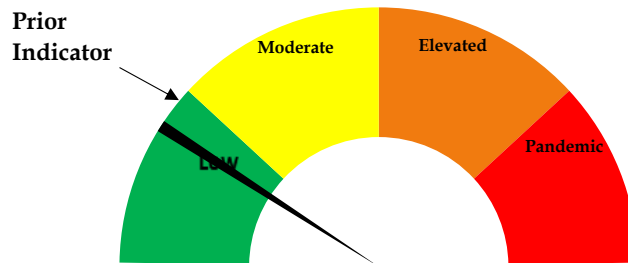




Risk Dial May 27, 2021



Risk Dial for COVID-19 Two Rivers Public Health Published May 27, 2021

- The weekly COVID test positivity rate for all tests outside long-term care facilities in TRPHD dropped to 4% for the first time in over a year. No new COVID cases were reported from long term care facilities in the district in the previous three weeks.
- Twenty cases were detected in the entire district in the last week, half of those in Buffalo county. Weekly COVID tests ordered are less than half the number in March 2021, continuing the prevailing trend of lower testing in the community
- COVID-related bed occupancy and ICU utilization continues to remain low, both in TRPHD and the larger Tri-City Medical Response System area. No new deaths due to COVID-19 have been reported in the past month (see <https://www.trphd.org/> for details).
- As of May 25, 2021, 34.9% of TRPHD's total population (ages 0 years and over) has been fully vaccinated. With the addition of 12-15 year olds to the list of persons eligible to receive the vaccine, there has been a slight increase in vaccine doses received, although new vaccinations among 16-49 year olds is sluggish. See weekly vaccination report at <https://www.trphd.org/covid-19/vaccination-reports.html> for details.
- For these reasons, the risk dial is further lowered from the previous week; risk in the district is assessed to be "low", marking the second consecutive week that overall risk seems to have reduced. The downgrade reflects expanded vaccination coverage to younger age groups in the district along with decreasing COVID-19 positivity rates, decline in disease cluster incidence, and stable ICU and bed utilization rates.



Weekly report May 19 – May 25, 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 **May 19 – May 25** (1 week) and **April 27 – May 25** (4 weeks). We describe cases in residential facilities¹ separately from other tests conducted in the district.
- The first graphic describes **the vaccination coverage rate of TRPHD residents** between **December 15, 2020 – May 25, 2021**. All residents of the seven counties are included to calculate the proportion of the total population that is partially or fully vaccinated.
- The second set of graphs look at the progress of the pandemic from **April 1, 2020 – May 25, 2021** across all counties.
 - We describe the 7-day rolling average² of positive cases across TRPHD since April, describing cases by age categories (**>1 year**)
- The third set of graphs describe the **average positivity rate(7-day rolling)**³ for all 7 districts in Two Rivers Health District from **March 21, 2020 – May 25, 2021**
 - Positivity rate is for all tests conducted outside residential facilities³
 - 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 **April 27 – May 25**.
 - Progress is described by age, county and city of residence.
- The final graph shows positive cases in **Residential facilities**, displaying each week's cases by the county where the facility is located (Oct – May)

To conclude, COVID test positivity rate is at its lowest level since June 2020. Less than 120 cases were detected in the past month, over 65% of those from Buffalo county alone. Weekly tests have dwindled to less than half the number of tests in February and March. COVID-related bed occupancy has been below 5% for the last 2 months; 34.9% of the total population of TRPHD district is now fully vaccinated. TRPHD has scheduled mass vaccination clinics at multiple sites across seven counties. Those eligible for the vaccine are advised to contact their physician or refer to the vaccination clinic schedule at www.trphd.org. In the meantime, unvaccinated 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 For information on residential facilities, please see appendix 3

² 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.

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



Testing & Vaccination Overview

- As of May 25, over 45,500 residents of Two Rivers Health District were tested at least once for COVID-19. Almost 135,000 tests have been conducted since March 1, 2020 and over 11,300 of these tests were positive, a very small proportion of those testing COVID positive twice.⁴ TRPHD has publicly notified 120 deaths due to COVID-19 across the district.
- As of May 24, 34.9% of TRPHD’s entire population has been fully vaccinated.⁵ Details of vaccination progress are discussed separately.

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

	May 19 - May 25 (1 week)			Apr 27 - May 25 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Hospital/ Clinic	268	14	5.2%	1413	86	6.1%
TestNebraska	24	2	8.3%	131	8	6.1%
Residential Facility	887	0	0.0%	3738	0	0.0%
Lab/ Pharmacy	97	2	2.1%	351	12	3.4%
Other	102	2	2.0%	487	13	2.7%
TOTAL	1,378	20	1.5%	6120	119	1.9%

- A total of 3738 tests were availed by residents and staff of long-term care and other residential facilities⁶ in the last 4 weeks. Details are provided below:

