



Central Iowa COVID19 Update

Wednesday, March 24, 2021



Aperio

Statistical Consulting

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Quick Stats¹

	Polk County	Iowa
Percent of population with 1 dose	8.1%	10.6%
Percent of population with 2 doses	16.7%	17.3%
7d Lab Test Positivity	6.5%	4.6%
14d Lab Test Positivity	6.1%	4.1%
Total cases per 100,000 the last 7d	149	97
Total cases per 100,000 the last 14d	294	205
Average daily cases the last 7d	104	435
Average 7-day new cases per 100,000	21	14

¹All 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

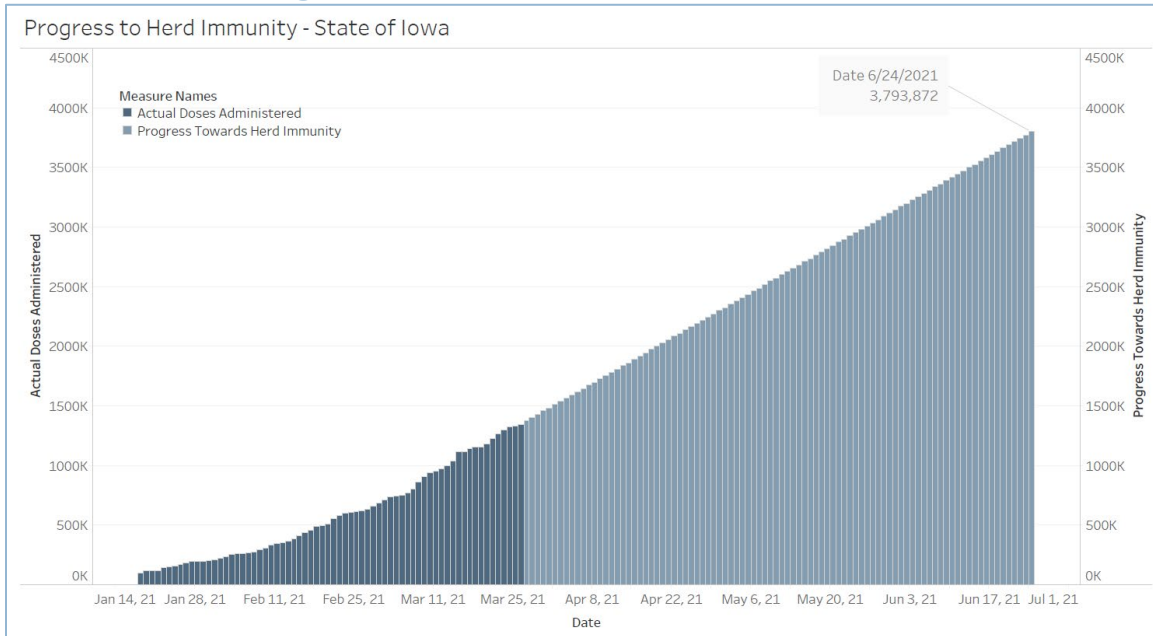
- The predictive trend shows two possibilities – an increase based on activity the last 10 days or continued stable rates. An increase is more likely given the rise in hospitalizations.
- Hospitalizations have been slowly rising now for about two weeks. This is likely due to an increased prevalence of the UK strain (B.1.1.7) which causes more severe illness.
- Vaccination progress has decreased to about 25,000 doses per day from 30,000 last week.
- [Michigan sees spike in COVID-19 hospitalizations for patients 40-49 \(freep.com\)](#)
- [The effects of wearing facemasks on oxygenation and ventilation at rest and during physical activity \(plos.org\)](#)
- [Covid-19 live updates: Latest news on coronavirus cases and vaccines \(cnbc.com\)](#)
- [State of Iowa revises covid stat after KWQC inquiry](#)
- [Gov. Reynolds: 'Soon there will be enough vaccine for everyone'](#)
- AstraZeneca vaccine
 - [AstraZeneca Covid vaccine 79% effective in U.S. trial \(cnbc.com\)](#)
 - [U.S. Health Officials Question AstraZeneca Vaccine Trial Results - The New York Times \(nytimes.com\)](#)
 - Data submitted by AstraZeneca will need to be reviewed after the data safety board working with the company noted outdated data should not have been included in the clinical trial. This may delay Emergency Use Authorization (EUA) submission.
 - Once submitted for EUA, the FDA will take at least four weeks to fully review clinical trial data.
- [Early estimates of SARS-CoV-2 B.1.1.7 variant emergence in a university setting | medRxiv](#)
- [Effectiveness of three versus six feet of physical distancing for controlling spread of COVID-19 among primary and secondary students and staff: A retrospective, state-wide cohort study | Clinical Infectious Diseases | Oxford Academic \(oup.com\)](#)
- Global mutation tracker - [COVID-19 virus Mutation Tracker \(kaust.edu.sa\)](#)

