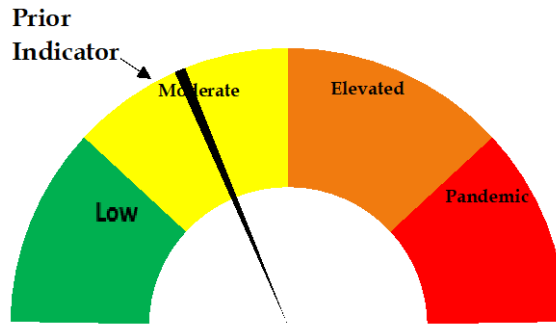




Risk Dial Apr 10, 2021



Risk Dial for COVID-19 Two Rivers Public Health Published April 10, 2021

- ICU and hospital bed availability are within expected levels for this time of the year. COVID-related admissions have accounted for about 5% of all occupied beds for the past week (see <https://www.trphd.org/> for details).
- Testing availability in Two Rivers through both TestNebraska as well as private facilities has dropped across all counties. Weekly tests are at their lowest rate since September, when regular testing in long term care facilities was first instituted.
- Outbreaks of COVID-19 cases related to congregate living situations are currently being investigated.
- Positivity rates across the district have increased for tests conducted outside of residential facilities, although overall positivity rates are still below 10%; we are monitoring new cases and tracing connected cases and potential contacts as before. See weekly report (Mar 31 - Apr 6) at <https://www.trphd.org/covid-19/weekly-reports.html> for details.
- As of April 6, 2021, 27.6% of TRPHD's eligible population has been fully vaccinated. Along with Elkhorn Logan Valley, this is the highest average in the State. TRPHD is the fourth-largest health department in Nebraska, and well over a fourth of eligible residents have been fully vaccinated in three months. See weekly vaccination report at <https://www.trphd.org/covid-19/vaccination-reports.html> for details
- 71.1% of residents aged 65 years or more in TRPHD and over half of 65+ year olds in all counties have been fully vaccinated, including almost 80% in Buffalo county.
- For these reasons, the risk dial is slightly upgraded from the previous week, although risk is still assessed to be "moderate".



Weekly report Mar 31 – Apr 6, 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 **March 31 – April 6** (1 week) and **March 9 – April 6** (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, 2020 – April 6, 2021** (1 year) across all counties.
 - We describe the 7-day rolling average¹ of positive cases across TRPHD since April, describing cases by age categories (**Apr – Mar**)
- The second set of graphs describe the **average positivity rate(7-day rolling)**² for all 7 districts in Two Rivers Health District from **April 1, 2020 – April 6, 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 third set of graphs describe the daily average of cases (7-day rolling average) from **March 9 – April 6**.
 - 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.

COVID incidence has seen a slight increase over the past week, especially in Phelps and Franklin counties, although overall test positivity rate is still below 10% for the district.. Test availability has dropped dramatically, through both TestNebraska and private hospitals and clinics. Vaccinations are now offered to everyone over 16 years of age in the district, and 27.6% of the district is fully vaccinated. 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 For a description of average positivity rate (7-day rolling), please see appendix 1



Testing Overview

- As of Apr 6, over 44,000 residents of Two Rivers Health District were tested at least once for COVID-19. Over 120,000 tests have been conducted since March 1, and almost 11,000 of these tests were positive.³ TRPHD has publicly notified 118 deaths due to COVID across the district.
- Half of all tests conducted since March 2020 have been laboratory-based Polymerase Chain Reaction (PCR) tests, and the rest have been rapid (antigen) tests.
 - However, over three-quarter 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

	Mar 31 - Apr 6 (1 week)			Mar 9 - Apr 6 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Hospital/ Clinic	479	51	10.6%	2204	182	8.3%
TestNebraska	110	17	15.5%	391	41	10.5%
Residential Facility	1155	2	0.2%	6798	12	0.2%
Lab/ Pharmacy	214	3	1.4%	705	22	3.1%
Other	90	4	4.4%	501	18	3.6%
TOTAL	2048	77	3.8%	10,599	275	2.6%

- A total of 6798 tests were availed by residents and staff of long-term care and other residential facilities in the last 4 weeks. Details are provided below:

	Mar 31 - Apr 6 (1 week)			Mar 9 - Apr 6 (4 weeks)		
Residential Facility In:	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Buffalo	580	2	0.3%	4316	4	0.1%
Dawson	186	0	0.0%	741	1	0.1%
Franklin	0.0	0	0.0%	0.0	0	0.0%
Gosper	3	0	0.0%	41	0	0.0%
Harlan	33	0	0.0%	143	0	0.0%
Kearney	1	0	0.0%	153	0	0.0%
Phelps	274	0	0.0%	1101	2	0.2%
Outside TRPHD	78	0	0.0%	303	5	1.7%
TOTAL	1155	2	0.2%	6798	12	0.2%

³ 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 3801 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.

