



# Central Iowa COVID19 Update

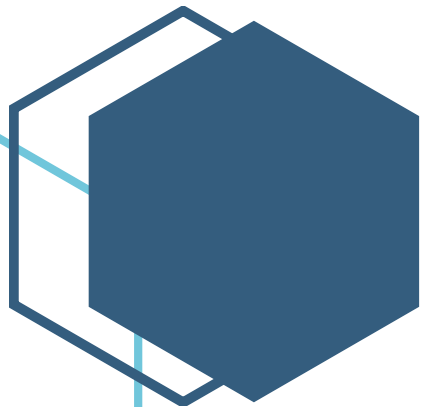
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Monday, March 29, 2021



Statistical Consulting

Dr. Meg Schaeffer





## Quick Stats<sup>1</sup>

	Polk County	Iowa
Percent of population with 1 dose	9.7%	11%
Percent of population with 2 doses	18%	18.5%
7d Lab Test Positivity	6.2%	5.0%
14d Lab Test Positivity	6.4%	4.6%
Total cases per 100,000 the last 7d	158	119
Total cases per 100,000 the last 14d	308	218
Average daily cases the last 7d	111	538
Average 7-day new cases per 100,000	23	17

<sup>1</sup>All data are sourced from <https://coronavirus.iowa.gov/pages/case-counts> with previous days refreshed daily. When recent data are unavailable, data from <https://github.com/nytimes/covid-19-data> may be used. Population of Polk County used is 490,161. Population of Iowa used is 3.155 million. Averages and percent positivity are subject to change with retrospectively refreshed data.

## Critical Points, Media, and Research

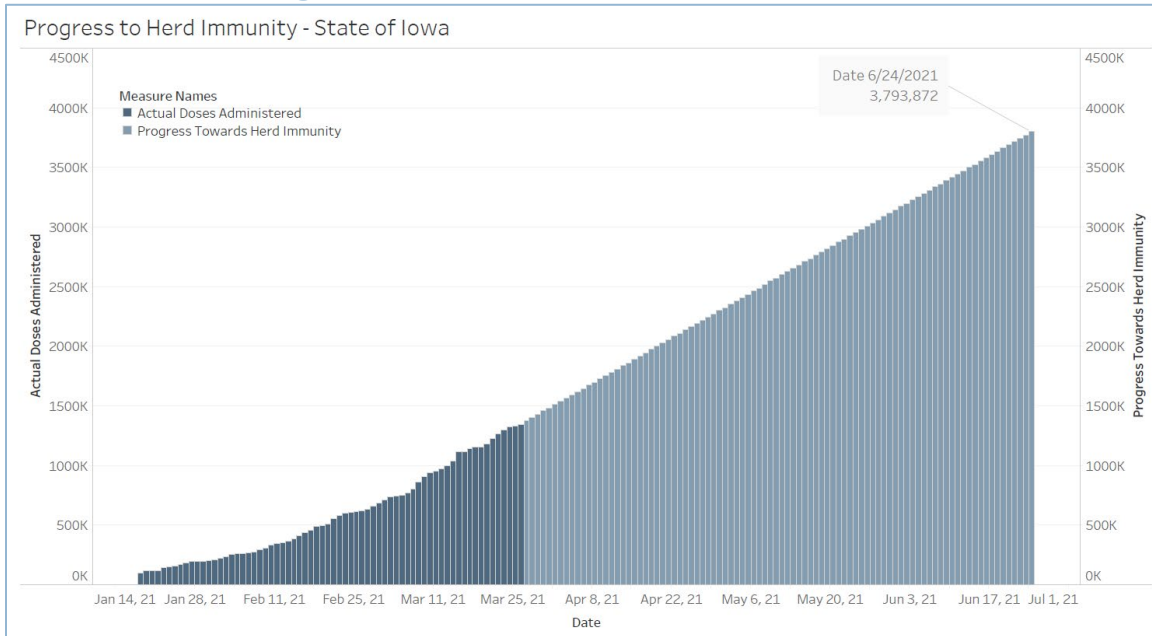
- There is significant cause for concern regarding a new surge largely attributed to prevalence of the UK variant, and also others, more transmissible and more serious than the wild-type strain.
  - European countries are nearing surge levels experienced last fall. Brazil, India, and Canada are also surging.
  - European countries have not reached the level of vaccination in the US; however, variant strains will target middle-aged and young adults. There is no evidence to support higher infection rates of variants among children.
- Iowa activity is increasing and is likely to surge. Since people under the age of 16 cannot be vaccinated, nearly 80% of adults must be vaccinated to reach herd immunity.
- States neighboring Iowa are also surging – MN reported all three variants of concern.
- Iowa is averaging 27,500 doses administered per day.
- [US coronavirus: CDC director warns of 'impending doom' as Covid-19 cases spike in most states](#)
- [Sequence Analysis of 20,453 SARS-CoV-2 Genomes from the Houston Metropolitan Area Identifies the Emergence and Widespread Distribution of Multiple Isolates of All Major Variants of Concern](#)
- [Reinfection Rates among Patients who Previously Tested Positive for COVID-19: a Retrospective Cohort Study | Clinical Infectious Diseases | Oxford Academic \(oup.com\)](#)
- [Assessment of protection against reinfection with SARS-CoV-2 among 4 million PCR-tested individuals in Denmark in 2020: a population-level observational study - ScienceDirect](#)
- [Increased mortality in community-tested cases of SARS-CoV-2 lineage B.1.1.7 | Nature](#)
- [Eurosurveillance | Case fatality risk of the SARS-CoV-2 variant of concern B.1.1.7 in England, 16 November to 5 February](#)
- [Household SARS-CoV-2 transmission and children: a network prospective study](#)
- [Eli Lilly: US government stops distribution of Covid-19 antibody treatment due to spread of coronavirus variants - CNN](#)
- [Iowa's COVID-19 positivity rates continue to climb \(kcci.com\)](#)

