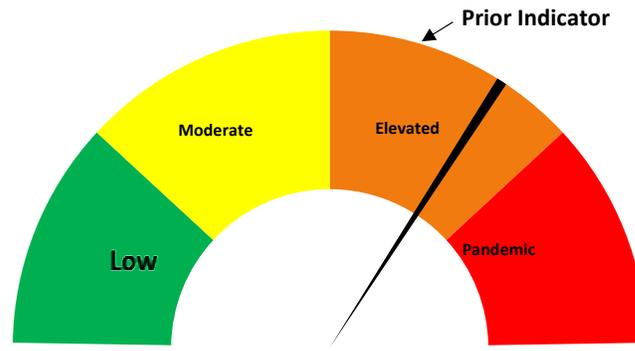




Risk Dial Oct 1 2020



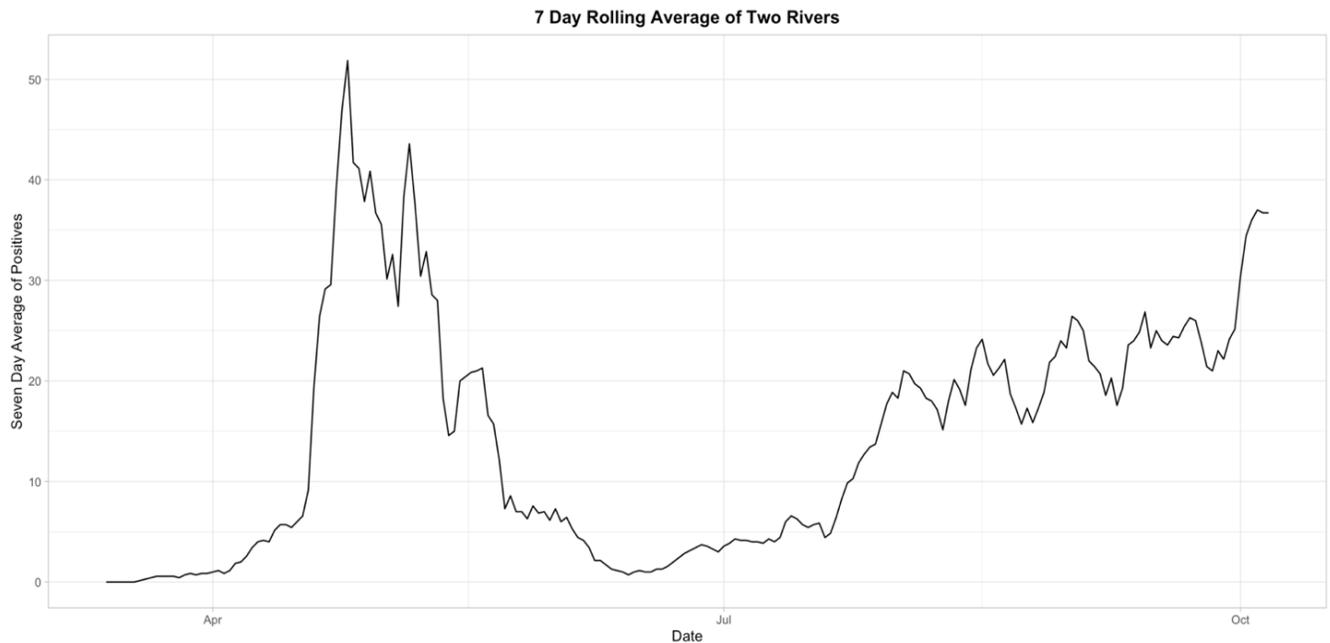
Risk Dial for COVID-19 Two Rivers Public Health Published October 7, 2020

