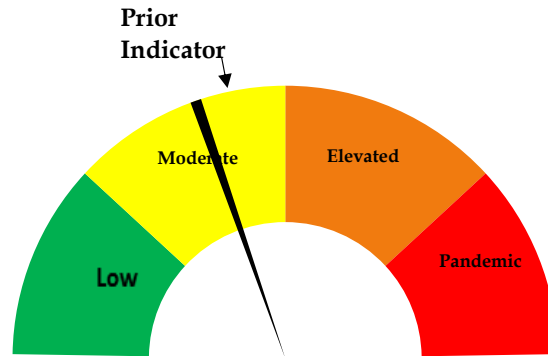




Risk Dial Feb 25, 2020



Risk Dial for COVID-19 Two Rivers Public Health Published February 25, 2021

- About half of all ICU beds across the district are currently available; COVID-related admissions account for less than an eighth of all occupied beds, over 50% of beds in the district are available. (see <https://www.trphd.org/> for details)
- Test positivity ratios remain low for all counties in Two Rivers Health Department, despite a brief rise in cases last week. Rates of testing have fallen, despite testing access remaining steady.
- Contact tracing efforts and test report turnaround time has improved across the district. Testing access has remained steady, although test utilization continues to decline.
- COVID-19 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. Those eligible for the vaccine are advised to contact their physician or register at www.trphd.org
- 7291 residents of TRPHD have received two doses of the vaccine as of February 23, representing 9.5% of the eligible population. To date, TRPHD residents have received over 21,500 doses of vaccine.
- Average daily doses given peaked on the 14th of February before dropping during the winter snowstorm and inclement weather. Currently, about 500 doses are being given to residents every day. See weekly report (Feb 17 - Feb 23) at <https://www.trphd.org/covid-19/weekly-reports.html> for details.



Weekly report Feb 17 – Feb 23, 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 17 – February 23** (1 week) and **January 26 – February 23** (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 23** (47 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 graph describes the **COVID-19 vaccines given** to resident of TRPHD by county. Data covers **December 14 , 2020 - February 23, 2021**.
 - The **bar graphs** represent **total doses given each day** to residents of Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney and Phelps counties²
 - The **line graph** describes the **(7-day) rolling average of doses** given for Two Rivers Health District.
- The third graph describes the **persons fully vaccinated by county** ³ for all 7 districts in Two Rivers Health District
 - The **bar graphs** represent residents of Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney and Phelps counties **fully vaccinated** by date. ³
 - The **line graph** describes the **total (cumulative) number of residents** of Two Rivers Health District who are **fully vaccinated**
- The fourth set of graphs describe the daily average of cases (7-day rolling average) from **January 26 – February 23**. 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. Also shown is a graphs looking at positive cases in Residential facilities, displaying each week's cases by the county where the facility is located (**Oct – Feb**) ⁴

To conclude, COVID test positivity rates have risen slightly in the last week, and incident cases among seniors have increased across the district. Overall case counts remain low, however, and COVID-related admissions account for less than 8% of all beds. Over 7200 residents of TRPHD have been fully vaccinated, around 500 residents receive a vaccine dose every day. Those eligible for the vaccine are advised to contact their physician or register at Two Rivers Health Department (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.

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 Total doses per day = doses of Pfizer/ Moderna COVID-19 vaccine administered that day (1st and 2nd)

³ Persons fully vaccinated = Those who received two doses of the Pfizer/ Moderna COVID-19 vaccine.

⁴ For information on residential facilities, please see appendix 3



Testing Overview

- As of Feb 23, around 42,500 residents of Two Rivers Health District were tested at least once for COVID-19. Over 104,000 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.
- 53.5% of all tests conducted since March 2020 have been laboratory-based Polymerase Chain Reaction (PCR) tests.
 - However, 73% 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 17 - Feb 23 (1 week)			Jan 26 - Feb 23 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Hospital/ Clinic	596	87	14.6%	2871	360	12.5%
TestNebraska	155	19	12.3%	698	93	13.3%
Residential Facility	1238	4	0.3%	6750	22	0.3%
Lab/ Pharmacy	139	2	1.4%	836	49	5.9%
Other	80	17	21.3%	586	40	6.8%
TOTAL	2208	129	5.8%	11,741	564	4.8%

