



Central Iowa COVID19 Update

Wednesday, January 5, 2022



Statistical Consulting

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Quick Stats¹

	Polk County	Iowa
Percent of population with 1 dose	71.4%	65.3%
Percent of population with 2 doses	64.5%	59.2%
7d Lab Test Positivity	20.4%	18%
Total cases per 100,000 the last 7d	729	614
CDC County Transmission Level*	High	
Average daily cases the last 7d	510	2765

*[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

Omicron is the dominant strain in Iowa as cases exponentially surge in the metro and across the state. Hospitalizations are also rising and are expected to exceed counts from last fall. Of admissions, 6% are in kids under 18. This surge is expected to last at least three more weeks. While the surge in South Africa lasted four, the UK is on week four and shows no signs of slowing.

News & Research

- [Iowa eclipses 8K COVID deaths; cases grow rapidly](#)
- [Iowans Who Test Positive For COVID With At-Home Test Are Urged To Report It](#)
- [JAN 5th: More than 20k new COVID-19 cases in Iowa, Omicron now predominant strain](#)
- [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 (3rd 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

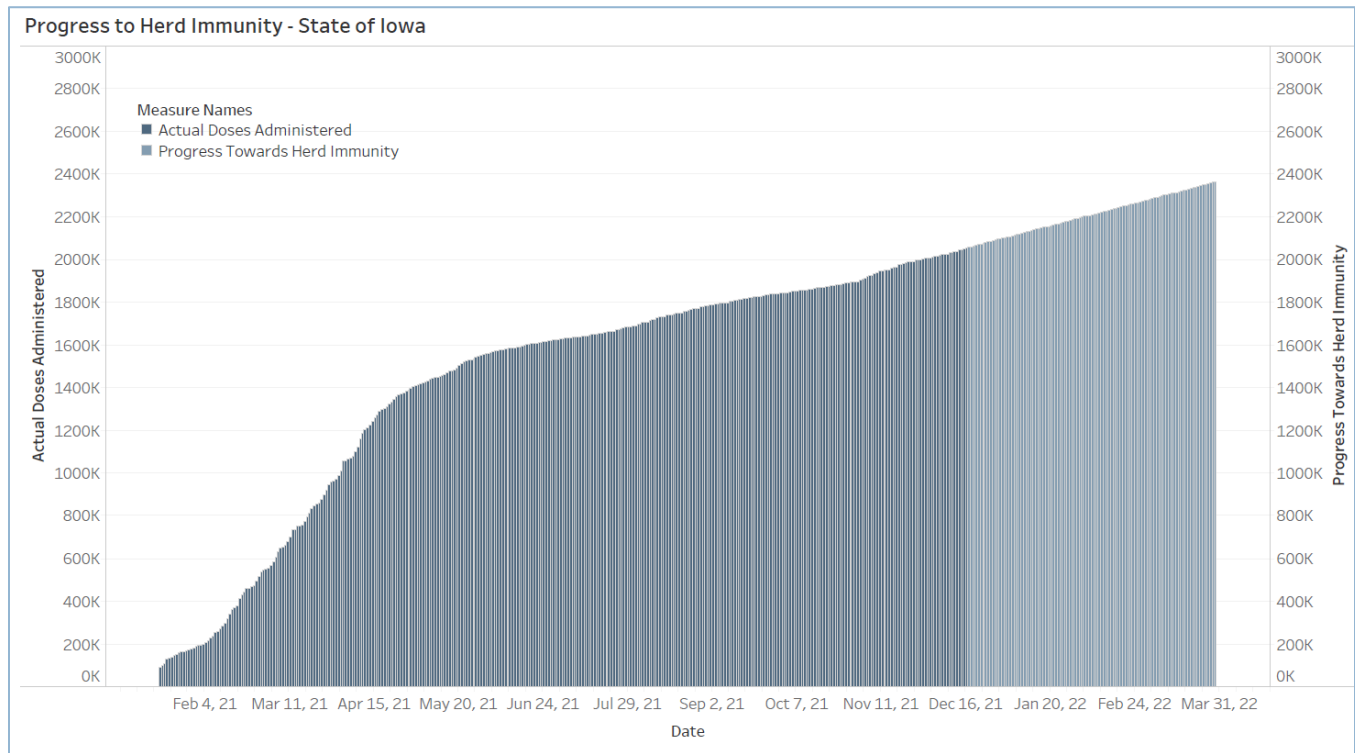
Polk Co Vaccination Rates CDC Covid Data Tracker Data (*)	At Least One Dose	Fully Vaccinated
Total	349,843	316,145
% of Total Population	71.40%	64.50%
Population ≥ 5 Years of Age	349,826	316,145
% of Population ≥ 5 Years of Age	76.80%	69.40%
Population ≥ 12 Years of Age	335,719	305,812
% of Population ≥ 12 Years of Age	82.10%	74.80%
Population ≥ 18 Years of Age	308,838	281,641
% of Population ≥ 18 Years of Age	83.70%	76.30%
Population ≥ 65 Years of Age	67,872	63,108
% 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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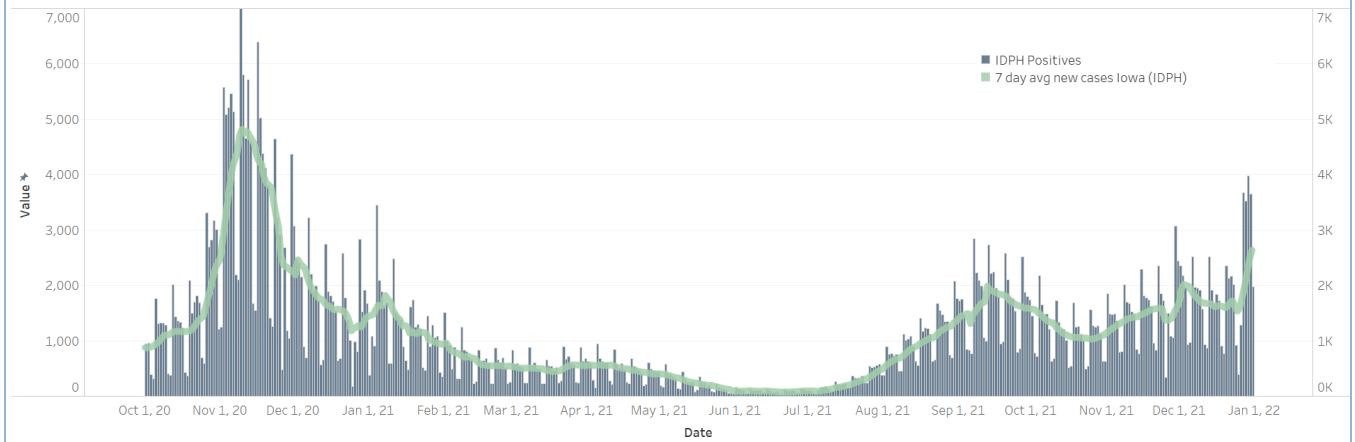