- Two Rivers Health Department is happy to announce that some of the issues with data resolution that affected positivity rates across the district in the previous two weeks seem to have been resolved. Consequently, the number of test results received this week almost doubled compared to the previous week, and the number of positives rose by 60% compared to the previous week. Hence, although positivity rates fell by almost 2% compared to the previous week, we would continue to advise caution.
- Hospitalization rates and use of critical equipment have risen dramatically when compared to previous weeks. The availability of intensive care (ICU) beds in the district area dropped from about three quarters to only half.
- Of particular concern are reports from acute care hospitals in the greater Two Rivers Health region that they may be at or nearing capacity. While critical access hospitals do not currently see the same kind of pressure in occupancy, upstream pressure on acute referral hospital beds has influenced the department's perception of the countywide risk.
- Over the past week, 60-79 year olds were over a quarter of all positive cases in the district, despite accounting for about a sixth of all tests conducted. Due to the special risks for severe disease faced by this age group, the department continues to monitor the cases closely.
- Communal events conducted in the district may have resulted in a high number of new infections from a single point source. Two Rivers is closely monitoring an outbreak of COVID-19 in Kearney county related to the Lutheran Church Services



- The course of the COVID-19 pandemic is displayed in Figure (a) below. The graph depicts the seven-day rolling average of positive cases in Two Rivers Health Department since April 01 to October 6. Clearly seen is the initial outbreak in Dawson county in April-May, followed by a period of relative calm in June. The pandemic spread has been steady and relentless following the first week of July, with cases following a step-ladder pattern of progression. The growth in new COVID cases since July has been mostly driven by Kearney city and its surrounding areas.

Fig (a) (below) describes the 7-day rolling average of cases in TRPHD from April 1 – October 6. Data includes only residents of Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney and Phelps counties.





Weekly report Sep 30 - Oct 06 2020

Reporting tests done on patients residing in **Buffalo, Dawson, Phelps, Gosper, Harlan, Kearney and Franklin** counties

Reporting period : Sep 30 – Oct 6 2020 (1 week)
& Sep 9 – Oct 6 2020 (4 weeks)

Overall testing – previous week

A total of 1504 persons were tested in the past week, of whom 237 were positive, and 1267 were negative. The results are displayed below.

	Negative	Positive	Total
Number	1267	237	1504
Percentage	84.2%	15.8%	100.0%

Overall testing – previous month

A total of 4348 persons were tested in the past 4 weeks, of whom 699 were positive, and 3649 were negative. The results are displayed below.

	Negative	Positive	Total
Number	3649	699	4348
Percentage	83.9%	16.1%	100.0%

The following table (table 1) gives details of positive cases done by county, age categories and gender.

Table 1: Details of total and positive tests – 1 week and 4 weeks

	Sep 30 – Oct 6 (1 week)			Sep 9 – Oct 6 (4 weeks)		
	Total persons tested	Positive cases	P. rate (%)	Total persons tested	Positive cases	P. rate (%)
County						
Buffalo	791	131	16.6%	2520	434	17.2%
Dawson	288	19	6.6%	881	76	8.6%
Franklin	97	16	16.5%	141	27	19.1%
Gosper	18	10	55.6%	63	23	36.5%
Harlan	91	1	1.1%	127	15	11.8%
Kearney	72	13	18.1%	227	42	18.5%
Phelps	103	37	35.9%	279	66	23.7%
Data missing/ not disclosed	44	10	22.7%	110	16	14.5%
Total	1504	237	15.8%	4348	699	16.1%



Age (in yrs)						
0-17	172	15	8.7%	609	57	9.4%
18-29	334	54	16.2%	1012	174	17.2%
30-39	183	24	13.1%	580	96	16.6%
40-49	187	41	21.9%	518	95	18.3%
50-59	199	30	15.1%	517	94	18.2%
60-69	179	36	20.1%	486	97	20.0%
70-79	107	25	23.4%	278	61	21.9%
80-89	88	10	11.4%	221	22	10.0%
90+	55	2	3.6%	127	3	2.4%
Total	1504	237	15.8%	4348	699	16.1%
Gender						
Female	663	119	17.9%	1,873	358	19.1%
Male	470	110	23.4%	1,490	313	21.0%
Data missing/ not disclosed	371	8	2.2%	985	28	2.8%
Total	1504	237	15.8%	4,348	699	16.1%



Fig 1 (below) describes the 7-day rolling average of persons tested across the district over the past 4 weeks, as well as the 7-day rolling average of positive cases. Plotted on the z-axis is the weekly positivity rate for the entire district.

