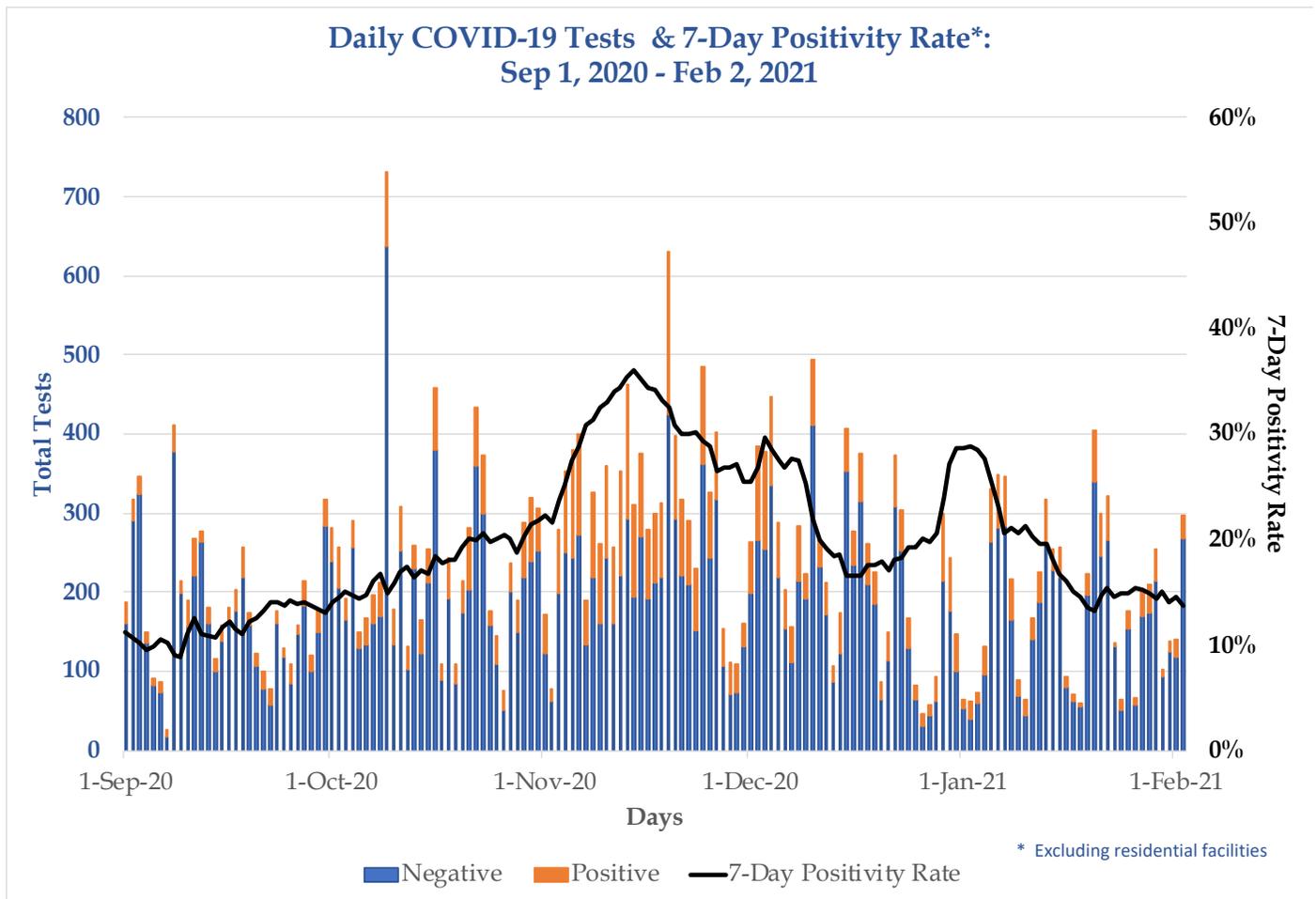


- The infographics below describe the total population, COVID tests conducted, test positivity rate, hospitalization rate and mortality rate from **January 1, 2020 – January 29, 2021**.
- Data is presented separately for **Buffalo, Dawson, Phelps, Franklin, Gosper, Harlan and Kearney** counties. **Nebraska** state and the **USA** are also presented for comparison.





