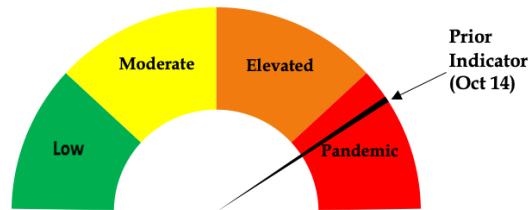




## Risk Dial Oct 21, 2021



**Risk Dial for COVID-19**  
**Two Rivers Public Health**  
**Published Oct 21, 2021**

- 316 cases of COVID-19 were recorded in TRPHD between October 13 - October 19. In the past month, 1229 new cases have been detected across TRPHD, 50 of them at long-term care and other residential facilities.
- 34 new COVID cases were detected last week in Phelps county- over half of tests conducted outside residential facilities were positive. In the past month, Phelps county recorded 143 cases, over 40% of whom were among residents less than 40 years of age.
- 311 cases were detected across Dawson county in the past month, almost a third of those in the last week alone. The weekly average of newly detected cases across has remained steady for six weeks now.
- About a third of staffed hospital beds (medical & surgical) are currently available across TRPHD. Eight COVID positive patients across the district are currently being maintained on ventilator support.
- Only 2 out of 30 staffed ICU beds in TRPHD are currently available, a third of occupied beds are accounted for by COVID-positive patients.
- A testing site at the Buffalo county fairgrounds (drive-through testing with prior online registration, Mon & Wed, 9:30-12:30) is now operational. Those desirous of COVID testing are requested to register at [www.trphd.org](http://www.trphd.org) for scheduling.
- As of Oct 18, 2021, 46% of TRPHD's total population and 58% of the adult population (18+ years) has been fully vaccinated across the district. See weekly vaccination report at <https://www.trphd.org/covid-19/vaccination-reports.html> for details. TRPHD strongly urges all unvaccinated vaccine-eligible residents to avail of the COVID vaccination through their healthcare provider, pharmacy or TRPHD. For schedule of vaccination clinics, see [www.trphd.org](http://www.trphd.org)
- For these reasons, the risk dial remains unchanged from the previous week within the 'pandemic' zone. The risk assessment reflects consistent disease incidence numbers and high test positivity rates, near-full ICU capacity, and the slow rate of increase of vaccination coverage in the district.



## Weekly report Oct 13 – Oct 19, 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 from **Oct 13 – Oct 19** (1 week) and **Sep 21 – Oct 19** (4 weeks). We describe new cases by age, gender and county of residence. We also present weekly and monthly **test positivity rates**. We describe cases in residential facilities separately from other tests (eg: tests in hospitals, pharmacies and clinics<sup>1</sup>)
- The first graphic describes **the vaccination coverage rate of TRPHD residents by county of residence and age** between **Dec 15, 2020 – Oct 18, 2021**. All residents are included to calculate the **proportion of total population partially or fully vaccinated**.
- The second set of graphs look at the progress of the pandemic from **April 1, 2020 – Oct 19, 2021** across all counties.
  - We describe the **7-day rolling average** <sup>2</sup> of positive cases across TRPHD since April, describing overall progress and cases by **age categories**
- The third set of graphs describe the **average daily COVID cases (7-day rolling average) / 100,000 persons** across all 7 counties of TRPHD from **July 1, 2020 – October 19, 2021**.<sup>3</sup>
- The fourth set of graphs describe the daily case average (7-day rolling) across towns and cities in three urban areas (**Kearney, Lexington, Holdrege**) (Jul 1, 2020- Oct 19, 2021) <sup>4</sup>
  - The cities described are **Kearney, Elm Creek, Pleasanton, Amherst, Riverdale, Gibbon, Shelton and Axtell** (total 39,412 people), **Lexington, Overton, Elwood, Johnson Lake and Cozad** (total 15,700 people), **Holdrege, Loomis and Funk** (total 5967 people).
- The fifth set of graphs describe the daily cases (7-day rolling average) from **Sep 21 – Oct 19**.
  - Progress is described by age & county of residence.

*To conclude, 316 new COVID cases were detected in the Two Rivers area last week, matching the weekly average for the past two months. Only 2 out of 30 ICU beds in the district are currently available, almost 3/4ths of patients on ventilator support in TRPHD are COVID positive. About a fifth of all hospital admissions in the past month were COVID positive. 46% of the total population of TRPHD district and 58% of all adults are fully vaccinated. TRPHD has scheduled mobile vaccination clinics 5 days a week at 9 different sites across the district, schedule can be found at <https://www.trphd.org/covid-19/event-calendar.html>. TRPHD is also operating a public COVID testing site at the Buffalo County Fairgrounds on Monday and Wednesday mornings. Those eligible are advised to contact their physician or refer to [www.trphd.org](http://www.trphd.org) to register an appointment for testing or vaccination.*

---

<sup>1</sup> For information on residential facilities, please see appendix 3

<sup>2</sup> 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.

<sup>3</sup> For information on “daily average rate/ 100,000 population”, please see appendix 2

<sup>4</sup> For information on urban areas, please see appendix 5



### Testing & Vaccination Overview

- As of Oct 19, 2021, over 58,000 residents of Two Rivers Health District were tested at least once for COVID-19. Over 173,000 COVID tests have been conducted since March 1, 2020 and over 13,300 persons have tested positive at least once - over 700 have tested COVID positive more than once.<sup>5</sup> TRPHD has publicly notified 141 deaths due to COVID-19 across the district.
- As of Oct 18, 2021, 46% of TRPHD’s entire population has been fully vaccinated. <sup>6</sup> Details of vaccination rates by age in each of the seven counties in Two Rivers Health District is shown below. The legend for color codes used is also displayed. Percentages have been rounded off to the nearest whole number. Vaccines are currently available to all eligible residents aged 12 years and over.

