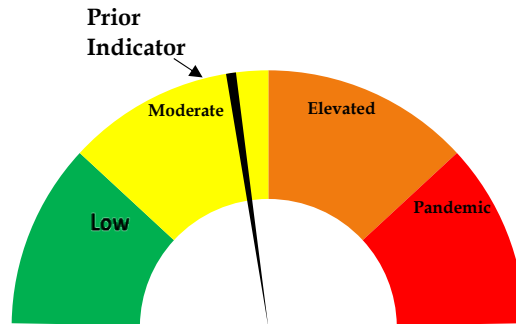




Risk Dial Mar 10, 2020



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

- Over 12,463 residents of TRPHD have been fully vaccinated as of March 9, representing 16.4% of the eligible population (16+ years). Almost 45% of seniors (65 years and over) have been fully vaccinated. For details see weekly vaccination report at https://www.trphd.org/file_download/inline/c1c54ad8-dc67-4afc-b045-2da0e49984ad
- A little over a third of ICU beds and about half of all medical/surgical beds across the district are currently available, COVID-related admissions account for less than 5% of all occupied beds (see <https://www.trphd.org/> for details)
- Testing rates have fallen across all counties. TestNebraska sites in Dawson county are either closing or anticipated to close over the next few weeks. Testing access has also contracted in Franklin and Harlan counties.
- Falling testing rates do not seem to be accompanied by a proportionate decrease in positive cases. See weekly report (Mar 3 - Mar 9) at <https://www.trphd.org/covid-19/weekly-reports.html> for details.
- COVID-19 vaccination continues to be provided via private clinics, hospitals, and mass vaccination sites 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
- For these reasons, the risk dial is upgraded slightly from the previous week, within the “moderate risk” region of the dial. TRPHD continues to monitor new cases and potential outbreaks across the district while encouraging residents to avail of testing facilities.



Weekly report Mar 3 – Mar 9, 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 3 – March 9** (1 week) and **February 9 – March 9** (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 – March 9** (49 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 – Mar**)
- The second graphic describes **COVID-19 tests availed** by residents of TRPHD by location of test. Data covers the time period from **March 5, 2020 – March 8, 2020**.
 - The **colored squares on the left** represent **total tests availed** by residents of Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney and Phelps counties²
 - The **squares on the right** describe the **facilities providing tests** for all residents of Two Rivers Health District.
- The third graph describes the **total tests conducted** and **positives detected (7-day rolling average)** from **November 11 – March 9** for each of the seven counties in Two Rivers Health District. Only tests conducted outside residential facilities are considered. Also displayed is the weekly **test positivity rate**.
- The fourth set of graphs describe the daily average of cases (7-day rolling average) from **February 2 – March 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 final graph shows positive cases in Residential facilities, displaying each week's cases by the county where the facility is located (**Oct – Mar**) ³

COVID testing rates continue to fall across Two Rivers Health District, although positivity rates do not seem to show a similar decrease. Falling case rates among persons aged 65+ years combined with high vaccination rates in this age group is cause for optimism. Over 12,463 residents of TRPHD (16.4% of eligible population) have been fully vaccinated as of March 9, including 44.7% of all seniors living in the district. 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 tests availed include multiple tests by the same person; tests are both antigen and PCR- based.

³ For information on residential facilities, please see appendix 3



Testing Overview

- As of Mar 9, over 42,100 residents of Two Rivers Health District were tested at least once for COVID-19. Over 108,000 tests have been conducted since March 1, and 10,819 of these tests were positive.⁴ TRPHD has publicly notified 116 deaths due to COVID across the district.
- Over 52% of all tests conducted since March 2020 have been laboratory-based Polymerase Chain Reaction (PCR) tests.
 - However, almost 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

	Mar 3 - Mar 9 (1 week)			Feb 9 - Mar 9 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Hospital/ Clinic	689	61	8.9%	2659	300	11.3%
TestNebraska	168	20	11.9%	620	65	10.5%
Residential Facility	1497	1	0.1%	6406	15	0.2%
Lab/ Pharmacy	204	10	4.9%	830	40	4.8%
Other	138	5	3.6%	598	40	6.7%
TOTAL	2696	97	3.6%	11,113	460	4.1%

- A total of 6406 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:	Mar 3 - Mar 9 (1 week)			Feb 9 - Mar 9 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Buffalo	656	1	0.2%	3470	8	0.2%
Dawson	147	0	0.0%	613	0	0.0%
Franklin	0	0	0.0	0	0	0.0
Gosper	0	0	0.0	67	0	0.0%
Harlan	40	0	0.0%	304	2	0.7%
Kearney	110	0	0.0%	391	1	0.3%
Phelps	445	0	0.0%	1179	4	0.3%
Outside TRPHD	99	0	0.0%	382	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