- A total of 6750 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 17 - Feb 23 (1 week)			Jan 26 - Feb 23 (4 weeks)		
Residential Facility In:	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Buffalo	659	3	0.5%	3484	12	0.3%
Dawson	120	0	0.0%	923	0	0.0%
Franklin	0	0	0.0	0	0	0.0
Gosper	25	0	0.0%	278	0	0.0%
Harlan	46	0	0.0%	182	1	0.5%
Kearney	74	0	0.0%	600	7	1.2%
Phelps	222	1	0.5%	888	1	0.1%
Outside TRPHD	92	0	0.0%	395	1	0.3%
TOTAL	1238	4	0.3%	6750	22	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 4991 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 17 - Feb 23 (1 week)			Jan 26 - Feb 23 (4 weeks)		
	Total tests conducted	Positive cases	P. rate (%)	Total tests conducted	Positive cases	P. rate (%)
County						
Buffalo	621	83	13.4%	2767	316	11.4%
Dawson	196	23	11.7%	1220	113	9.3%
Franklin	17	0	0.0%	89	4	4.5%
Gosper	6	2	33.3%	35	5	14.3%
Harlan	15	1	6.7%	88	8	9.1%
Kearney	52	8	15.4%	267	28	10.5%
Phelps	58	7	12.1%	493	61	12.4%
Data missing/ not disclosed	5	1	20.0%	32	7	21.9%
Total	970	125	12.9%	4,991	542	10.9%
Age (in yrs)						
0-17	95	13	13.7%	652	67	10.3%
18-29	263	14	5.3%	1177	89	7.6%
30-39	157	22	14.0%	744	91	12.2%
40-49	110	13	11.8%	606	69	11.4%
50-59	130	17	13.1%	666	79	11.9%
60-69	116	24	20.7%	634	86	13.6%
70-79	60	13	21.7%	318	42	13.2%
80-89	24	7	29.2%	141	15	10.6%
90+	15	2	13.3%	53	4	7.5%
Total	970	125	12.9%	4991	542	10.9%
Gender						
Female	543	68	12.5%	2758	281	10.2%
Male	417	55	13.2%	2202	256	11.6%
Data missing/ not disclosed	10	2	20.0%	31	5	16.1%
Total	970	125	12.9%	4,991	542	10.9%



- The graph below describes 7-day rolling average of COVID-19 across TRPHD from **April 1 - February 23**.
- 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.