Residential Facility In:	May 19 - May 25 (1 week)			Apr 27 - May 25 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Buffalo	723	0	0.0%	2,585	0	0.0%
Dawson	33	0	0.0%	245	0	0.0%
Franklin	0	0	0.0	0	0	0.0
Gosper	4	0	0.0%	29	0	0.0%
Harlan	18	0	0.0%	138	0	0.0%
Kearney	0	0	0.0	184	0	0.0%
Phelps	88	0	0.0%	459	0	0.0%
Outside TRPHD	21	0	0.0%	98	0	0.0%
TOTAL	887	0	0.0%	3738	0	0.0%

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

⁵ For information on vaccine-eligible population in each of the counties, please see appendix 4

⁶ For information on residential facilities, please see appendix 3



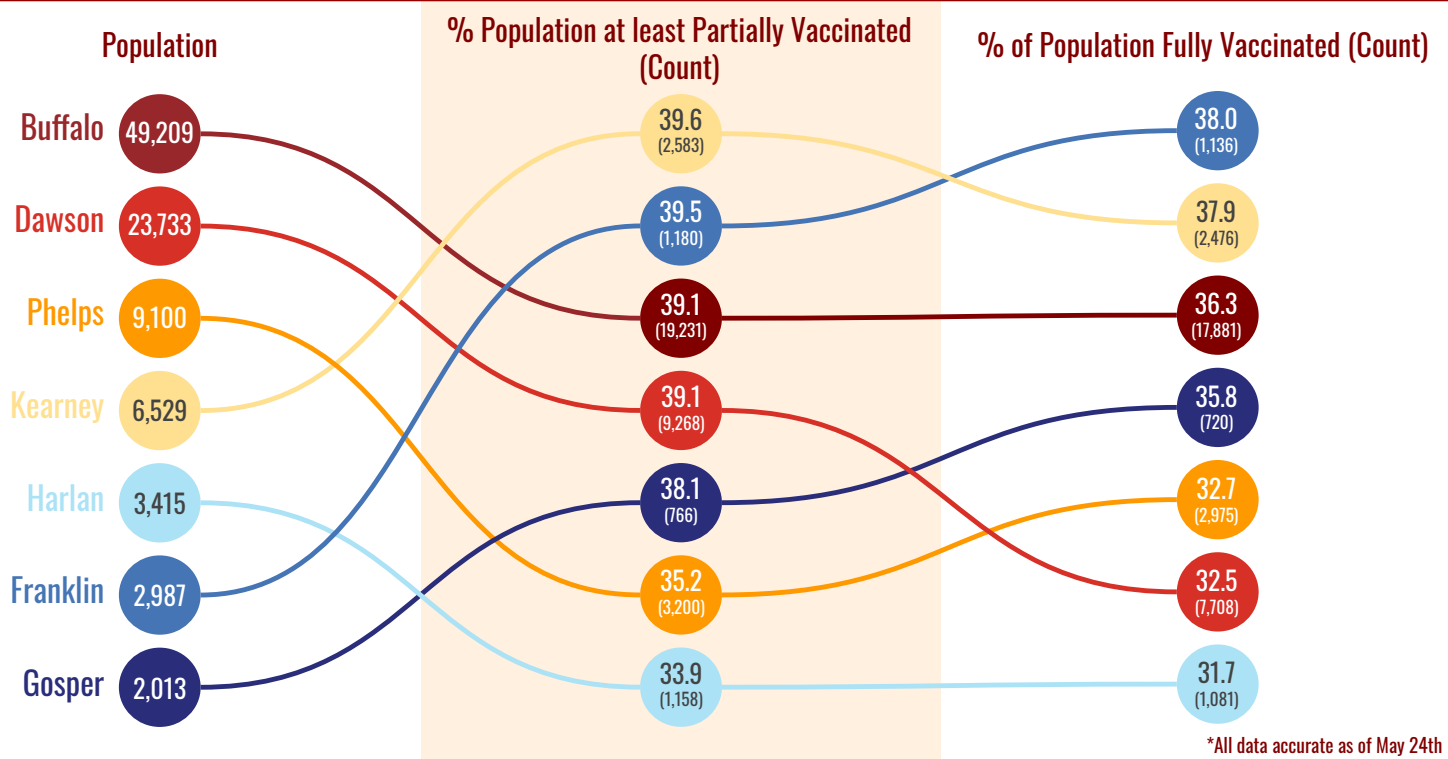
Excluding residential facilities, a total of 2382 tests were conducted in the past 4 weeks. The following table gives details of positive cases in the past week and past 4 weeks by county, age categories and gender.