TOTAL	1497	1	0.1%	6406	15	0.2%
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Excluding residential facilities, a total of 4707 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 3 - Mar 9 (1 week)			Feb 9 - Mar 9 (4 weeks)		
	Total tests conducted	Positive cases	P. rate (%)	Total tests conducted	Positive cases	P. rate (%)
County						
Buffalo	706	63	8.9%	2681	266	9.9%
Dawson	288	17	5.9%	1230	92	7.5%
Franklin	17	2	11.8%	72	7	9.7%
Gosper	3	1	33.3%	31	6	19.4%
Harlan	26	2	7.7%	75	6	8.0%
Kearney	64	4	6.3%	226	22	9.7%
Phelps	91	6	6.6%	371	40	10.8%
Data missing/ not disclosed	4	1	25.0%	21	6	28.6%
Total	1,199	96	8.0%	4,707	445	9.5%
Age (in yrs)						
0-17	150	6	4.0%	554	46	8.3%
18-29	322	28	8.7%	1211	78	6.4%
30-39	177	16	9.0%	712	83	11.7%
40-49	137	14	10.2%	569	56	9.8%
50-59	144	13	9.0%	602	63	10.5%
60-69	152	13	8.6%	559	69	12.3%
70-79	82	6	7.3%	303	38	12.5%
80-89	29	0	0.0%	143	10	7.0%
90+	6	0	0.0%	54	2	3.7%
Total	1199	96	8.0%	4707	445	9.5%
Gender						
Female	667	40	6.0%	2678	218	8.1%
Male	523	56	10.7%	1990	224	11.3%
Data missing/ not disclosed	9	0	0.0%	39	3	7.7%
Total	1,199	96	8.0%	4,707	445	9.5%



- The graph below describes 7-day rolling average of COVID-19 across TRPHD from **April 1 – March 9.**
- 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.