	Mar 31 - Apr 6 (1 week)			Mar 9 - Apr 6 (4 weeks)		
	Total tests conducted	Positive cases	P. rate (%)	Total tests conducted	Positive cases	P. rate (%)
County						
Buffalo	479	44	9.2%	2178	149	6.8%
Dawson	282	14	5.0%	1039	60	5.8%
Franklin	16	0	0.0%	61	0	0.0%
Gosper	9	0	0.0%	31	1	3.2%
Harlan	9	2	22.2%	51	7	13.7%
Kearney	27	3	11.1%	130	8	6.2%
Phelps	69	12	17.4%	288	36	12.5%
Data missing/ not disclosed	2	0	0.0%	23	2	8.7%
Total	893	75	8.4%	3,801	263	6.9%
Age (in yrs)						
0-17	94	1	1.1%	420	14	3.3%
18-29	256	18	7.0%	1027	65	6.3%
30-39	158	17	10.8%	592	48	8.1%
40-49	109	8	7.3%	475	38	8.0%
50-59	121	8	6.6%	499	43	8.6%
60-69	90	11	12.2%	398	31	7.8%
70-79	38	3	7.9%	188	11	5.9%
80-89	19	6	31.6%	125	10	8.0%
90+	8	3	37.5%	77	3	3.9%
Total	893	75	8.4%	3801	263	6.9%
Gender						
Female	487	33	6.8%	2163	128	5.9%
Male	402	42	10.4%	1622	135	8.3%
Data missing/ not disclosed	4	0	0.0%	16	0	0.0%
Total	893	75	8.4%	3,801	263	6.9%



- The graph below describes 7-day rolling average of COVID-19 across TRPHD from **April 1, 2020 - April 6, 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.