	BUFFALO	DAWSON	FRANKLIN	GOSPER	HARLAN	KEARNEY	PHELPS	TRPHD
0-17 YRS	10%	13%	7%	8%	7%	12%	7%	11%
18-29 YRS	34%	45%	28%	35%	26%	40%	29%	36%
30-39 YRS	48%	51%	40%	31%	41%	42%	41%	47%
40-49 YRS	60%	56%	44%	45%	31%	64%	40%	55%
50-59 YRS	64%	59%	43%	44%	45%	53%	52%	58%
60-69 YRS	80%	78%	64%	70%	60%	75%	66%	76%
70-79 YRS	98%	88%	89%	57%	86%	83%	93%	91%
80+ YRS	90%	78%	76%	77%	56%	72%	76%	80%
ALL AGES	47%	48%	45%	44%	39%	47%	42%	46%

0% - 33%	Less than 1/3rd fully vaccinated
34% - 50%	1/3rd to 1/2 fully vaccinated
50%- 74%	1/2 to 3/4ths fully vaccinated
75% & higher	Over 3/4ths fully vaccinated

- How to read this table: (For eg.) : “51% of Dawson county residents in their 30s are fully vaccinated, however only 31% of 30 year-olds in Gosper county are fully vaccinated. While over 90% of all TRPHD residents in their 70s are fully vaccinated, 47% of 30-year olds in the district are fully vaccinated.”

<sup>5</sup> Note: Data collection limitations (recording of different first names, alternate spellings, unrecorded or delayed antigen test results) hamper an exact count of measures like the total persons tested, or the number of distinct positive cases.

<sup>6</sup> For information on vaccine-eligible population in each of the counties, please see appendix 4



- The table below provides details of positive cases detected in 7 counties in TRPHD in the past week (**Oct 13 - Oct 19**) and past 4 weeks (**Sep 21 - Oct 19**).
- Results are described by the site where tests were conducted, and include both antigen and PCR tests.

	Oct 13 - Oct 19 (1 week)			Sep 21 - Oct 19 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
<b>Hospital/ Clinic</b>	835	224	26.8%	3728	820	22.0%
<b>State Laboratory</b>	2	2	100.0%	16	4	25.0%
<b>Residential Facility</b>	2029	19	0.9%	7063	50	0.7%
<b>Lab/ Pharmacy</b>	69	12	17.4%	342	49	14.3%
<b>Other</b>	480	59	12.3%	1616	306	18.9%
<b>TOTAL</b>	<b>3,415</b>	<b>316</b>	<b>9.3%</b>	<b>12,765</b>	<b>1,229</b>	<b>9.6%</b>

- A total of 7063 tests were availed by residents and staff of long-term care and other **residential facilities** <sup>7</sup> in the last 4 weeks, and were almost all antigen tests. Details are provided below:

Residential Facility In:	Oct 13 - Oct 19 (1 week)			Sep 21 - Oct 19 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
<b>Buffalo</b>	747	7	0.9%	2265	25	1.1%
<b>Dawson</b>	409	7	1.7%	1162	9	0.8%
<b>Franklin</b>	0	0	0.0	0	0	0.0
<b>Gosper</b>	10	0	0.0%	187	0	0.0%
<b>Harlan</b>	85	1	1.2%	250	3	1.2%
<b>Kearney</b>	20	0	0.0%	215	0	0.0%
<b>Phelps</b>	695	3	0.4%	2493	11	0.4%
<b>Outside TRPHD</b>	63	1	1.6%	491	2	0.4%
<b>TOTAL</b>	<b>2029</b>	<b>19</b>	<b>0.9%</b>	<b>7063</b>	<b>50</b>	<b>0.0%</b>

- How to read this table: (For eg.) : “In the past week, almost 27% of tests conducted in hospitals and clinics across TRPHD were positive. In the past month, 25 positive COVID results were reported among staff and residents of residential facilities (mostly long-term living) in Buffalo county, and 9 in Dawson county.”

<sup>7</sup> For information on residential facilities, please see appendix 3  
 516 W 11<sup>th</sup> Street, Suite 108  
 Kearney, NE 68845



- Non-routine testing refers to tests that are **not** conducted in residential and long-term living facilities. <sup>8</sup> These COVID tests are conducted mainly in hospitals, clinics and pharmacies. Details are provided below.