## Vaccine

- [Pfizer, Moderna COVID-19 vaccines highly effective after first shot in real-world use, U.S. study shows](#)
- [Efficient maternofetal transplacental transfer of anti-SARS-CoV-2 spike antibodies after antenatal SARS-CoV-2 BNT162b2 mRNA vaccination | medRxiv](#)
- [Vaccination and non-pharmaceutical interventions for COVID-19: a mathematical modelling study](#)
- [Are vaccines safe in patients with Long COVID? A prospective observational study | medRxiv](#)
- [NEJM — Covid-19 Vaccine Frequently Asked Questions \(FAQ\)](#)
- [Iowa Vaccination Progress](#)
- [Vaccination progress in the US](#)



## Vaccination Progress

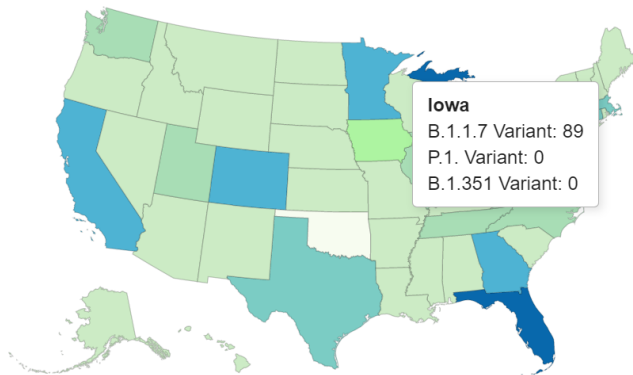


Assumptions: 20% of the population or higher will have acquired immunity; children under the age of 16 cannot be vaccinated, therefore 78% of adults need to be vaccinated. Two doses regimen.

## Variant Prevalence

Variant	Reported Cases in US	Number of Jurisdictions Reporting
B.1.1.7	10579	51
B.1.351	288	30
P.1	118	22