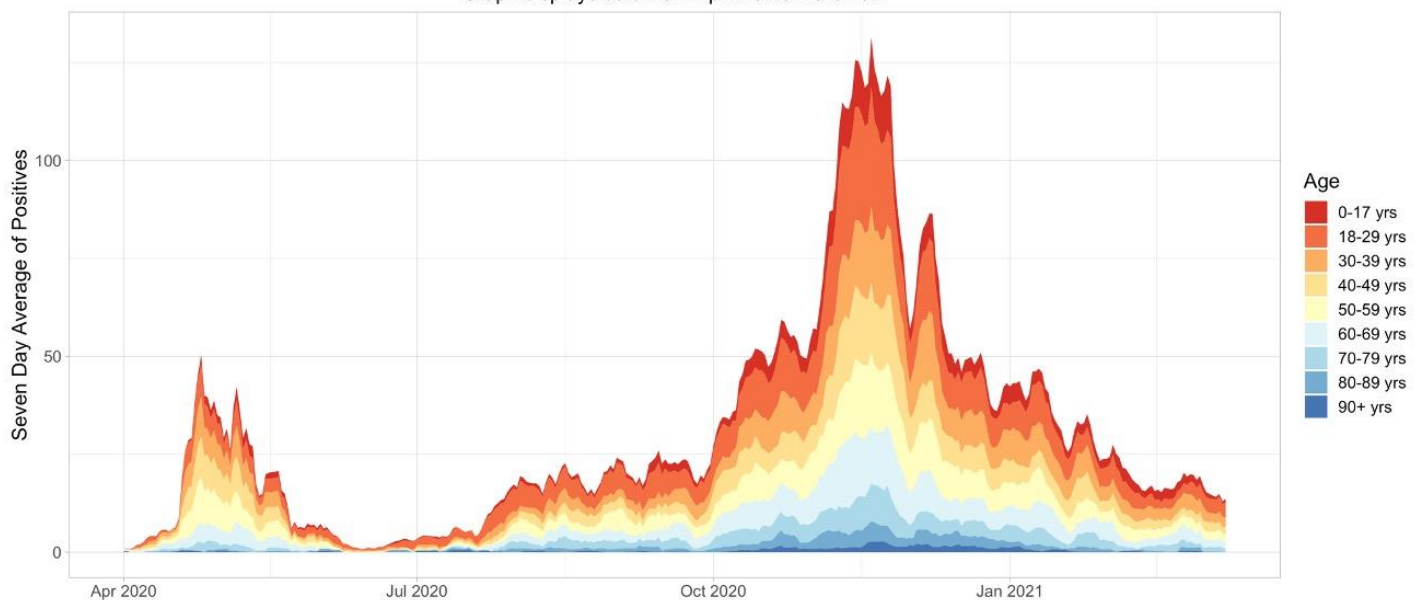
7 Day Rolling Average of Two Rivers

Graph displays data from April 1st to March 9th



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

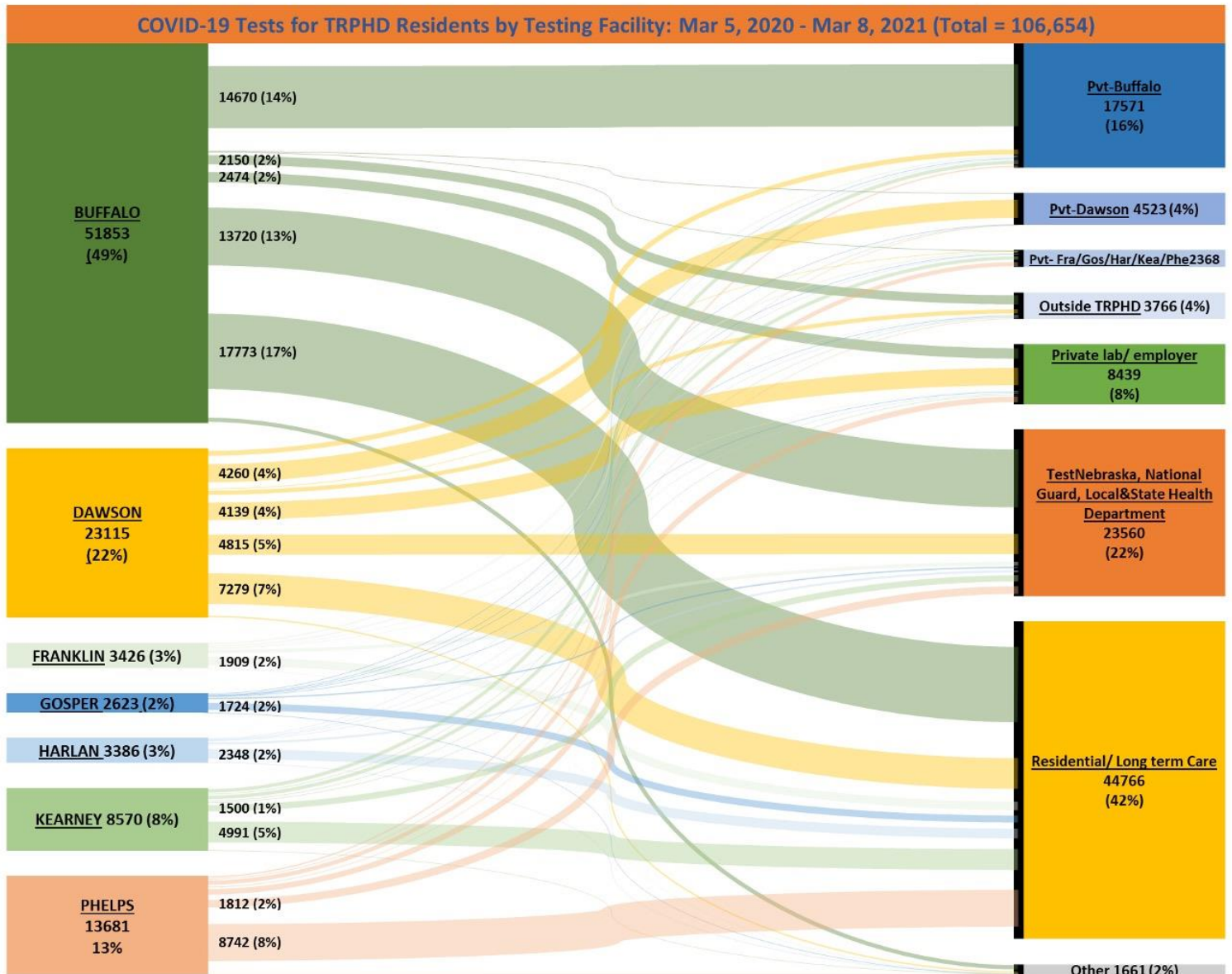
Graph displays data from April 1st to March 9th