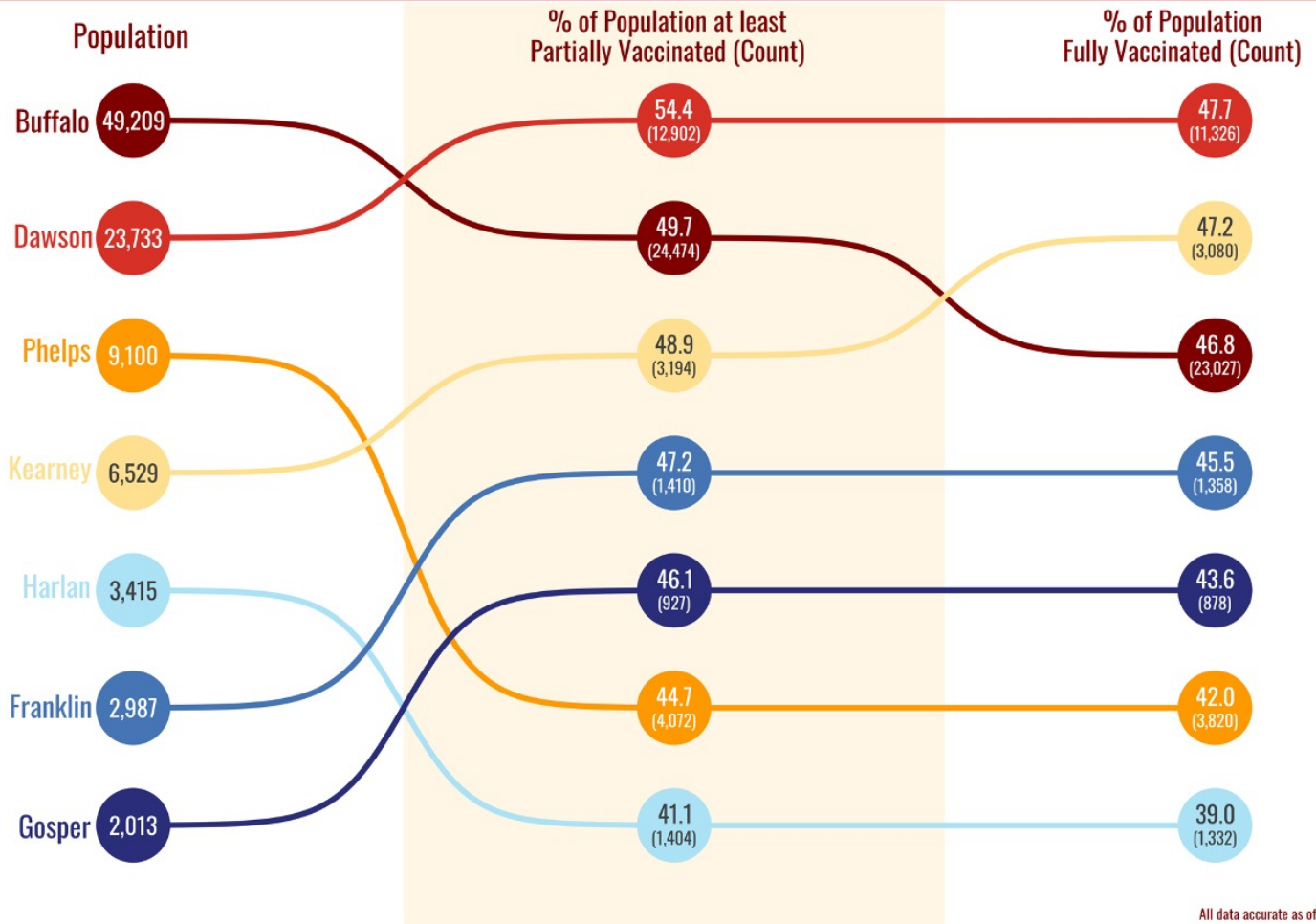
	Oct 13 – Oct 19 (1 week)			Sep 21 – Oct 19 (4 weeks)		
	Total tests conducted	Positive cases	P. rate (%)	Total tests conducted	Positive cases	P. rate (%)
<b>County</b>						
Buffalo	945	141	14.9%	3412	623	18.3%
Dawson	282	87	30.9%	1322	302	22.8%
Franklin	19	9	47.4%	75	29	38.7%
Gosper	18	10	55.6%	67	26	38.8%
Harlan	8	6	75.0%	61	18	29.5%
Kearney	55	12	21.8%	225	45	20.0%
Phelps	52	31	59.6%	513	132	25.7%
Data missing/ not disclosed	7	1	14.3%	27	4	14.8%
<b>Total</b>	<b>1,386</b>	<b>297</b>	<b>21.4%</b>	<b>5,702</b>	<b>1,179</b>	<b>20.7%</b>
<b>Age (in yrs)</b>						
0-17	244	57	23.4%	1168	224	19.2%
18-29	286	52	18.2%	1255	241	19.2%
30-39	175	34	19.4%	795	194	24.4%
40-49	153	44	28.8%	628	153	24.4%
50-59	162	31	19.1%	652	137	21.0%
60-69	124	38	30.6%	545	114	20.9%
70-79	117	30	25.6%	366	82	22.4%
80-89	125	11	8.8%	292	34	11.6%
<b>Total</b>	<b>1386</b>	<b>297</b>	<b>21.4%</b>	<b>5,701</b>	<b>1,179</b>	<b>20.7%</b>
<b>Gender</b>						
Female	852	159	18.7%	3370	624	18.5%
Male	527	131	24.9%	2286	541	23.7%
Data missing/ not disclosed	7	7	100.0%	46	14	30.4%
<b>Total</b>	<b>1,386</b>	<b>297</b>	<b>21.4%</b>	<b>5,702</b>	<b>1,179</b>	<b>20.7%</b>

<sup>8</sup> For information on residential facilities, please see appendix 3  
 516 W 11<sup>th</sup> Street, Suite 108  
 Kearney, NE 68845



- The graph below describes **all TRPHD residents who are fully vaccinated** against COVID-19 between **December 15, 2020 - October 18, 2021**. All residents of the seven counties are included although the vaccine is currently available only to those 12 years or over.
- 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, 46.1% of TRPHD’s total population and 57.7% of all adult residents (18 years and over) are fully vaccinated.**

