



Central Iowa COVID19 Update

Monday, April 19, 2021



Statistical Consulting

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Quick Stats¹

	Polk County	Iowa
Percent of population with 1 dose	15%	12%
Percent of population with 2 doses	25.3%	28%
7d Lab Test Positivity	5.9%	4.9%
14d Lab Test Positivity	5.6%	4.7%
Total cases per 100,000 the last 7d	124	107
Total cases per 100,000 the last 14d	264	230
Average daily cases the last 7d	87	482
Average 7-day new cases per 100,000	18	15

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 Iowa and Polk County projections are looking more optimistic. Average daily dose administration is still tremendous at nearly 30k doses per day. Almost 30% of Iowans are fully immune and another 12-15% have partial immunity.
- The Janssen (J&J) vaccine may resume administration Friday depending on recommendations from the ACIP and FDA. Modifications to administration recommendations are possible, but do not appear likely at this time.
- [Pause of Johnson & Johnson coronavirus vaccine likely to be lifted by Friday, Fauci says](#)
- [FDA rescinds emergency authorization for COVID-19 antibody treatment bamlanivimab](#)
As requested by Eli Lilly as the therapy is no longer effective against most variants
- [The Covid-19 Plasma Boom Is Over. What Did We Learn from It? - The New York Times \(nytimes.com\)](#)
The therapy, studied for many months, has not proven to be very effective.

Research for Pregnant and Nursing Women

- [SARS-CoV-2-Specific Antibodies in Breast Milk After COVID-19 Vaccination of Breastfeeding Women | Breastfeeding | JAMA | JAMA Network](#)
Antibodies found in breast milk of these women showed strong neutralizing effects, suggesting a potential protective effect against infection in the infant.
- [No Evidence of Infectious SARS-CoV-2 in Human Milk: Analysis of a Cohort of 110 Lactating Women](#)
SARS-CoV-2 RNA can be found infrequently in the breastmilk of women with recent infection, but we found no evidence that breastmilk contains infectious virus or that breastfeeding represents a risk factor for transmission of infection to infants. Limitation: Small sample size
- [Efficient Maternal to Neonatal transfer of SARS-CoV-2 and BNT162b2 antibodies](#)
Antenatal BNT162b2 mRNA vaccination induces a robust maternal humoral response that effectively transfers to the fetus, supporting the role of vaccination during pregnancy.

Research

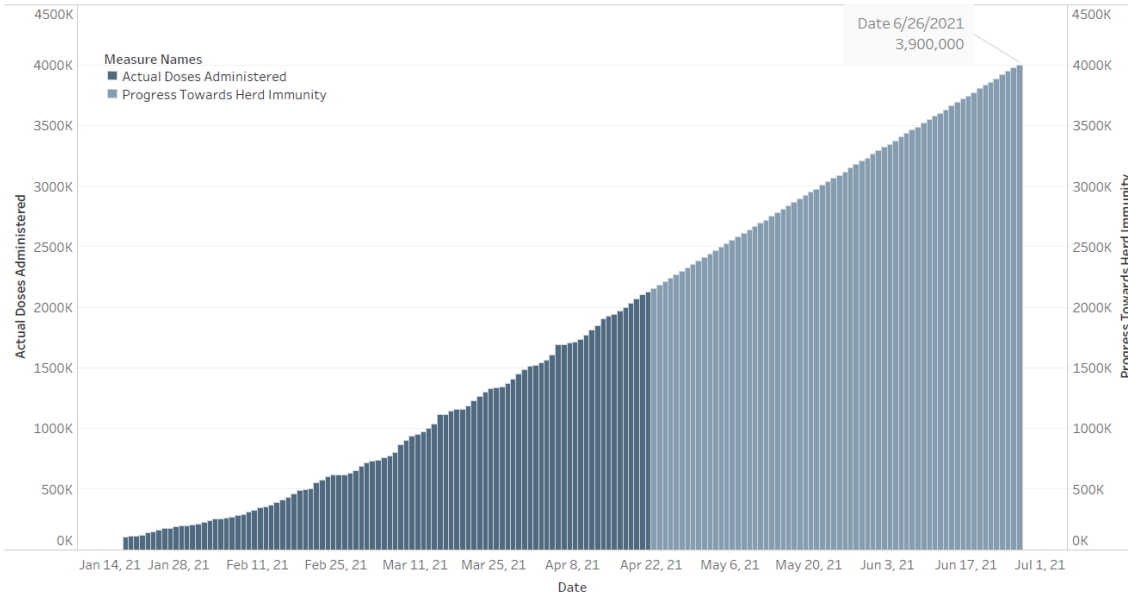
- [Impaired Humoral and Cellular Immunity after SARS-CoV2 BNT162b2 \(Tozinameran\) Prime-Boost Vaccination in Kidney Transplant Recipients](#)
Additional vaccine doses may be needed in immune compromised persons.
- [Mean time to infection by small diffusing droplets containing SARS-CoV-2 during close social contacts](#)
Lowest time to transmission were indoor rooms with no ventilation.
- [Characteristics and Disease Severity of US Children and Adolescents Diagnosed With COVID-19 | Adolescent Medicine | JAMA Network Open | JAMA Network](#)
More severe illness was experienced by younger children 2-11 years and were more often males.
- [Association of Sociodemographic Factors and Blood Group Type with Risk of COVID-19 in a US Population | Coronavirus \(COVID-19\) | JAMA Network Open | JAMA Network](#)
Blood type is not associated with any increased risk in acquiring COVID-19.