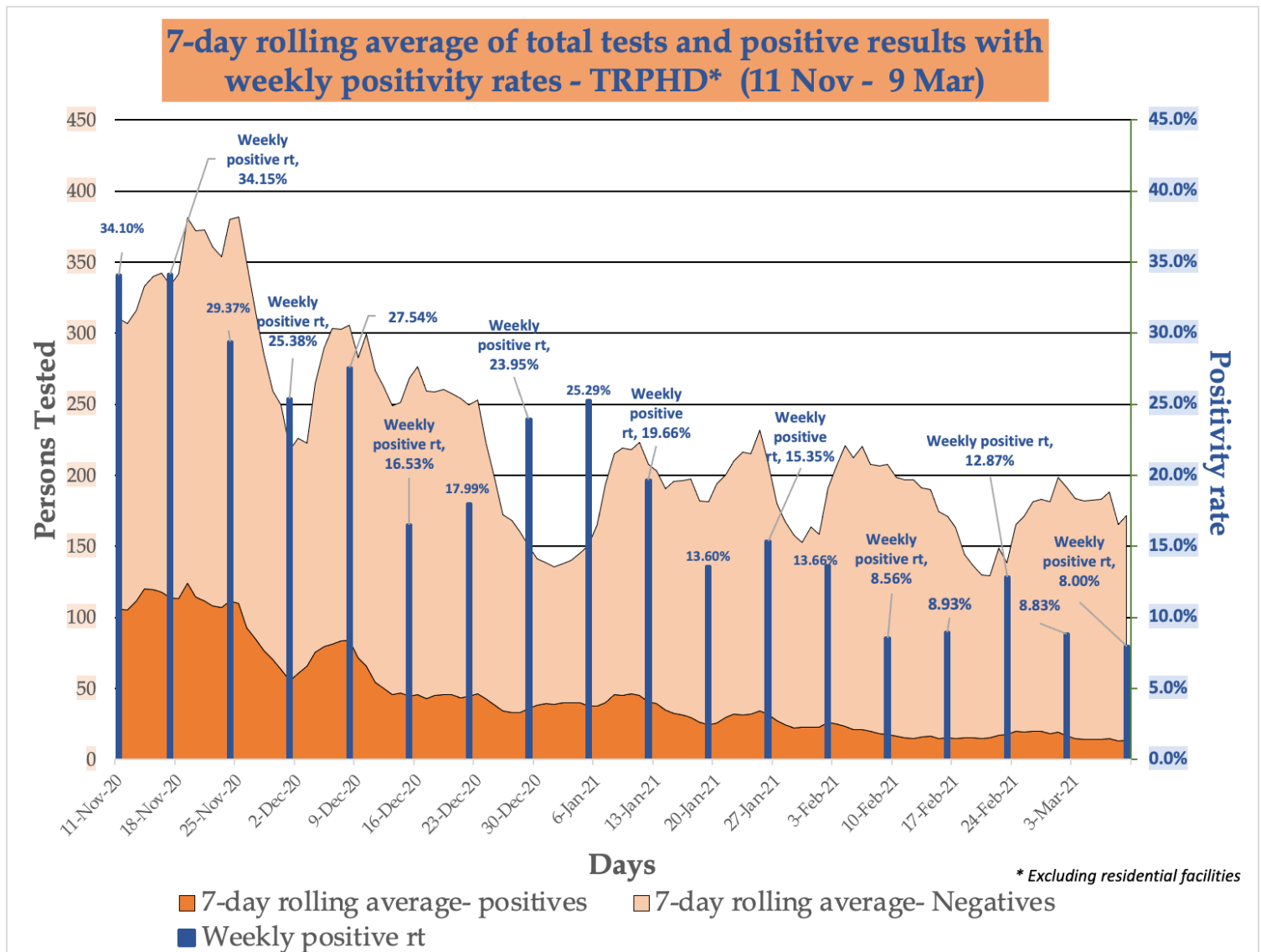
Information Updated as of 3/9 at 8 p.m.



- The graphic below shows **COVID tests availed** by residents of Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney & Phelps counties from different facilities in TRPHD.
- Facilities are grouped as **residential** & long term care, **TestNebraska** & national guard testing, private labs & **employer**-based, and **private** hospitals or clinics (“Pvt”) in Buffalo, Dawson and Franklin/Gosper/Harlan/Kearney/Phelps counties
- Size of the arrow is proportional to the number of tests conducted by that facility
- Absolute number of tests per county and per facility are depicted, and relative proportion is displayed in parenthesis



- The graph below describes the **total tests conducted** across Two Rivers Health District, divided into **negative and positive results received** ⁵ from **November 11 to March 9**. The height of the graph corresponds to all tests done that week (7-day rolling average) and the two colors denote negative and positive results.
- Also shown is the **weekly test positivity rate**, denoted by vertical bars on the x-axis (right). Only tests outside of residential facilities were included.



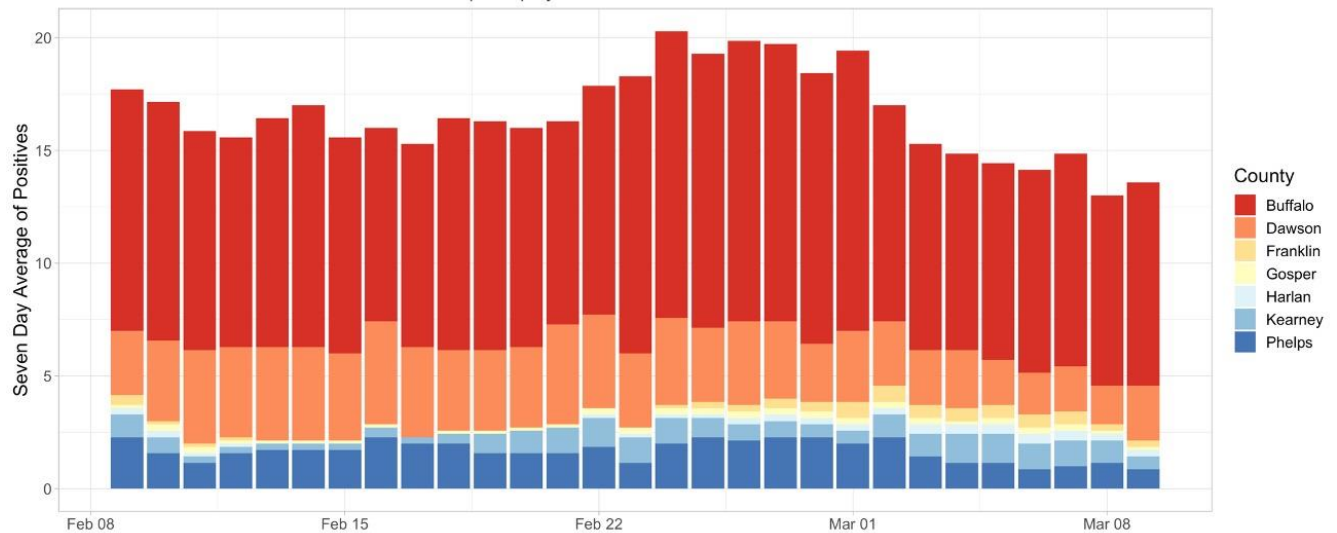
⁵ For information on total tests and test positivity rate, please see appendix 1
516 W 11th Street, Suite 108
Kearney, NE 68845



