



# Central Iowa COVID19 Update

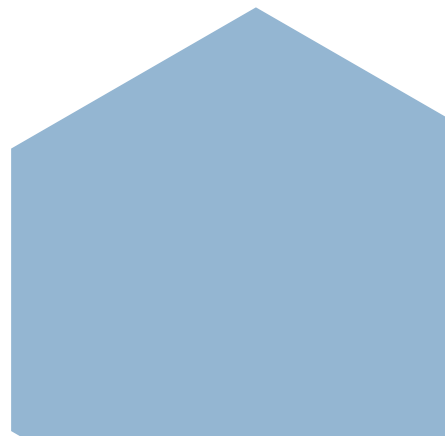
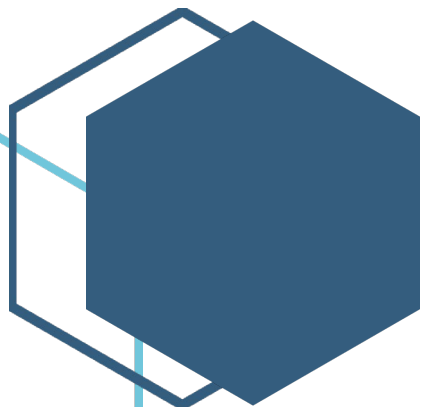
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Wednesday, December 29, 2021



Statistical Consulting

Dr. Meg Schaeffer





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

	Polk County	Iowa
Percent of population with 1 dose	70.9%	64.8%
Percent of population with 2 doses	64%	58.9%
7d Lab Test Positivity	12%	11.6%
Total cases per 100,000 the last 7d	359	335
CDC County Transmission Level*	High	
Average daily cases the last 7d	251	1508

\*[VaccineInformation | Iowa COVID-19 Information](#)

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

Cases are still steady, though testing and reporting will be interrupted during the holiday week. Hospitalizations are slightly lower and fluctuate daily. An omicron surge is expected any day.

### Omicron resources

- Numerous states mainly in the Eastern half of the U.S. are experiencing major surges of COVID.
- Omicron is the dominant strain nationally, but only comprises 30% of infections in the Midwest.

### Other news & research

- [Third BNT162b2 Vaccination Neutralization of SARS-CoV-2 Omicron Infection | NEJM](#)
- [Effectiveness of BNT162b2 Vaccine against Omicron Variant in South Africa | NEJM](#)
- [Investigation of a SARS-CoV-2 B.1.1.529 \(Omicron\) Variant Cluster — MMWR \(cdc.gov\)](#)
- [Long COVID in children - The Lancet Child & Adolescent Health](#)
- [Iowa child COVID hospitalizations up amid increased spread](#)
- A BNT162b2 booster was associated with reduced risk of SARS-CoV-2 infection and death due to COVID-19 among adults ≥50 years of age. [BNT162b2 Vaccine Booster and Mortality Due to Covid-19 | NEJM](#)
- A BNT162b2 booster was associated with reduced risk of SARS-CoV-2 infection and death due to COVID-19 among adults ≥50 years of age. [Nursing Home Staff Vaccination and Covid-19 Outcomes | NEJM](#)
- Immunity from SARS CoV-2 infection appears to wane more slowly than immunity conferred from a 2-dose vaccination series, findings similar to [Kim et al.](#) A booster dose of vaccine appears to restore at least short-term protection in previously vaccinated people. [Protection and waning of natural and hybrid COVID-19 immunity | medRxiv](#)
- These findings indicate that face mask use among infectious and susceptible individuals significantly reduces SARS-CoV-2 infection risk compared with physical distancing alone; level of protection varies by type of mask worn and the fit by both the infectious and susceptible individual. [An upper bound on one-to-one exposure to infectious human respiratory particles | PNAS](#)
- Among 306,710 Israelis aged >40 years who received either 2 or 3 doses of the BNT162b2 vaccine and had no history of infection, those who received a booster (3<sup>rd</sup> dose) had 86% (95% CI 85%-87%) reduction in odds of testing positive for SARS-CoV-2 and 97% (95% CI 95%-98%) reduction in odds of COVID-19 hospitalization at 28–65 days post-booster compared with those who received only 2 doses. [Odds of Testing Positive for SARS-CoV-2 Following Receipt of 3 vs 2 Doses of the BNT162b2 mRNA Vaccine | Infectious Diseases | JAMA Internal Medicine](#)



