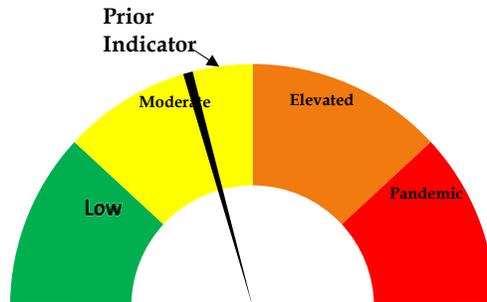




Risk Dial Mar 18, 2021



**Risk Dial for COVID-19
Two Rivers Public Health
Published March 18, 2021**

- Among Health Departments in Nebraska, TRPHD has vaccinated the highest proportion of its eligible population; as of March 17, almost 19% of the district's eligible population had been fully vaccinated. This is about 2% higher than the Statewide average. See the weekly vaccination report (Mar 17) at <https://www.trphd.org/covid-19/vaccination-reports.html> for details
- A little under half of ICU beds and over a third of all medical/surgical beds across the district are currently available, COVID-related admissions have accounted for 5% or less of all occupied beds for the past three weeks (see <https://www.trphd.org/> for details). ICU admissions are within expected ranges for hospitals at this time of the year.
- TestNebraska sites in Dawson county have closed over the past week and more within the district are anticipated to do so over the next few weeks. Testing access in the district through TestNebraska is expected to contract over the coming weeks.
- Two Rivers Health District averaged 10 new cases per day for the past week, the first time since early August that this weekly average was last recorded. See weekly report (Mar 10 - Mar 17) at <https://www.trphd.org/covid-19/weekly-reports.html> 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
- For these reasons, the risk dial is downgraded from the previous week, risk is still assessed to be "moderate", although lesser than previous weeks.



Weekly report Mar 10 – Mar 16, 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 10 – March 16** (1 week) and **February 16 – March 16** (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 16** (50 weeks) 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 look at the daily average of positive cases in TRPHD from **July 1 – March 16**.
 - We present the **daily average cases (7-day rolling) / 100,000 population** for Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney and Phelps counties.²
 - Also depicted is the daily average/ 100,000 population for Nebraska and the USA.
- The fourth set of graphs describe the daily average of cases (7-day rolling average) from **February 16 – March 16**. 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 access continues to shrink across Two Rivers Health District, and weekly incidence of COVID seems to be decreasing at the same time. Almost 19% of eligible residents in 7 counties in TRPHD have been fully vaccinated, the highest rate among health departments in the state. 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 details on daily average of cases/ 100,000 population, please see appendix 1 & 2

³ For information on residential facilities, please see appendix 3



Testing Overview

- As of Mar 9, over 43,000 residents of Two Rivers Health District were tested at least once for COVID-19. Over 102,000 tests have been conducted since March 1, and 10,886 of these tests were positive.⁴ TRPHD has publicly notified 117 deaths due to COVID across the district.
- Over 51% of all tests conducted since March 2020 have been laboratory-based Polymerase Chain Reaction (PCR) tests.
 - However, almost 74% 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 10 - Mar 16 (1 week)			Feb 16 - Mar 16 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Hospital/ Clinic	621	45	7.2%	2645	268	10.1%
TestNebraska	125	11	8.8%	612	66	10.8%
Residential Facility	1758	3	0.2%	6103	11	0.2%
Lab/ Pharmacy	166	8	4.8%	807	37	4.6%
Other	143	6	4.2%	483	36	7.5%
TOTAL	2813	73	2.6%	10,650	418	3.9%

- A total of 6103 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 10 - Mar 16 (1 week)			Feb 16 - Mar 16 (4 weeks)		
	Total Tests	Positive Results	Positivity Rate	Total Tests	Positive Results	Positivity Rate
Buffalo	1090	2	0.2%	3205	6	0.2%
Dawson	156	0	0.0%	574	0	0.0%
Franklin	0.0	0	0.0%	0.0	0	0.0%
Gosper	23	0	0.0%	52	0	0.0%
Harlan	38	0	0.0%	238	1	0.4%
Kearney	51	0	0.0%	398	0	0.0%
Phelps	342	1	0.3%	1295	4	0.3%
Outside TRPHD	58	0	0.0%	341	0	0.0%
TOTAL	1758	3	0.2%	6103	11	0.2%