## Vaccinations of Total Population in TRPHD







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

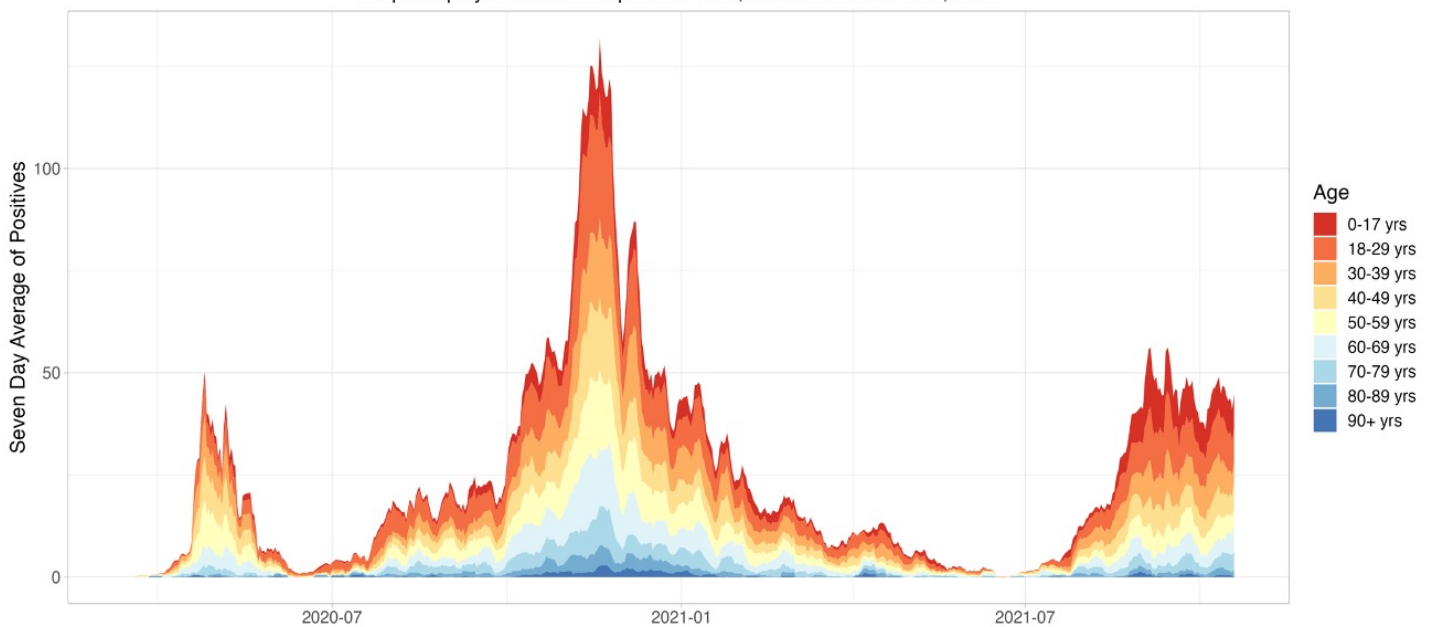
### 7 Day Rolling Average of Two Rivers

Graph displays data from April 1st, 2020 to October 19th, 2021



### Daily Average of COVID-19 Cases in TRPHD by Age

Graph displays data from September 21st, 2021 to October 19th, 2021

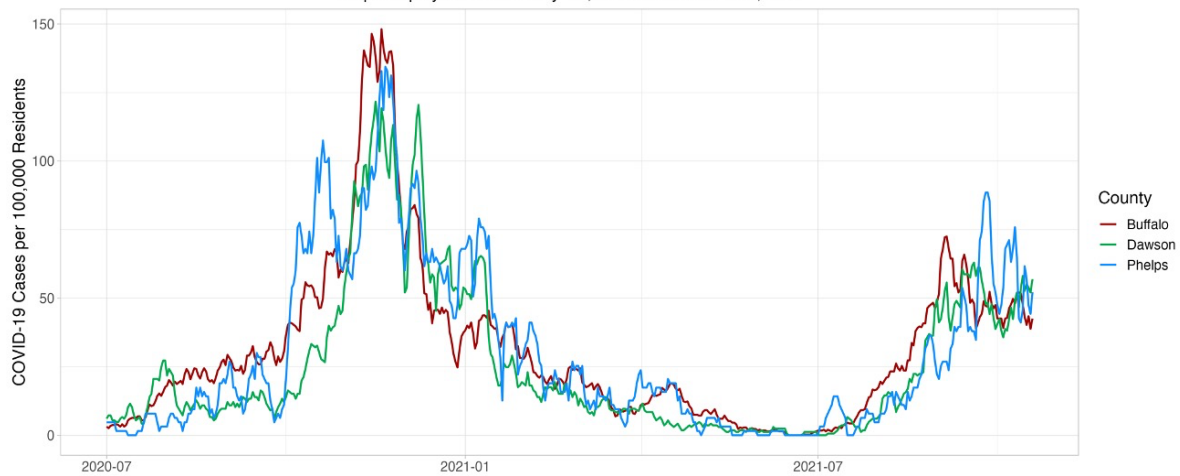




- The graphs below describe the **weekly average (7-day rolling)/ 100,000 residents** <sup>9</sup> of new COVID cases in each of the 7-counties (, and ) from **July 1, 2020 – October 19, 2021**. To standardize the graph, we present the 7-day rolling average for each county as if it had 100,000 residents.
- The graphs for Buffalo, Dawson, Phelps are presented first, followed by a graph featuring Franklin, Gosper, Harlan, Kearney counties. Scales are the same for both graphs.

**7 Day Rolling Average of COVID-19 Cases  
Per 100,000 Resident in Buffalo, Dawson, and Phelps County**

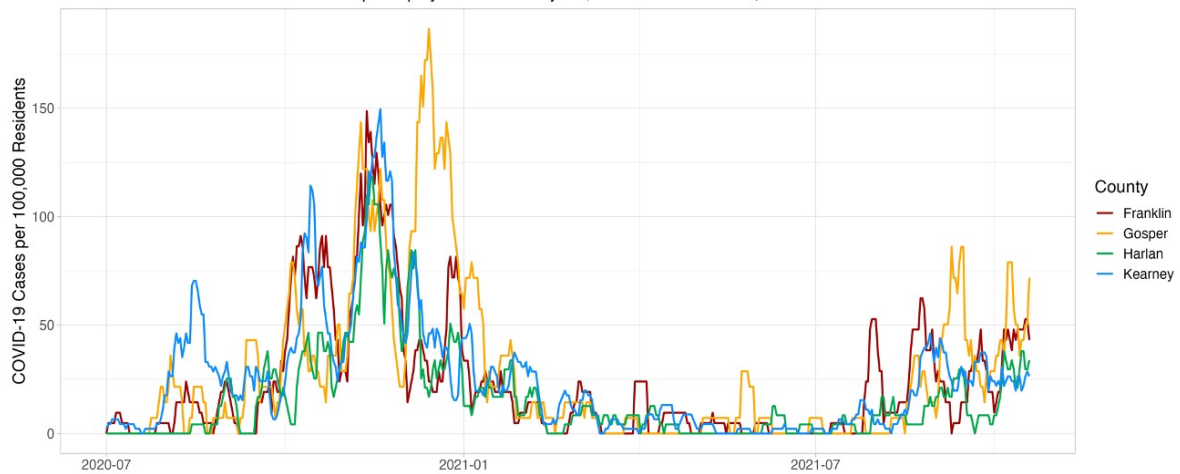
Graph displays data from July 1st, 2020 to October 19th, 2021



Information Updated as of 10/19 at 8 p.m.

**7 Day Rolling Average of COVID-19 Cases  
Per 100,000 Resident in Franklin, Gosper, Harlan, and Kearney County**

Graph displays data from July 1st, 2020 to October 19th, 2021



Information Updated as of 10/19 at 8 p.m.

