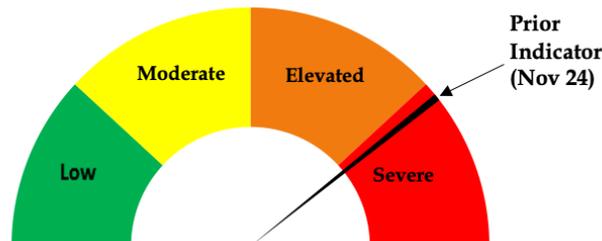




## Risk Dial Dec 2, 2021



### **Risk Dial for COVID-19 Two Rivers Public Health Published Dec 2, 2021**

- 368 cases of COVID-19 were recorded in TRPHD between November 24 - November 30. Over 15% of all tests in the district are positive.
- Multiple methods are currently used for COVID-19 testing across the district including home rapid tests.
- As of Wednesday morning, no ICU beds were available across TRPHD. 30% of all currently occupied beds are accounted for by COVID-19 patients. Staffing shortages & increased admissions are impacting bed availability in TRPHD and across Nebraska
- 171 deaths due to COVID-19 have been announced by the health department. Over 20% of those occurred since September 1, 2021.
- A public COVID testing site is now open in Kearney city at the Buffalo County Fairgrounds. Testing results are available the same day and are offered Mondays & Wednesdays 9:30AM - 12:30PM. Those desirous of COVID testing are requested to register at [www.trphd.org](http://www.trphd.org) for scheduling.
- As of Nov 29, 2021, 48% of TRPHD's total population and almost 60% of the adult population (18+ years) has received minimum doses as recommended (1 or 2 as indicated), compared to about 57% of the entire state population. 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 is unchanged from last week in the 'severe' (red) zone. The dial reading reflects drastically reduced ICU availability, higher hospitalization rates and low vaccination rates across the county.



Weekly report Nov 24 –

Nov 30, 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 vaccination, total tests conducted and positive cases across TRPHD from **Nov 24 – Nov 30** (1 week) and **Nov 3 – Nov 30** (4 weeks). We describe new cases by age, gender and county of residence, and present weekly and monthly **test positivity rates**. We describe cases in residential facilities separately from tests in hospitals, & pharmacies<sup>1</sup>. Vaccination rates refer to persons who have received the minimum recommended dose.
- The first graphic describes **the vaccination rate of TRPHD residents by county of residence and age** between **Dec 15, 2020 – Nov 30, 2021**. We present the proportion of persons who have received the minimum recommended dose (2 for Pfizer & Moderna; 1 for Janssen vaccines)
- The second set of graphs look at the progress of the pandemic from **April 1, 2020 – Nov 30, 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 graph describes the **7-day rolling average** and **deaths recorded daily** in TRPHD from **March 27, 2020 – November 30, 2021**
- 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- Nov 30, 2021) <sup>3</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 daily cases (7-day rolling average) from **Nov 3 – Nov 30, 2021**.
  - Progress is described by age & county of residence.

*To conclude, 368 new COVID cases were detected in the Two Rivers area last week. No ICU beds were available across TRPHD as of Wednesday morning. COVID patients account for over 30% of all admissions in TRPHD. Ove 20% of 171 confirmed COVID deaths in TRPHD were recorded in the past 3 months. TRPHD has scheduled mobile vaccination clinics 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 9:30 AM – 12:30 PM, Mondays and Wednesdays. Those eligible for vaccines or booster doses are advised to contact their physician or their local pharmacy. To access services through Two Rivers health department, please visit [www.trphd.org](http://www.trphd.org) to register an appointment (for COVID 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 urban areas, please see appendix 5



## Testing & Vaccination

## Overview

- As of Nov 30, 2021, about 60% of the total population of Two Rivers Health District has been tested at least once for COVID-19. Over 195,000 COVID tests have been conducted since March 1, 2020 and over 16,000 persons have tested positive at least once – at least 800 have tested COVID positive more than once.<sup>4</sup> TRPHD has publicly notified 171 deaths due to COVID-19 across the district.
- As of Nov 15, 2021, 47.9% of TRPHD’s entire population has been fully vaccinated.<sup>5</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	11%	15%	8%	9%	8%	13%	7%	12%
18-29 YRS	36%	49%	28%	37%	29%	43%	30%	38%
30-39 YRS	50%	56%	42%	35%	43%	43%	44%	50%
40-49 YRS	62%	58%	44%	52%	33%	68%	41%	58%
50-59 YRS	66%	60%	45%	47%	48%	54%	54%	60%
60-69 YRS	81%	79%	64%	69%	60%	76%	68%	77%
70-79 YRS	100%	88%	91%	61%	82%	84%	94%	92%
80+ YRS	94%	77%	77%	75%	58%	72%	78%	82%
ALL AGES	48%	50%	46%	46%	40%	48%	44%	48%

0% - 33%	Less than 1/3rd received 1 or 2 dose as recommended
34% - 49%	1/3rd to 1/2 received 1 or 2 dose as recommended
50%- 74%	1/2 to 3/4ths received 1 or 2 dose as recommended
75% & higher	Over 3/4ths received 1 or 2 dose as recommended

- How to read this table: (For eg.) : “79% of Dawson county residents in their 50s have received the minimum recommended vaccine dose (2 for Moderna & Pfizer; 1 for Janssen) However only 48% of 50-60 year-olds in Harlan county have received minimum recommended dose.”

<sup>4</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 total persons tested, or number of distinct positive cases.

<sup>5</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 (Nov 24 – Nov 30) and past 4 weeks (Nov 3 – Nov 30).
- Results are described by the site where tests were conducted, and include both antigen and PCR tests.