	May 19 - May 25 (1 week)			Apr 27 - May 25 (4 weeks)		
	Total tests conducted	Positive cases	P. rate (%)	Total tests conducted	Positive cases	P. rate (%)
County						
Buffalo	296	11	3.7%	1422	78	5.5%
Dawson	117	2	1.7%	529	17	3.2%
Franklin	10	0	0.0%	51	3	5.9%
Gosper	19	4	21.1%	40	7	17.5%
Harlan	8	0	0.0%	27	0	0.0%
Kearney	19	1	5.3%	100	3	3.0%
Phelps	19	2	10.5%	197	8	4.1%
Data missing/ not disclosed	3	0	0.0%	16	3	18.8%
Total	491	20	4.1%	2,382	119	5.0%
Age (in yrs)						
0-17	75	3	4.0%	338	21	6.2%
18-29	109	3	2.8%	591	25	4.2%
30-39	90	1	1.1%	389	17	4.4%
40-49	60	4	6.7%	282	16	5.7%
50-59	65	4	6.2%	344	19	5.5%
60-69	39	3	7.7%	217	13	6.0%
70-79	30	1	3.3%	126	5	4.0%
80-89	17	1	5.9%	73	3	4.1%
90+	6	0	0.0%	22	0	0.0%
Total	491	20	4.1%	2,382	119	5.0%
Gender						
Female	267	9	3.4%	1310	54	4.1%
Male	223	11	4.9%	1065	65	6.1%
Data missing/ not disclosed	1	0	0.0%	7	0	0.0%
Total	491	20	4.1%	2,382	119	5.0%



- The graph below describes **all TRPHD residents vaccinated** between **December 15, 2020 – May 24, 2021**. All residents of the seven counties are included.
- Each county is depicted by a colored circle, and the relative position of each corresponds to the proportion vaccinated. Actual numbers (count) are included in parenthesis.
- **Overall, 34.9% of the total population in Two Rivers Health District is now fully vaccinated.**

Vaccinations of Population in TRPHD





- The graph below describes 7-day rolling average of COVID-19 across TRPHD from **April 1, 2020 - May 25, 2021**.
- 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.