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

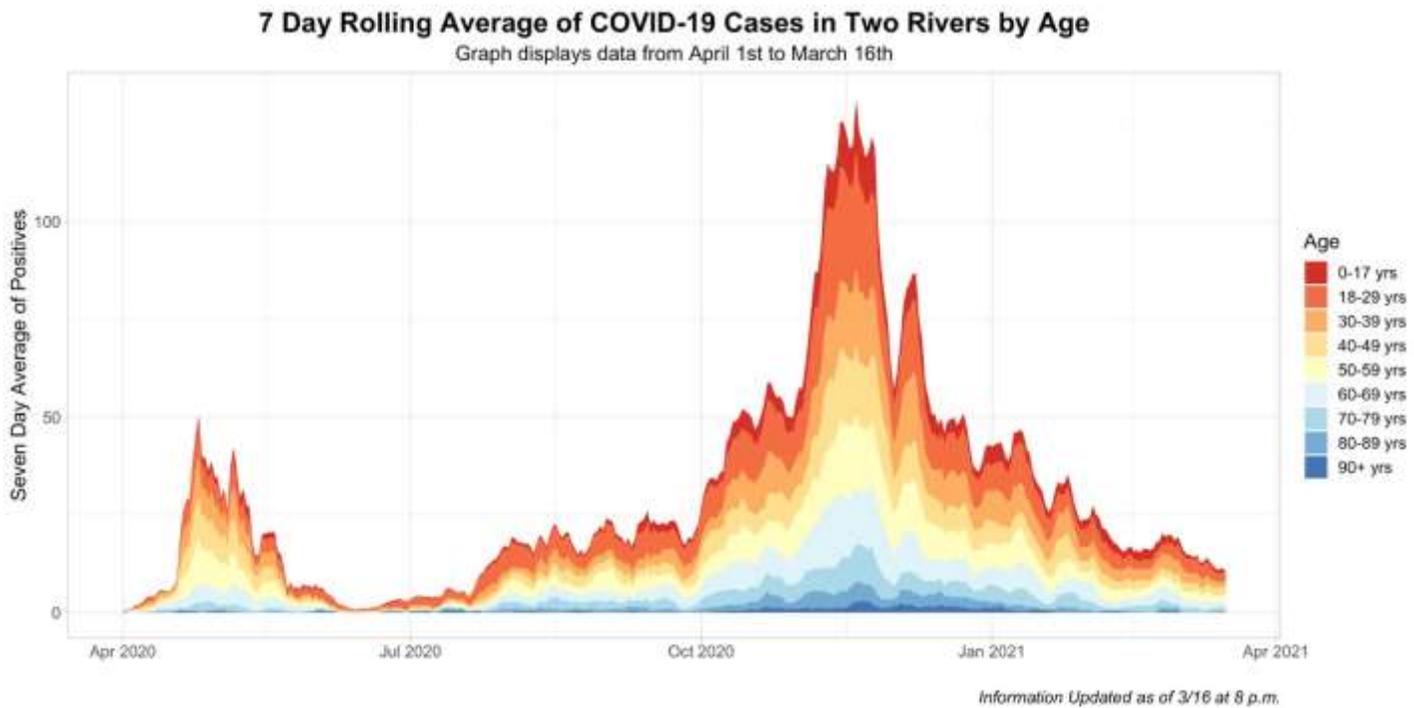
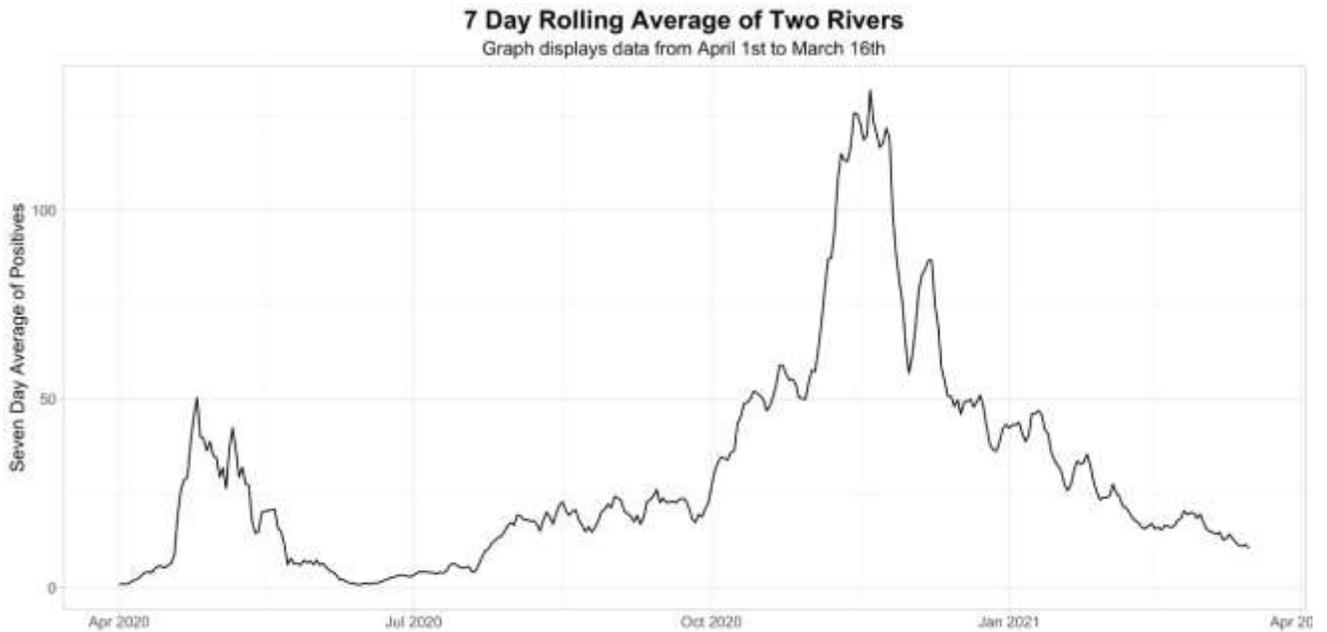


Excluding residential facilities, a total of 4547 tests were conducted in the past 4 weeks. The following table gives details of positive cases in the past week and past 4 weeks by county, age categories and gender.