### Vaccine Progress (last updated 12/22)

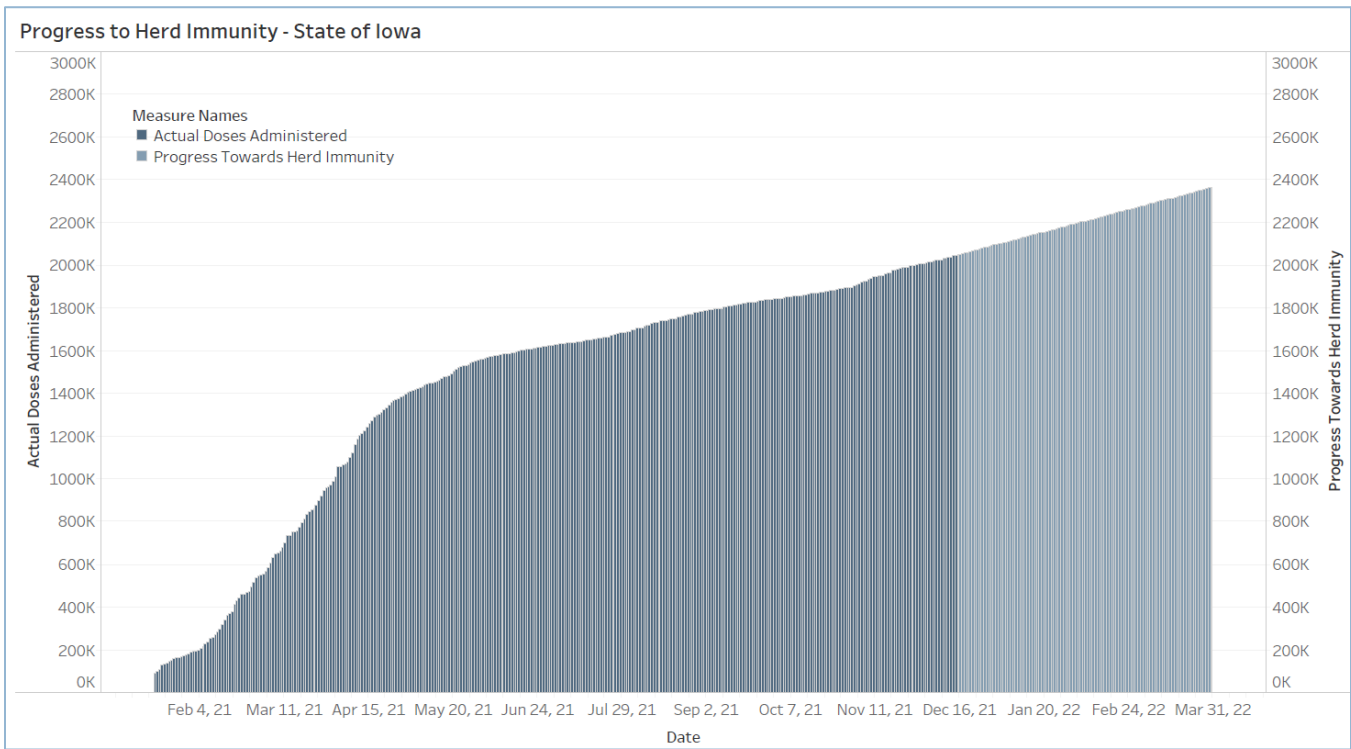
Polk Co Vaccination Rates CDC Covid Data Tracker Data (*)	At Least One Dose	Fully Vaccinated
Total	345,059	311,688
% of Total Population	70.40%	63.60%
Population ≥ 5 Years of Age	345,046	311,688
% of Population ≥ 5 Years of Age	75.70%	68.40%
Population ≥ 12 Years of Age	332,396	303,358
% of Population ≥ 12 Years of Age	81.30%	74.20%
Population ≥ 18 Years of Age	305,885	279,544
% of Population ≥ 18 Years of Age	82.90%	75.70%
Population ≥ 65 Years of Age	67,616	62,931
% of Population ≥ 65 Years of Age	95.00%	95.00%

**(\*) CDC COVID Data Tracker Data: CDC data includes vaccine administration data from all sources, including IRIS\*, other state immunization registries, and federal entities (Bureau of Prisons, Veterans Health Administration, Department of Defense, and Federal Long-Term Care program). These doses may not have been reported to IRIS.**