Vaccination Progress

- [Iowa Vaccination Progress](#)
- [Vaccination progress in the US](#)

Progress to Herd Immunity - State of Iowa

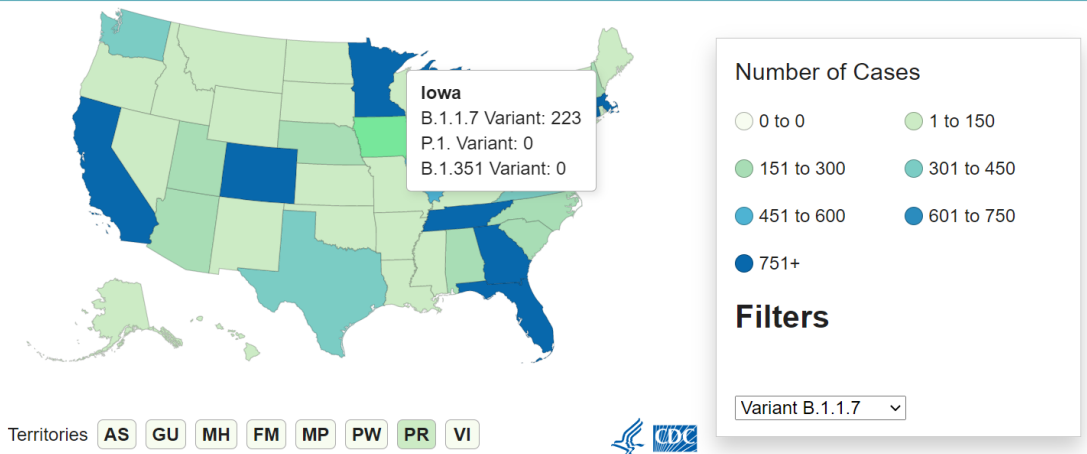


Assumptions: 20% of the population or higher will have acquired immunity; children under the age of 16 cannot be vaccinated, therefore 78% of adults need to be vaccinated. Two doses regimen.

Variant Prevalence

Variant	Reported Cases in US	Number of Jurisdictions Reporting
B.1.1.7	20915	52
B.1.351	453	36
P.1	497	31

Cases of Variants of Concern in the United States*†



Territories AS GU MH FM MP PW PR VI



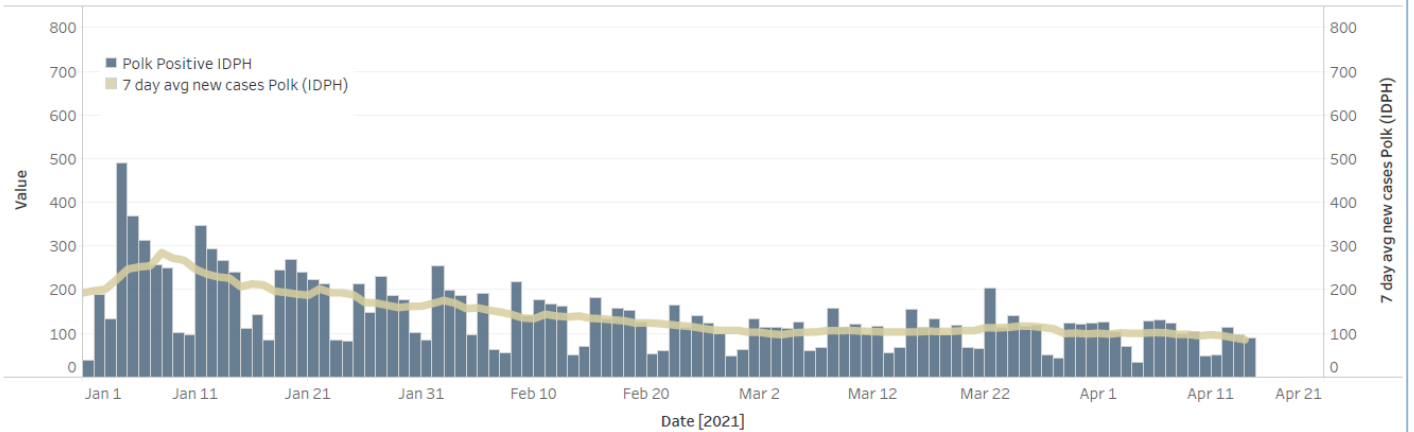


School Statistics – Polk County (Updated weekly on Mondays)