	Mar 10 – Mar 16 (1 week)			Feb 16 – Mar 16 (4 weeks)		
	Total tests conducted	Positive cases	P. rate (%)	Total tests conducted	Positive cases	P. rate (%)
County						
Buffalo	667	41	6.1%	2722	251	9.2%
Dawson	222	16	7.2%	1072	76	7.1%
Franklin	15	0	0.0%	65	7	10.8%
Gosper	6	0	0.0%	30	5	16.7%
Harlan	13	2	15.4%	72	7	9.7%
Kearney	32	1	3.1%	225	20	8.9%
Phelps	90	10	11.1%	335	36	10.7%
Data missing/ not disclosed	10	0	0.0%	26	5	19.2%
Total	1,055	70	6.6%	4,547	407	9.0%
Age (in yrs)						
0-17	110	4	3.6%	503	33	6.6%
18-29	272	14	5.1%	1182	79	6.7%
30-39	148	9	6.1%	687	73	10.6%
40-49	137	12	8.8%	534	53	9.9%
50-59	134	12	9.0%	597	61	10.2%
60-69	123	10	8.1%	543	63	11.6%
70-79	61	6	9.8%	296	32	10.8%
80-89	43	3	7.0%	138	11	8.0%
90+	27	0	0.0%	67	2	3.0%
Total	1055	70	6.6%	4547	407	9.0%
Gender						
Female	617	38	6.2%	2570	204	7.9%
Male	435	32	7.4%	1940	201	10.4%
Data missing/ not disclosed	3	0	0.0%	37	2	5.4%
Total	1,055	70	6.6%	4,547	407	9.0%



- The graph below describes 7-day rolling average of COVID-19 across TRPHD from **April 1, 2020 – March 16, 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.

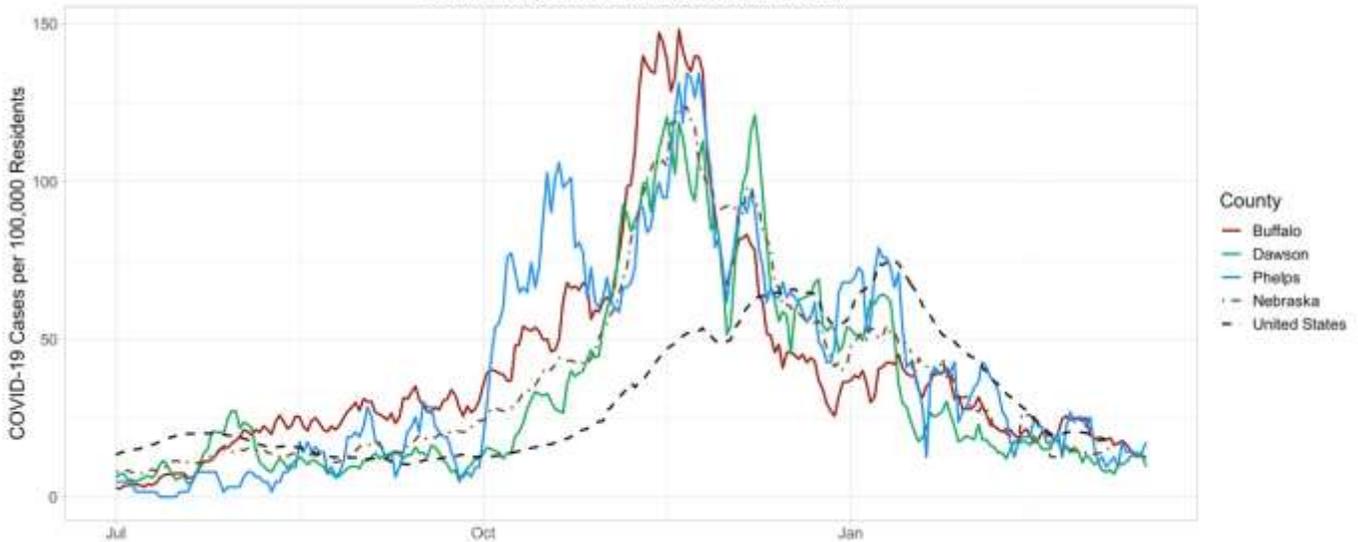




- The graphs below describe the **7-day rolling average/100,000 population** of positive cases across each of the 7 counties in TRPHD from **July 1 to March 16**.
- Graphs are presented separately for **Buffalo, Dawson and Phelps**, and for **Franklin, Gosper, Harlan and Kearney** counties. **Nebraska** state and the **USA** are also presented for comparison. Scales are different for both graphs.