**Data as of 12/22/21**

Link to Zip Code-Level Vaccination

Rates - <https://arcg.is/1nTry4>



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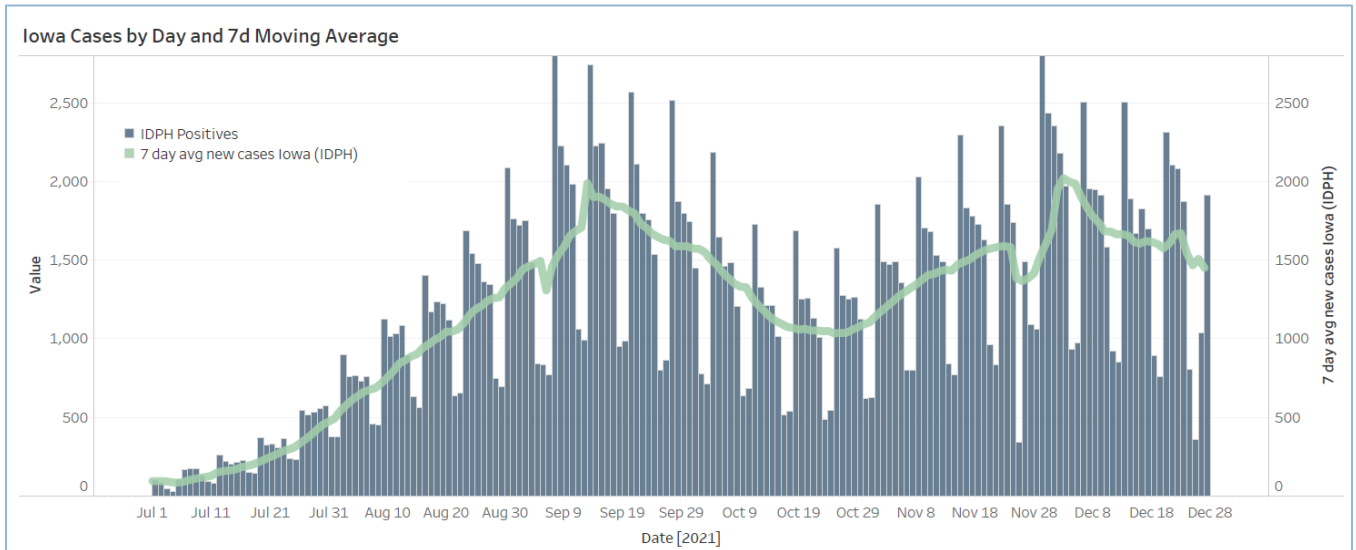