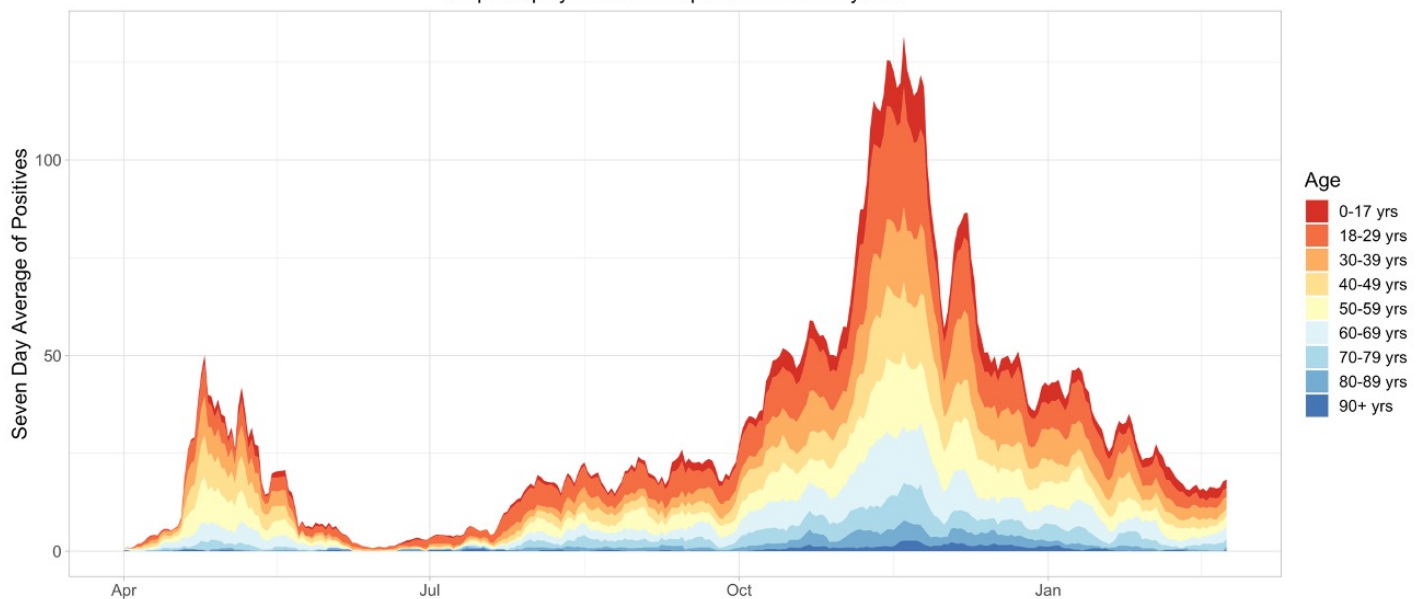
7 Day Rolling Average of Two Rivers

Graph displays data from April 1st to February 23rd



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

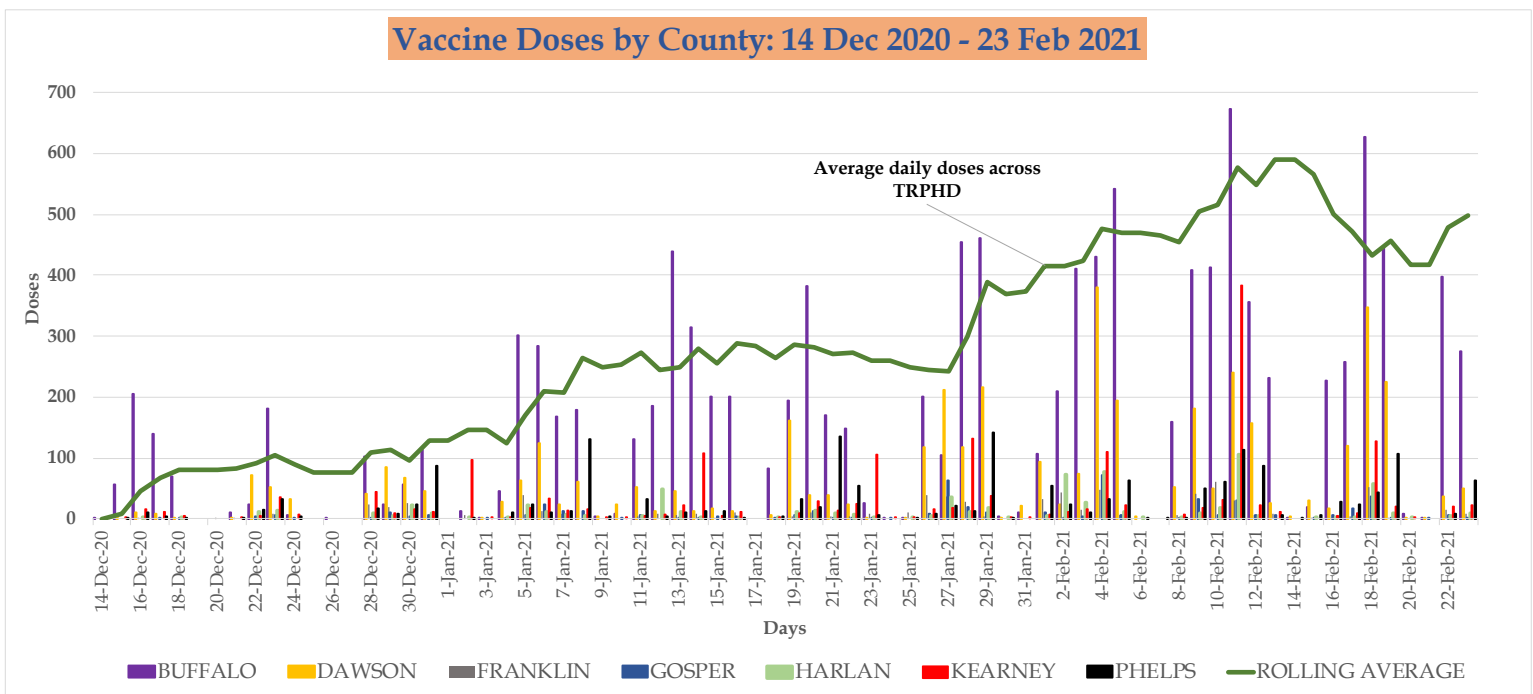
Graph displays data from April 1st to February 23rd



Information Updated as of 2/23 at 8 p.m.



- The graph below describes the **COVID-19 vaccines given** to resident of TRPHD by county. Data covers **December 14 , 2020 - February 23, 2021**.
- The **bar graphs** represent **total doses given each day** to residents of Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney and Phelps counties ⁶
 - Height of each bar shows the number of residents of the corresponding county who received shots that day.
- The **line graph** describes the **(7-day) rolling average of doses** given for Two Rivers Health District. ⁷
 - The line represents a rolling weekly average of the number of doses received by residents of TRPHD