School Data

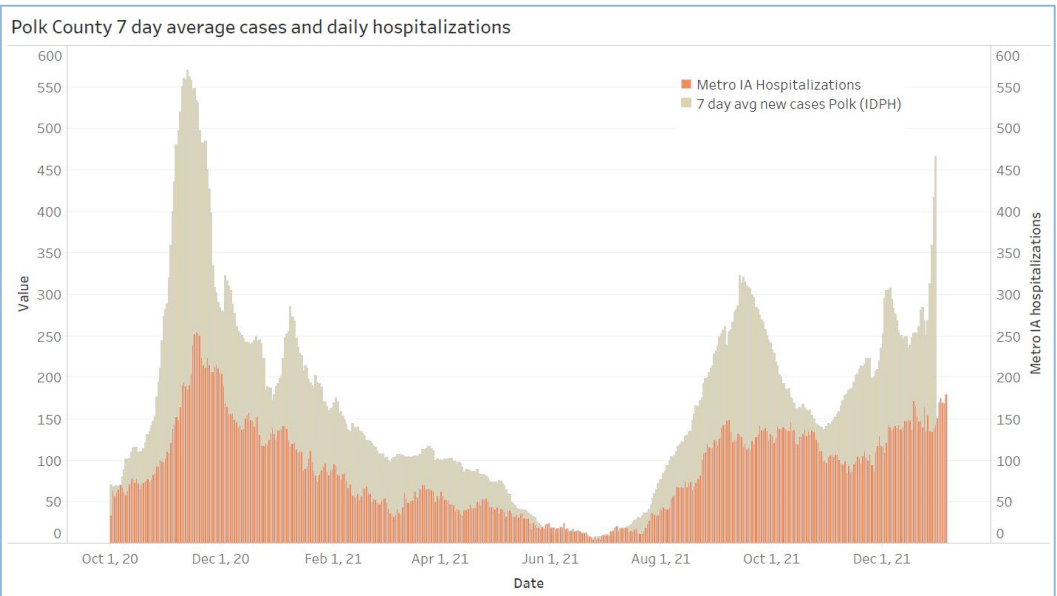
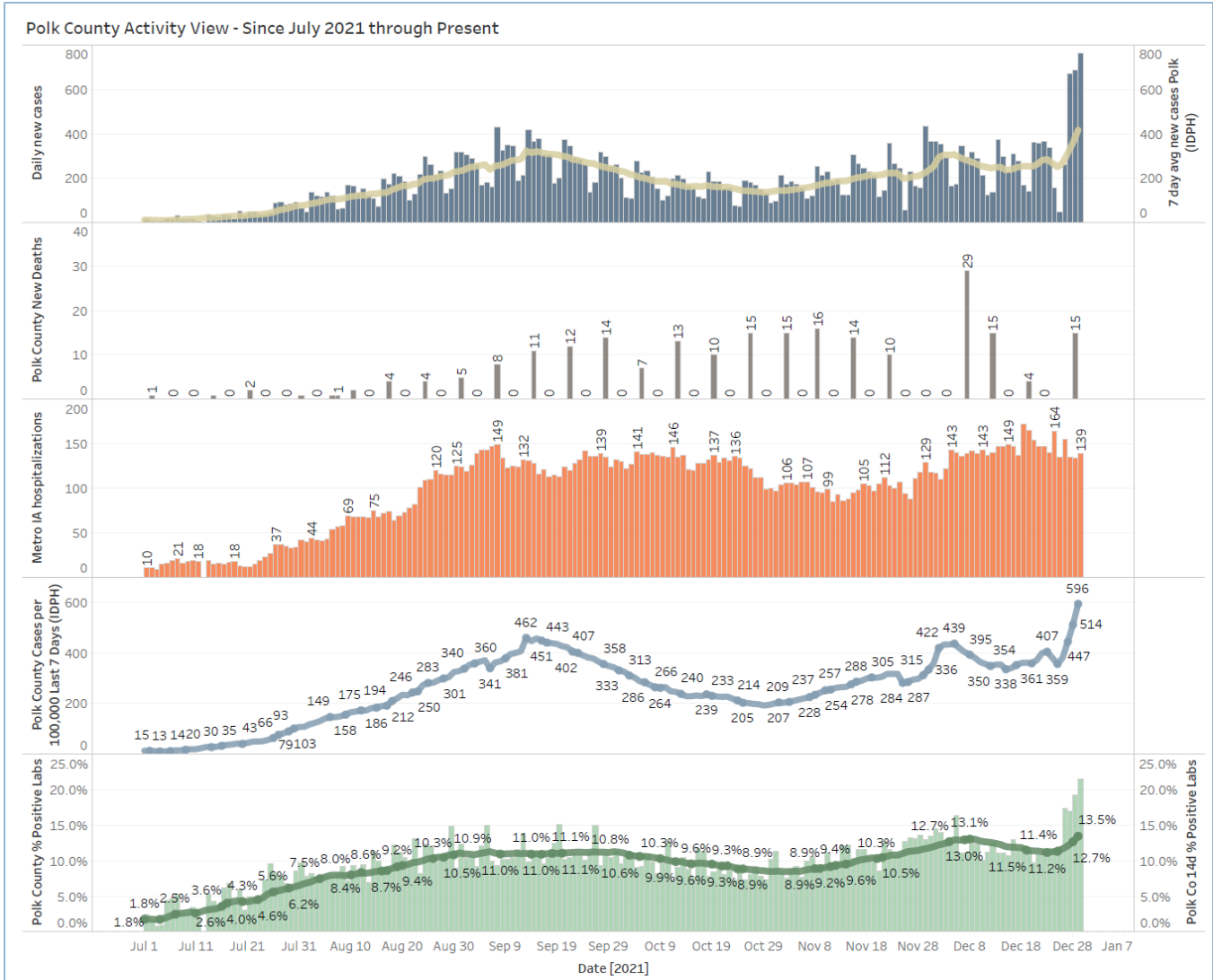
New Student/Staff Case Rates per 1000															
Week Ending	22-Sep	29-Sep	6-Oct	13-Oct	3-Nov	27-Oct	3-Nov	10-Nov	17-Nov	24-Nov	1-Dec	8-Dec	15-Dec	22-Dec	5-Jan
DMPS*	6.21	6.52	4.42	3.27	2.30	2.1	0.9	2.48	2.12	2.24	3.58	5.06	3.79	3.03	7.91
Ankeny	5.42	5.42	3.92	4.83	3.75	2.8	2.1	2.75	4.00	3.33	3.25	5.83	5.00	4.67	NA
Waukee	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	8.26
WDM	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	NA
Johnston	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	NA
SE Polk	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	1.86
Urbandale	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	11.00
Total	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	7.3