- The graph below describes the **daily tests conducted** across Two Rivers Health District from September 1, 2020 - February 2, 2021. The height of each bar corresponds to the actual number of tests done that day. Total tests are further divided into **negative and positive results** ⁵.
- Also shown is the **average test positivity rate (7-day rolling average)** as a running line. Only tests outside of residential facilities were included. ⁶



⁵ For information on total tests and test positivity rate, please see appendix 1

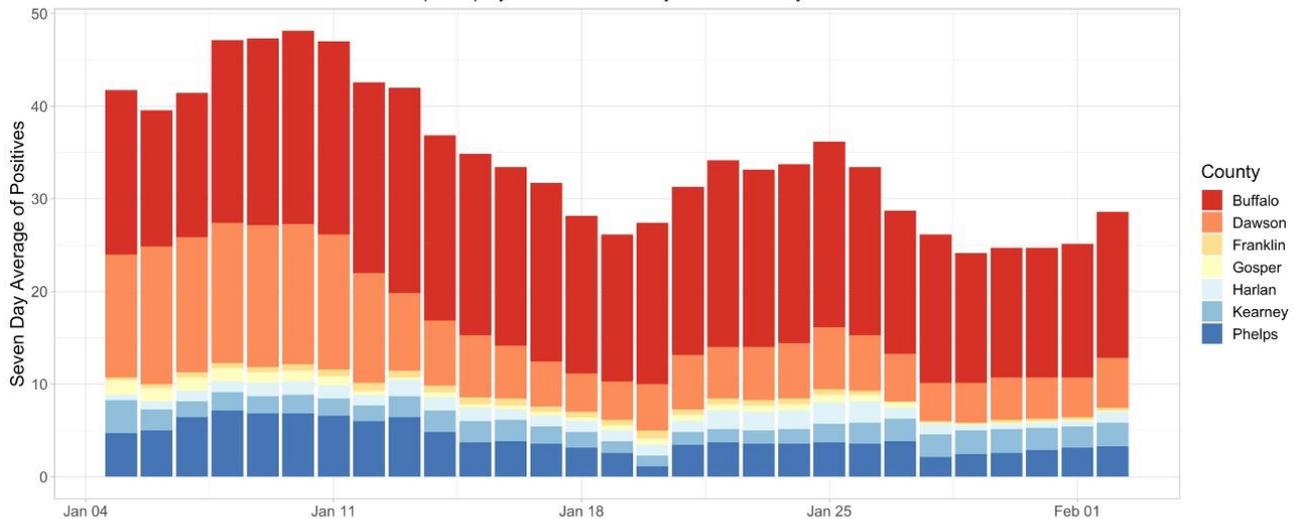
⁶ For information on residential facilities, please see appendix 3



- The following bar graph describes the 7-day rolling averages of COVID-19 cases by **county** for the past four weeks (Dec 29 – Jan 26).
- 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