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

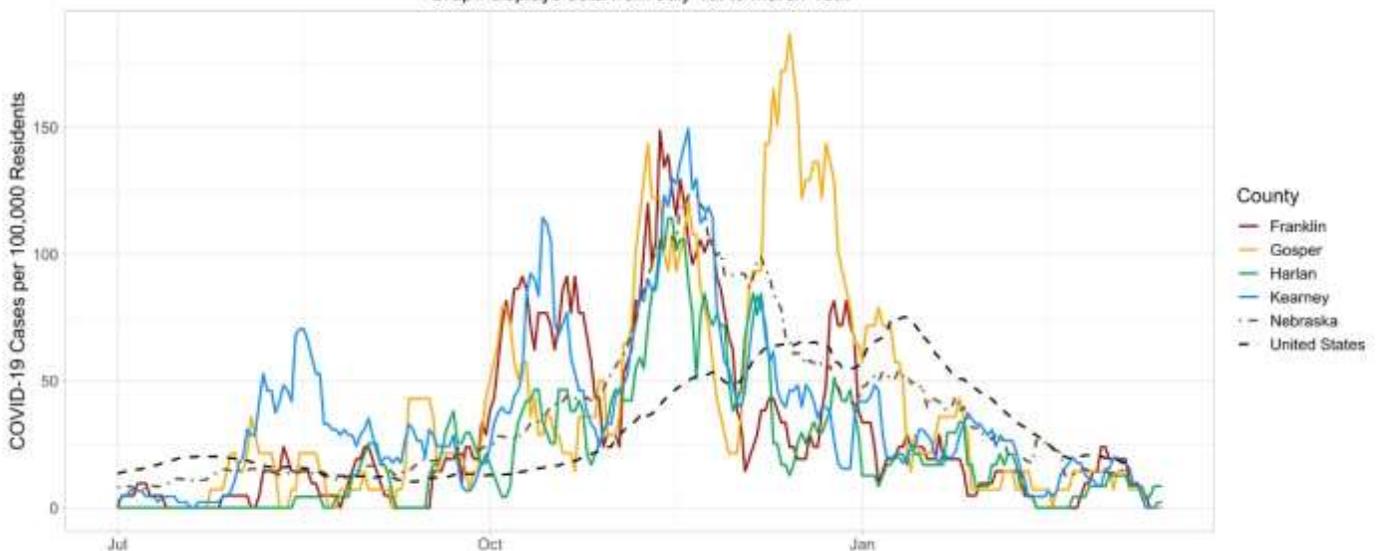
Graph displays data from July 1st to March 16th



Information Updated as of 3/16 at 8 p.m.