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DMPS*	205	215	146	108	76	68	31	82	70	74	118	167	125	100	261
Ankeny	65	65	47	58	45	34	25	33	48	40	39	70	60	56	NA
Waukee	43	43	35	32	36	20	49	64	90	105	63	65	48	36	120
WDM	39	39	24	24	11	18	25	53	51	45	45	69	46	34	NA
Johnston	33	33	25	16	16	17	15	19	24	6	14	24	20	24	NA
SE Polk	33	33	38	28	12	13	8	9	16	22	29	37	20	12	13
Urbandale	8	8	21	12	5	5	5	4	13	17	12	15	7	11	44
Total	426	436	336	278	201	175	158	264	312	309	320	447	326	273	438
Polk Weekly Cases	1885	1633	1368	1192	1137	1032	999	1164	1370	1511	1621	2039	1726	1836	
Polk County Weekly Case Rate	385	333	279	243	232	211	204	238	280	308	331	416	352	375	

Iowa Cases by Day and 7d Moving Average



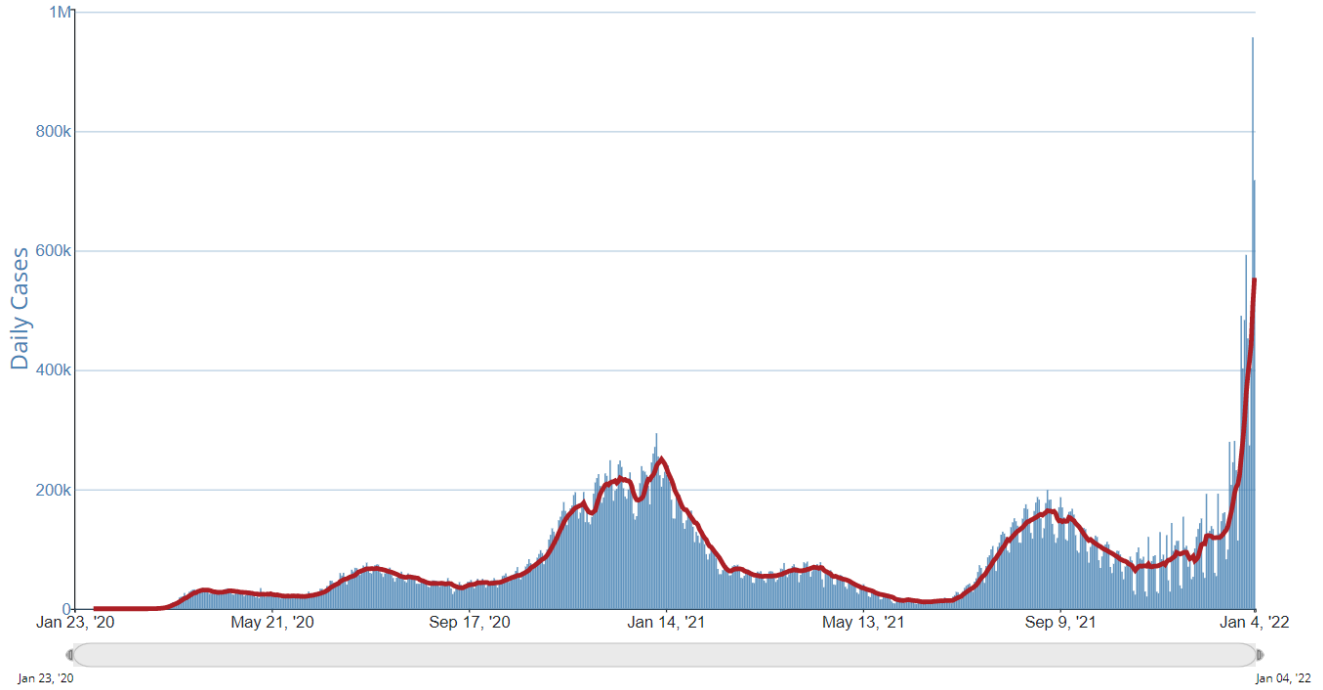
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Daily Trends in Number of COVID-19 Cases in The United States Reported to CDC



	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	547,613	165	+254%	105,139	32	+51%	1,323.1	0.40	62%
New York ›	66,515	342	+243%	9,689	50	+110%	98.4	0.51	72%
New Jersey ›	29,367	331	+310%	4,642	52	+133%	33.4	0.38	71%
Rhode Island ›	3,334	315	+166%	356	34	+33%	7.1	0.67	77%
U.S. Virgin Islands ›	320	301	+3,142%	8	8	+314%	0.1	0.13	51%
Washington, D.C. ›	2,123	301	+125%	685	97	+258%	1.4	0.19	68%
Puerto Rico ›	10,001	295	+641%	421	12	+613%	3.7	0.11	73%
Florida ›	56,421	263	+566%	5,946	28	+264%	21.6	0.10	64%
Delaware ›	2,546	262	+245%	437	45	+15%	4.4	0.45	64%
Massachusetts ›	16,127	234	+181%	1,908	28	+50%	38.9	0.56	75%
Maryland ›	12,940	214	+514%	2,892	48	+80%	38.9	0.64	71%