	Nov 24 – Nov 30 (1 week)			Nov 3 – Nov 30 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Hospital/ Clinic	897	266	29.7%	3713	967	26.0%
State Laboratory	2	0	0.0%	17	4	23.5%
Residential Facility	1090	4	0.4%	6740	43	0.6%
Lab/ Pharmacy	48	10	20.8%	471	128	27.2%
Other	341	88	25.8%	2030	368	18.1%
<b>TOTAL</b>	<b>2,378</b>	<b>368</b>	<b>15.5%</b>	<b>12,971</b>	<b>1,510</b>	<b>11.6%</b>

- A total of 6740 tests were availed by residents and staff of long-term care and other residential facilities <sup>6</sup> in the last 4 weeks, and were almost all antigen tests. Details are provided below:

Residential Facility In:	Nov 24 – Nov 30 (1 week)			Nov 3 – Nov 30 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Buffalo	552	3	0.5%	2,747	18	0.7%
Dawson	144	0	0.0%	1,206	6	0.5%
Franklin	0	0	0.0	0	0	0.0
Gosper	89	0	0.0%	357	1	0.3%
Harlan	16	0	0.0%	239	4	1.7%
Kearney	11	0	0.0%	73	0	0.0%
Phelps	222	1	0.5%	1,786	10	0.6%
Outside TRPHD	56	0	0.0%	332	4	1.2%
<b>TOTAL</b>	<b>1090</b>	<b>4</b>	<b>0.4%</b>	<b>6,740</b>	<b>43</b>	<b>0.6%</b>

- How to read this table: (For eg.) : “In the past week, almost 30% of tests conducted in hospitals and clinics across TRPHD were positive. In the past month, 18 positive COVID results were reported among staff and residents of residential facilities (mostly long-term living) in Buffalo county, and 51 in Dawson county.”

<sup>6</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>7</sup> These COVID tests are conducted mainly in hospitals, clinics and pharmacies. Details are provided below.

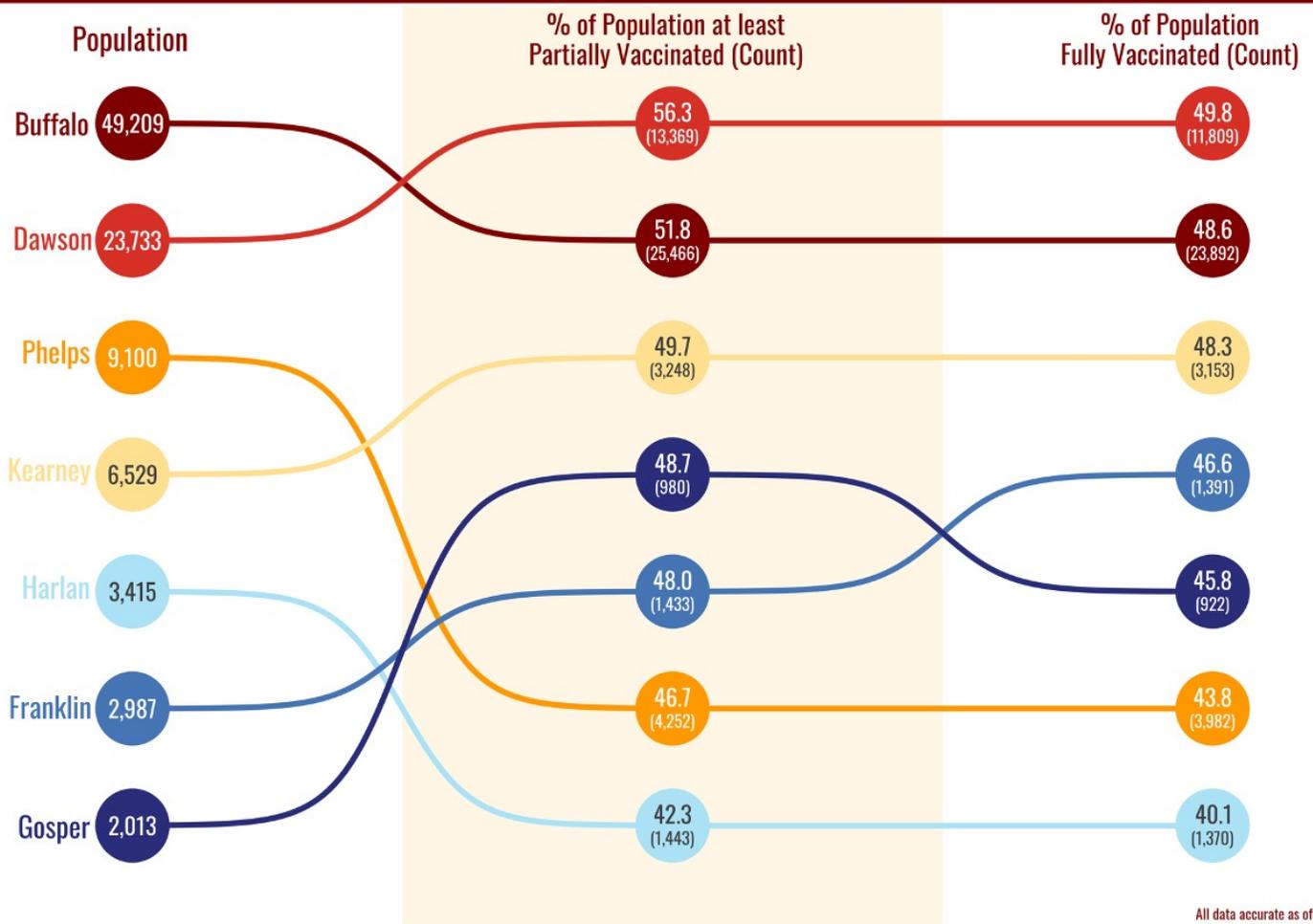
	Nov 24 – Nov 30 (1 week)			Nov 3 – Nov 30 (4 weeks)		
	Total tests conducted	Positive cases	P. rate (%)	Total tests conducted	Positive cases	P. rate (%)
<b>County</b>						
Buffalo	840	216	25.7%	3887	852	21.9%
Dawson	232	58	25.0%	972	271	27.9%
Franklin	17	6	35.3%	61	17	27.9%
Gosper	3	2	66.7%	48	18	37.5%
Harlan	9	5	55.6%	98	19	19.4%
Kearney	83	21	25.3%	300	74	24.7%
Phelps	103	56	54.4%	828	210	25.4%
Data missing/ not disclosed	1	0	0.0%	37	6	16.2%
<b>Total</b>	<b>1,288</b>	<b>364</b>	<b>28.3%</b>	<b>6,231</b>	<b>1,467</b>	<b>23.5%</b>
<b>Age (in yrs)</b>						
0-17	227	38	16.7%	1322	234	17.7%
18-29	218	52	23.9%	1170	216	18.5%
30-39	206	65	31.6%	878	242	27.6%
40-49	150	41	27.3%	694	201	29.0%
50-59	174	57	32.8%	678	184	27.1%
60-69	155	45	29.0%	665	174	26.2%
70-79	97	37	38.1%	457	130	28.4%
80-89	61	29	47.5%	367	85	23.2%
<b>Total</b>	<b>1288</b>	<b>364</b>	<b>28.3%</b>	<b>6,231</b>	<b>1466</b>	<b>23.5%</b>
<b>Gender</b>						
Female	705	174	24.7%	3637	772	21.2%
Male	581	188	32.4%	2585	691	26.7%
Data missing/ not disclosed	2	2	100.0%	9	4	44.4%
<b>Total</b>	<b>1288</b>	<b>364</b>	<b>28.3%</b>	<b>6,231</b>	<b>1,467</b>	<b>23.5%</b>