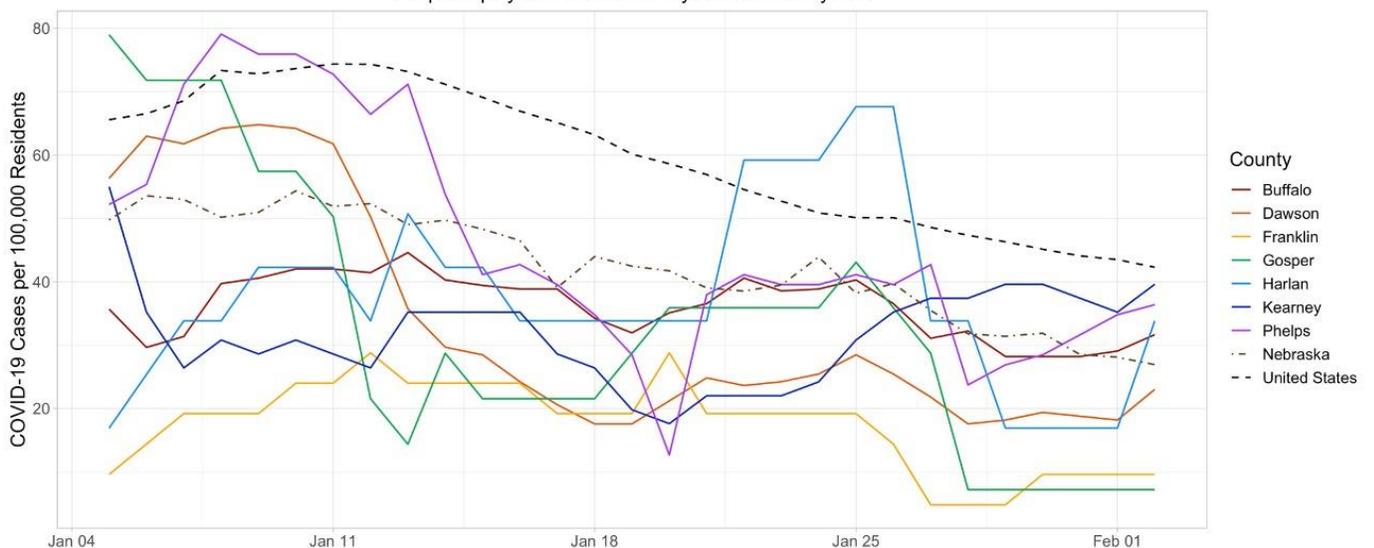
Graph displays data from January 5th to February 2nd



Information Updated as of 2/2 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 5th to February 2nd



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

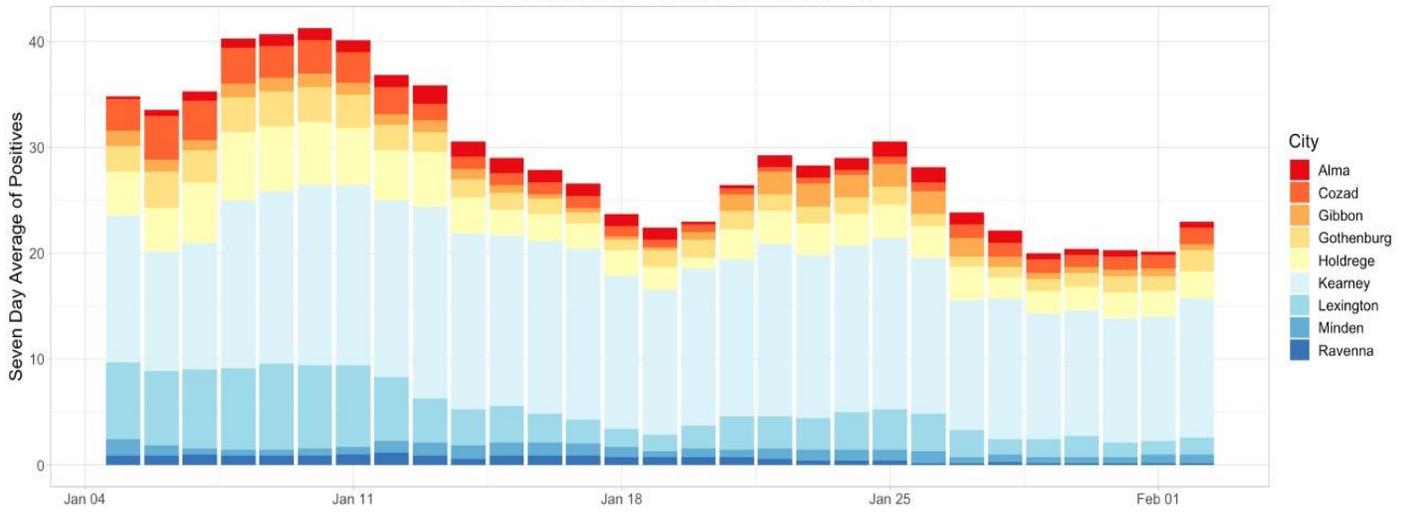
⁷ Please note: When comparing counties, we describe rates per 100,000 population. This is roughly equal to the total population of Two Rivers Health Department (~97,000)