<sup>9</sup> For information on “weekly average/ 100,000 population”, please see appendix 2  
516 W 11<sup>th</sup> Street, Suite 108  
Kearney, NE 68845

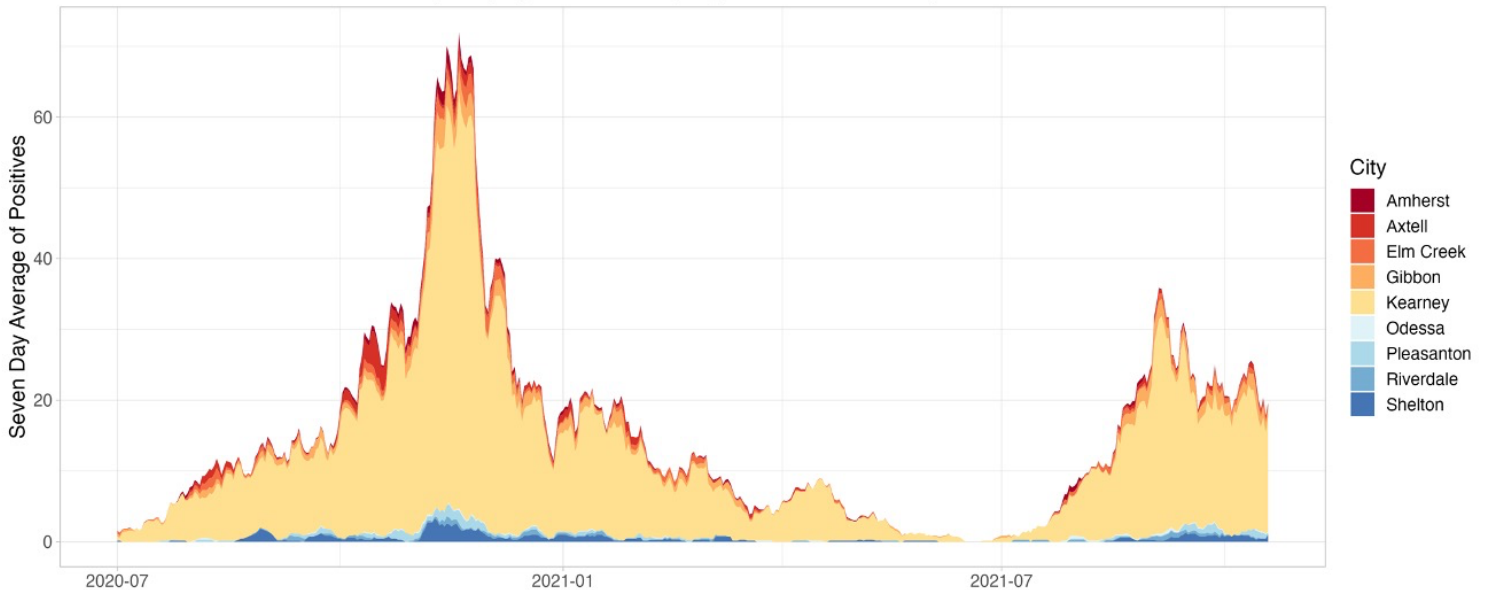




- The following graphs describe the average **daily COVID cases (7-day rolling)** in three urban areas in Two Rivers Health Department.
- The urban areas are Kearney city and surrounding towns (**Kearney, Elm Creek, Pleasanton, Amherst, Riverdale, Gibbon, Shelton and Axtell - total 39,412 people**), Lexington city and surrounding towns (**Lexington, Overton, Elwood, Johnson Lake and Cozad - total 15,700 people**), Holdrege city and surrounding towns (**Holdrege, Loomis and Funk - total 5967 people**).<sup>10</sup>
- Time considered is from **July 1, 2020 - Oct 19, 2021**. Scales are different for all three graphs
- The graph for Kearney city and surrounding areas is presented below.

### 7 Day Rolling Average of COVID-19 Cases by City

Graph displays data from July 1st, 2020 to October 19th, 2021



Information Updated as of 10/19 at 8 p.m.

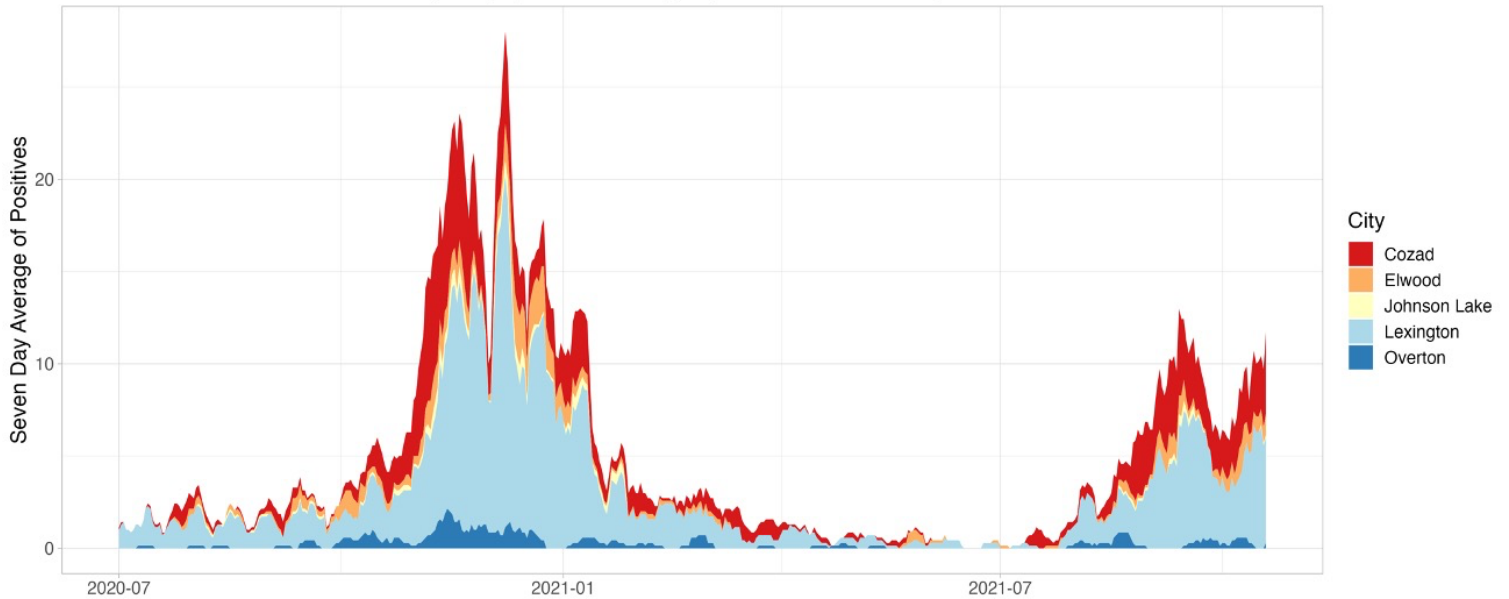
<sup>10</sup> For details about each of the urban areas, please see appendix 5  
516 W 11<sup>th</sup> Street, Suite 108  
Kearney, NE 68845



- The **daily average (7-day rolling)** of positive cases in **Lexington** and **Holdrege** cities and surrounding towns between July 1, 2020 – Oct 19, 2021 are presented below.