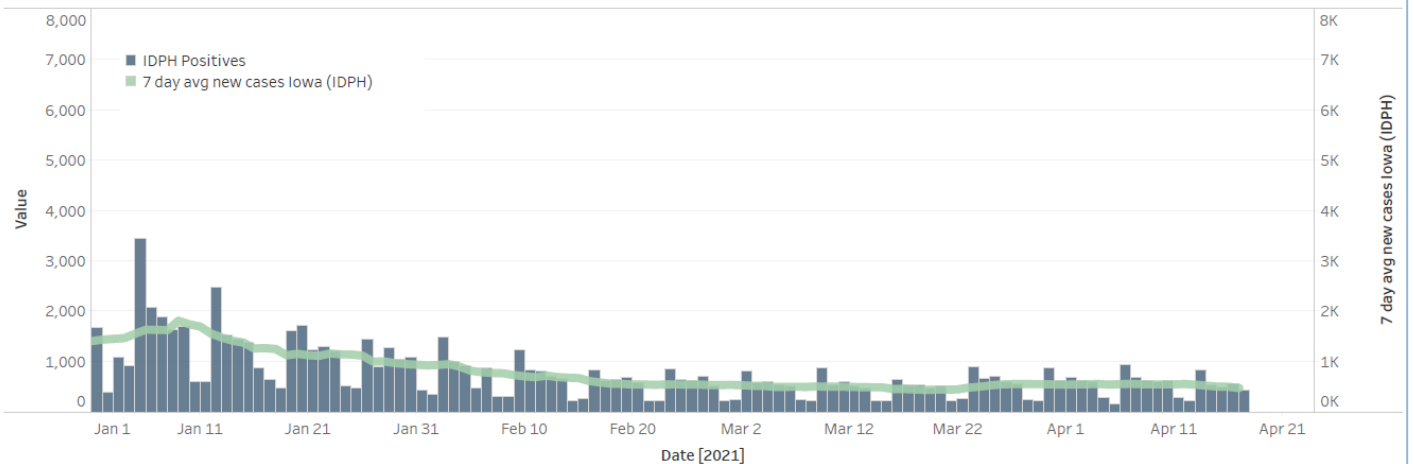
Rate of Student/Staff Cases Per 1,000																						
Week Ending	1-Nov	8-Nov	15-Nov	22-Nov	29-Nov	13-Dec	20-Dec	27-Dec	10-Jan	17-Jan	24-Jan	31-Jan	7-Feb	14-Feb	22-Feb	1-Mar	7-Mar	15-Mar	29-Mar	5-Apr	12-Apr	19-Apr
DMPs	0.2	4.0	0.5	0.5	0.2	0.7	0.7	0.4	4.0	1.9	2.6	0.2	2.5	0.8	1.3	0.6	0.7	0.5	0.1	0.2	0.1	0.2
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	1.5	1.2	0.4
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	0.8	0.6	1.1
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	0.6	1.1	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	0.3	1.1	1.7
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	2.0	1.3	0.3
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	2.0	2.0	0.5
DCG	6.0	10.4	9.5	13.3	4.7	0.9	2.8	2.2	2.5	1.3	1.3	1.9	2.5	1.9	2.5	1.9	1.3	2.5	4.1	1.3	1.6	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	3.7	1.9	4.2	5.1		
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	1.1	0.0	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	4.1	1.2	1.2	0.6	
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	0.0	0.0	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	22-Mar	29-Mar	5-Apr	12-Apr	19-Apr
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	141	115	154
Ankeny	225	225	370	370	273	172	107	87	132	116	125	138	178	106	88	75	45	53		36	101	94	29
Waukee	332	500	575	384	160	76	113	136	156	195	95	108	127	128	94	102	65	79	32	62	41	24	41
WDM	146	204	239	70	12	38	19	14	114	55	54	83	69	39	46	22	25	41	7	33	28	22	27
Johnston	586	667	527	318	286	73	78	73	116	147	126	109	100	106	150	137	84	85		68	48	68	78
SE Polk	186	211	307	380	401	126	121	129	89	125	96	84	86	92	105	93	77			45	54	34	39
Urbandale	39	97	180	223	179	49	32	34	43	71	78	50	67	77	59	54	51	51		27	38	35	24
DCG		80	159	216	82	69	46	41	33	43	42	44	45	59	79	44	37	37		29	27	30	31
Bondurant		148	160	167	138	97	55	62	<6	N/A	28	68	86	69	69	11	18	18		0	21	38	22
North Polk		103	101	90	61	55	51	46	30	19	35	57	52	50	39	39	34	31	26	13	16	12	10
Ballard				77	40	34	16		28	12	25	20	18	40	30	9	16	18		2	2	2	12
Saydel		109	88	65	46	30	33	24	39	26	27	26	33	19	23	18	18	15	6	7	3	4	9
Total	1514	2344	2706	2360	1678	819	671	646	780	809	764	799	1079	977	1004	839	679	708	187	456	520	478	476