- The following bar graphs describes the 7-day rolling averages by city for the past four weeks (**Jan 5 - Feb 2**) 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

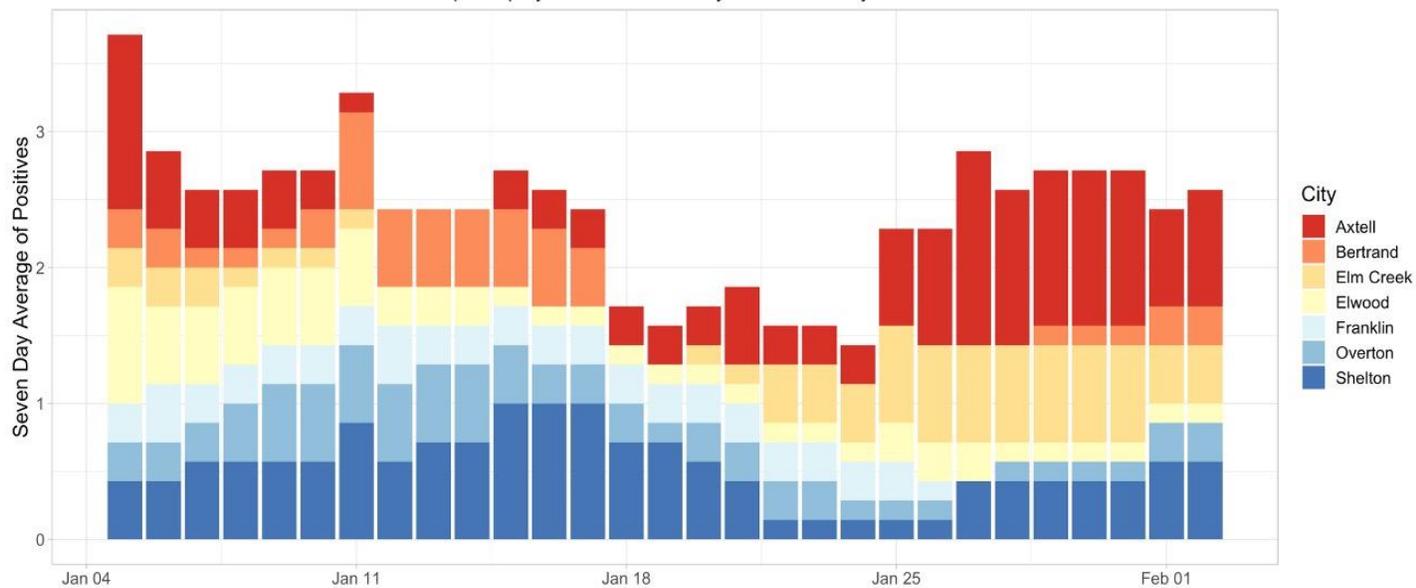
Graph displays data from January 5th to February 2nd



Information Updated as of 2/2 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 5th to February 2nd