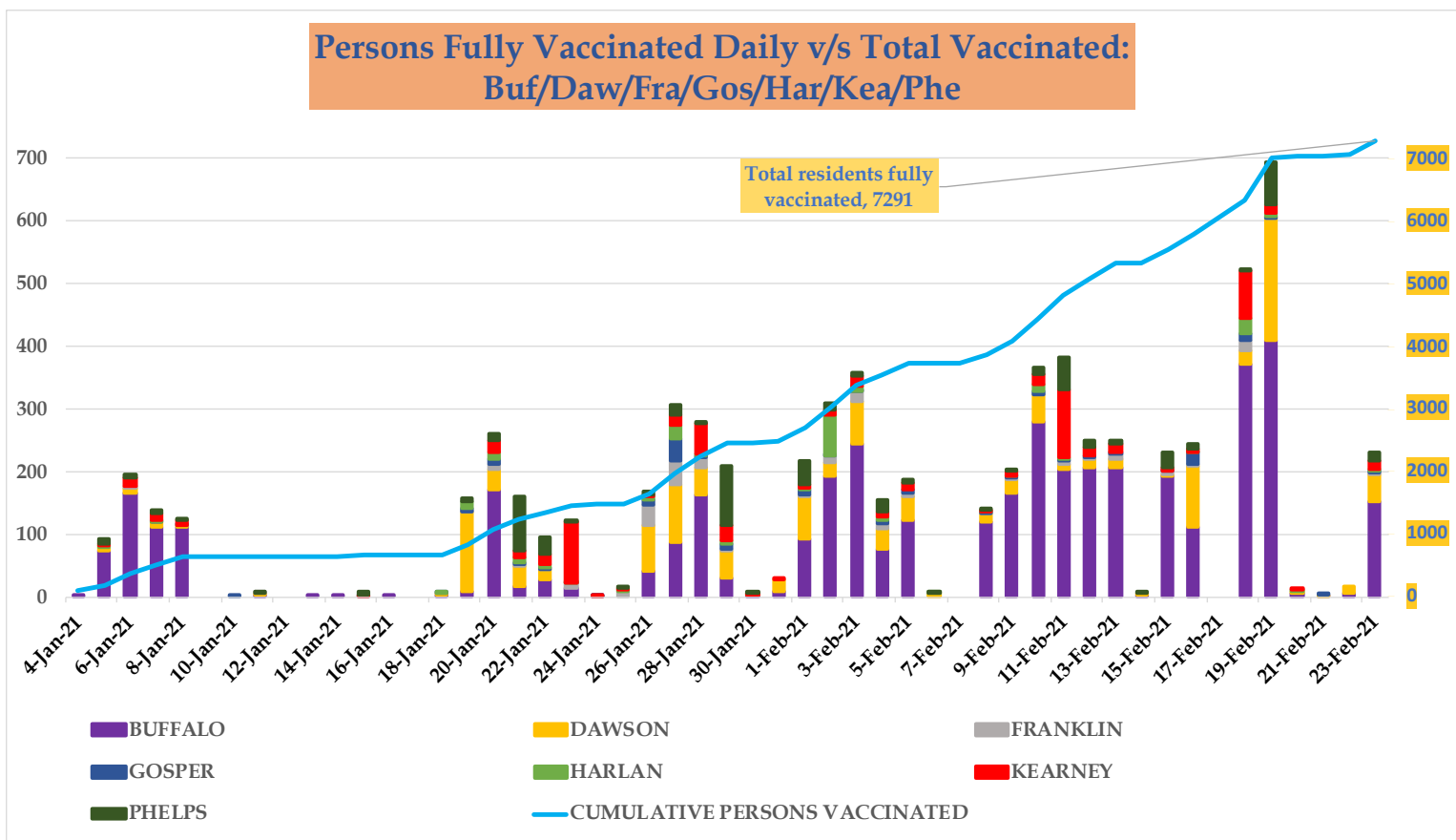


⁶ Total doses per day = doses of Pfizer/ Moderna COVID-19 vaccine administered that day (1st and 2nd)

⁷ 7-day rolling average of doses given = (sum of previous six days and the current days' doses) divided by seven



- The graph below describes the **persons fully vaccinated by county**⁸ for all 7 districts in Two Rivers Health District. Data covers **Jan 4 , 2021 - February 23, 2021**.
- The **bar graphs** represent total persons **fully vaccinated** by date.³ Height of the graph shows the total persons vaccinated that day.
 - Each colored segment corresponds to residents of Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney and Phelps counties.
- The **line graph** describes the **total (cumulative) number of residents** of Two Rivers Health District who are **fully vaccinated**⁹
 - Scale for total (Cumulative) residents who are fully vaccinated is **on the right**. (Scale is 10 times the scale of persons vaccinated daily)



⁸ Persons fully vaccinated = Those who received two doses of the Pfizer/ Moderna COVID-19 vaccine.

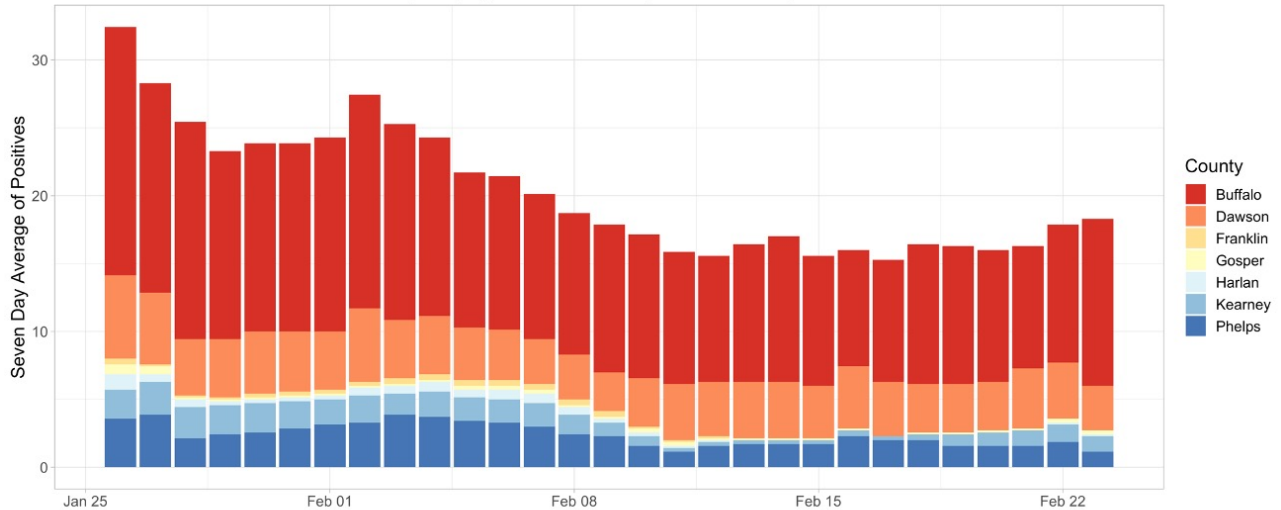
⁹ Total (Cumulative) persons fully vaccinated = All residents who have received both doses of vaccine.