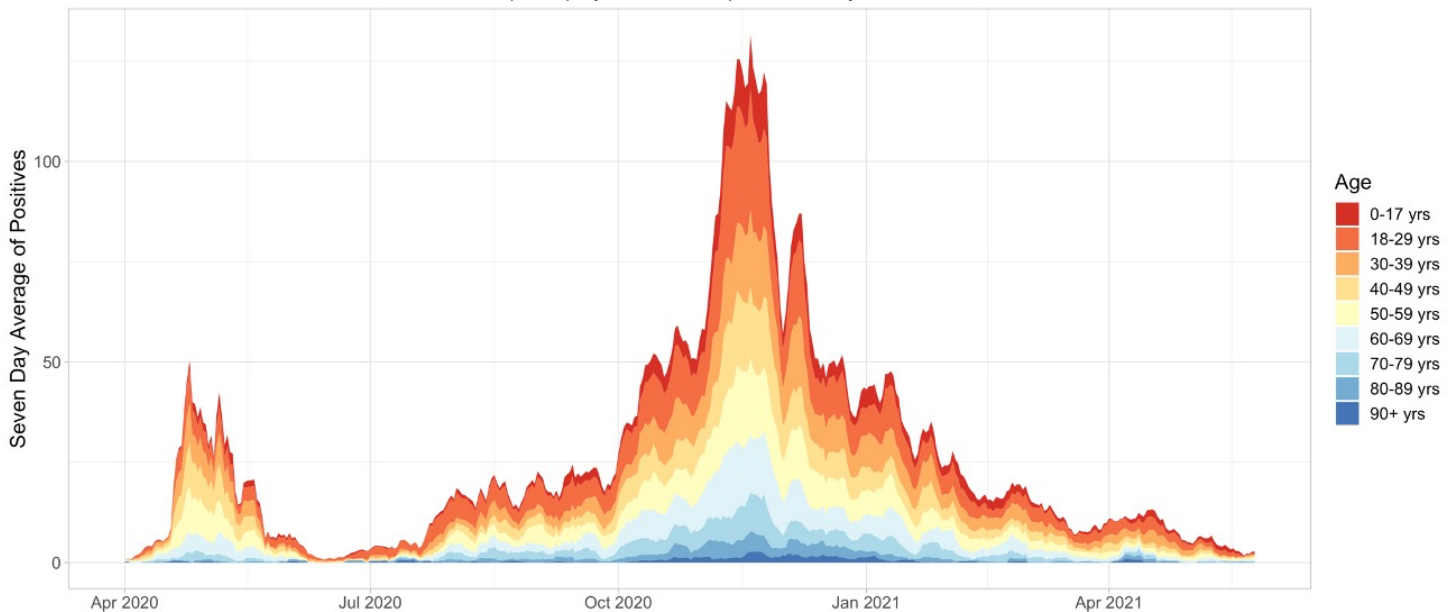
7 Day Rolling Average of Two Rivers

Graph displays data from April 1st to May 25th



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

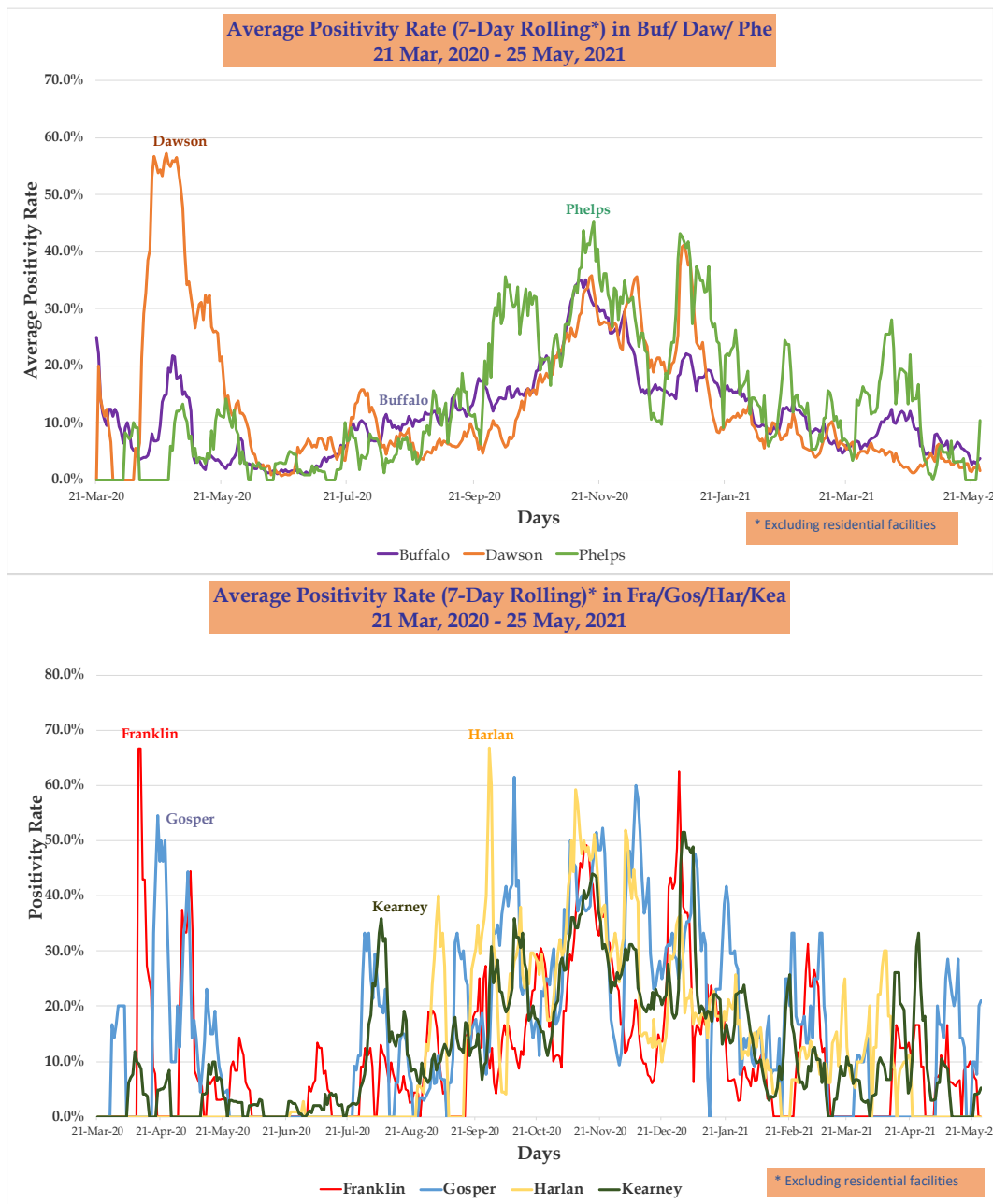
Graph displays data from April 1st to May 25th



Information Updated as of 5/25 at 8 p.m.



- The graphs below describe the average COVID-19 **test positivity rate (7-day rolling)** in each of the 7 counties in Two Rivers Health District from **March 21, 2020 – May 25, 2021**. Only tests outside of residential facilities are included.⁷
- 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.