<sup>7</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 - November 29, 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, 47.9% of TRPHD’s total population and 59.8% of all adult residents (18 years and over) are fully vaccinated.**

## Vaccinations of Total Population in TRPHD

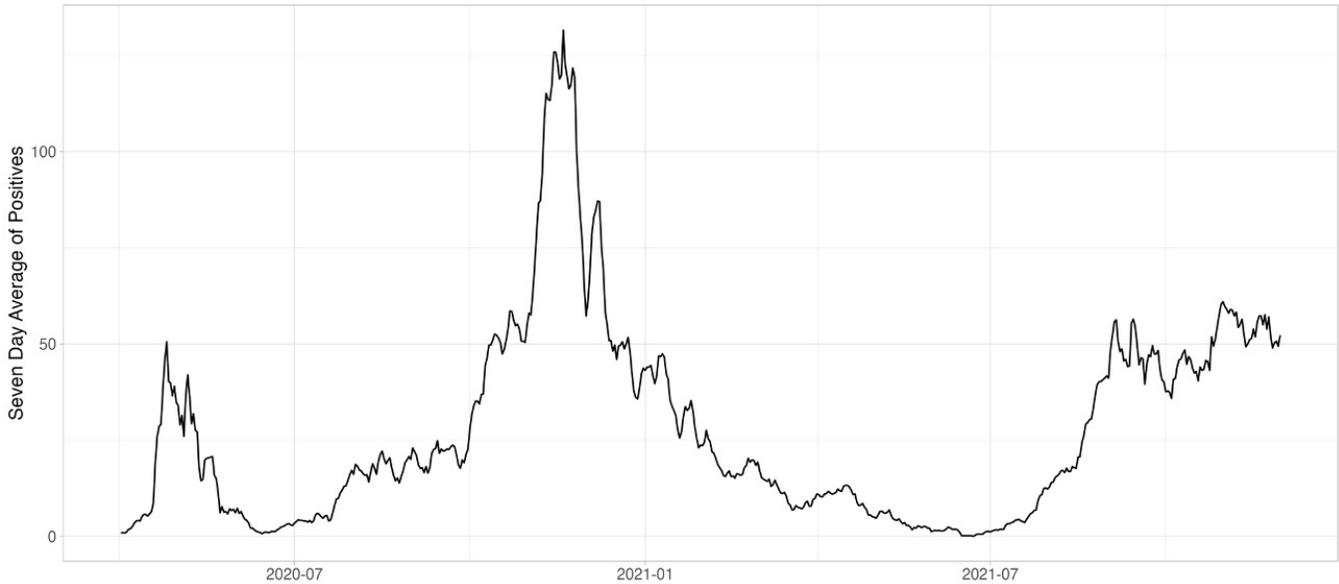




- The graph below describes 7-day rolling average of COVID-19 across TRPHD from **April 1, 2020 – Nov 30, 2021**.
- The second graph describes 7-day rolling average of COVID-19 cases by age across TRPHD for the same time period. The height of the graph corresponds to total cases and the thickness of each colored band corresponds to each age group.