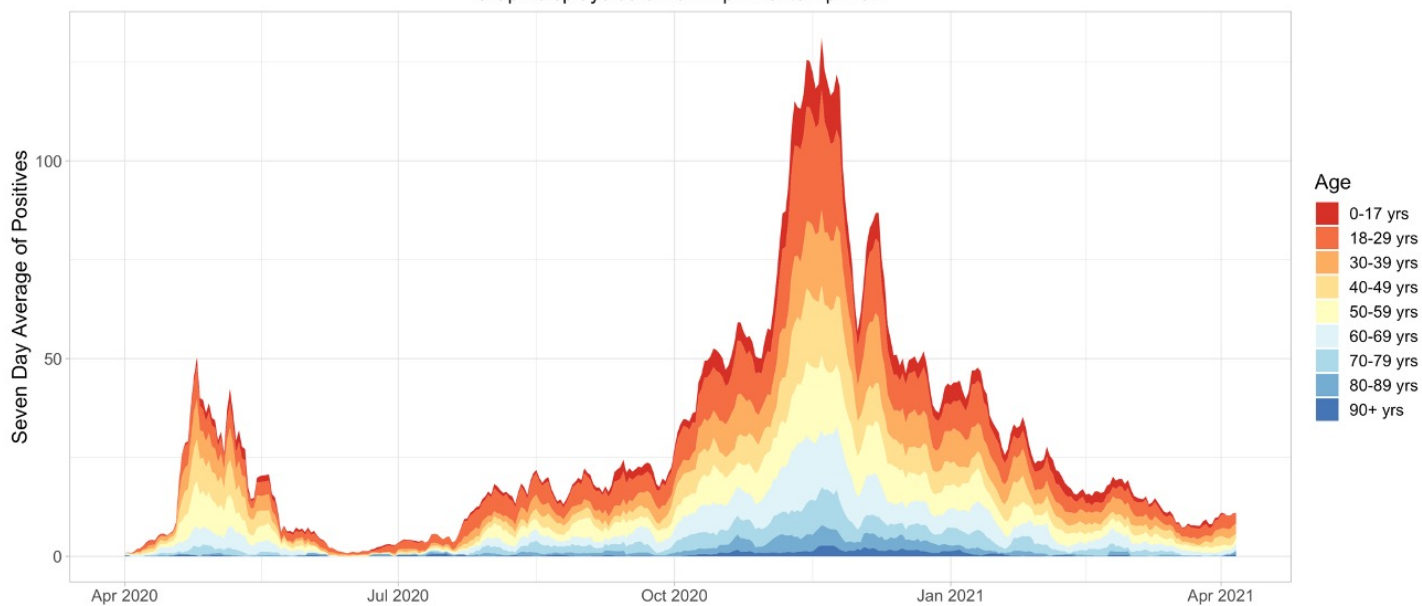
7 Day Rolling Average of Two Rivers

Graph displays data from April 1st to April 6th



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

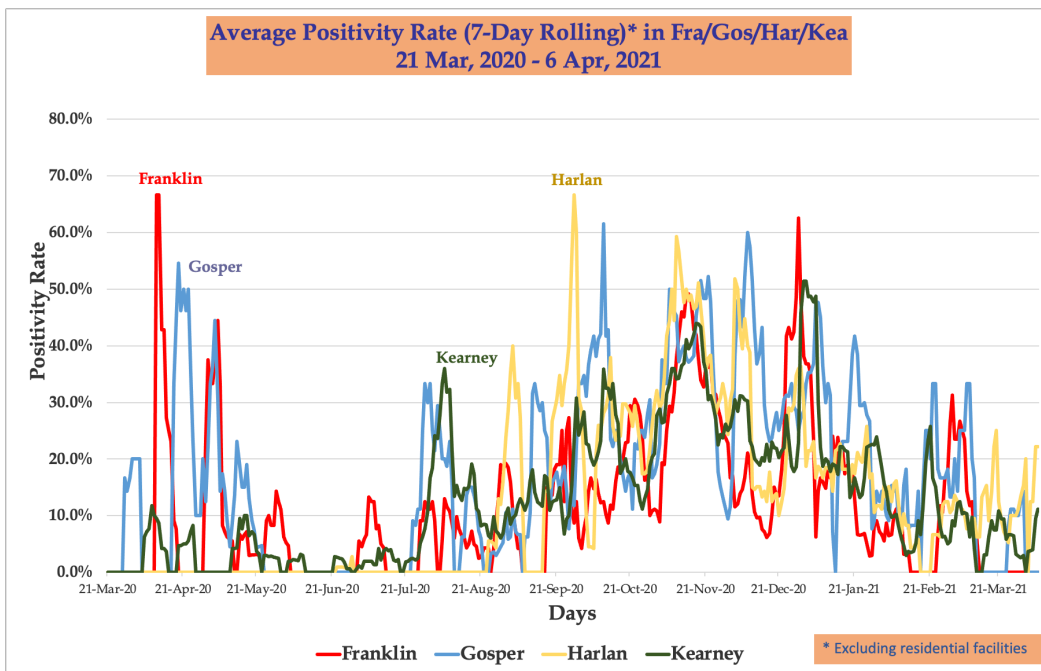
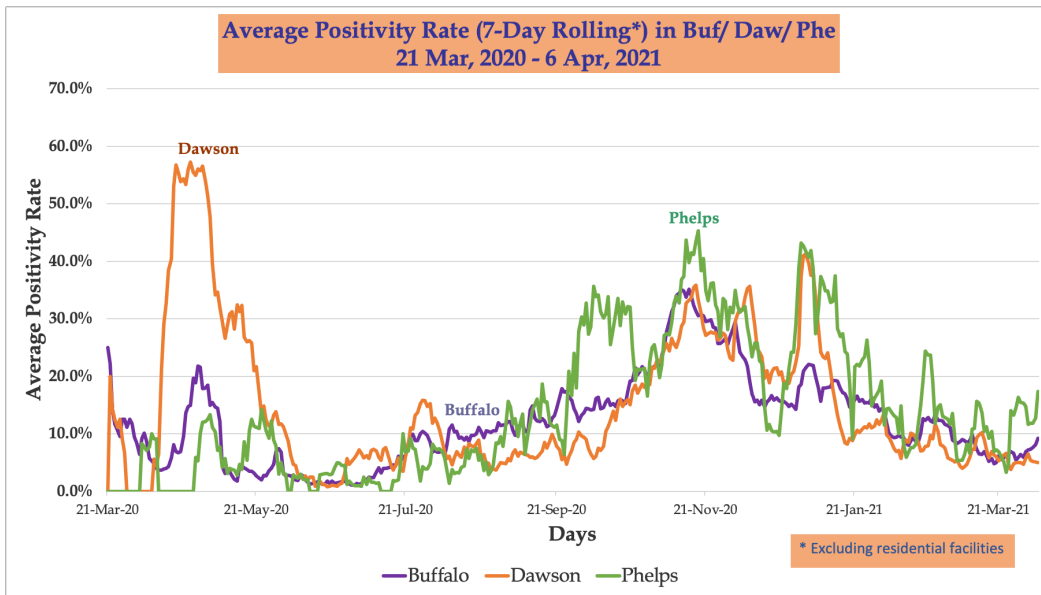
Graph displays data from April 1st to April 6th