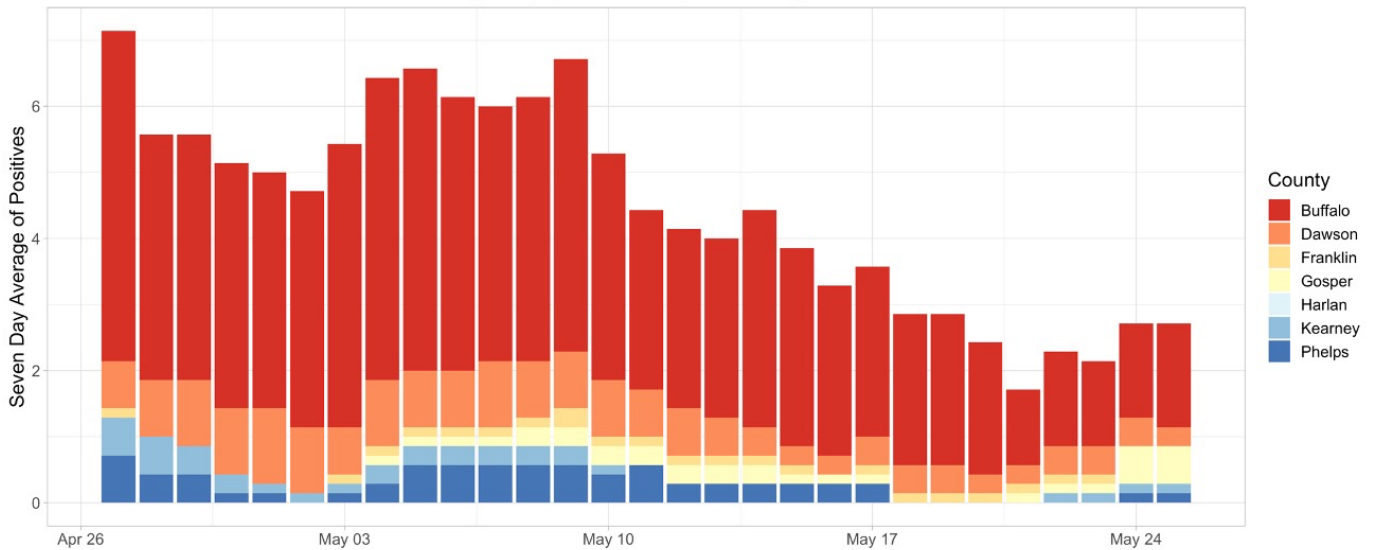
⁷ For information on residential facilities, please see appendix 3; for information on average test positivity rate (7-day rolling), please see appendix 1.



- The following bar graph describes the 7-day rolling averages of COVID-19 cases by county for the past four weeks (Apr 27 - May 25).
- The second graph describes the same data per 100,000 population.⁸

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

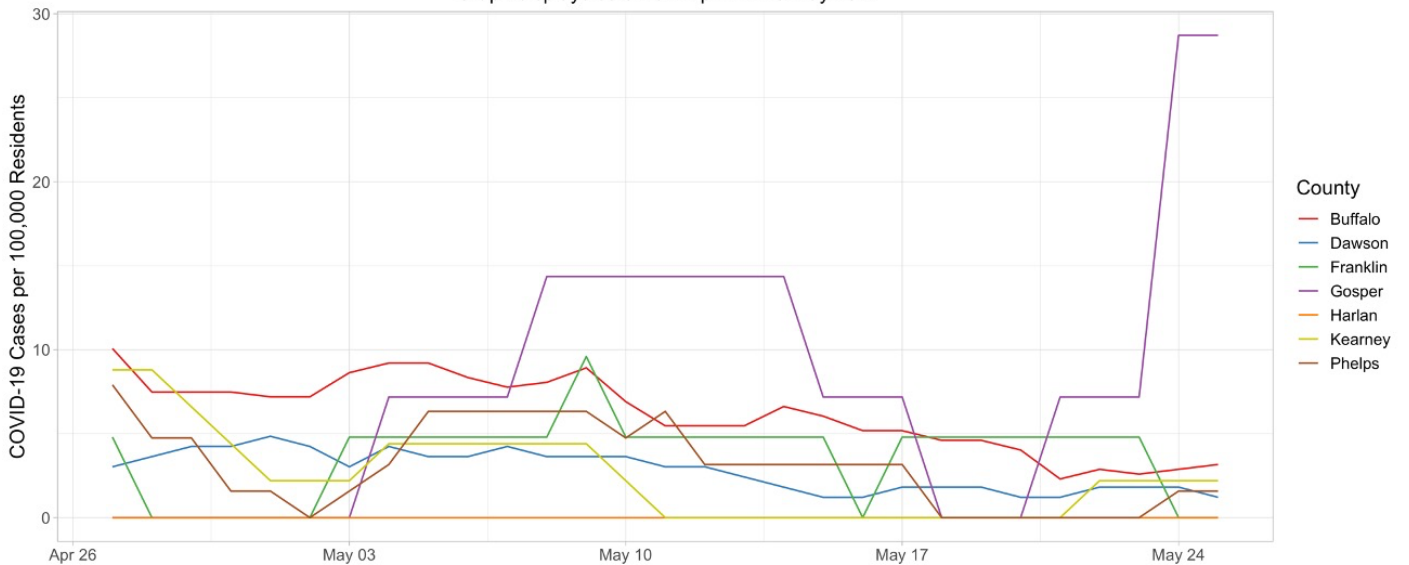
Graph displays data from Apr 27th to May 25th



Information Updated as of 5/25 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 Apr 27th to May 25th



Information Updated as of 5/25 at 8 p.m.