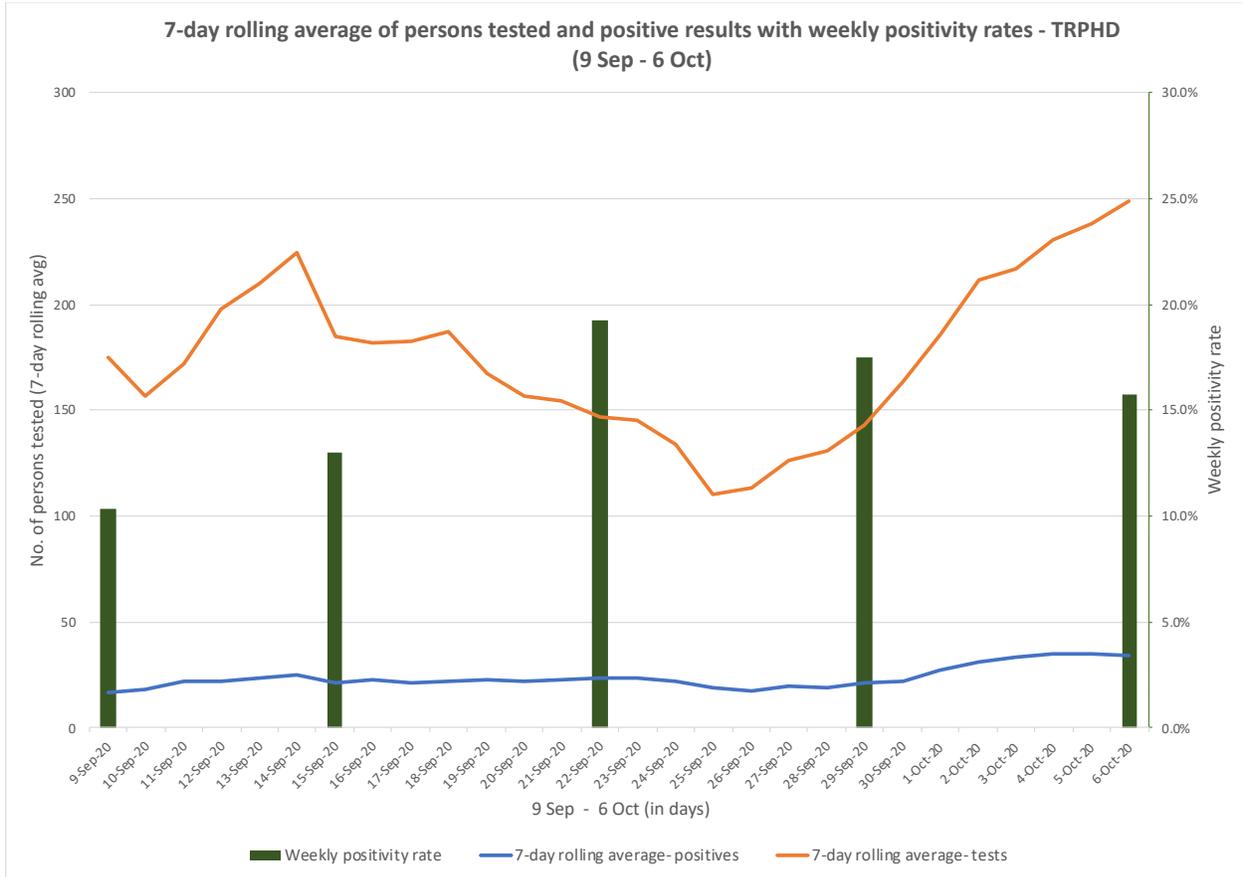




Fig 2 (below) describes the 7-day rolling average of cases per county for the last 4 weeks.