- The following bar graph describes the 7-day rolling averages of COVID-19 cases by county for the past four weeks (Jan 26 – Feb 23).
- The second graph describes the same data per 100,000 population.¹⁰ 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

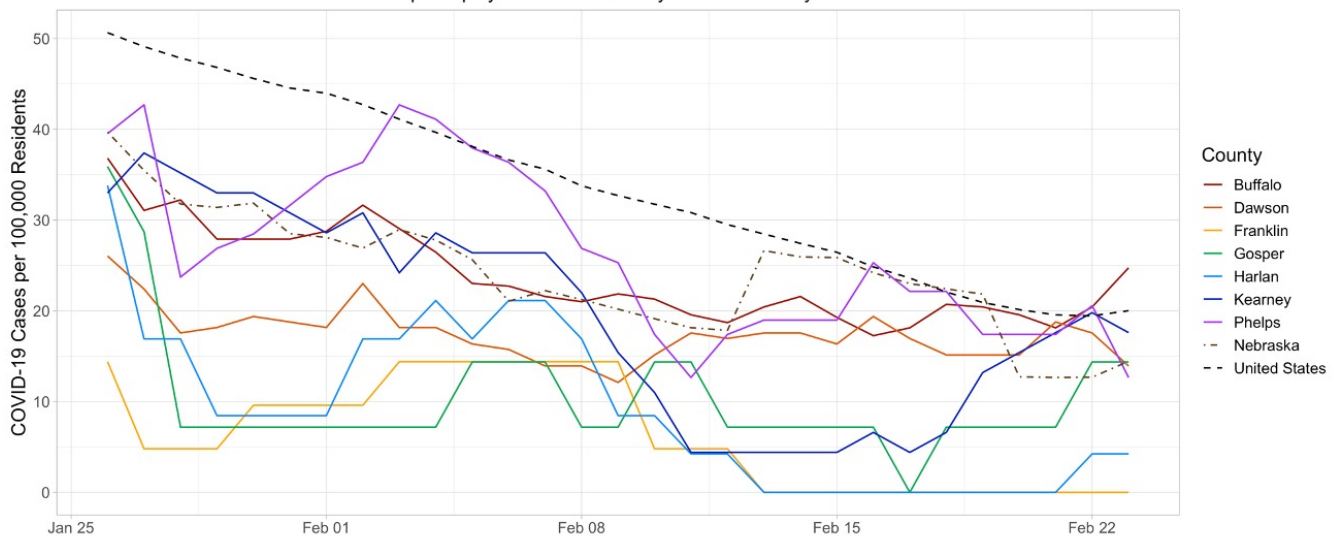
Graph displays data from January 26th to February 23rd



Information Updated as of 2/23 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 26th to February 23rd



Information Updated as of 2/23 at 8 p.m.

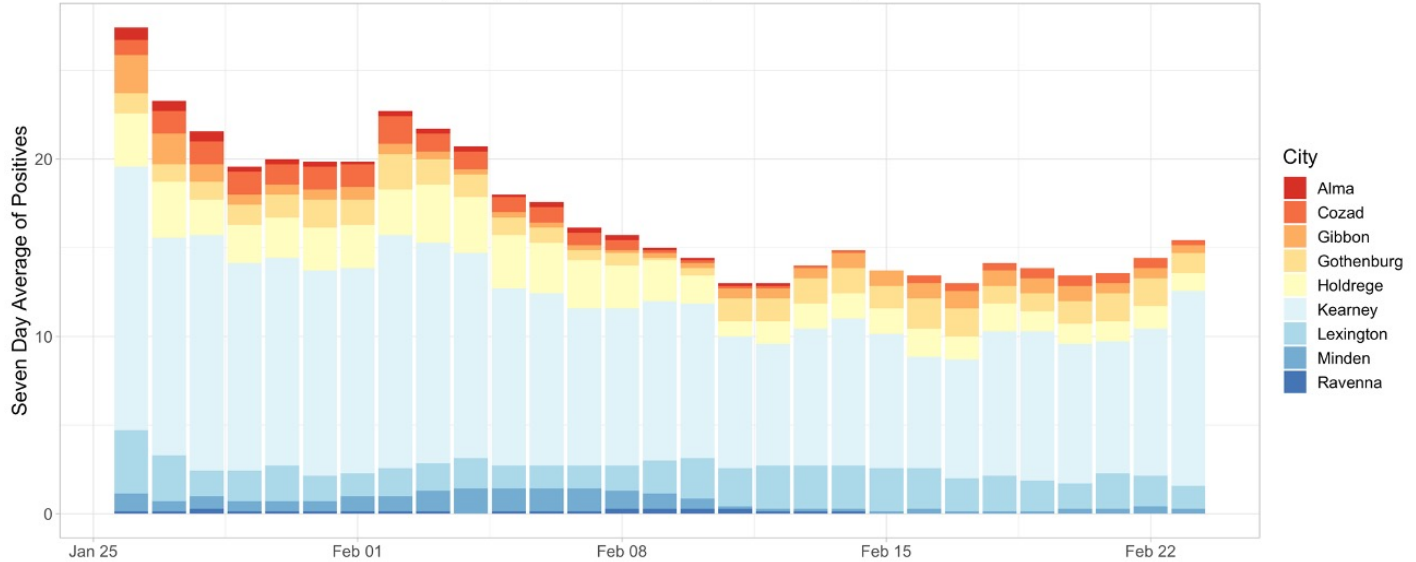
¹⁰ Please note: When comparing counties, we describe rates per 100,000 population. This is roughly equal to the total population of Two Rivers Health Department (~97,000)