Vaccine

- [COVID-19 vaccine response in pregnant and lactating women: a cohort study | medRxiv](#)
- [Acute Allergic Reactions to mRNA COVID-19 Vaccines | Allergy and Clinical Immunology | JAMA | JAMA Network](#)
- [NEJM — Covid-19 Vaccine Frequently Asked Questions \(FAQ\)](#)
- [Iowa Vaccination Progress](#)
- [Vaccination progress in the US](#)



Vaccination Progress

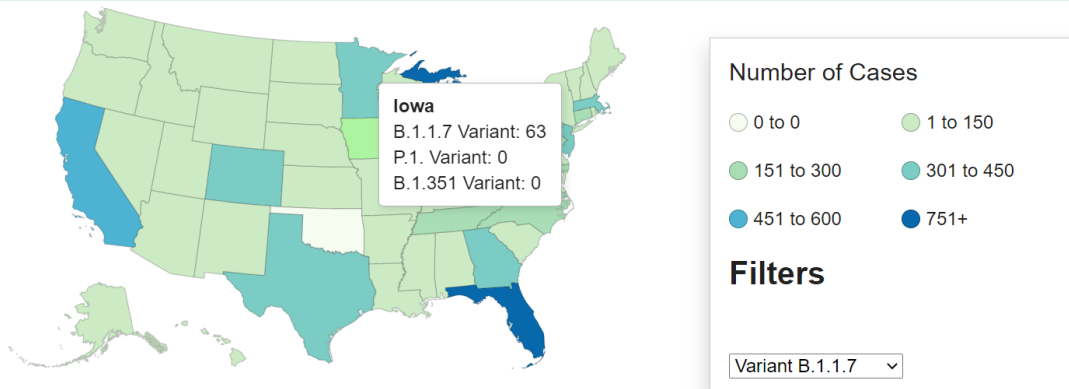


Assumptions: 10% of the population or higher will have acquired immunity; 60% immune through vaccination for a total of 70% of the population immune, two vaccines available, two doses required, similar distribution and administration pace

Variant Prevalence

Variant	Reported Cases in US	Number of Jurisdictions Reporting
B.1.1.7	7501	51
B.1.351	219	27
P.1	61	18