Information Updated as of 4/6 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 - April 6**. Only tests outside of residential facilities are included. ⁴
- 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.



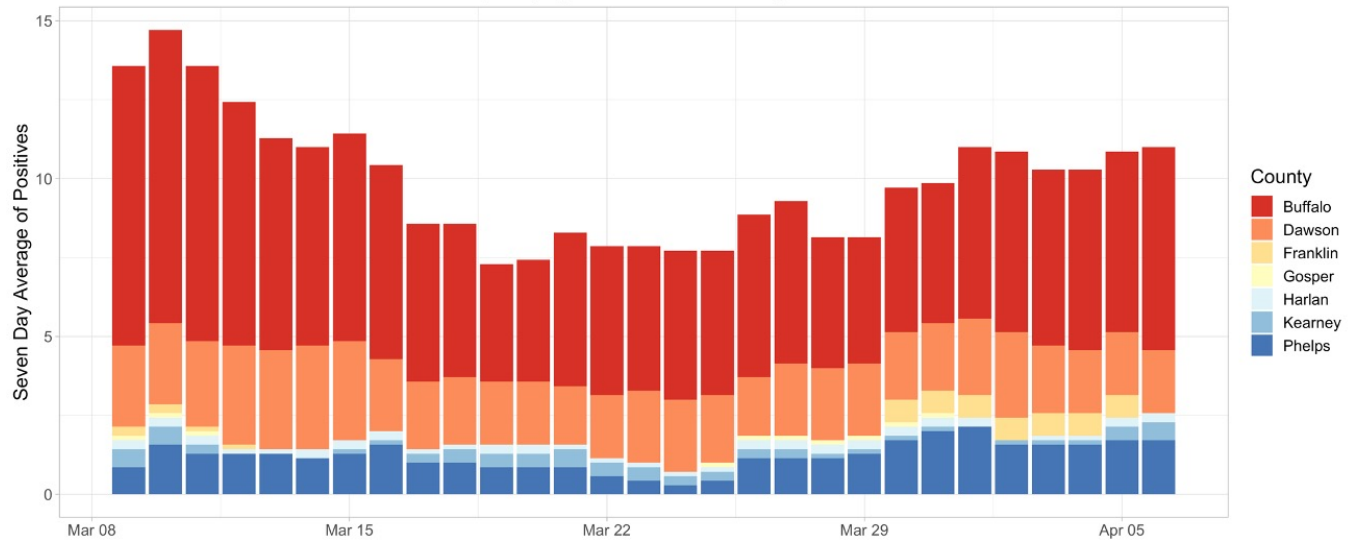
⁴ For information on residential facilities, please see appendix 3
516 W 11th Street, Suite 108
Kearney, NE 68845



- The following bar graph describes the 7-day rolling averages of COVID-19 cases by **county** for the past four weeks (Mar 9 – Apr 6).
- The second graph describes the same data per 100,000 population.⁵