Polk County Cases by Day and 7d Moving Average - Jan 1 2021 through Present



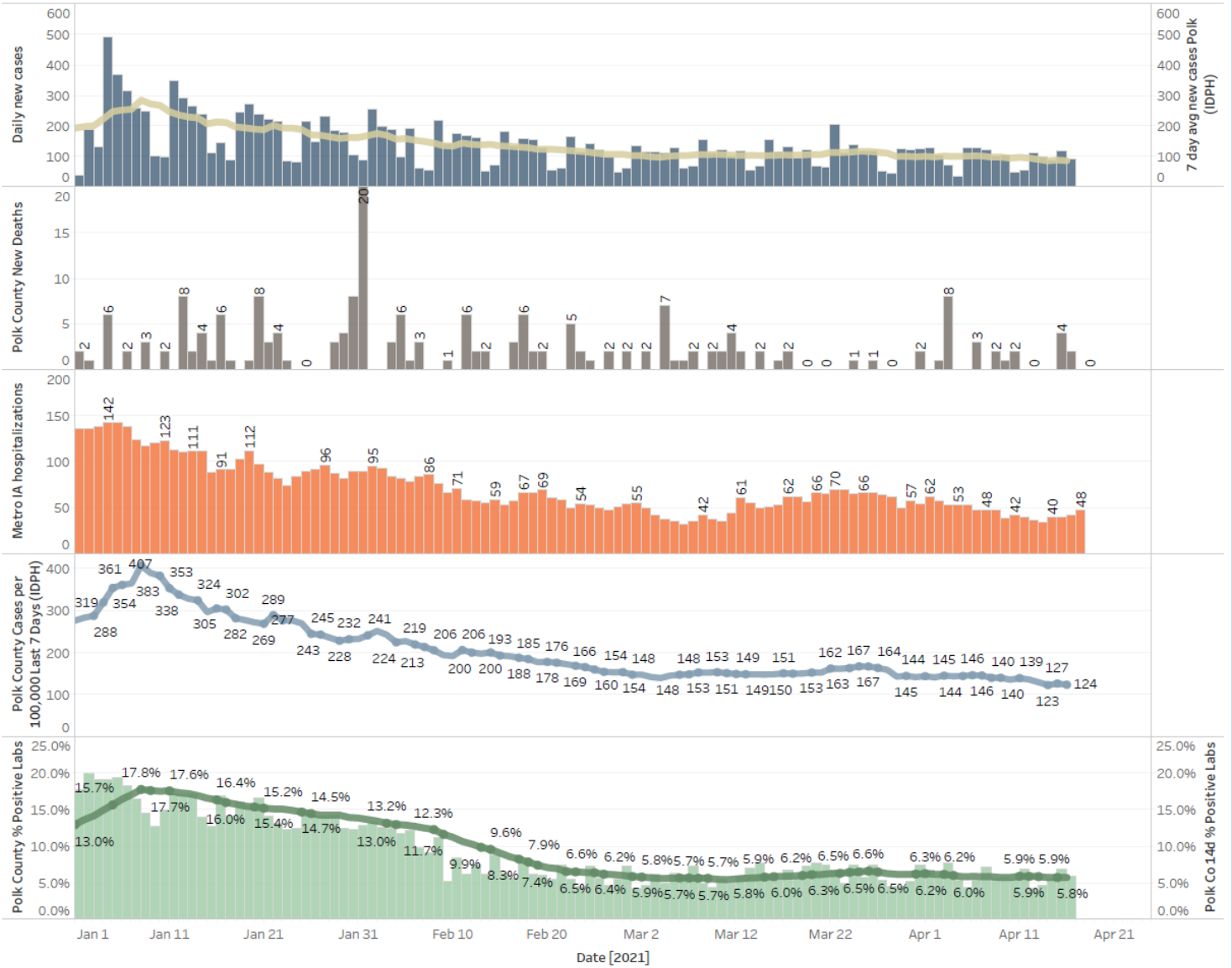
Iowa Cases by Day and 7d Moving Average



Central Iowa COVID19 Update



Polk County Activity View - Since Jan 1 2021 through Predictive



Central Iowa COVID19 Update