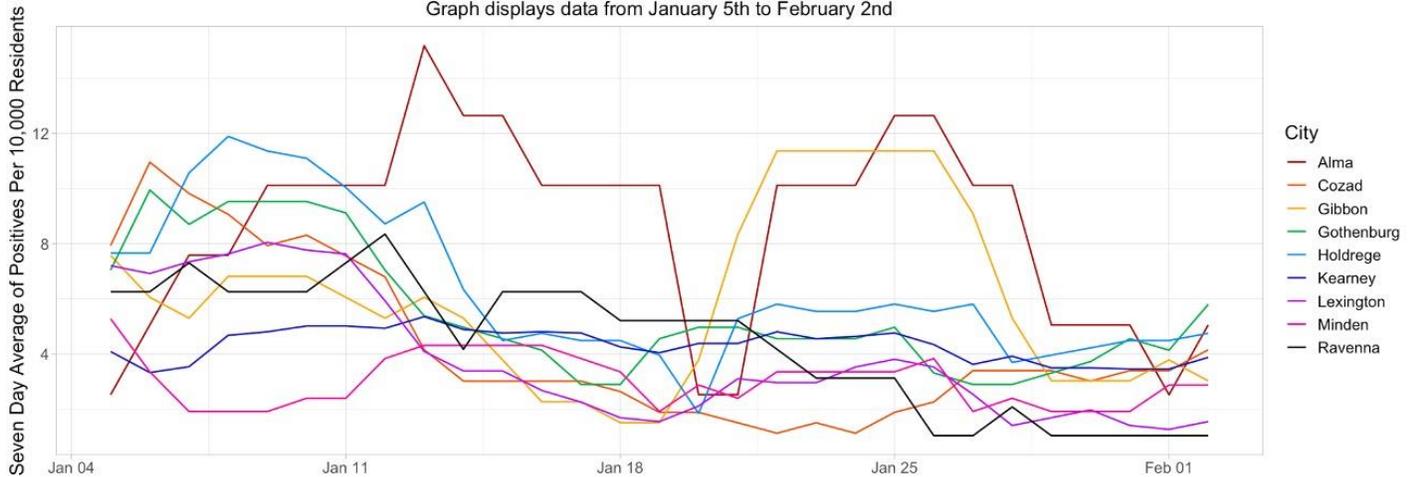
Information Updated as of 2/2 at 8 p.m.



- 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 5 - Feb 2**)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 5th to February 2nd



Information Updated as of 2/2 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 5th to February 2nd



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

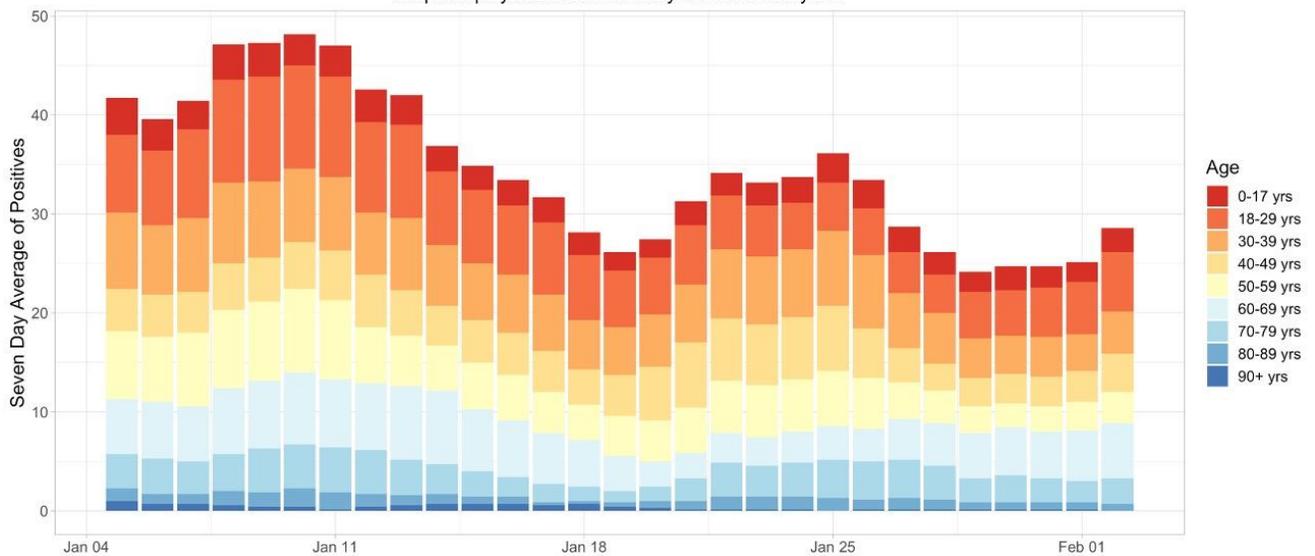
⁸ Please note: When comparing cities, we describe rates per 10,000 population. This is roughly equal to the total population of Lexington (~10,000)



- The first graph below describes the **7-day rolling average** of cases from **January 5 - February 2** 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 2**). Regular and widespread testing in long term care facilities in TRPHD began in early October.