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

Graph displays data from Mar 9th to April 6th



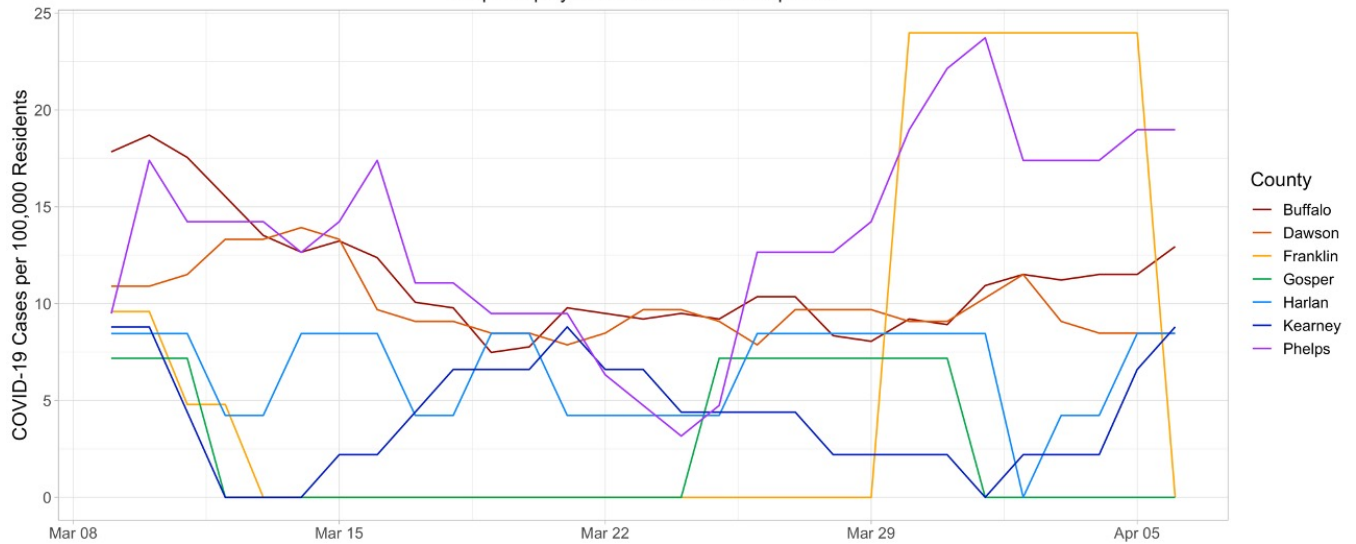
Information Updated as of 4/6 at 8 p.m.

⁵ 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)



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

Graph displays data from Mar 9th to April 6th

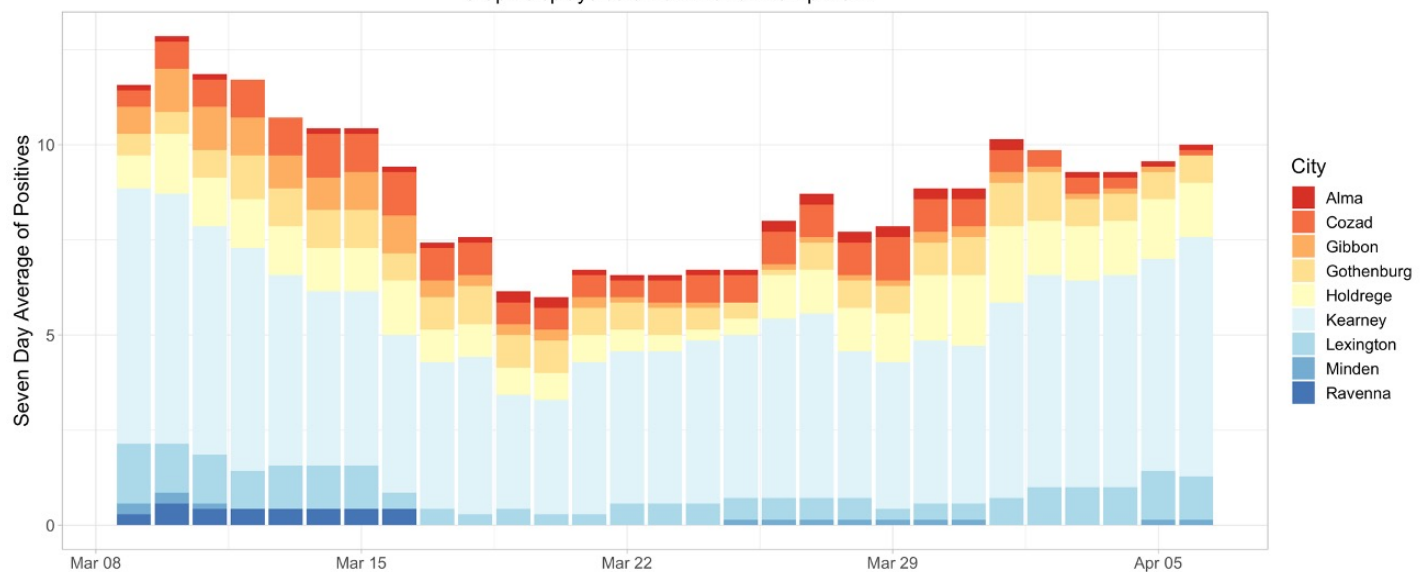


Information Updated as of 4/6 at 8 p.m.