## School Data (paused for holiday break)

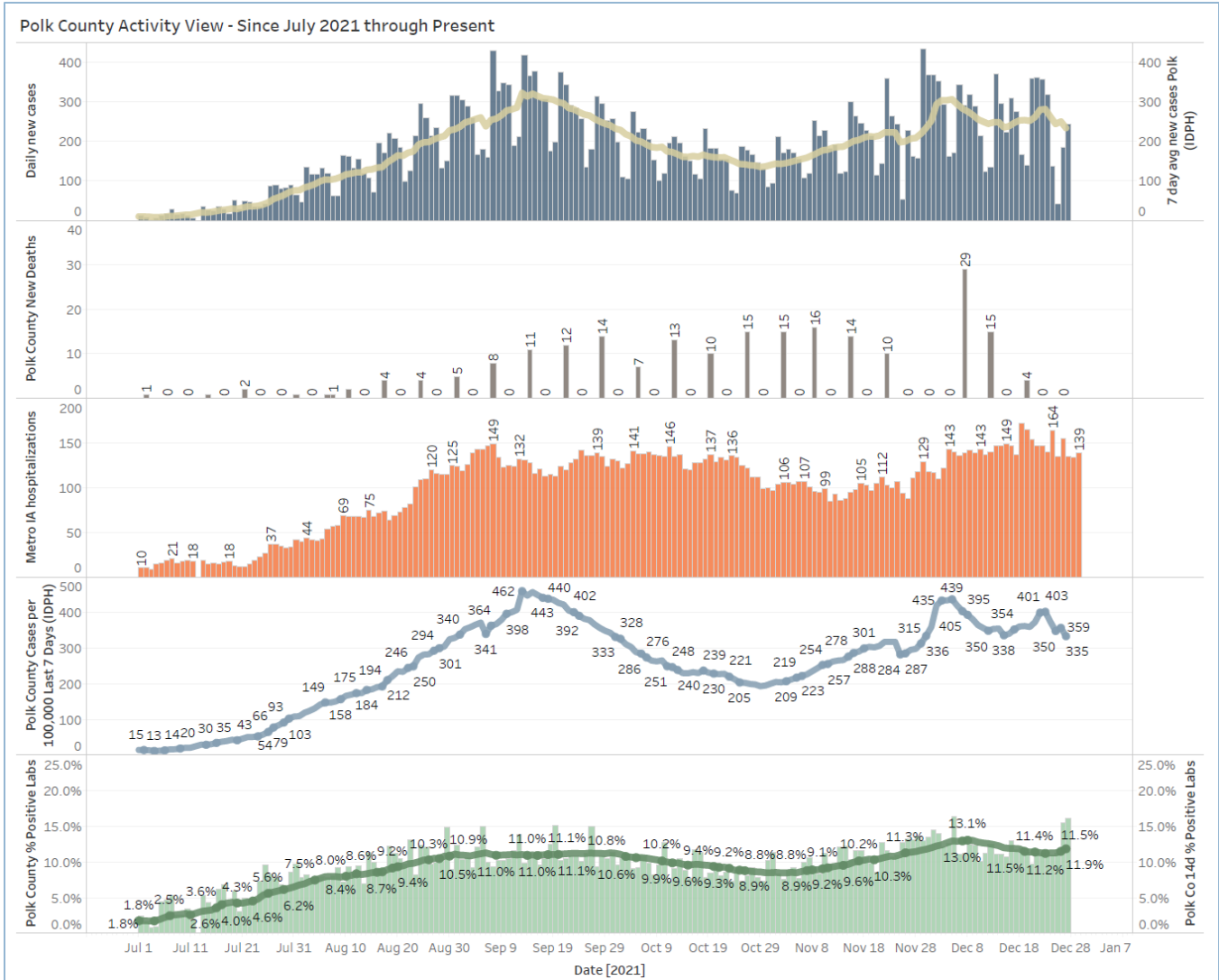
New Student/Staff Case Rates per 1000																		
Week Ending	1-Sep	8-Sep	15-Sep	22-Sep	29-Sep	6-Oct	13-Oct	3-Nov	27-Oct	3-Nov	10-Nov	17-Nov	24-Nov	1-Dec	8-Dec	15-Dec	22-Dec	
DMPS*	3.39	6.18	5.76	6.21	6.52	4.42	3.27	2.30	2.1	0.9	2.48	2.12	2.24	3.58	5.06	3.79	3.03	
Ankeny	0.00	0.00	8.50	5.42	5.42	3.92	4.83	3.75	2.8	2.1	2.75	4.00	3.33	3.25	5.83	5.00	4.67	
Waukee	0.00	0.00	3.57	2.78	2.78	2.35	2.09	2.43	1.7	4.2	4.35	6.70	8.09	4.43	4.52	3.57	3.04	
WDM	5.78	4.67	3.89	4.33	4.33	2.67	2.67	1.22	2.0	2.8	5.89	5.67	5.00	5.00	7.67	5.11	3.78	
Johnston	0.00	0.00	2.57	4.71	4.71	3.57	2.29	2.29	2.4	2.1	2.71	3.43	0.86	2.00	3.43	2.86	3.43	
SE Polk	0.00	0.00	16.14	4.71	4.71	5.43	4.00	1.71	1.9	1.1	1.29	2.29	3.14	4.14	5.29	2.86	1.71	
Urbandale	0.00	0.00	3.75	1.75	1.75	5.25	3.00	1.25	1.3	1.3	1.00	3.25	4.25	3.00	3.75	1.75	2.75	
Total	4.59	5.42	6.31	4.27	4.32	3.94	3.16	2.14	2.0	2.1	2.92	3.92	3.5	3.6	4.9	3.7	3.1	

New Student/Staff Cases																		
Week Ending	1-Sep	8-Sep	15-Sep	22-Sep	29-Sep	6-Oct	13-Oct	20-Oct	27-Oct	3-Nov	10-Nov	17-Nov	24-Nov	1-Dec	8-Dec	15-Dec	22-Dec	
DMPS*	112	204	190	205	215	146	108	76	68	31	82	70	74	118	167	125	100	
Ankeny	0	0	102	65	65	47	58	45	34	25	33	48	40	39	70	60	56	
Waukee	0	0	41	43	43	35	32	36	20	49	64	90	105	63	65	48	36	
WDM	52	42	35	39	39	24	24	11	18	25	53	51	45	45	69	46	34	
Johnston	0	0	18	33	33	25	16	16	17	15	19	24	6	14	24	20	24	
SE Polk	0	0	113	33	33	38	28	12	13	8	9	16	22	29	37	20	12	
Urbandale	0	0	15	8	8	21	12	5	5	5	4	13	17	12	15	7	11	
Total	164	246	514	426	436	336	278	201	175	158	264	312	309	320	447	326	273	
Polk Weekly Cases	1751	2009	2158	1885	1633	1368	1192	1137	1032	999	1164	1370	1511	1621	2039	2462		
Polk County Weekly Case Rate	357	410	440	385	333	279	243	232	211	204	238	280	308	331	416	502		