- The following bar graphs describes the 7-day rolling averages by city for the past four weeks (**Jan 26 - Feb 23**) 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

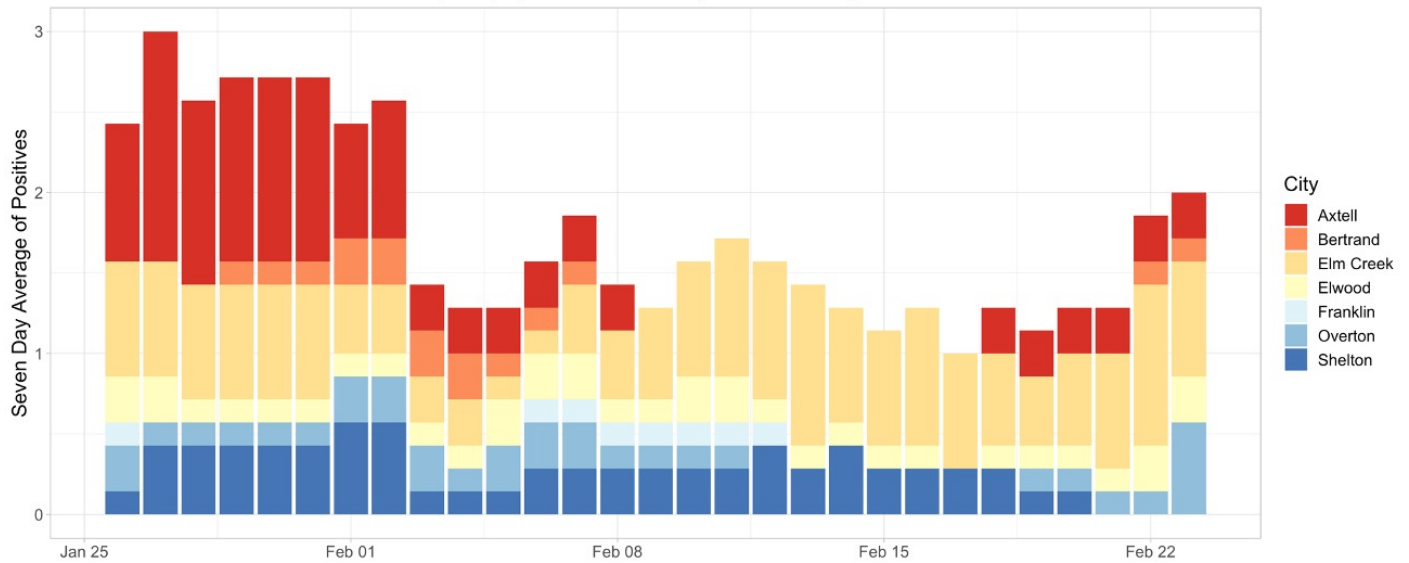
Graph displays data from January 26th to February 23rd



Information Updated as of 2/23 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 26th to February 23rd



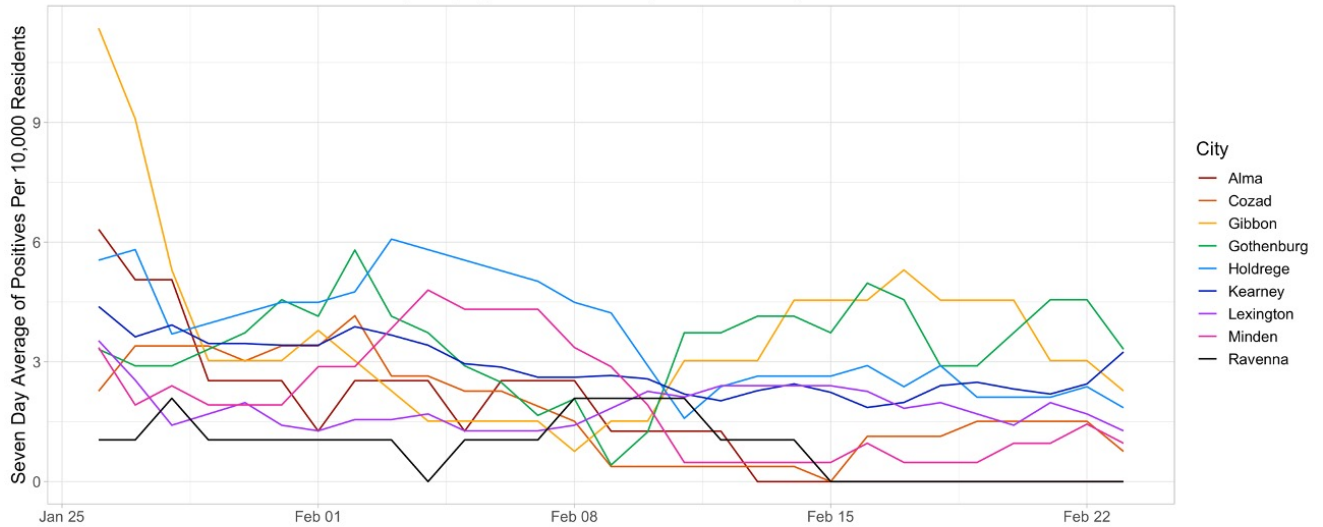
Information Updated as of 2/23 at 8 p.m.