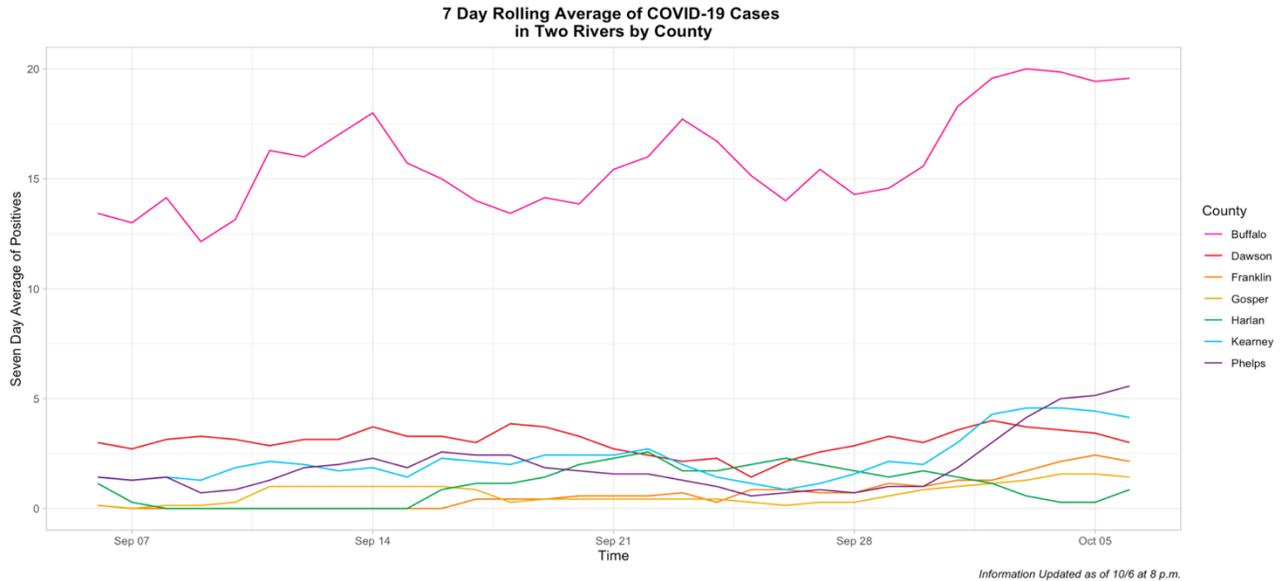


Figure 3 (below) describes the 7-day rolling average by city in TRPHD (all cities with cumulative case count over 30 cases are included)

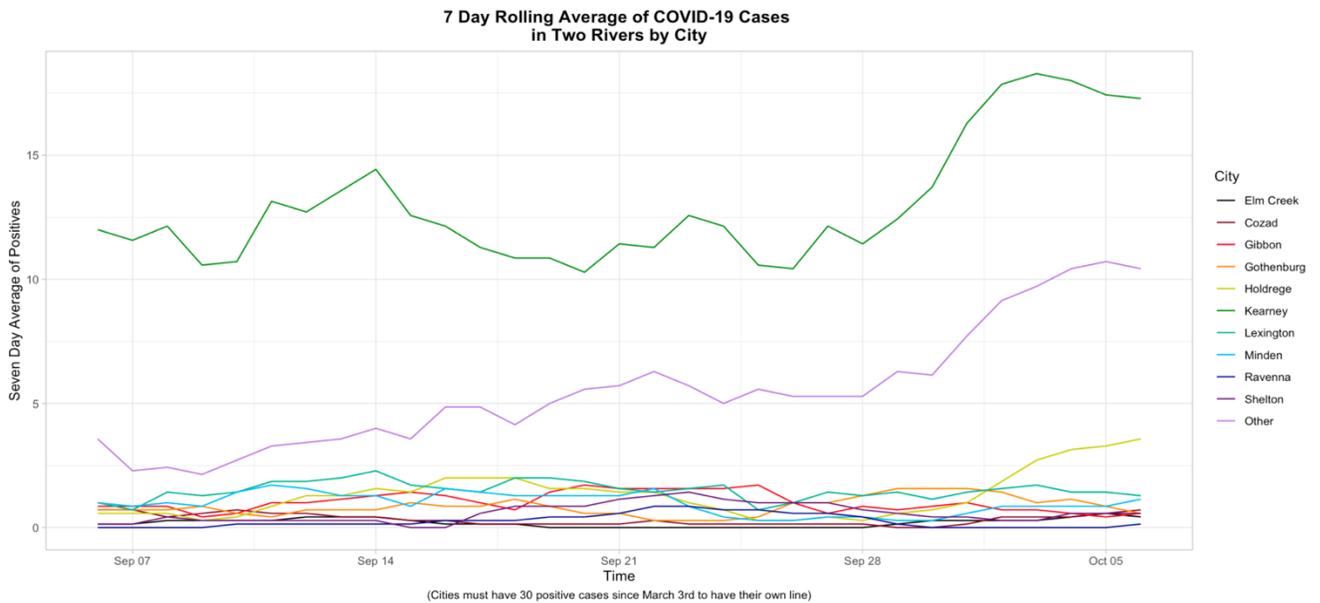




Figure 4 (below) describes the 7-day rolling average of cases by age category for the last 4 weeks.