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

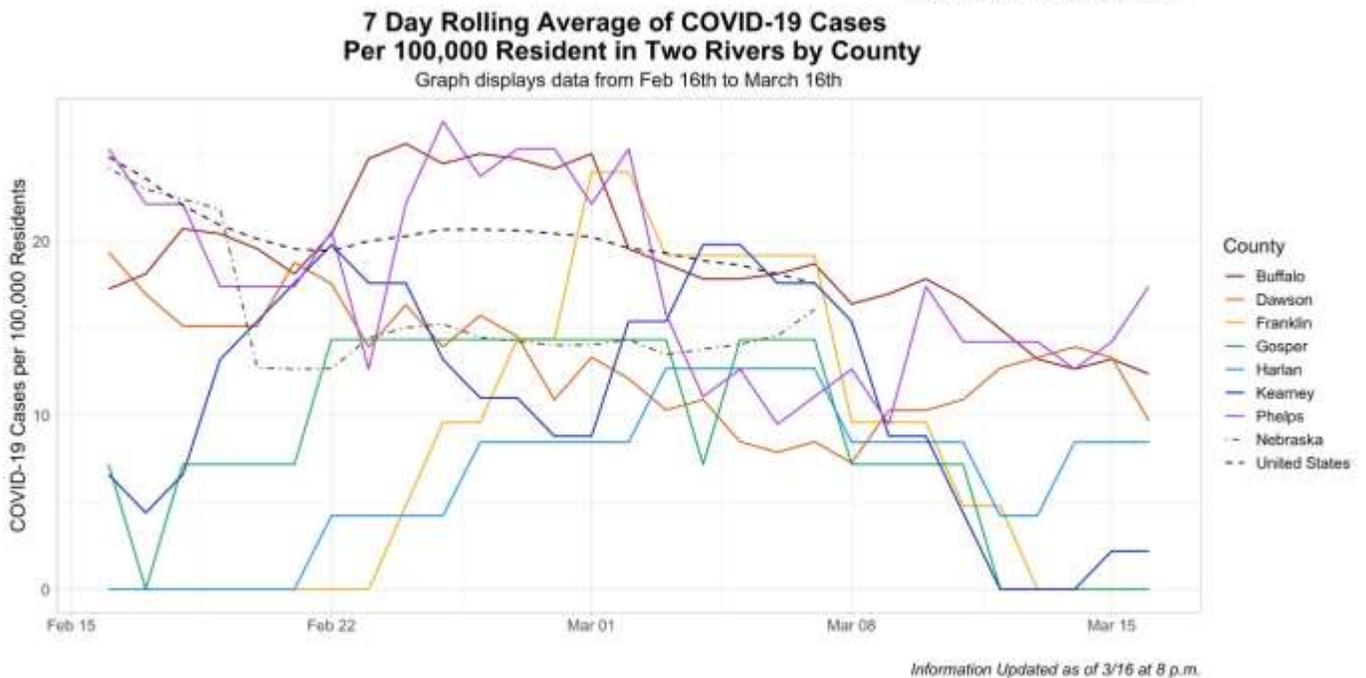
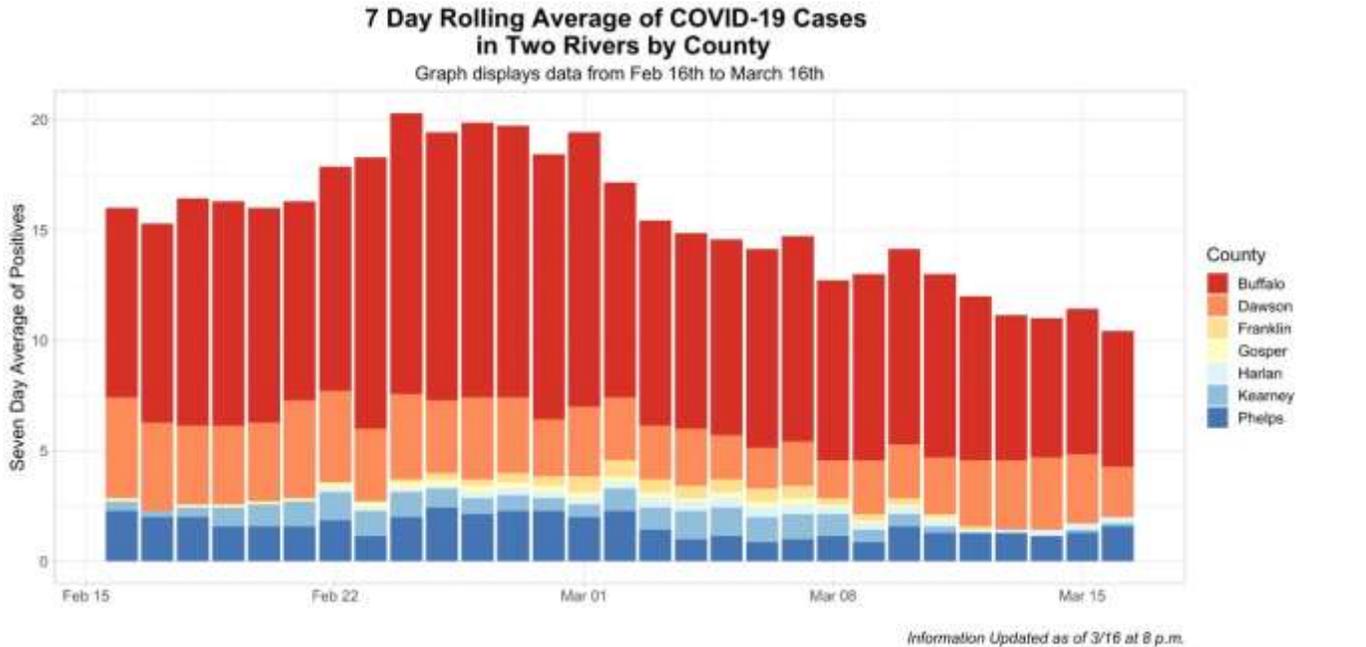
Graph displays data from July 1st to March 16th



Information Updated as of 3/16 at 8 p.m.



- The following bar graph describes the 7-day rolling averages of COVID-19 cases by **county** for the past four weeks (Feb 16 – Mar 16).
- The second graph describes the same data per 100,000 population.⁵ The graph also depicts the line for the United States and Nebraska.



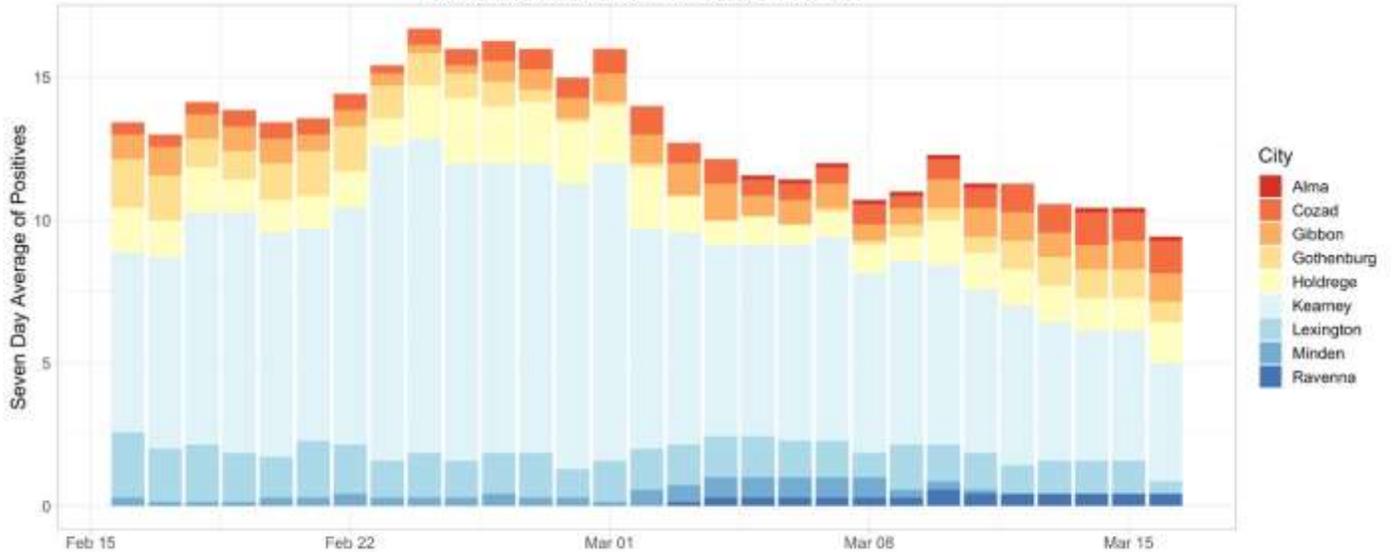
⁵ Please note: When comparing counties, we describe rates per 100,000 population. This is roughly equal to the total population of Two Rivers Health Department (~97,000)