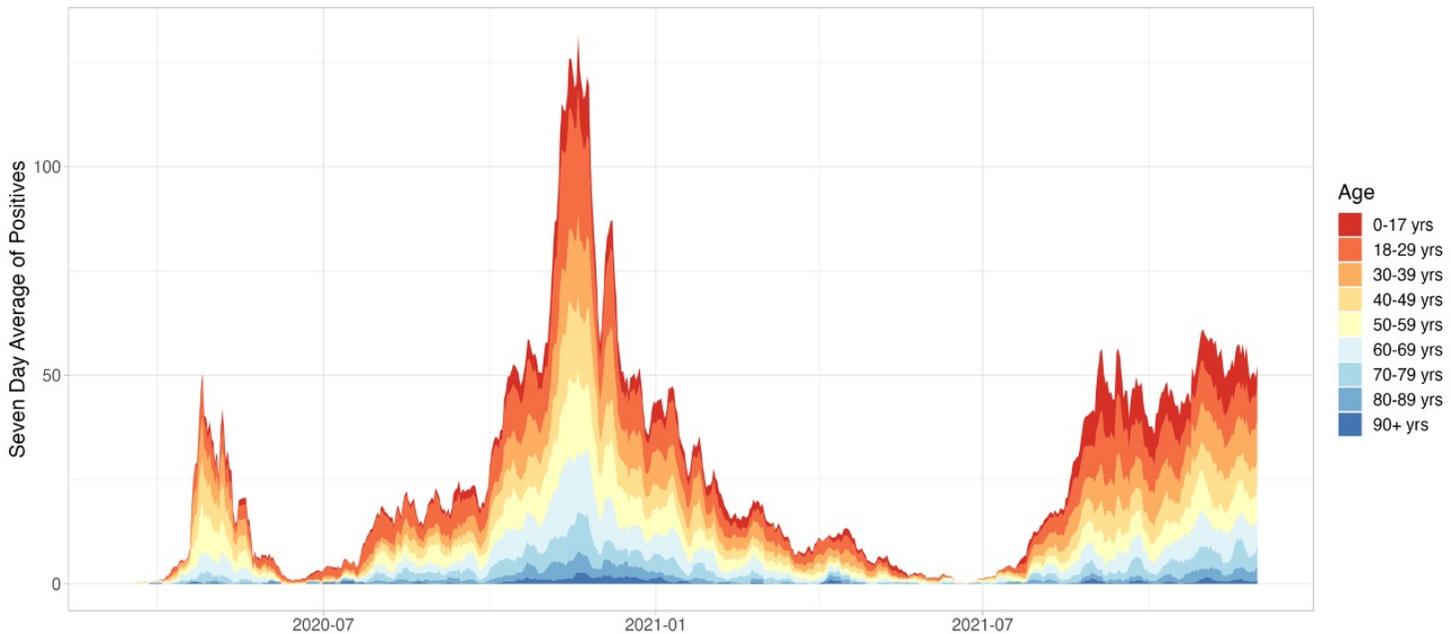
### 7 Day Rolling Average of Two Rivers

Graph displays data from April 1st, 2020 to November 30th, 2021



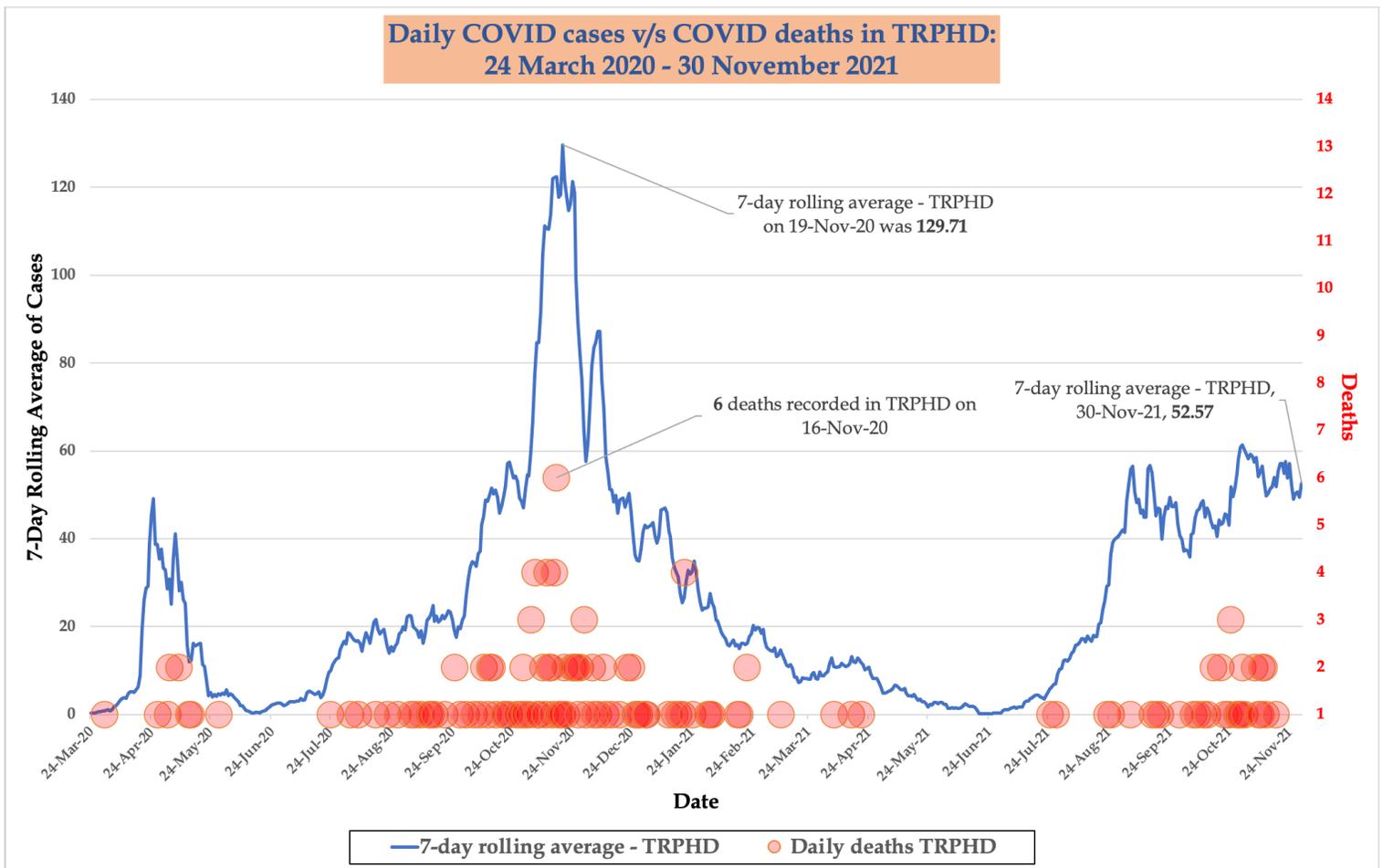
### Daily Average of COVID-19 Cases in TRPHD by Age