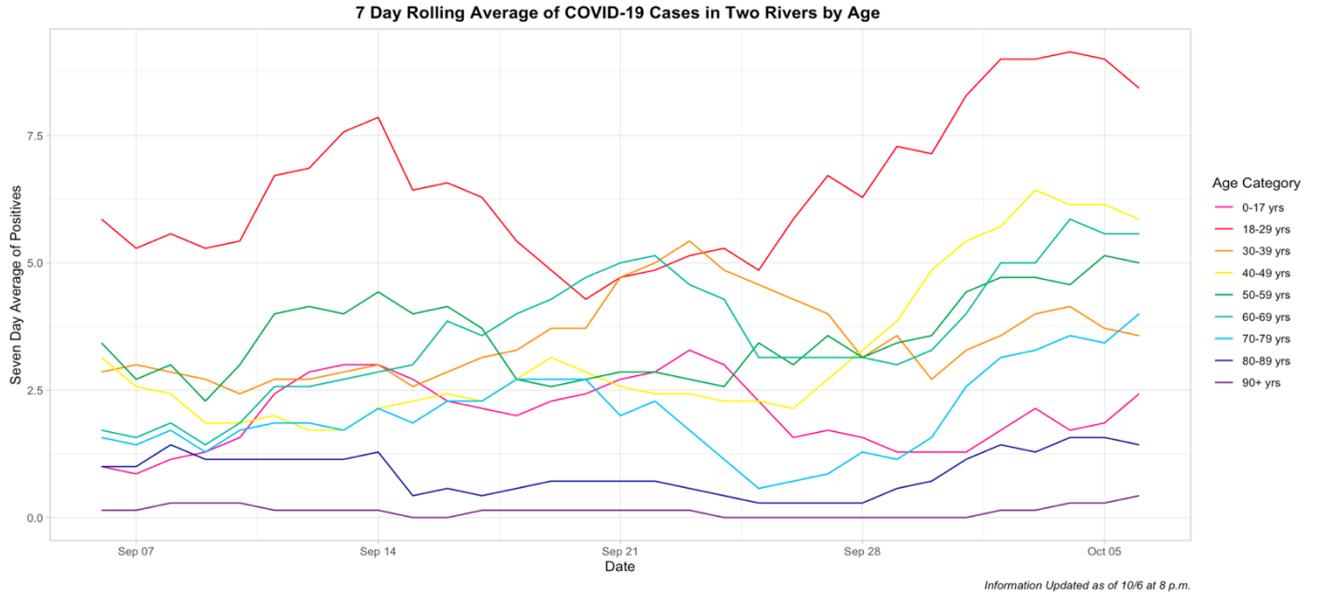




Table 2 describes the proportion of total tests done by county and age category on Aug 19 – Sep 15 2020

Table 2: Total tests in TRPHD – past week and past 4 weeks – proportions by county, age and gender