- The following bar graphs describes the 7-day rolling averages by **city** for the past four weeks (**Mar 9 - Apr 6**) 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 Mar 9th to April 6th

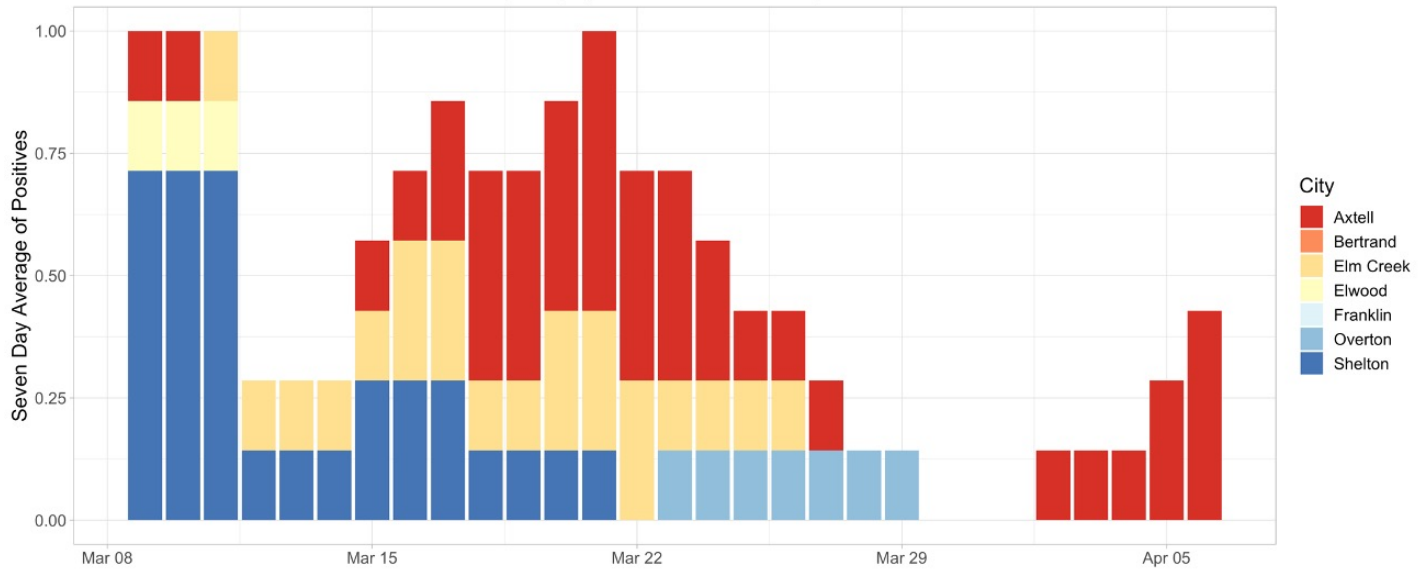


Information Updated as of 4/6 at 8 p.m.



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

Graph displays data from Mar 9th to April 6th



Information Updated as of 4/6 at 8 p.m.