Graph displays data from November 2nd, 2021 to November 30th, 2021





- The graphs below describe the **daily average of COVID cases (7-day rolling)** <sup>8</sup> in TRPHD from **March 24, 2020 - November 30, 2021**. Also shown is the **daily COVID deaths** since March 2020. Each red circle corresponds to a death recorded that day. TRPHD has recorded a total of 171 deaths across the district due to COVID-19. Scales are different for both graphs. <sup>9</sup>



<sup>8</sup> For information on “weekly COVID case rate (7-day rolling avg)”, please see appendix 2

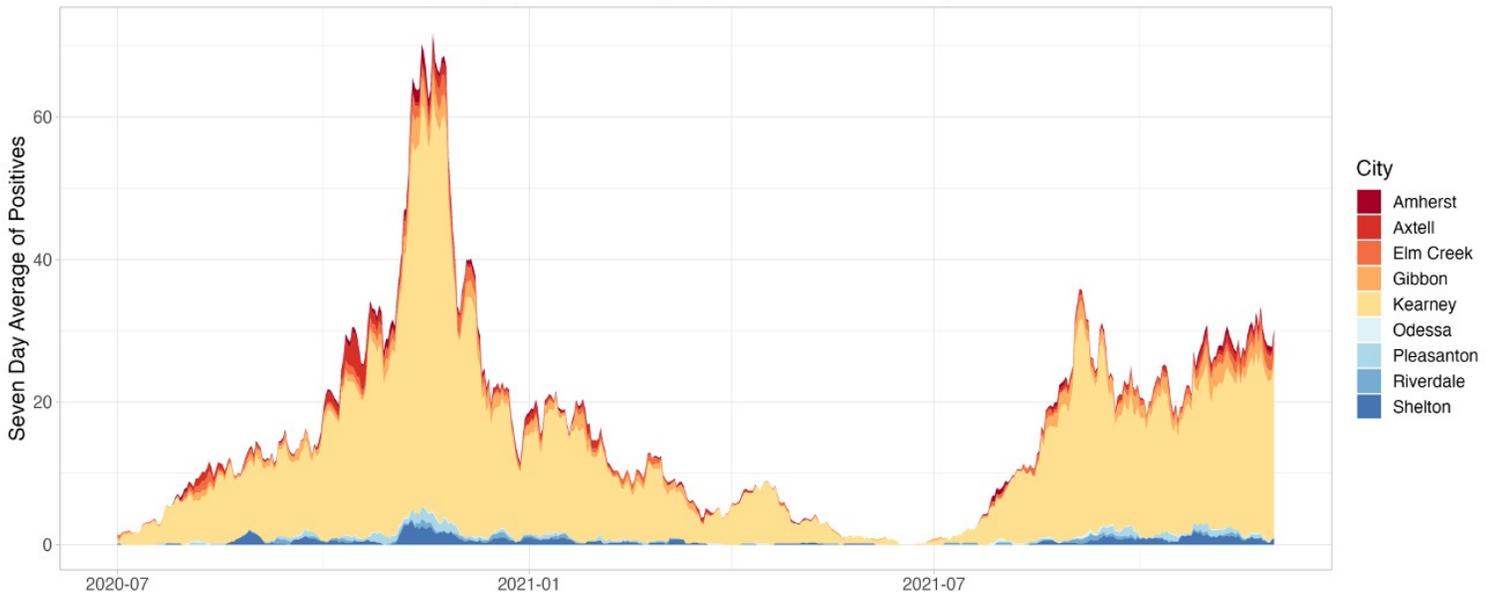
<sup>9</sup> Deaths due to COVID-19 are identified in death certificates (usually COVID -19 is the Underlying Cause of Death) and attested by the attending physician or medical examiner/ coroner. Each case is further investigated by TRPHD over telephone before releasing a public notification. For further details on the procedure for COVID-19 death certification, please see <https://www.cdc.gov/nchs/data/nvss/vsrg/vsrg03-508.pdf>



- 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 - Nov 30, 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 November 30th, 2021



Information Updated as of 11/30 at 8 p.m.