### 7 Day Rolling Average of COVID-19 Cases by City

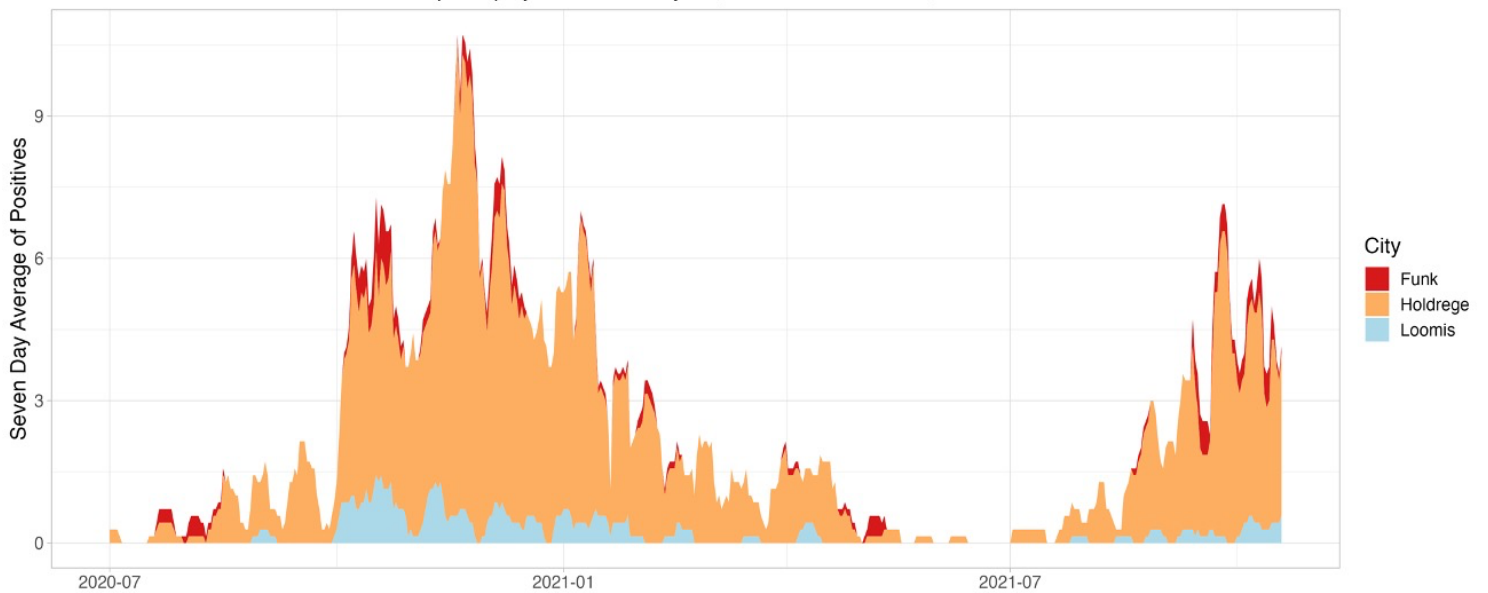
Graph displays data from July 1st, 2020 to October 19th, 2021



Information Updated as of 10/19 at 8 p.m.

### 7 Day Rolling Average of COVID-19 Cases by City

Graph displays data from July 1st, 2020 to October 19th, 2021



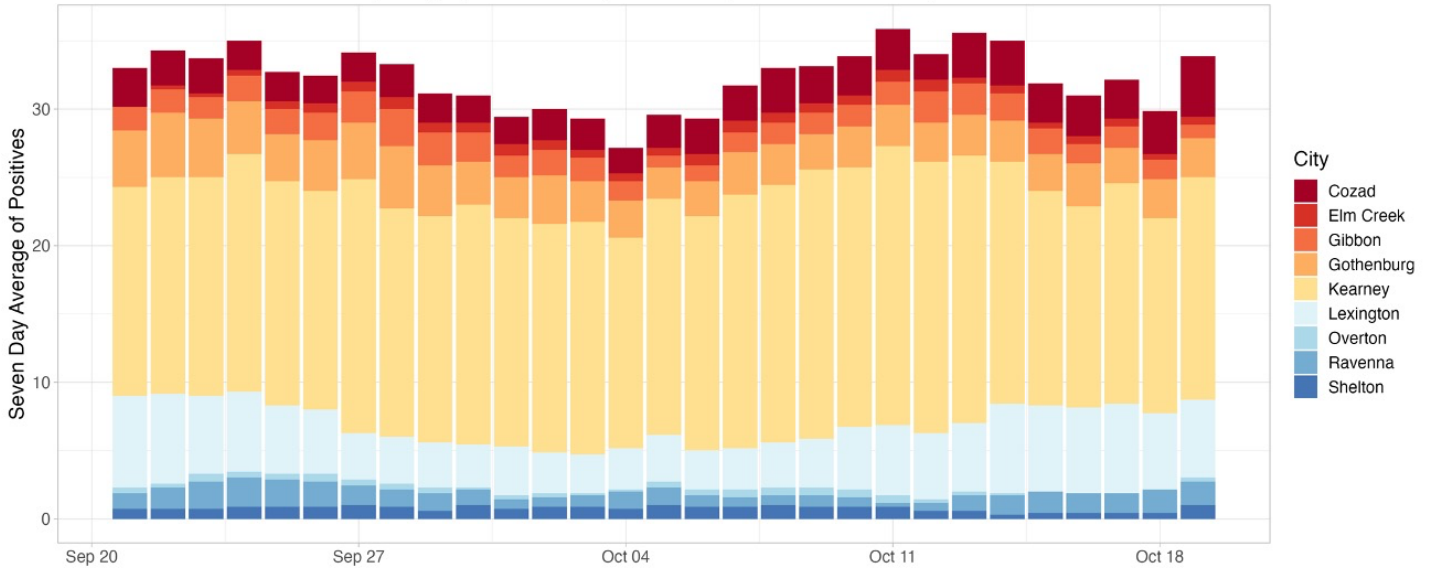
Information Updated as of 10/19 at 8 p.m.