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

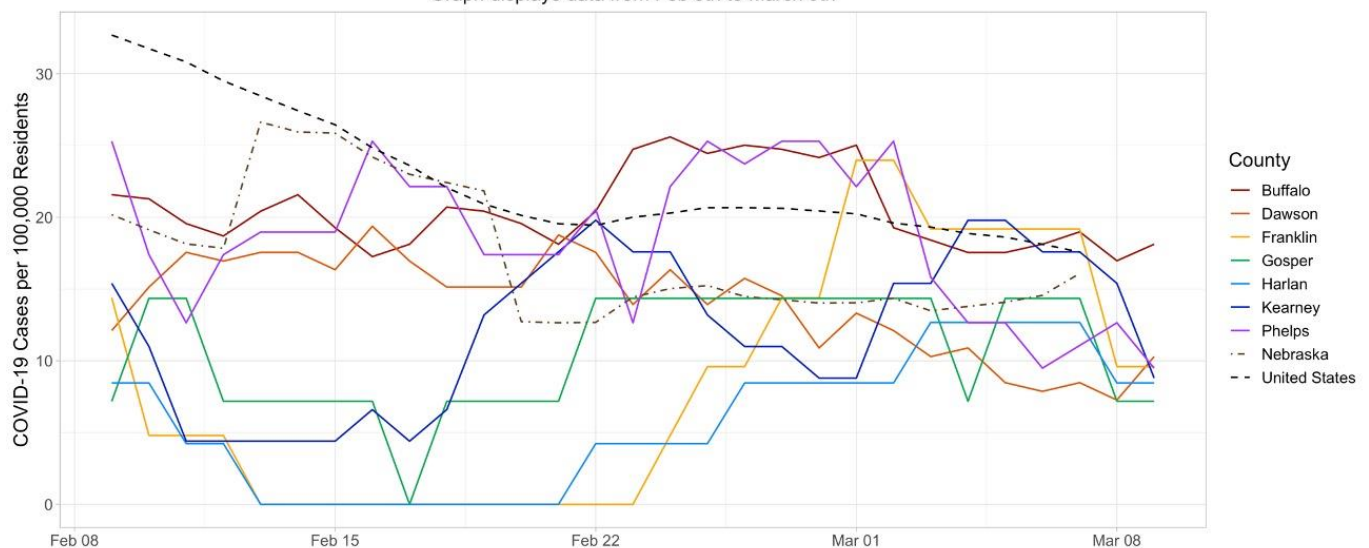
Graph displays data from Feb 9th to March 9th



Information Updated as of 3/9 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 Feb 9th to March 9th



Information Updated as of 3/9 at 8 p.m.

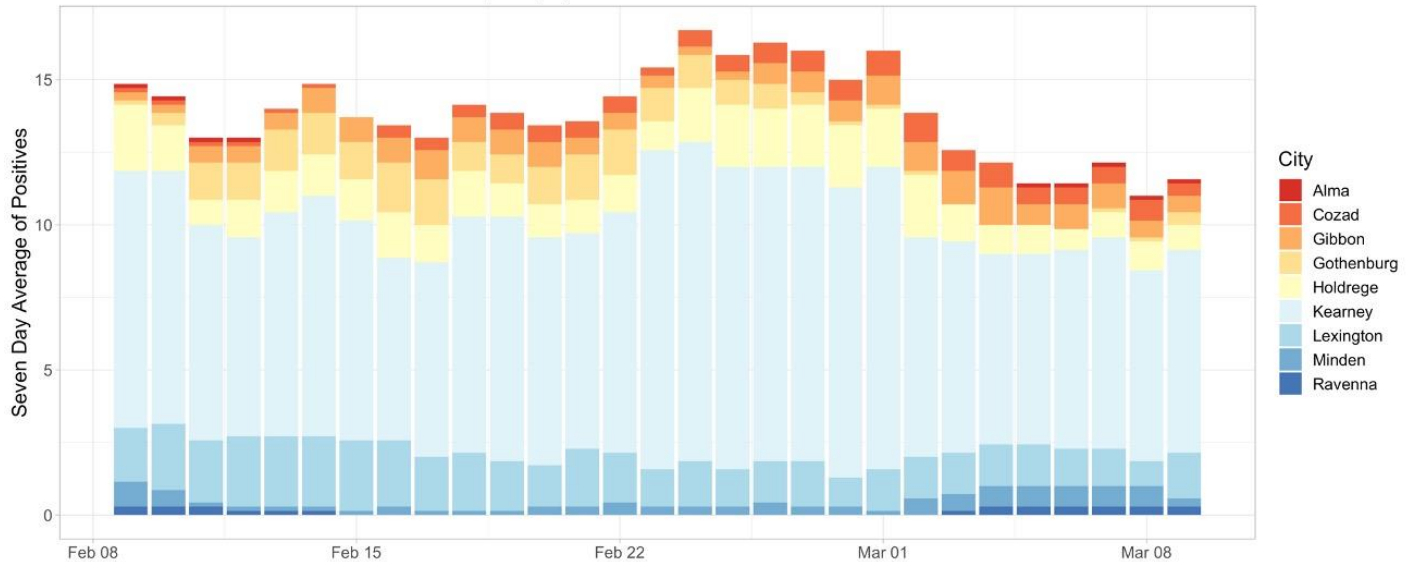
⁶ Please note: When comparing counties, we describe rates per 100,000 population. This is roughly equal to the total population of Two Rivers Health Department (~97,000)