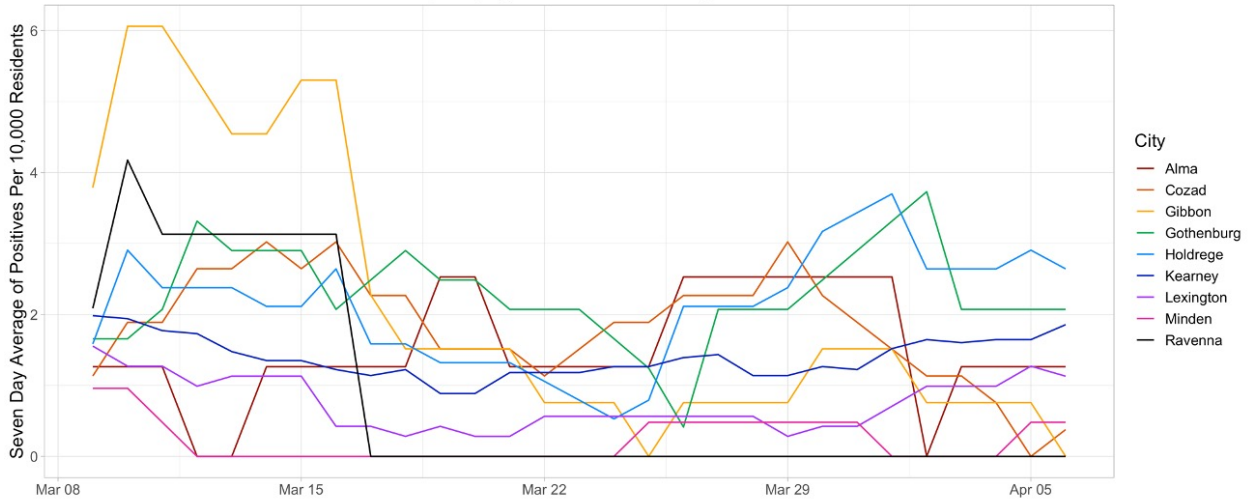
- The following line graph describes the 7-day rolling average of COVID cases per 10,000 population in cities across TRPHD for the past four weeks (Mar 9 - Apr 6) ⁶
- The graph above shows cities with population above 1100 and the one below shows the graph for cities with less than 1100 residents. The scale is different for both graphs.

⁶ Please note: When comparing cities, we describe rates per 10,000 population. This is roughly equal to the total population of Lexington (~10,000)



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

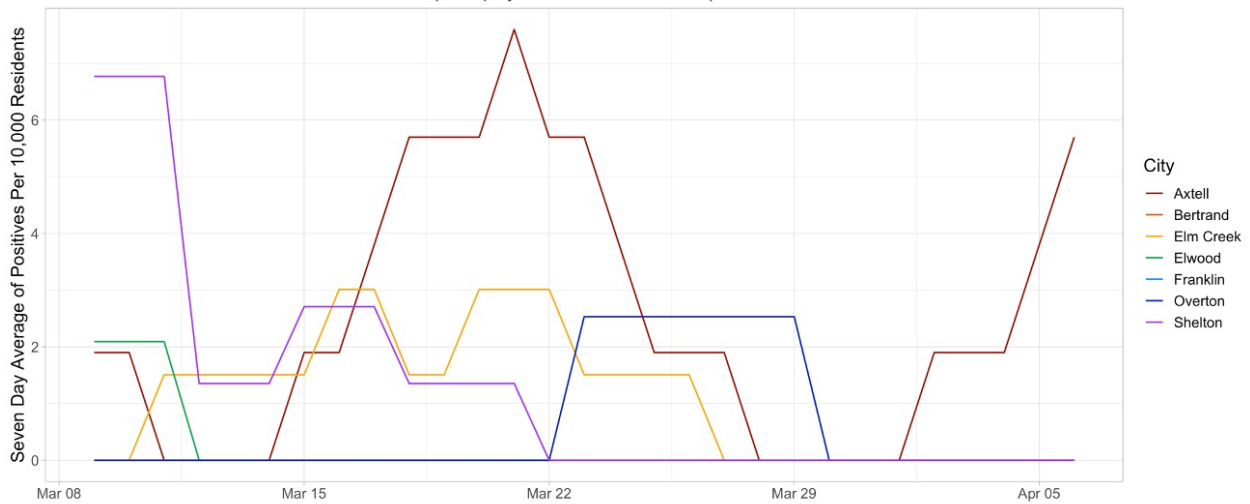
Graph displays data from Mar 9th to April 6th



Information Updated as of 4/6 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 Mar 9th to April 6th