- The following bar graphs describes the 7-day rolling averages by city for the past four weeks (Sep 21 - Oct 19) 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

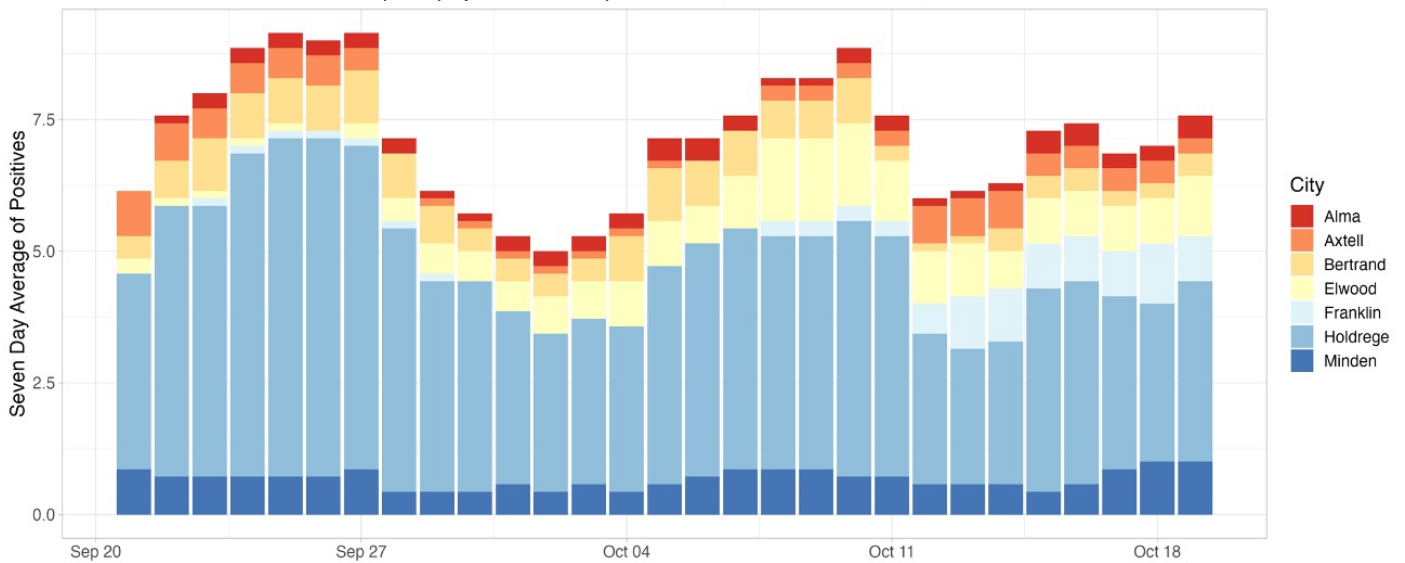
Graph displays data from September 21st, 2021 to October 19th, 2021



Information Updated as of 10/19 at 8 p.m.

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

Graph displays data from September 21st, 2021 to October 19th, 2021



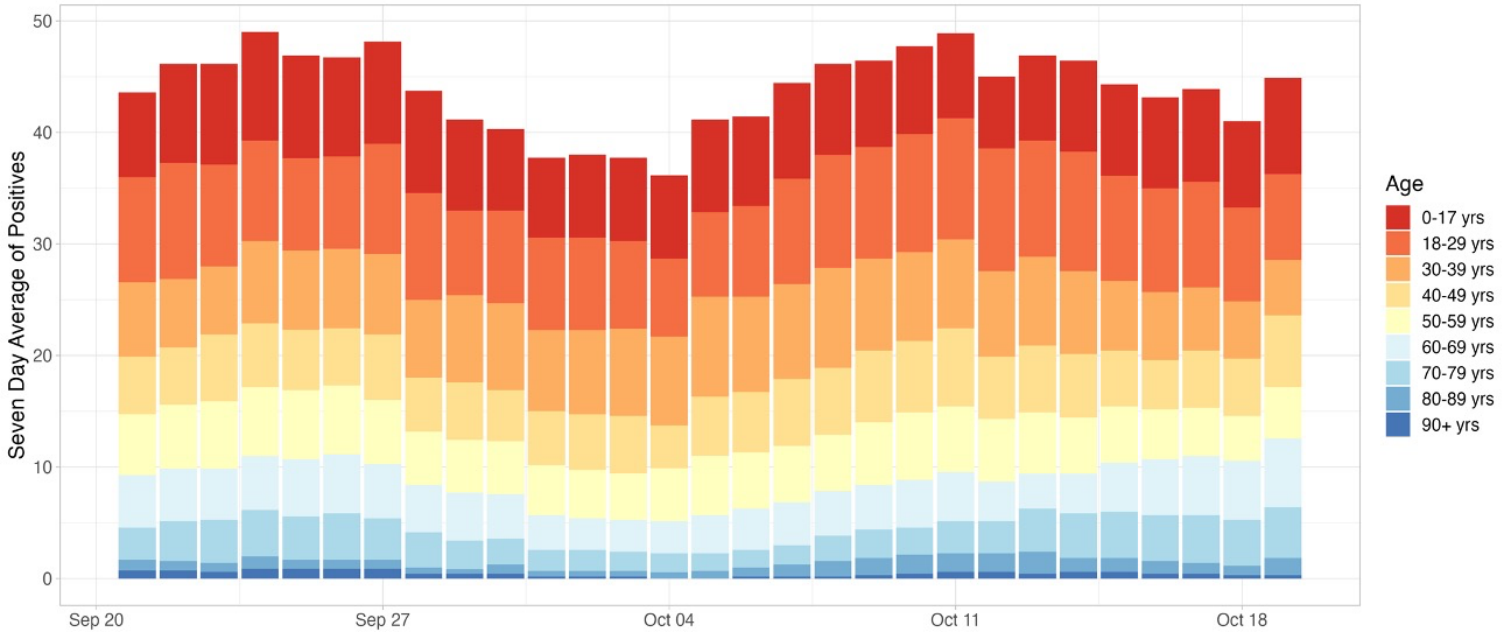
Information Updated as of 10/19 at 8 p.m.