### Cases of Variants of Concern in the United States\*†



**Number of Cases**

- 0 to 0
- 1 to 150
- 151 to 300
- 301 to 450
- 451 to 600
- 751+

**Filters**

Variant B.1.1.7

Territories AS GU MH FM MP PW PR VI



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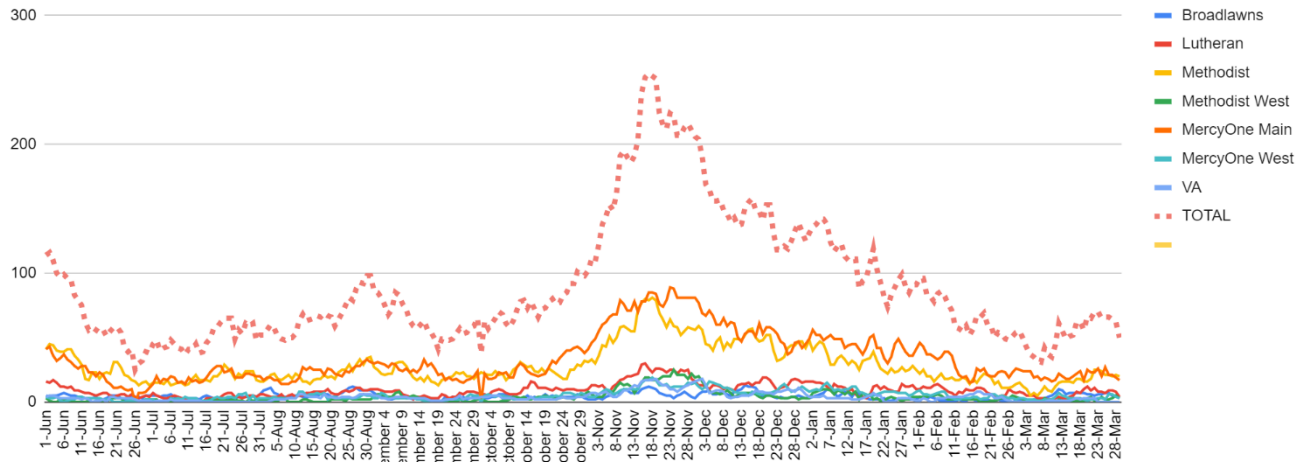


## School Statistics – Polk County (Updated weekly on Mondays)

Rate of Student/Staff Cases Per 1,000																			
Week Ending	1-Nov	8-Nov	15-Nov	22-Nov	29-Nov	13-Dec	20-Dec	27-Dec	10-Jan	17-Jan	24-Jan	31-Jan	7-Feb	14-Feb	22-Feb	1-Mar	7-Mar	15-Mar	29-Mar
DMPs	0.2	4.0	0.5	0.5	0.2	0.7	0.7	0.4	4.0	1.9	2.6	0.2	2.5	0.8	1.3	0.6	0.7	0.5	0.1
Ankeny	3.8	3.8	4.3	4.3	4.5	3.3	1.9	1.8	5.9	3.8	3.1	2.8	2.3	1.6	2.0	1.0	0.7	1.0	1.5
Waukee	5.8	10.3	9.4	6.5	4.6	3.5	1.7	1.7	4.5	5.0	2.4	3.3	3.0	3.0	3.0	2.3	1.7	1.7	1.9
WDM	2.8	5.7	11.0	4.7	1.1	2.7	1.9	0.6	4.0	4.2	1.6	2.2	1.6	2.4	1.1	1.3	1.1	1.6	1.2
Johnston	6.3	8.3	10.4	7.1	5.4	2.3	1.7	0.3	4.6	3.4	2.1	3.3	2.3	1.6	3.3	3.7	1.6	1.1	2.4
SE Polk	4.7	5.0	8.3	7.9	7.7	3.0	4.6	2.7	3.4	5.0	3.9	2.9	3.4	3.0	2.1	2.4	2.1	2.3	1.3
Urbandale	1.8	2.0	10.8	8.5	5.8	3.5	3.5	2.0	6.0	3.0	2.5	2.8	3.3	4.0	2.3	2.5	2.8	2.8	0.3
DCG		6.0	10.4	9.5	13.3	4.7	0.9	2.8	2.2	2.2	2.5	1.3	1.3	1.9	2.5	1.9	1.3	2.5	4.1
Bondurant		8.3	7.9	13.4	13.4	3.7	2.8	7.4	0.0		0.9	12.5	19.0	11.6	11.6	0.9	0.5	2.3	10.2
North Polk		4.5	5.6	5.6	4.5	1.1	1.7	2.3	3.9	1.1	7.9	5.6	10.1	1.7	3.9	11.3	1.1	0.6	1.7
Ballard		0.0	0.0	8.2	0.6	1.2	1.2	0.0	0.0	4.1	1.2	1.2	6.4	6.4	5.8	2.3	1.2	1.2	4.1
Saydel		7.5	12.7	3.0	0.0	2.2	3.0	2.2	3.7	3.7	3.7	0.7	1.5	3.0	2.2	3.7	0.7	0.0	1.5