- The following bar graphs describes the 7-day rolling averages by city for the past four weeks (Feb 16 - Mar 16) 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

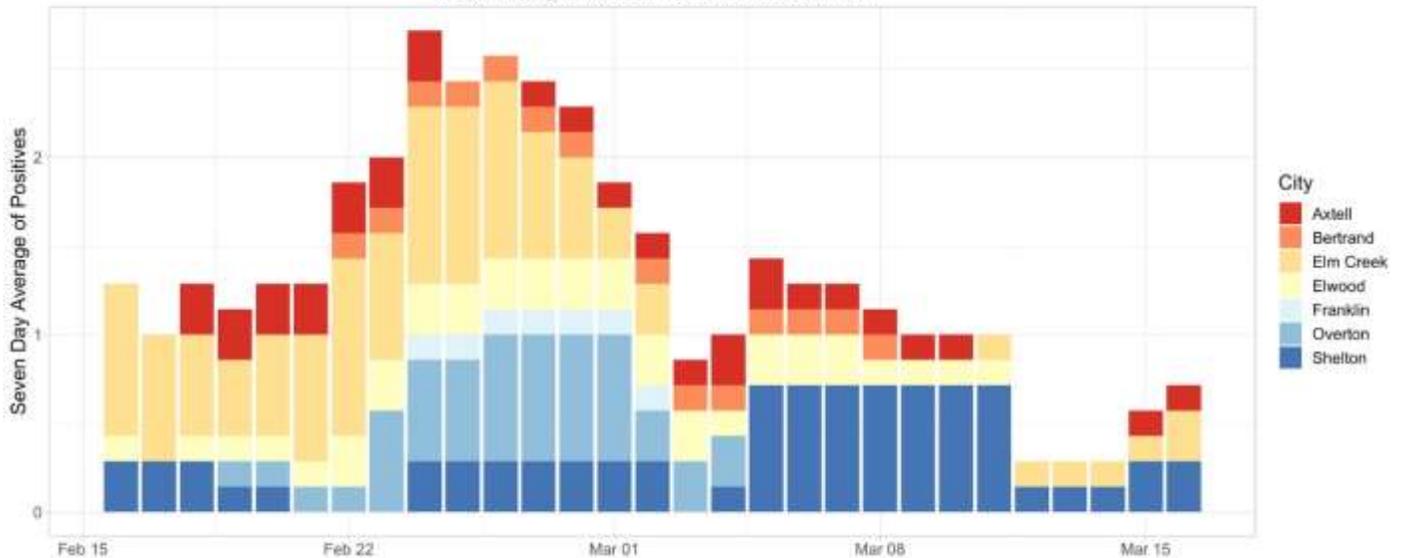
Graph displays data from Feb 16th to March 16th



Information Updated as of 3/16 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 16th to March 16th



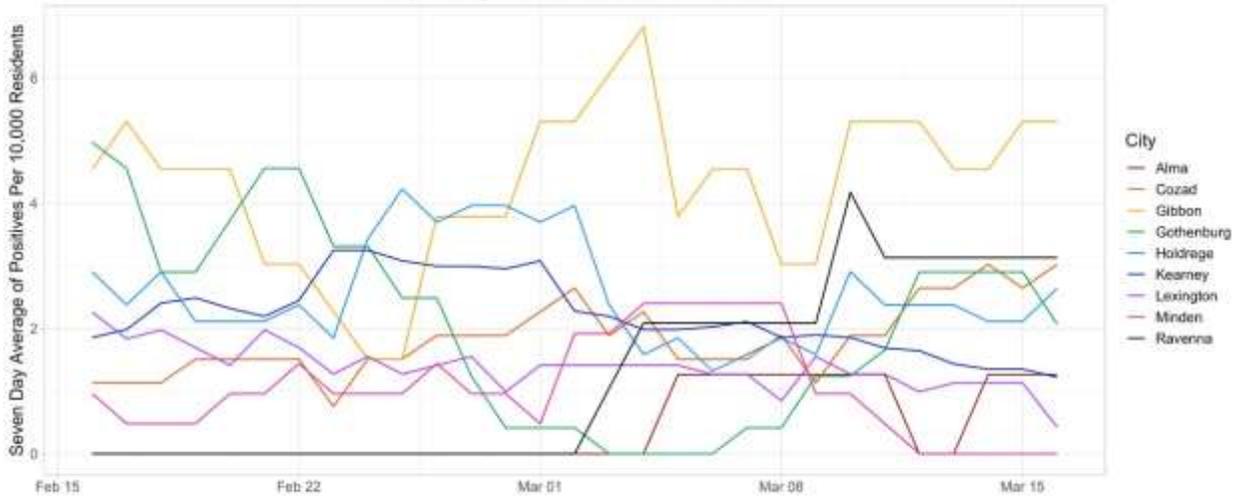
Information Updated as of 3/16 at 8 p.m.