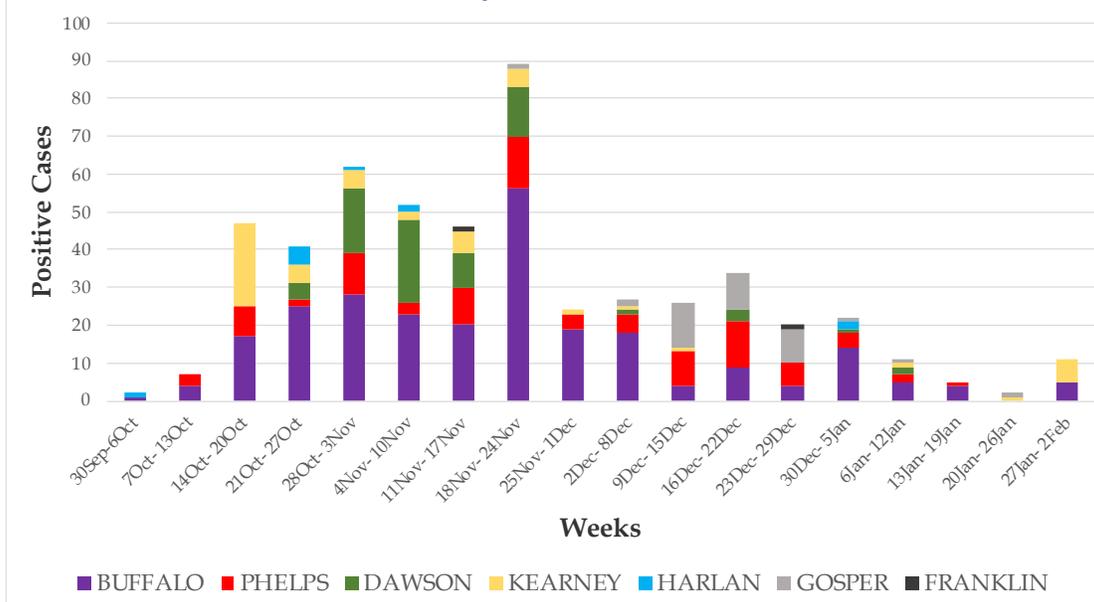
7 Day Rolling Average of COVID-19 Cases in Two Rivers by Age

Graph displays data from January 5th to February 2nd



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

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





Weekly summary

- Although overall tests conducted in the district have dropped further in the past week, test positivity rate remains stable at around 15% for all non-residential facilities.
- Since March 2020, about 10% of residents of Two Rivers Health District have tested positive, about 3.7% of positive cases have been hospitalized and over 1.4% have succumbed to the disease.
- Although counties like Kearney and Harlan show a certain degree of fluctuation, overall case counts in Buffalo and Dawson counties seem steady. Phelps county has seen a steady increase in recorded positive cases over the past week
- Half of all ICU beds across the district are available currently; COVID-related admissions account for only about 8% of all occupied beds (see <https://www.trphd.org/> for details)
- COVID-19 vaccination continues to gather pace across the district. This is through hospitals, and clinics associated with the Vaccines For Children (VFC) across the district, including at Two Rivers Health Department.
- About 3.4% of all eligible people (aged 16 years and over) have received at least one dose of vaccine. Over 10,000 vaccines have been given by facilities in Two Rivers Health District, about a fourth of them being second doses to complete the vaccine regimen. There are over 76,000 persons over 16 years of age (vaccine- eligible) living in the TRPHD district.
- Outbreaks in residential/ long-term living facilities throughout the district continue to be monitored closely.

To conclude, daily COVID case counts drop as positivity rates remain steady across almost all seven counties in TRPHD. Outbreaks in long term residential facilities throughout the district are being closely tracked. Vaccination services have picked up speed across the district. About 3.4% of all eligible people (aged 16 years and over) in TRPHD have received at least one dose of vaccine. Those eligible are advised to contact their physician or visit www.trphd.org for details about registration. 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.