Students/Staff in Quarantine																				
Week Ending	1-Nov	8-Nov	15-Nov	22-Nov	29-Nov	13-Dec	20-Dec	27-Dec	10-Jan	17-Jan	24-Jan	31-Jan	7-Feb	14-Feb	22-Feb	1-Mar	7-Mar	15-Mar	22-Mar	29-Mar
DMPs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	220	198	235	223	193	203	116	134
Ankeny	225	225	370	370	273	172	107	87	132	116	125	138	178	106	88	75	45	53		36
Waukee	332	500	575	384	160	76	113	136	156	195	95	108	127	128	94	102	65	79	32	62
WDM	146	204	239	70	12	38	19	14	114	55	54	83	69	39	46	22	25	41	7	33
Johnston	586	667	527	318	286	73	78	73	116	147	126	109	100	106	150	137	84	85		68
SE Polk	186	211	307	380	401	126	121	129	89	125	129	96	84	86	92	105	93	77		45
Urbandale	39	97	180	223	179	49	32	34	43	71	78	50	67	77	59	54	51	51		27
DCG		80	159	216	82	69	46	41	33	43	42	44	45	59	79	44	37	37		29
Bondurant		148	160	167	138	97	55	62	<6	N/A	28	68	86	69	69	11	18	18		0
North Polk		103	101	90	61	55	51	46	30	19	35	57	52	50	39	39	34	31	26	13
Ballard				77	40	34	16		28	12	25	20	18	40	30	9	16	18		2
Saydel		109	88	65	46	30	33	24	39	26	27	26	33	19	23	18	18	15	6	7
Total	1514	2344	2706	2360	1678	819	671	646	780	809	764	799	1079	977	1004	839	679	708	187	456

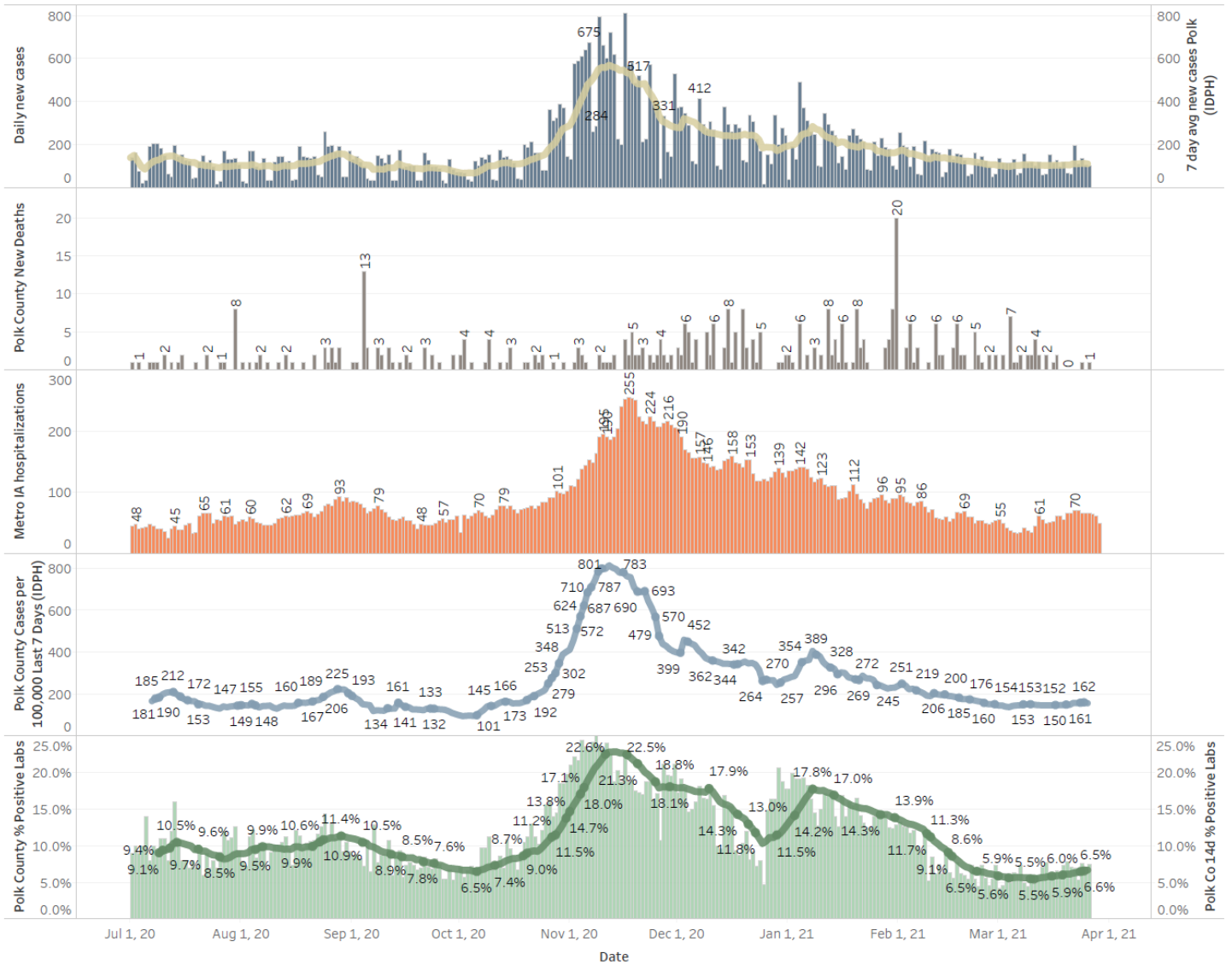
Metro Hospitalizations by Hospital and Total, YTD