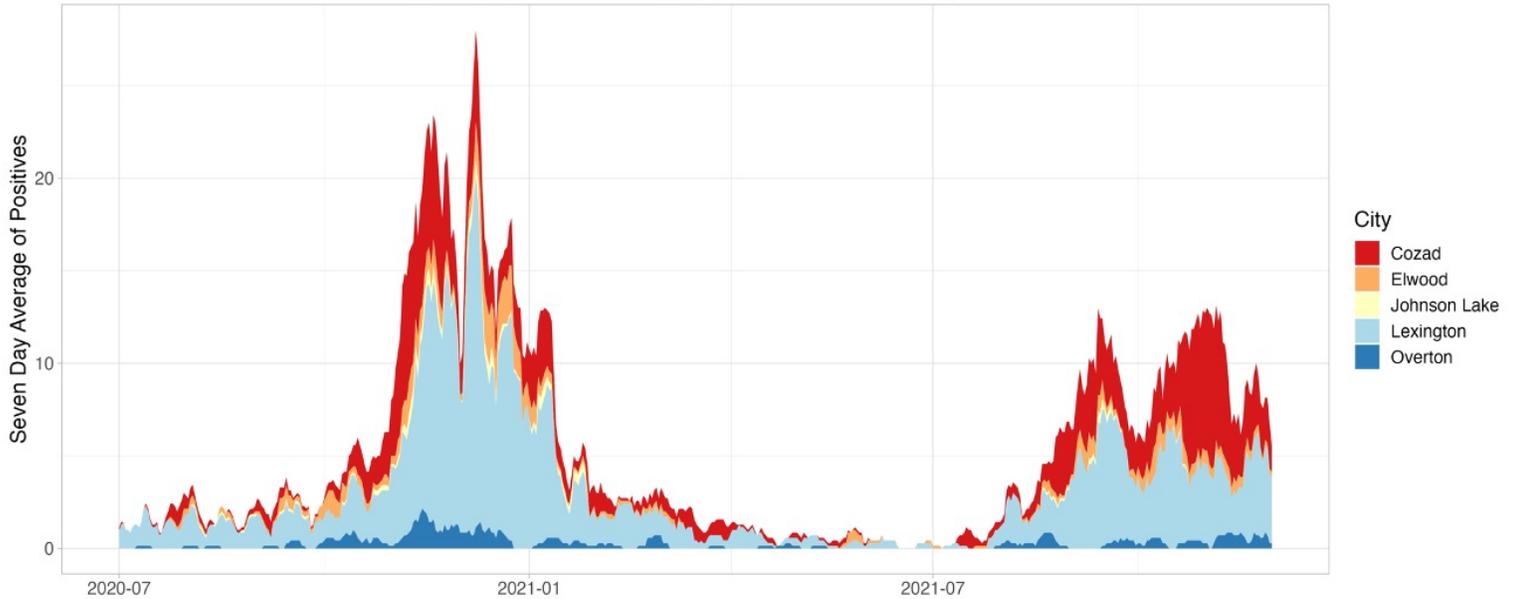
<sup>10</sup> For details about each of the urban areas, please see appendix 5  
516 W 11<sup>th</sup> Street, Suite 108  
Kearney, NE 68845



- The daily average (7-day rolling) of positive cases in Lexington and Holdrege cities and surrounding towns between July 1, 2020 – Nov 30, 2021 are presented below.

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

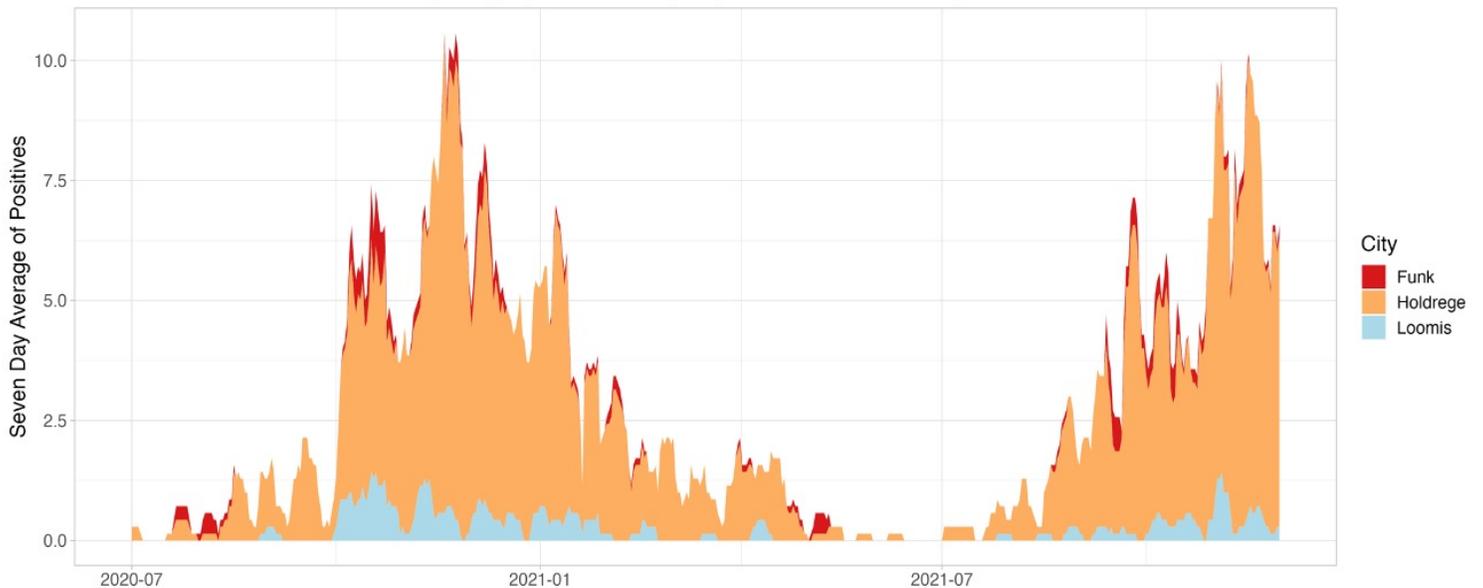
Graph displays data from July 1st, 2020 to November 30th, 2021



Information Updated as of 11/30 at 8 p.m.