- 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 16 - Mar 16) 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.

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

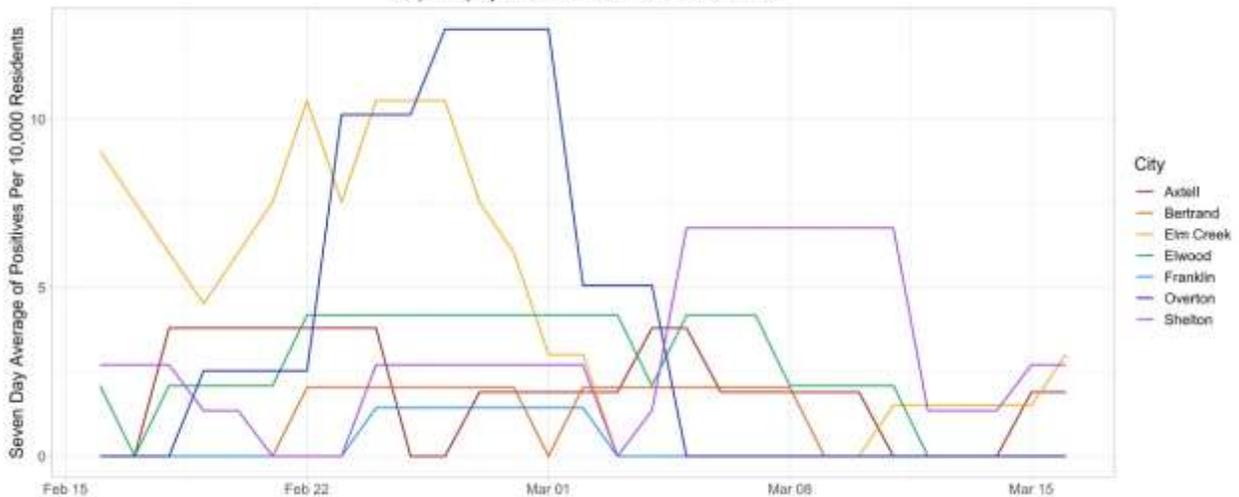
Graph displays data from Feb 16th to March 16th



Information Updated as of 3/16 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 16th to March 16th