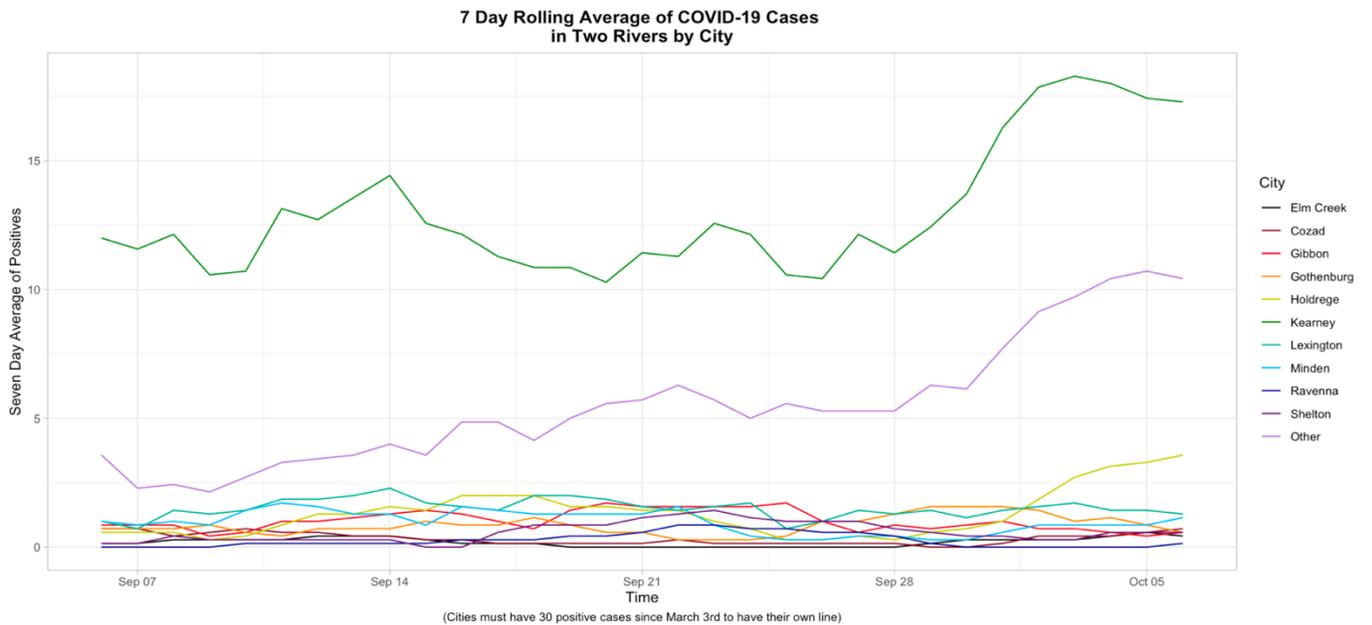
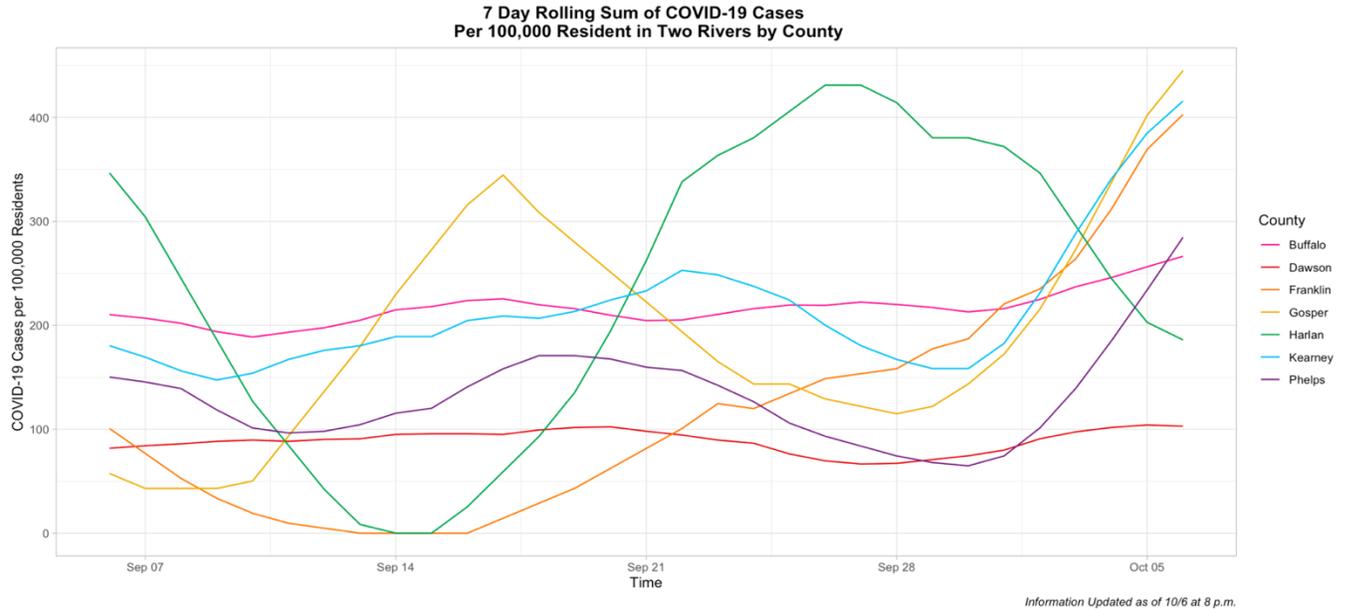
	Sep 23 – Sep 29 (1 week)		Sep 2 – Sep 29 (4 weeks)	
	Total persons tested	Percentage of tests done by county/ age group/ gender (%)	Total persons tested	Percentage of tests done by county/ age group/ gender (%)
County				
Buffalo	791	66.6%	2520	61.3%
Dawson	288	20.6%	881	21.4%
Franklin	97	2.1%	141	1.4%
Gosper	18	1.5%	63	1.4%
Harlan	91	0.7%	127	1.1%
Kearney	72	2.6%	227	5.4%
Phelps	103	3.1%	279	6.0%
Data missing/ not disclosed	44	2.8%	110	2.1%
Total	1504	100.0%	4348	100.0%
Age (in yrs)				
0-17	172	13.8%	609	15.3%
18-29	334	22.8%	1012	22.8%
30-39	183	12.9%	580	13.9%
40-49	187	12.3%	518	11.0%
50-59	199	12.7%	517	11.4%
60-69	179	10.7%	486	10.6%
70-79	107	6.1%	278	6.7%
80-89	88	4.7%	221	5.2%
90+	55	3.9%	127	3.1%
Total	1504	100.0%	4348	100.0%
Gender				
Female	663	39.9%	1,873	40.1%
Male	470	32.5%	1,490	34.2%
Data missing/ not disclosed	371	27.6%	985	25.8%
Total	1504	100.0%	4,348	100.0%
Testing facility				