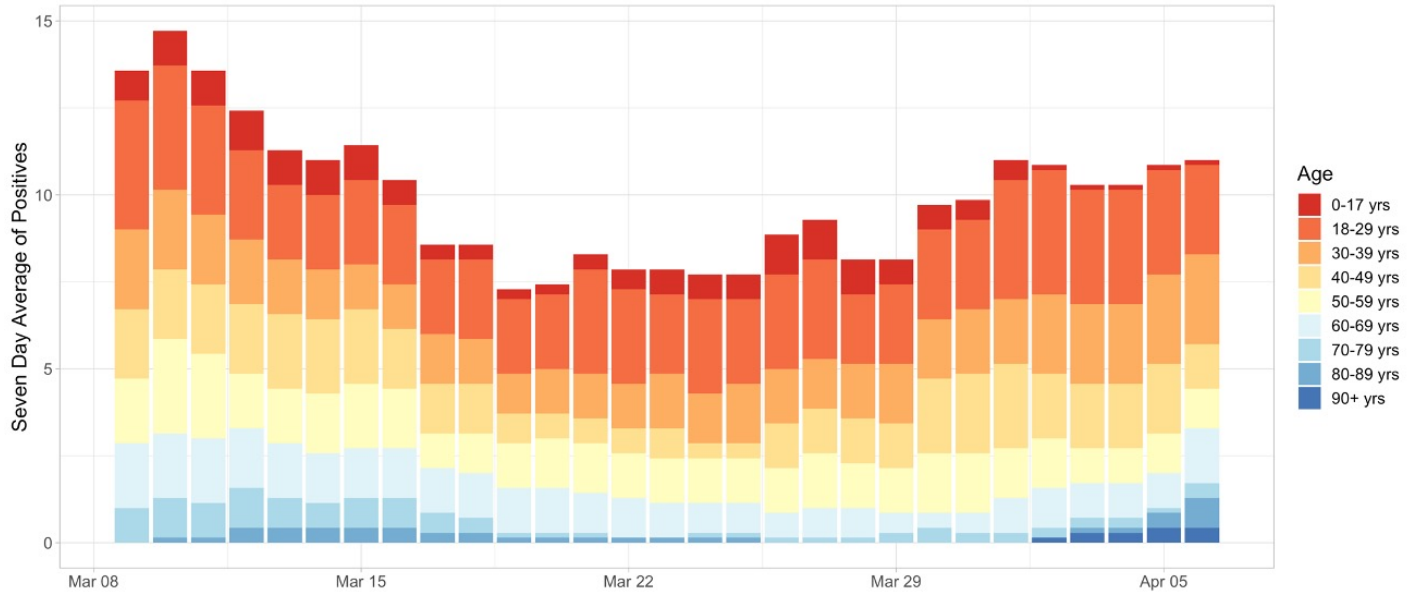
Information Updated as of 4/6 at 8 p.m.

- The graph below describes the **7-day rolling average** of cases from **Mar 9 - Apr 6** by age. 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 COVID-19 Cases in Two Rivers by Age

Graph displays data from Mar 9th to April 6th



Information Updated as of 4/6 at 8 p.m.



Weekly summary

- Testing availability in Two Rivers through both TestNebraska as well as private facilities has dropped across all counties. Weekly tests are at their lowest rate since September, when regular testing in long term care facilities was first instituted.
- There has been an outbreak of cases related to a long term care facility that is currently being investigated. The increased incidence of cases in persons aged 60 and over is indicative of this sudden increase in cases.
- Cases have risen slightly across the district, and positivity rates have increased for tests conducted outside of residential facilities. Overall positivity rates for the district are still below 10%, but we are monitoring new cases and tracing connected cases and potential contacts as before. New cases have been reported in Phelps and Franklin counties.
- As of April 6, 2021, 27.6% of TRPHD's eligible population has been fully vaccinated. Along with Elkhorn Logan Valley, this is the highest average in the State. TRPHD is the fourth-largest health department in Nebraska, and well over a fourth of eligible residents have been fully vaccinated in three months. See weekly vaccination report at <https://www.trphd.org/covid-19/vaccination-reports.html> for details
- 71.1% of residents aged 65 years or more in TRPHD have been fully vaccinated; over half of 65+ year olds in all counties have been vaccinated, including almost 80% in Buffalo county.
- COVID-related admissions have accounted for about 5% of all occupied beds in the past week (see <https://www.trphd.org/> for details). Overall ICU occupancy is about 50%, but COVID-related ICU occupancy remains at the same level as last week.
- 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. All persons aged 16 and over are eligible for the vaccine. Those desirous of receiving the vaccine are advised to contact their physician or register at www.trphd.org

To conclude, COVID incidence has seen a slight increase over the past week, especially in Phelps and Franklin counties, although overall test positivity rate is still below 10% for the district.. Test availability has dropped dramatically, through both TestNebraska and private hospitals and clinics. Vaccinations are now offered to everyone over 16 years of age in the district, and 27.6% of the district is fully vaccinated. 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.