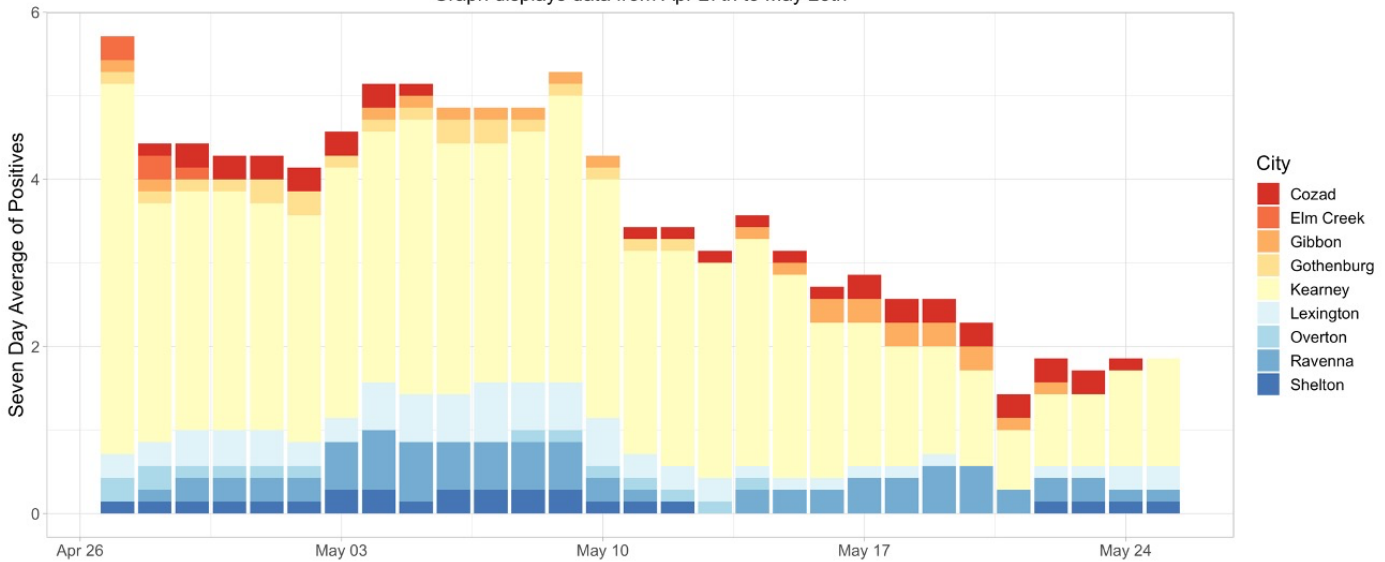
⁸ Please note: When comparing counties, we describe rates per 100,000 population. This is roughly equal to the total population of Two Rivers Health Department (~97,000)



- The following bar graphs describes the 7-day rolling averages by **city** for the past four weeks (**Apr 27 - May 25**) in TRPHD. The graph above shows cities in **Buffalo and Dawson** counties and the one below shows the graph for cities in **Gosper, Harlan, Kearney and Phelps** counties. The scale is different for both graphs.

7 Day Rolling Average of COVID-19 Cases Buffalo and Dawson County

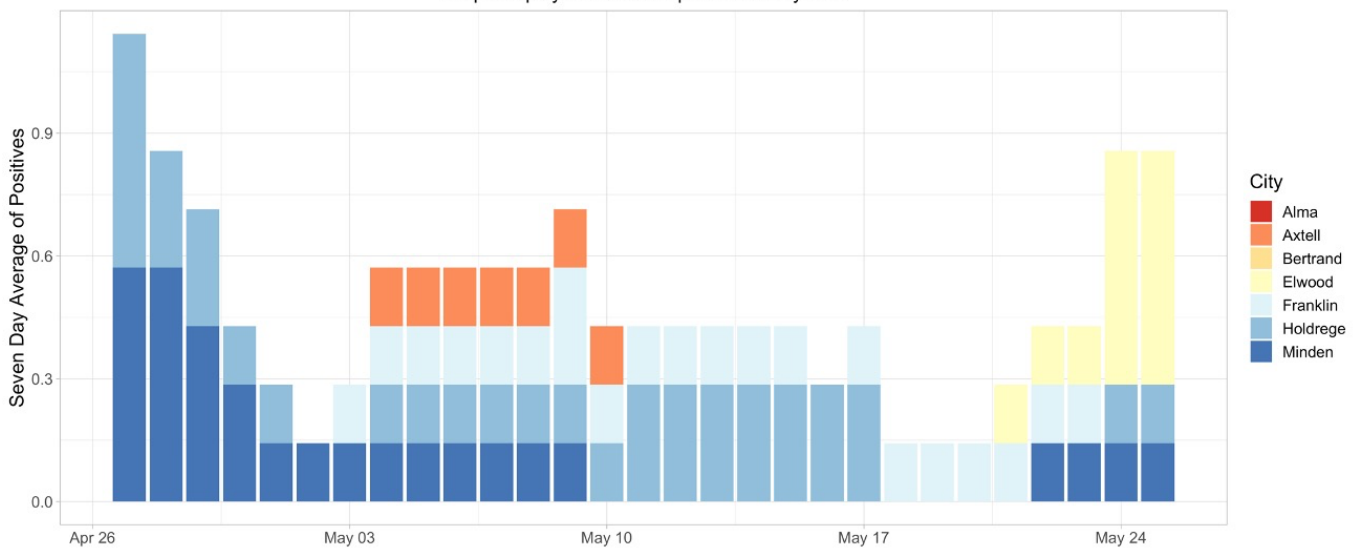
Graph displays data from Apr 27th to May 25th



Information Updated as of 5/25 at 8 p.m.