Private facility - Phe/Kea/Fra/Gos/Har	75	5.0%	130	3.0%
Private facility - Buffalo	323	21.5%	1,044	24.0%
Private facility - Dawson	81	5.4%	369	8.5%
Private facility - TRPHD	112	7.5%	289	6.6%
TestNebraska.com	674	44.8%	2,063	47.4%
Other	239	15.9%	453	10.4%
Total	1504	100.0%	4348	100.0%



Figure 6 & 7 (below) depict the 7-day rolling average per 100,000 population at the county and city level. Population estimates used are from the American Community Survey (ACS) mid-year estimate 2019





Weekly summary

- The numbers above depict the total persons tested over the past week and the past 4 weeks in Two Rivers Health District along with positivity rates. Also displayed are the proportion of tests performed per county, per age category and for males v/s females.
- The incipient resolution of data reporting and quality issues means that the number of tests received this week were almost double that of the previous week, and the number of positives increased by about 60%
- Although Buffalo county continues to have high positivity rates, the sharp rise in positive cases in Phelps county is cause for concern. Over 80% of the cases are residents of Holdrege. Although 18-29 year olds show the highest positivity rate (21%), the rates among 50-59 (16%) and 60-69 (18%) year olds in Phelps county is alarming.
- Although 18-29 year olds continue to be the highest tested age group in the district (a little less than a fourth of all cases), the positivity rate seems to be rising in other age groups, particularly 60-69 (20%) and 70-79 (23%) year olds.
- The turnaround time for reporting results from TestNebraska and private labs in the district have improved since the previous week, but continue to perform below expectations.
- The positivity rate per 100,000 population has risen sharply in Kearney, Franklin and Gosper counties over the past week. While some part of this shift is because of lower populations in these counties, the community transmission cases in Franklin reported last week have resulted in a dramatic increase in overall per-capita population rate in the county.
- As seen in fig (a), the number of COVID-19 cases in Two Rivers Health district have displayed a step-wise, but increasing trend since July 4th weekend. This increase has been largely driven by Kearney city, and has resulted in greater morbidity and mortality (hospitalizations and deaths) in the district.