- The following bar graphs describes the 7-day rolling averages by city for the past four weeks (**Feb 9 - Mar 9**) 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

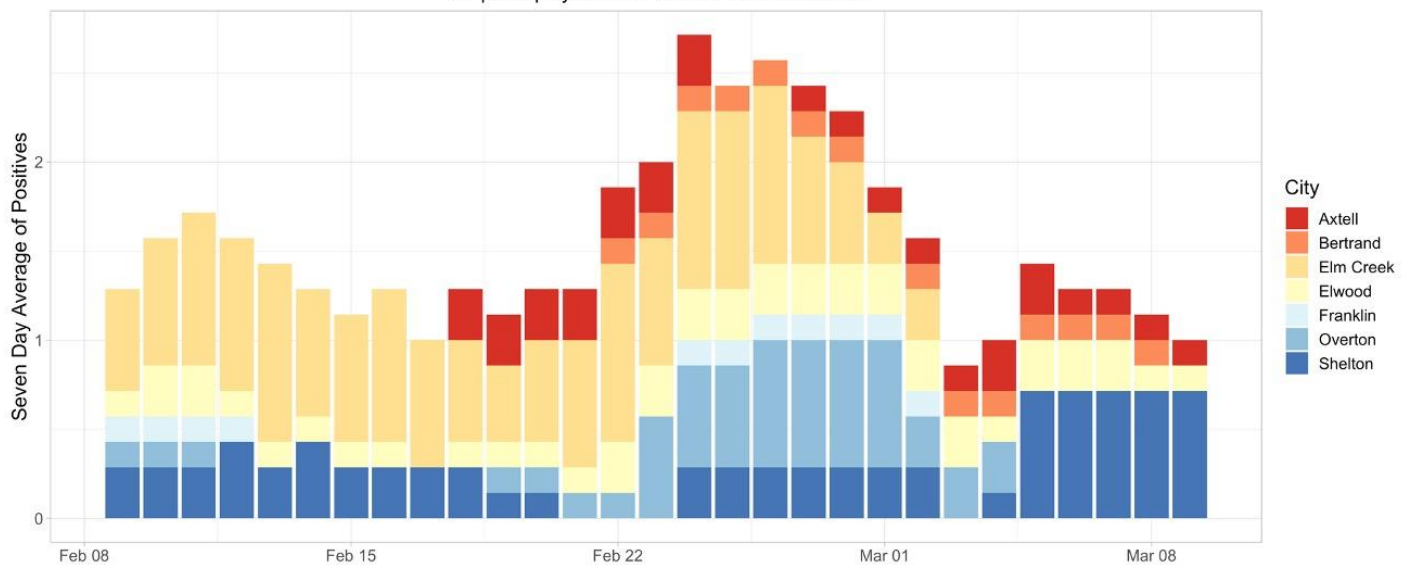
Graph displays data from Feb 9th to March 9th



Information Updated as of 3/9 at 8 p.m.