Cases of Variants of Concern in the United States*†



Territories AS GU MH FM MP PW PR VI

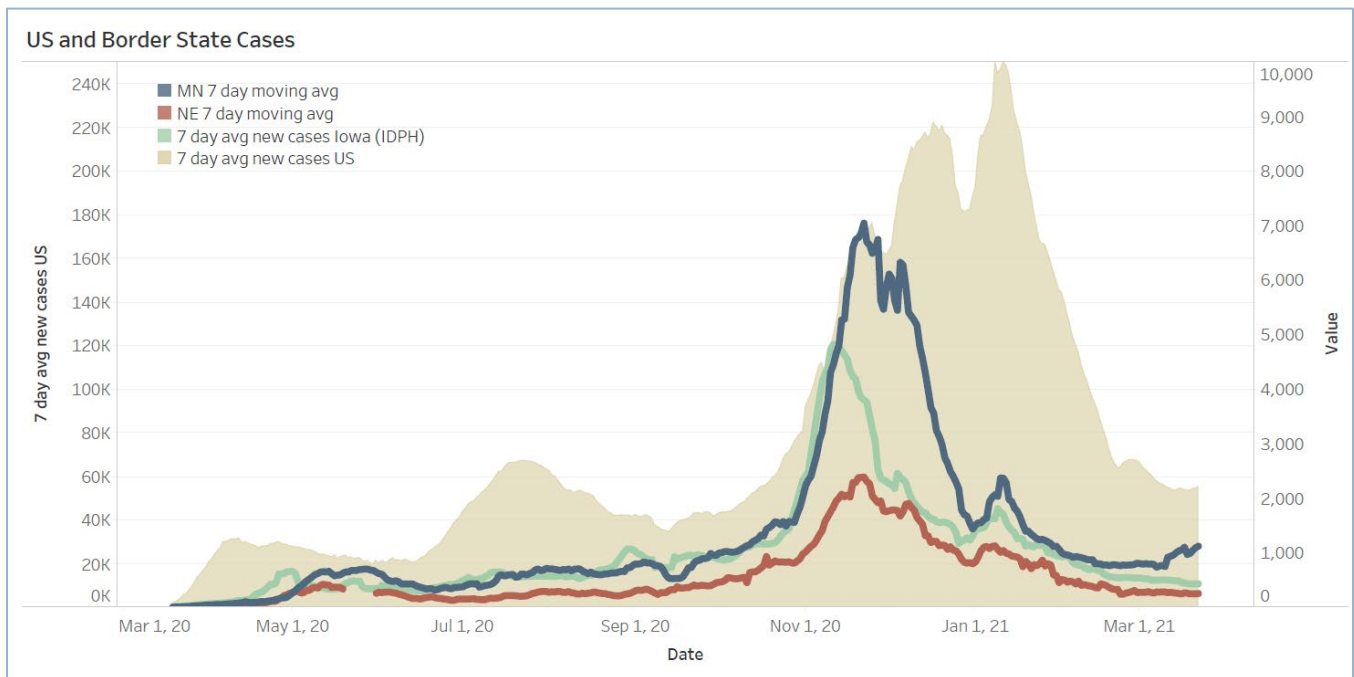




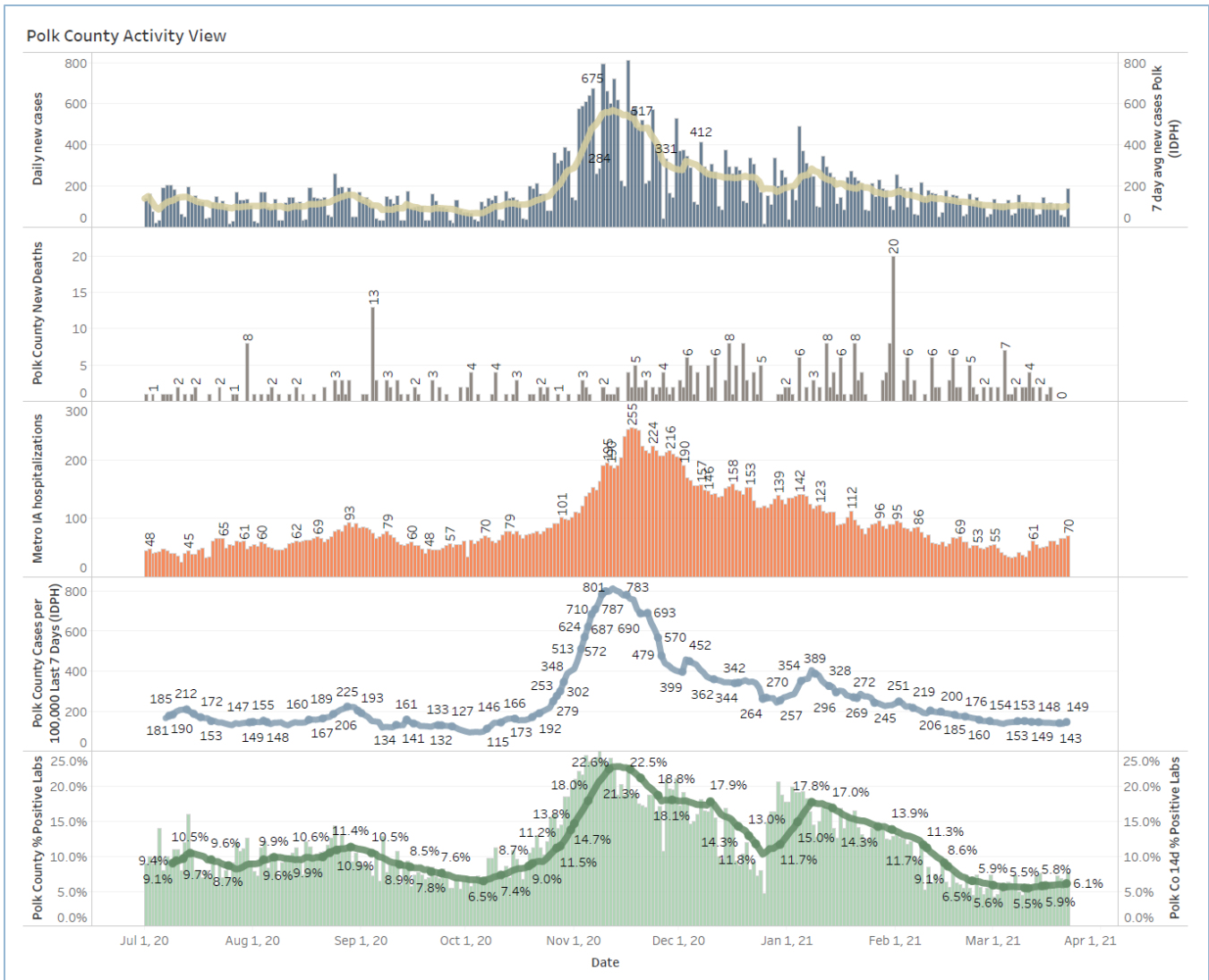
School Statistics – Polk County (Updated weekly on Mondays)

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
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
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
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
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
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
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