7 Day Rolling Average of COVID-19 Cases Gosper, Franklin, Kearney, and Phelps County

Graph displays data from Apr 27th to May 25th



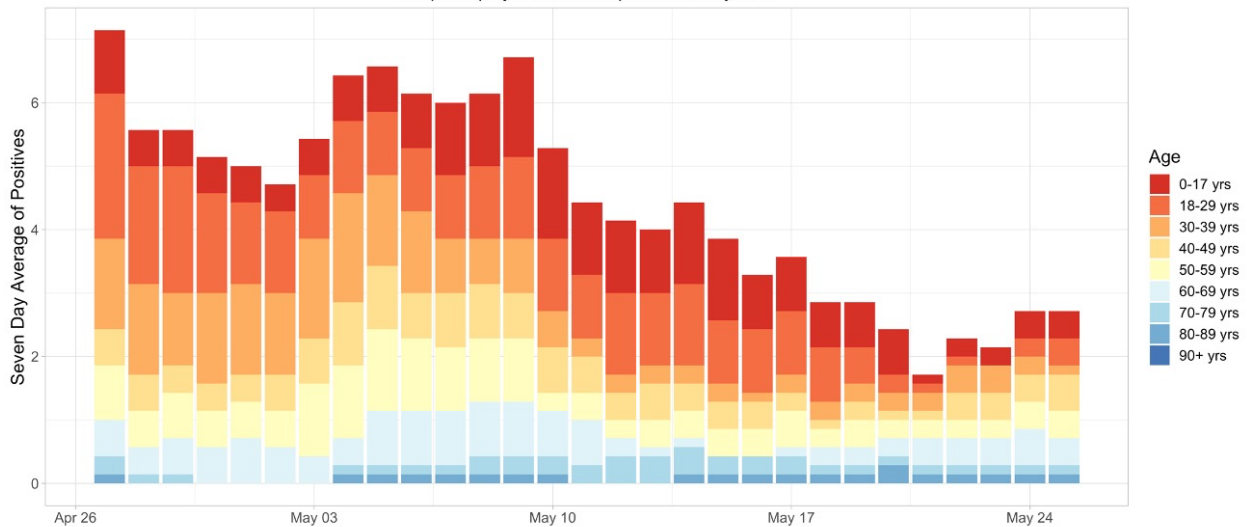
Information Updated as of 5/25 at 8 p.m.



- The graph below describes the **7-day rolling average** of cases from **Apr 27 – May 25** 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, 2020 – May 25, 2021**). Regular and widespread testing in long term care facilities in TRPHD began in early October.

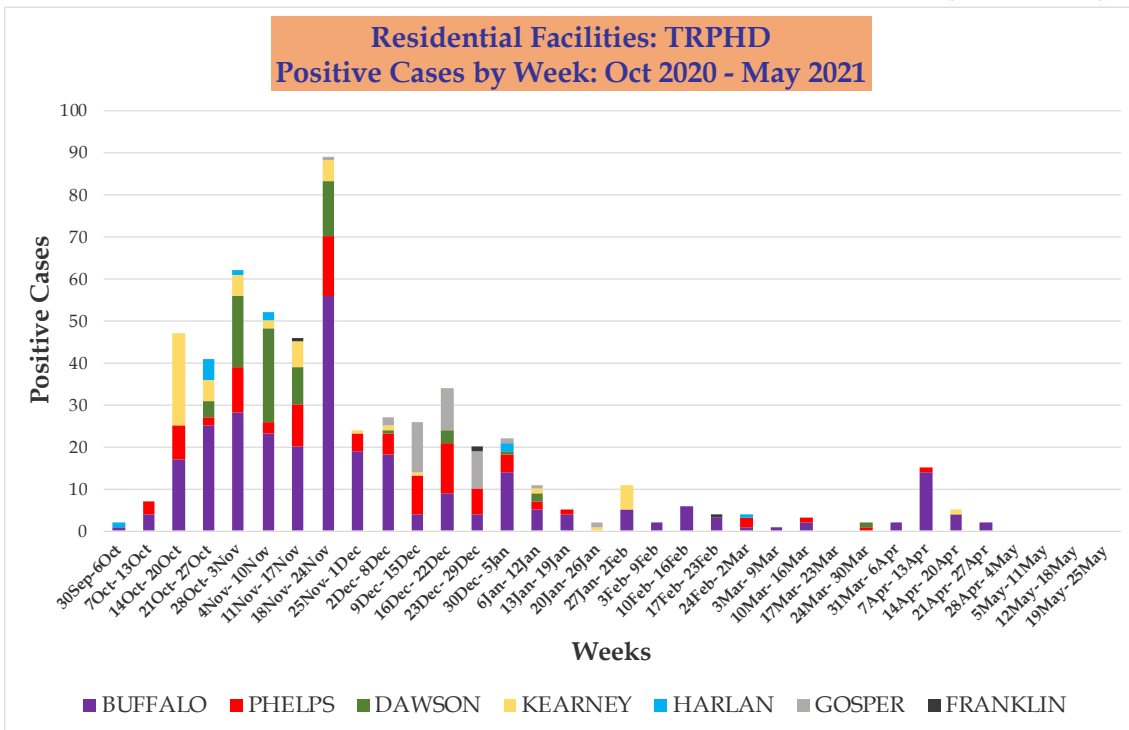
7 Day Rolling Average of COVID-19 Cases in Two Rivers by Age

Graph displays data from Apr 27th to May 25th



Information Updated as of 5/25 at 8 p.m.