- 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 26 – Feb 23) ¹¹
- 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**

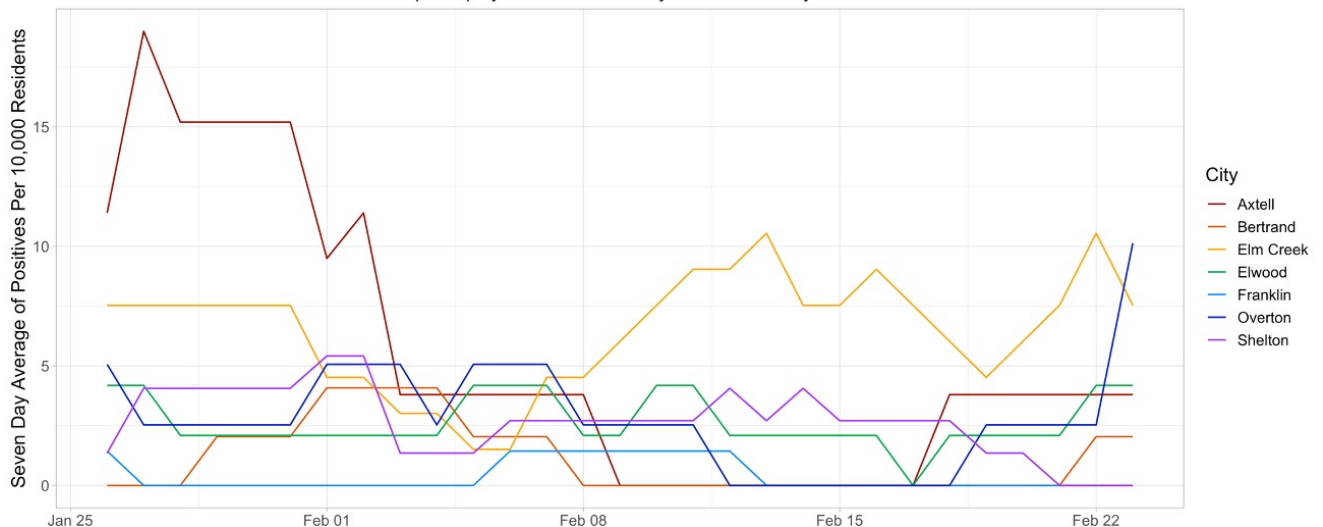
Graph displays data from January 26th to February 23rd



Information Updated as of 2/23 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 26th to February 23rd



Information Updated as of 2/23 at 8 p.m.

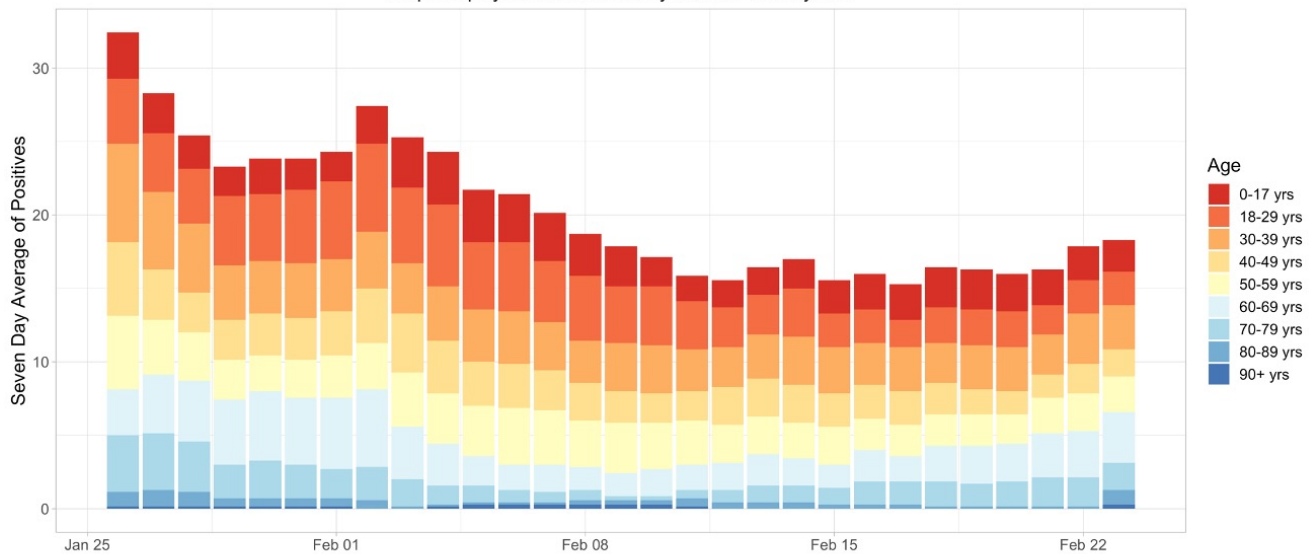
¹¹ Please note: When comparing cities, we describe rates per 10,000 population. This is roughly equal to the total population of Lexington (~10,000)