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

Graph displays data from Feb 9th to March 9th



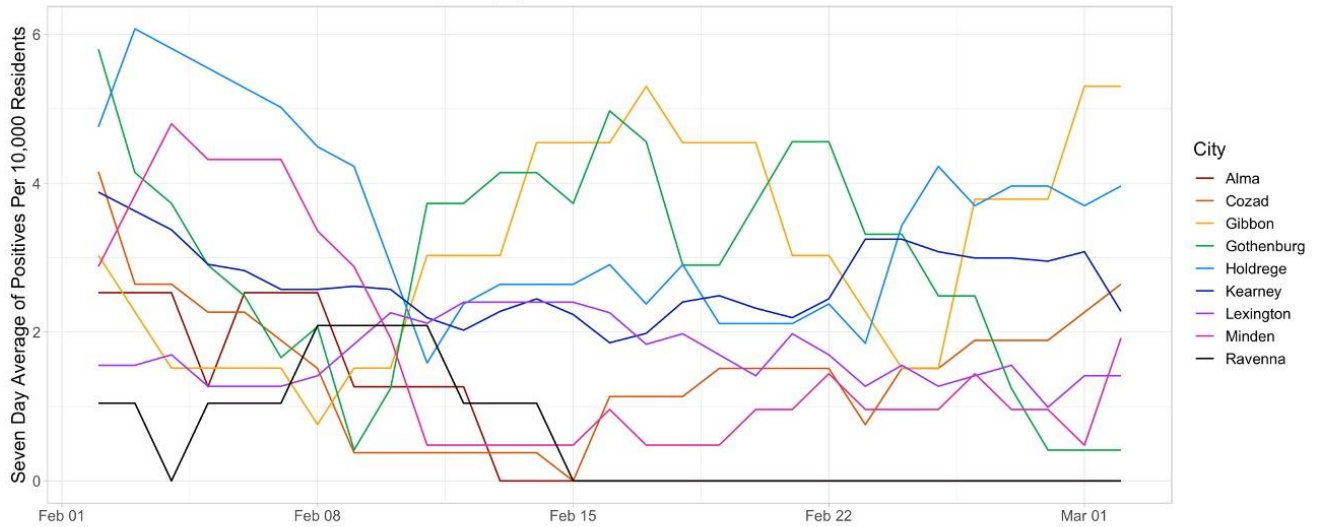
Information Updated as of 3/9 at 8 p.m.



- 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 (Feb 9 - Mar 9).⁷
- 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**

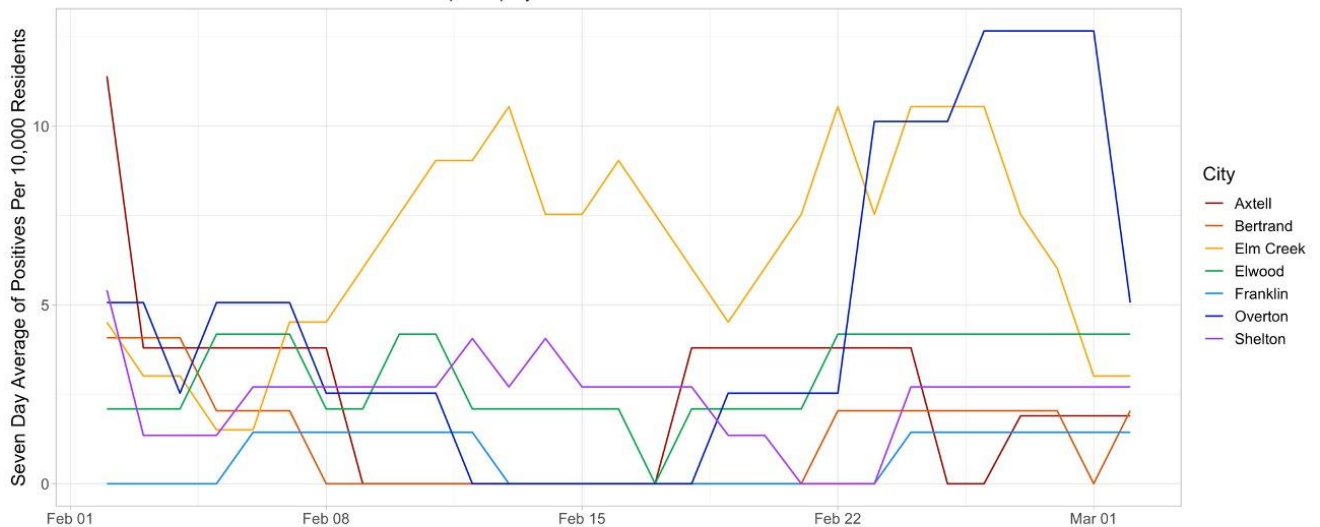
Graph displays data from Feb 2nd to March 2nd



Information Updated as of 3/2 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 Feb 2nd to March 2nd



Information Updated as of 3/2 at 8 p.m.