- The graph below describes the **7-day rolling average** of cases from **Sep 21 – Oct 19** 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 September 21st, 2021 to October 19th, 2021



Information Updated as of 10/19 at 8 p.m.



### Weekly summary

- 316 cases of COVID-19 were recorded in TRPHD between October 13 - October 19. In the past month, 1229 new cases have been detected across TRPHD, 50 of them at long-term care and other residential facilities.
- 34 new COVID cases were detected last week in Phelps county- over half of tests conducted outside residential facilities were positive. In the past month, Phelps county recorded 143 cases, over 40% of whom were among residents less than 40 years of age. 311 cases were detected across Dawson county in the past month, almost a third of those in the last week alone. The weekly average of newly detected cases across has remained steady at 300 for six weeks.
- Across the district, persistently high incidence among residents less than 30 years is cause for concern.
- About a third of staffed hospital beds (medical & surgical) are currently available across TRPHD. Eight COVID positive patients across the district are currently being maintained on ventilator support. Only 2 out of 30 staffed ICU beds in TRPHD are currently available, a third of occupied beds are accounted for by COVID-positive patients.
- A testing site at the Buffalo county fairgrounds (drive-through testing with prior online registration, Mon & Wed, 9:30-12:30) is now operational. Those desirous of COVID testing are requested to register at [www.trphd.org](http://www.trphd.org) for scheduling.
- As of Oct 18, 2021, 46% of TRPHD's total population and 58% of the adult population (18+ years) has been fully vaccinated across the district. See weekly vaccination report at <https://www.trphd.org/covid-19/vaccination-reports.html> for details. TRPHD strongly urges all unvaccinated vaccine-eligible residents to avail of the COVID vaccination through their healthcare provider, pharmacy or TRPHD. For schedule of vaccination clinics, see [www.trphd.org](http://www.trphd.org)
- All persons aged 12 and over are eligible for the vaccine. TRPHD has scheduled mobile vaccination clinics at over 15 sites across seven counties to distribute vaccines and to focus on areas of potential shortfall.

*To conclude, 316 new COVID cases were detected in the Two Rivers area last week, matching the weekly average for the past two months. Only 2 out of 30 ICU beds in the district are currently available, almost 3/4ths of patients on ventilator support in TRPHD are COVID positive. About a fifth of all hospital admissions in the past month were COVID positive. 46% of the total population of TRPHD district and 58% of all adults are fully vaccinated. TRPHD has scheduled mobile vaccination clinics 5 days a week at 9 different sites across the district, schedule can be found at <https://www.trphd.org/covid-19/event-calendar.html>. TRPHD is also operating a public COVID testing site at the Buffalo County Fairgrounds on Monday and Wednesday mornings. Those eligible are advised to contact their physician or refer to [www.trphd.org](http://www.trphd.org) to register an appointment for testing or vaccination.*



## 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
<b>TRPHD total</b>	<b>97,132</b>
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)
<b>TRPHD</b>	<b>19580</b>	<b>22863</b>	<b>17760</b>	<b>15799</b>	<b>76002</b>
<b>BUFFALO</b>	11828	11910	8184	6863	38785
<b>DAWSON</b>	4301	5723	4334	3696	18054
<b>FRANKLIN</b>	391	586	717	809	2503
<b>GOSPER</b>	232	418	532	526	1708
<b>HARLAN</b>	459	649	735	845	2688
<b>KEARNEY</b>	985	1508	1343	1239	5075
<b>PHELPS</b>	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.



## APPENDIX 5

### Methods & Definitions

To better understand the course of the COVID-19 pandemic in Kearney, Lexington and Holdrege, we created ‘urban areas’ that included both the city and its surrounding towns. We included all towns within 20 miles of Kearney city, 15 miles of Lexington and 10 miles of Holdrege within each city’s urban area. The respective populations of all 7 counties in TRPHD are shown below. Kearney city accounts for over third of the population of TRPHD.

County	Population
Buffalo	49,659
Dawson	23,595
Franklin	2,979
Gosper	1,990
Harlan	3,380
Kearney	6,495
Phelps	9,034
<b>TRPHD total</b>	<b>97,132</b>
Nebraska state	1,934,408

Thus “Kearney area” includes Kearney city as well as Elm Creek, Pleasanton, Amherst, Riverdale, Odessa, Gibbon, Shelton and Axtell.

“Lexington area” includes Lexington city as well as Overton, Johnson Lake and Cozad.

“Holdrege area” includes Holdrege city, Loomis and Funk.

The populations of cities and villages is described below. Also included are Minden and Gothenburg, used as comparison points in descriptive statistics about the area.

CITY	POPULATION
Kearney	33867
Elm Creek	949
Axtell	751
Pleasanton	359
Riverdale	179
Amherst	253
Gibbon	1869
Shelton	1055
Odessa	130
<b>KEARNEY URBAN AREA (TOTAL)</b>	<b>39412</b>
Lexington	10115
Overton	567
Johnson Lake	600



Elwood	683
Cozad	3735
<b>LEXINGTON URBAN AREA (TOTAL)</b>	<b>15,700</b>
Holdrege	5408
Funk	183
Loomis	376
<b>HOLDREGE URBAN AREA (TOTAL)</b>	<b>5967</b>
Gothenburg	3489
Minden	2890

For presenting data, we selected 3 time frames:

- a) April 1 - current (From the beginning of the pandemic to most recent Tuesday)
- b) July 01 - current (From the beginning of second sustained 'wave' in daily case counts to current)
- c) Previous 4 weeks
  - 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.
  - Cumulative cases refer to all cases that have been confirmed in the district since the beginning of the pandemic in TRPHD (March 19)
  - 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
    - Average positivity rate (in %) = (Sum of positive cases for current day + previous 6 days) / (Sum of total tests for current day + previous six days)
  - 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.
  - For calculation, we use the 2019 mid- year estimate (American Community Survey, ACS) and data from The Atlantic's COVID tracking project (<https://covidtracking.com/data>)