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





Weekly summary

- The weekly COVID test positivity rate for all tests outside long-term care facilities in TRPHD dropped to 4% for the first time in over a year. No new COVID cases were reported from long term care facilities in the district in the previous three weeks.
- In the last month, average test Positivity rate stayed between 5-8% in Buffalo and Dawson counties and fluctuated between 0-15% in Franklin, Gosper, Harlan, Kearney and Phelps counties; the sharp changes are explained at least partly by the low rates of testing in these counties.
- Twenty cases of COVID-19 were detected in the entire district in the last week, half of those in Buffalo county. Weekly COVID tests ordered are less than half the number in March 2021, continuing the prevailing trend of lower testing in the community.
- COVID-related bed occupancy and ICU utilization continues to remain low, both in TRPHD and the larger Tri-City Medical Response System area. No new deaths due to COVID-19 have been reported in the past month (see <https://www.trphd.org/> for details).
- As of May 25, 2021, 34.9% of TRPHD's total population (ages 0 years and over) has been fully vaccinated. With the addition of 12-15 year olds to the list of persons eligible to receive the vaccine, there has been a slight increase in vaccine doses, although new vaccinations among 16-49 year olds is sluggish. See weekly vaccination report at <https://www.trphd.org/covid-19/vaccination-reports.html> for details.
- COVID-19 vaccination continues to be provided via through private clinics, hospitals, and Vaccines For Children (VFC) clinics across the district, including by Two Rivers Health Department. All persons aged 12 and over are eligible for the vaccine. TRPHD has scheduled mass vaccination clinics at multiple sites across seven counties to distribute vaccines and to focus on areas of potential shortfall. Those eligible for the vaccine are advised to refer to the vaccination clinic schedule at www.trphd.org

To conclude, COVID test positivity rate is at its lowest level since June 2020. Less than 120 cases were detected in the past month, over 65% of those from Buffalo county alone. Weekly tests have dwindled to less than half the number of tests in February and March. COVID-related bed occupancy has been below 5% for the last 2 months; 34.9% of the total population of TRPHD district is now fully vaccinated. TRPHD has scheduled mass vaccination clinics at multiple sites across seven counties. Those eligible for the vaccine are advised to contact their physician or refer to the vaccination clinic schedule at www.trphd.org. In the meantime, unvaccinated 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.



APPENDIX 4

Vaccine-eligible population

The total COVID-19 vaccine-eligible population of Two Rivers Health District is about 76,002. This includes all residents over the age of 16 years living in the seven counties that make up the district. The table below describes the eligible population in each of the seven counties divided by age category.

	16-29 YRS	30-49 YRS	50-64 YRS	65+ YRS	TOTAL(16+ YRS)
TRPHD	19580	22863	17760	15799	76002
BUFFALO	11828	11910	8184	6863	38785
DAWSON	4301	5723	4334	3696	18054
FRANKLIN	391	586	717	809	2503
GOSPER	232	418	532	526	1708
HARLAN	459	649	735	845	2688
KEARNEY	985	1508	1343	1239	5075
PHELPS	1384	2069	1915	1821	7189

Vaccines used in TRPHD

In the first phase, COVID-19 vaccines have been approved for use in all persons over the age of 16 years. Currently, Pfizer and Moderna vaccine formulations are being offered in Two Rivers Health District. Use of the Johnson & Johnson (Janssen) vaccine formulation has been paused pending further scrutiny by the Food and Drug Administration (FDA).

The Nebraska Department of Health and Human Services paused use of the Johnson & Johnson (Janssen) COVID-19 vaccine after Centers for Disease Control and Prevention (CDC) and Food and Drug Administration (FDA) recommendations following reports of six women who have been hospitalized with severe blood clots after receiving the vaccine dose, including one woman in Douglas county. The women were aged between 18-48 years. Vaccine use was reinstated on April 26, 2021 and is now available at private pharmacies across the state.

To date, over 6.8 million doses of Janssen vaccine have been administered in the United States, over 31,500 in Nebraska, and 1560 in Two Rivers Health District.

Symptoms in the 6 hospitalized individuals included headache, back pain, other unexplained pain. Symptoms typically began 6-13 days after vaccination, and hospital admission was within 15 days, on average. More than 55% of the Janssen vaccine was administered before 22nd of March in Two Rivers Health District.