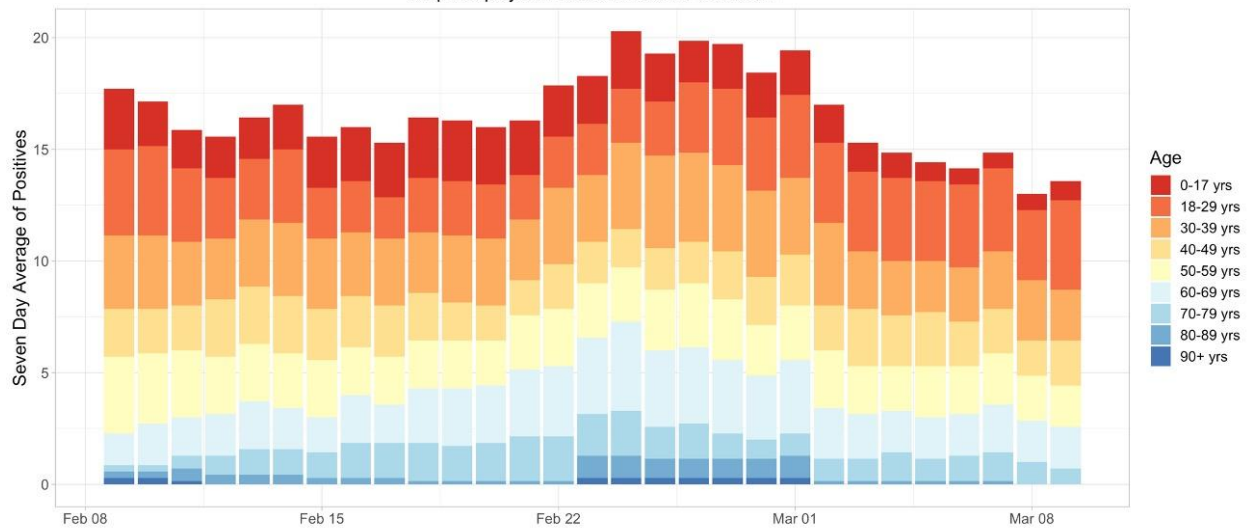
⁷ Please note: When comparing cities, we describe rates per 10,000 population. This is roughly equal to the total population of Lexington (~10,000)



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

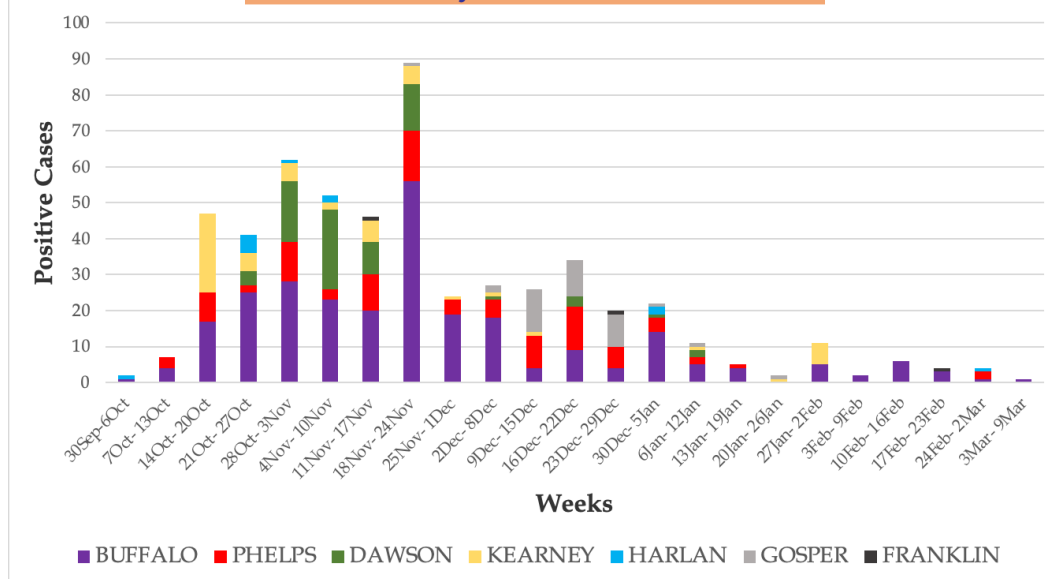
7 Day Rolling Average of COVID-19 Cases in Two Rivers by Age

Graph displays data from Feb 9th to March 9th



Information Updated as of 3/9 at 8 p.m.

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





Weekly summary

- Testing rates have fallen across all counties. TestNebraska sites in Dawson county are either closing or anticipated to close over the next few weeks. Testing access has also contracted in Franklin and Harlan counties. Falling testing rates do not seem to be accompanied by a proportionate decrease in positive cases.
- March 5th marked the one-year anniversary of the first COVID test in Two Rivers Health District. Over the past year, over 106,000 tests have been conducted on TRPHD residents, about a tenth of which were positive.
- Long Term Care and other residential facilities account for over 42%, and TestNebraska, National Guard and health departments account for about 22% of all tests availed by TRPHD residents.
- Falling incidence rates of COVID-19 in the past week compared to the previous weeks is cause for optimism. High vaccination rates and falling case rates among this age group are encouraging signs.
- A little over a third of ICU beds and about half of all medical/surgical beds across the district are currently available, although COVID-related admissions account for less than 5% of all occupied beds (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
- Over 12,463 residents of TRPHD have been fully vaccinated as of March 9, representing 16.4% of the eligible population (16+ years). Almost 45% of seniors (65 years and over) have been fully vaccinated. For details see weekly vaccination report at https://www.trphd.org/file_download/inline/c1c54ad8-dc67-4afc-b045-2da0e49984ad

COVID testing rates continue to fall across Two Rivers Health District, although positivity rates do not seem to show a similar decrease. Falling case rates among persons aged 65+ years combined with high vaccination rates in this age group is cause for optimism. Over 12,463 residents of TRPHD (16.4% of eligible population) have been fully vaccinated as of March 9, including 44.7% of all seniors living in the district. 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.