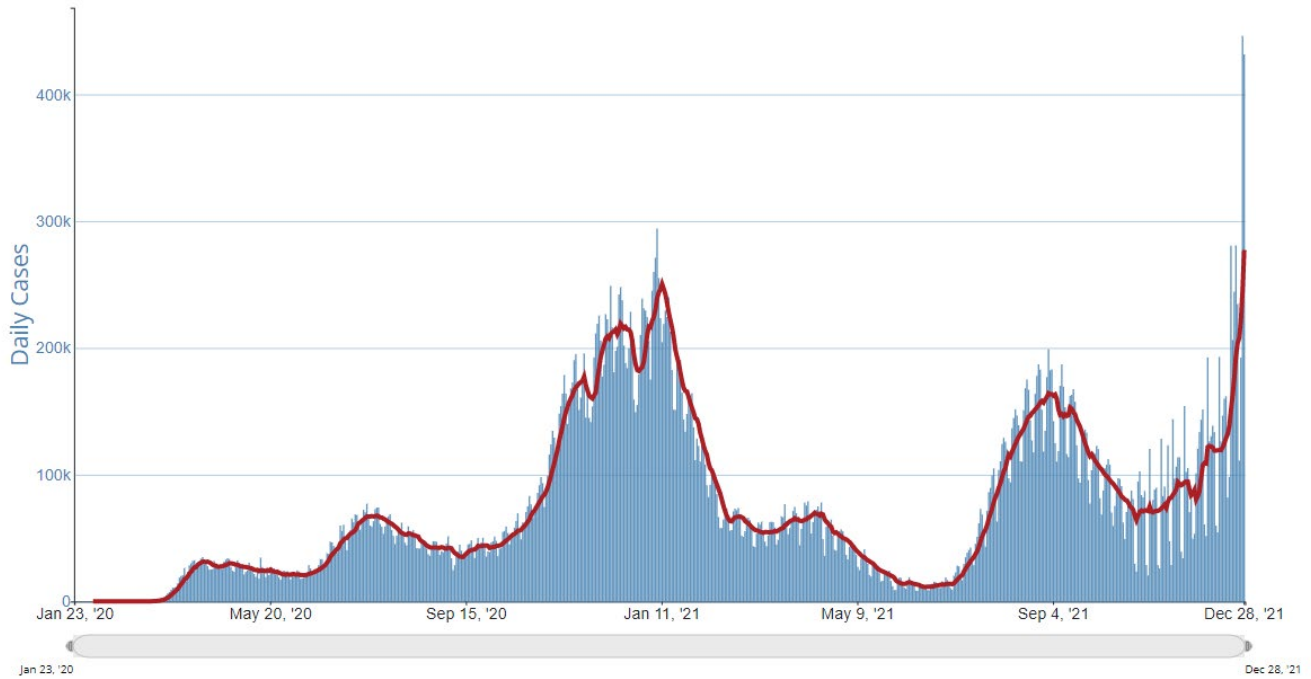
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Daily Trends in Number of COVID-19 Cases in The United States Reported to CDC



	CASES DAILY AVG.	PER 100,000	14-DAY CHANGE	HOSPITALIZED DAILY AVG.	PER 100,000	14-DAY CHANGE	DEATHS DAILY AVG.	PER 100,000	FULLY VACCINATED
United States	267,305	81	+126%	74,962	23	+11%	1,242.8	0.37	62%
Washington, D.C. ›	2,071	293	+931%	325	46	+135%	0.3	0.04	67%
New York ›	37,192	191	+265%	5,944	31	+43%	61.3	0.32	72%
New Jersey ›	15,368	173	+242%	2,744	31	+66%	22.1	0.25	70%
Puerto Rico ›	5,119	151	+4,396%	162	5	+261%	0.7	0.02	72%
Rhode Island ›	1,465	138	+48%	287	27	+20%	5.7	0.54	76%
Illinois ›	16,053	127	+123%	4,436	35	+31%	64.3	0.51	64%
Florida ›	26,537	124	+1,051%	2,569	12	+79%	15.8	0.07	63%
Northern Mariana Islands ›	65	121	-38%	—	—	—	0.4	0.80	74%
Maryland ›	6,847	113	+411%	1,873	31	+41%	11.0	0.18	70%
Massachusetts ›	7,647	111	+58%	1,366	20	+18%	30.1	0.44	74%