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
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
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
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
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
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

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



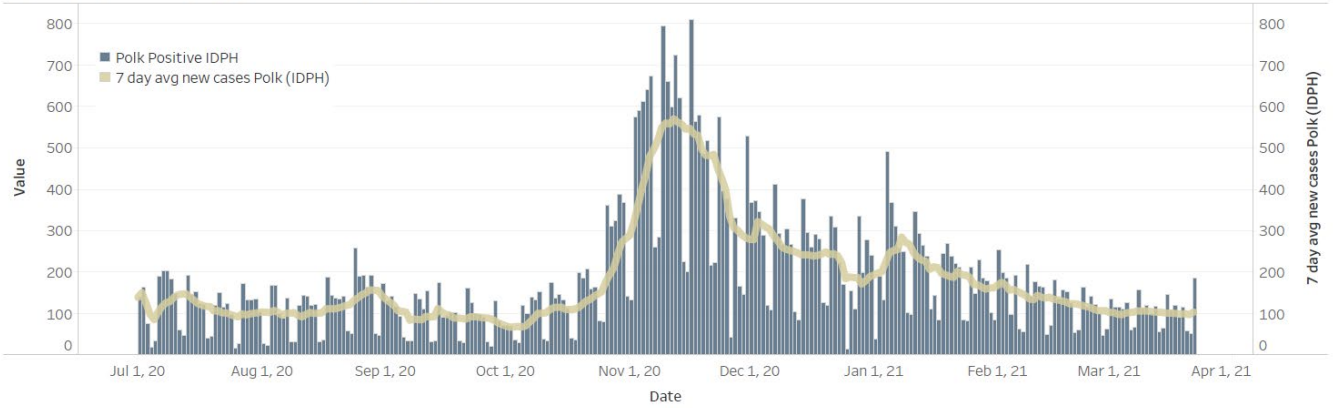
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Polk County Cases by Day and 7d Moving Average



Iowa Cases by Day and 7d Moving Average