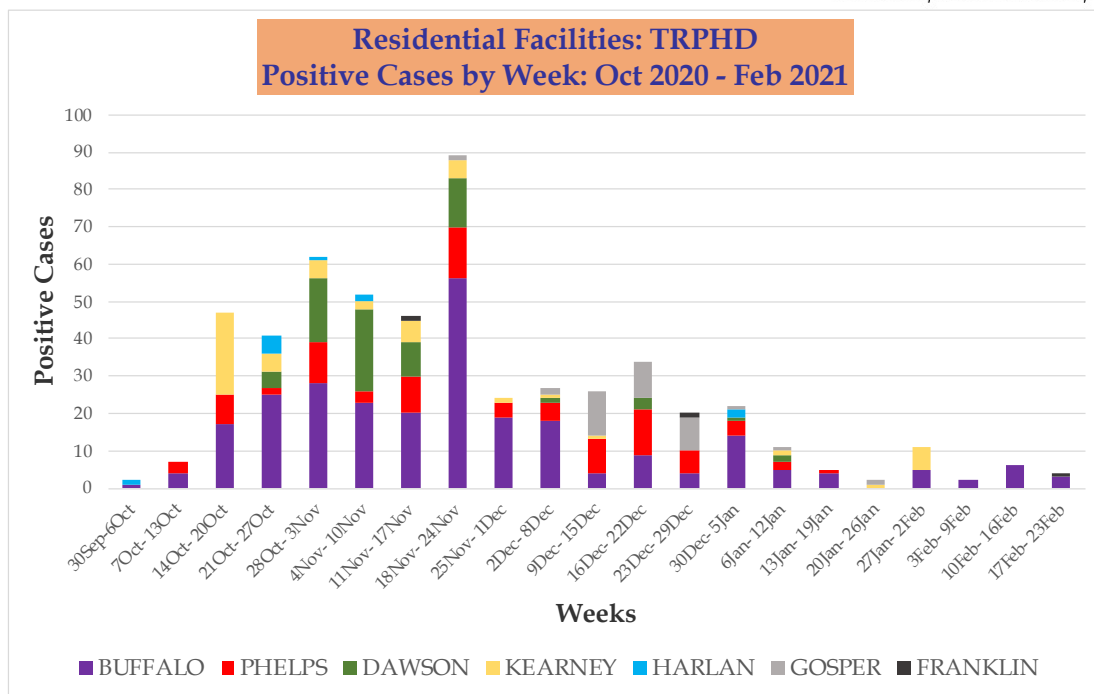
- The first graph below describes the **7-day rolling average** of cases from **January 26 – February 23** by age. The height of the graph corresponds to total cases and the thickness of each colored band corresponds to each age group.
- The second graph shows the distribution of cases per week in **residential facilities** in the district, broken up by county (**Sep 30 – Feb 23**). 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 26th to February 23rd



Information Updated as of 2/23 at 8 p.m.





Weekly summary

- Test positivity ratios remain low for all counties in Two Rivers Health Department, despite a brief rise in the last week. However, residential facilities in Buffalo county continue to report new cases.
- Testing rates have fallen across all counties, however test positivity rates remain stubbornly high among residents aged 60+ in TRPHD.
- A little under half of all ICU beds across the district are currently available; COVID-related admissions account for less than 8% of all occupied beds; over 55% of med/surgical beds in the district are available currently (see <https://www.trphd.org/> for details)
- COVID-19 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. Those eligible for the vaccine are advised to contact their physician or register at www.trphd.org
- 7291 residents of TRPHD have received two doses of the vaccine as of February 23, representing 9.5% of the eligible population. To date, over 21,500 doses of vaccine have been given to TRPHD residents.
- Average daily doses given peaked on the 14th of February before dropping during the winter snowstorm and inclement weather. Currently, about 500 doses are being given to TRPHD residents every day.

To conclude, COVID test positivity rates have risen slightly in the last week, and incident cases among seniors have increased across the district. Overall case counts remain low, however, and COVID-related admissions account for less than 8% of all beds. Over 7200 residents of TRPHD have been fully vaccinated, around 500 residents receive a vaccine dose every day. Those eligible for the vaccine are advised to contact their physician or register at Two Rivers Health Department (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.