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

Graph displays data from July 1st, 2020 to November 30th, 2021



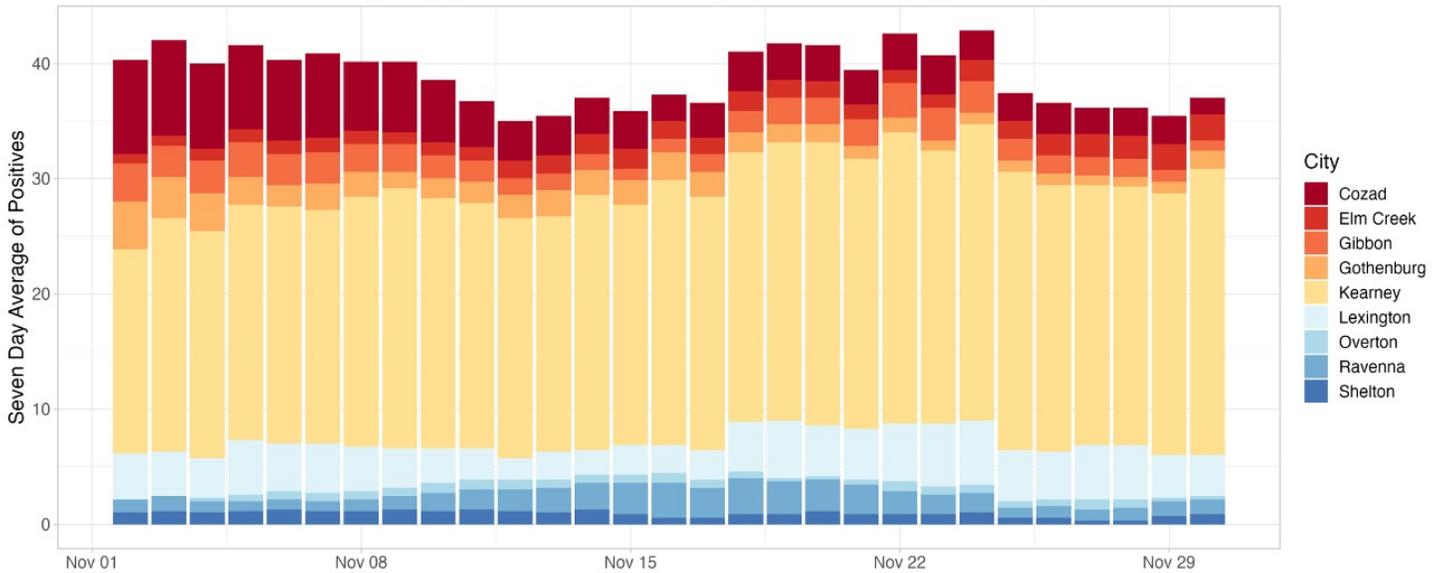
Information Updated as of 11/30 at 8 p.m.



- The following bar graphs describes the 7-day rolling averages by city for the past four weeks (Nov 2 – Nov 30) 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

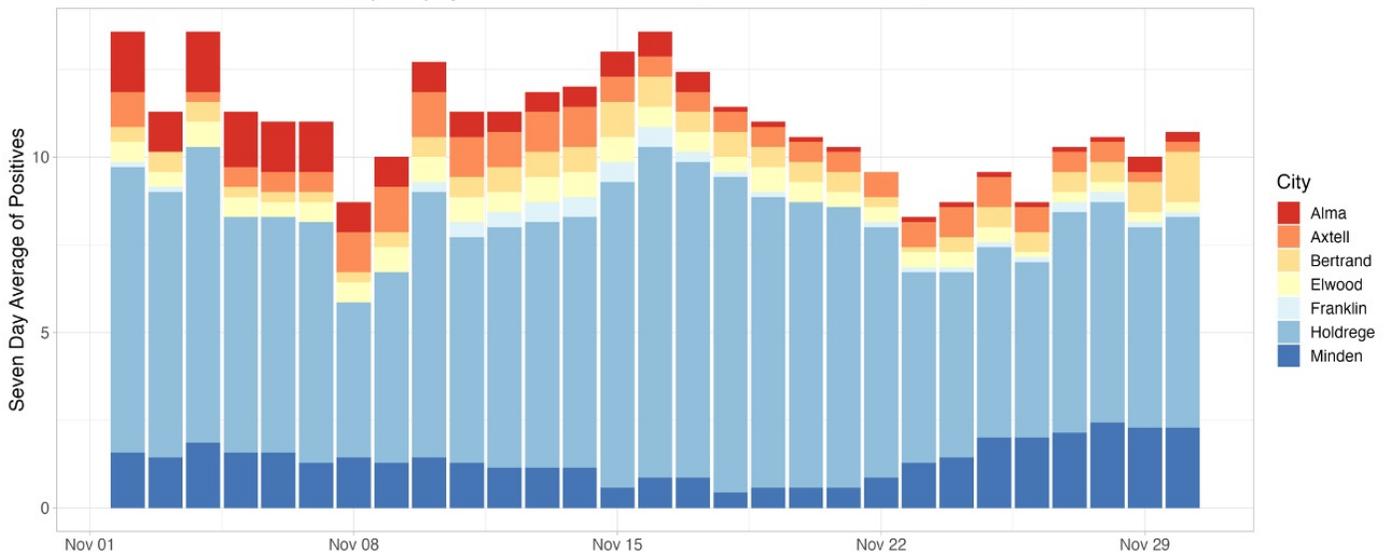
Graph displays data from November 2nd, 2021 to November 30th, 2021



Information Updated as of 11/30 at 8 p.m.