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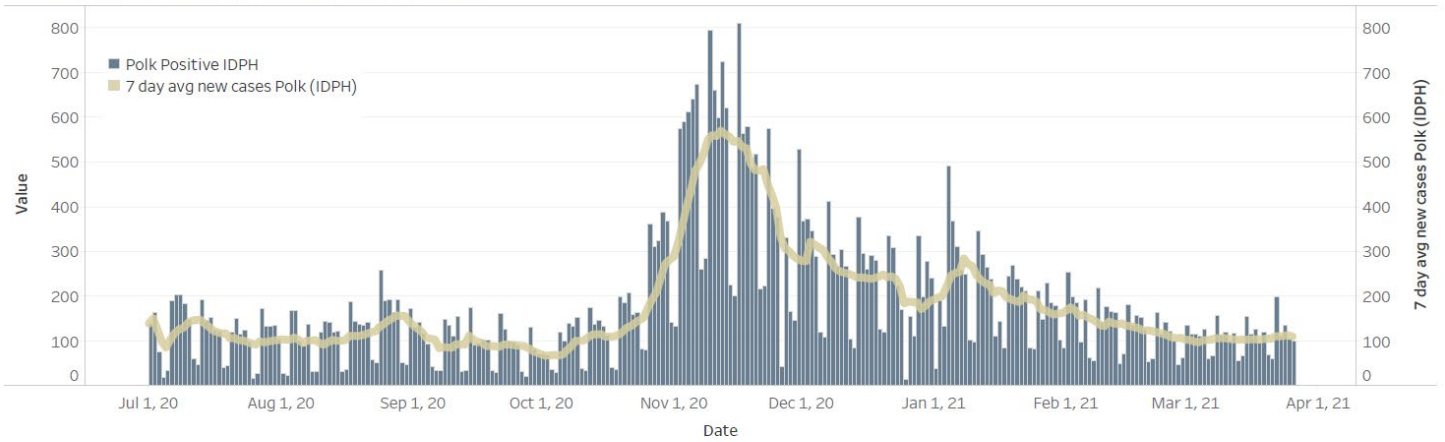
## Polk County Activity View



# Central Iowa COVID19 Update



### Polk County Cases by Day and 7d Moving Average



### Iowa Cases by Day and 7d Moving Average