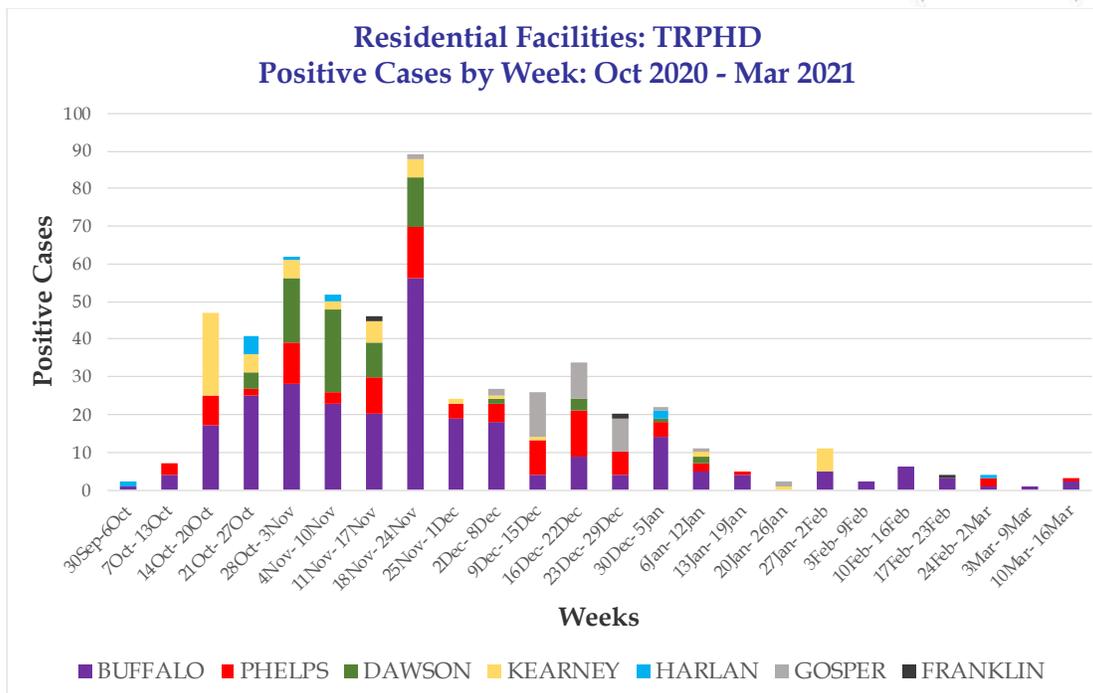
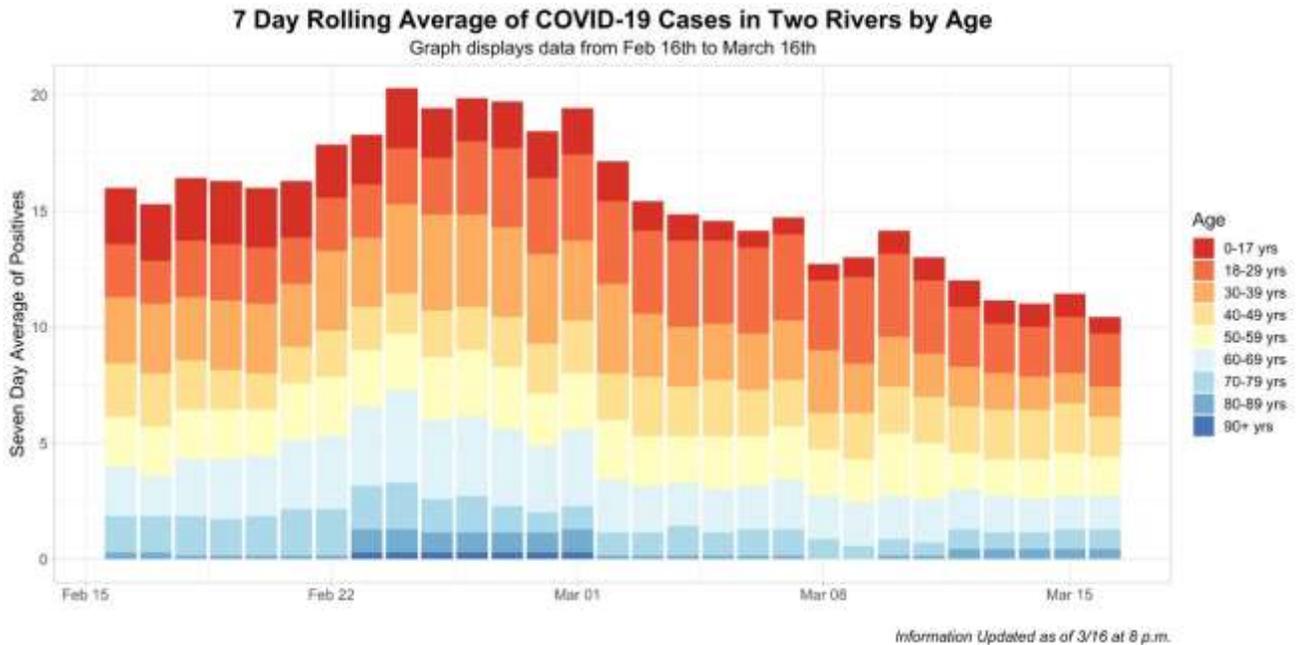


Information Updated as of 3/16 at 8 p.m.

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)



- The first graph below describes the **7-day rolling average** of cases from **Feb 16 – Mar 16** 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 16**). Regular and widespread testing in long term care facilities in TRPHD began in early October.





Weekly summary

- TestNebraska sites in Dawson county have closed over the past week and more are anticipated to do so over the next few weeks. Testing access in the district through TestNebraska is expected to contract over the coming weeks.
- Two Rivers Health District averaged 10 new cases per day for the past week, the first time since early August that this weekly average was last recorded.
- Long Term Care and other residential facilities have recorded less than 5 new cases weekly for the past month and a half. However, we continue to record new COVID cases among residents aged 60 years and over in the district, in spite of high vaccination rates among this population.
- Over 30% of eligible residents of Two Rivers Health District have been vaccinated at least once. However, this proportion ranges from 23% in Kearney county to 13% in Phelps county. See the weekly vaccination report at <https://www.trphd.org/covid-19/vaccination-reports.html> for details
- Among Health Departments in Nebraska, TRPHD has vaccinated the highest proportion of its eligible population; as of March 17, almost 19% of the district's eligible population had been fully vaccinated. This is about 20% higher than the Statewide average.
- A little under half of ICU beds and over a third of all medical/surgical beds across the district are currently available, COVID-related admissions have accounted for 5% or less of all occupied beds for the past three weeks (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

COVID testing access continues to shrink across Two Rivers Health District, and weekly incidence of COVID seems to be decreasing at the same time. Almost 19% of eligible residents in 7 counties in TRPHD have been fully vaccinated, the highest rate among health departments in the state. 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 refer 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 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:

$[(\text{Total positive test results for residents in the region}) / (\text{mid-year population}) * 100,000]$

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:

$[(\text{7-day rolling average of cases among residents}) / (\text{mid-year population}) * 100,000]$

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.



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