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

Graph displays data from November 2nd, 2021 to November 30th, 2021



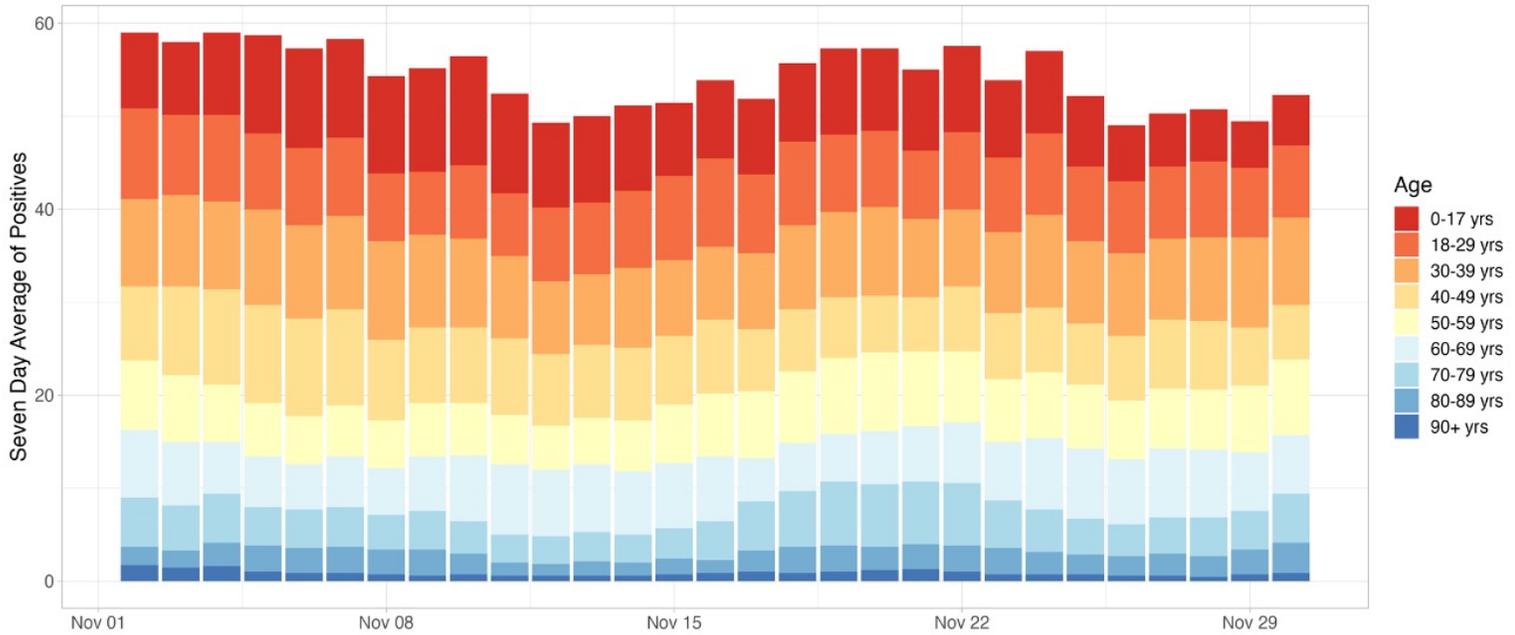
Information Updated as of 11/30 at 8 p.m.



- The graph below describes the **7-day rolling average** of cases from **Nov 2 – Nov 30** 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 November 2nd, 2021 to November 30th, 2021



Information Updated as of 11/30 at 8 p.m.



### Weekly summary

- 368 cases of COVID-19 were recorded in TRPHD between November 24 - November 30. Over 15% of all tests in the district are positive.
- Multiple methods are currently used for COVID-19 testing across the district including home rapid tests. This might artificially inflate test positivity rates due to persons testing positive more likely to get retested for confirmation.
- As of Wednesday morning, no ICU beds were available across TRPHD. 30% of the occupied beds are accounted for by COVID-19 patients. Staffing shortages and increased admissions continue to impact bed availability in Two Rivers and across the state.
- 171 deaths due to COVID-19 have been announced by the health department. Over 20% of those occurred since September 1, 2021.
- A public COVID testing site is now open in Kearney city at the Buffalo County Fairgrounds. Testing results are available the same day and are offered Mondays & Wednesdays 9:30AM - 12:30PM. Those desirous of COVID testing are requested to register at [www.trphd.org](http://www.trphd.org) for scheduling.
- As of Nov 29, 2021, 48% of TRPHD's total population and almost 60% of the adult population (18+ years) has received minimum doses as recommended (1 or 2 as indicated), compared to about 57% of the entire state population. 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, 368 new COVID cases were detected in the Two Rivers area last week. No ICU beds were available across TRPHD as of Wednesday morning. COVID patients account for over 30% of all admissions in TRPHD. Over 20% of 171 confirmed COVID deaths in TRPHD were recorded in the past 3 months. TRPHD has scheduled mobile vaccination clinics 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 9:30 AM - 12:30 PM, Mondays and Wednesdays. Those eligible for vaccines or booster doses are advised to contact their physician or their local pharmacy. To access services through Two Rivers health department, please visit [www.trphd.org](http://www.trphd.org) to register an appointment (for COVID 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 81,000. This includes all residents over the age of 11 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.

	12-29 YRS	30-49 YRS	50-64 YRS	65+ YRS	TOTAL(12+YRS)
<b>TRPHD</b>	<b>24,794</b>	<b>22863</b>	<b>17760</b>	<b>15799</b>	<b>81,216</b>
<b>BUFFALO</b>	14,314	11910	8184	6863	41,271
<b>DAWSON</b>	5,750	5723	4334	3696	19,503
<b>FRANKLIN</b>	515	586	717	809	2,627
<b>GOSPER</b>	333	418	532	526	1,809
<b>HARLAN</b>	625	649	735	845	2,854
<b>KEARNEY</b>	1,385	1508	1343	1239	5,475
<b>PHELPS</b>	1,872	2069	1915	1821	7,677

### 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	49209
Dawson	23733
Franklin	2987
Gosper	2013
Harlan	3415
Kearney	6529
Phelps	9100
<b>TRPHD total</b>	<b>96986</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>)