



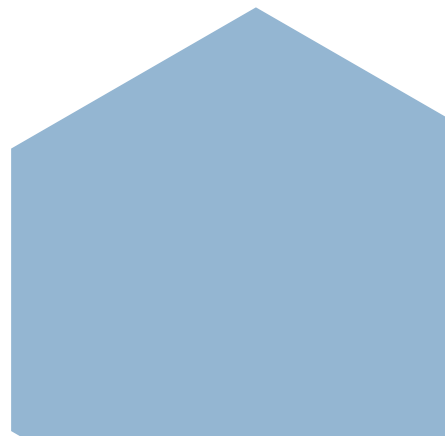
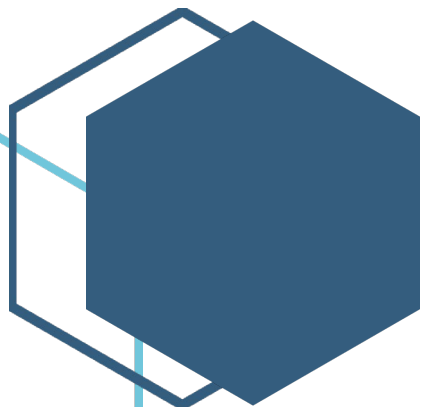
Central Iowa COVID19 Update

Wednesday, December 15, 2021



Statistical Consulting

Dr. Meg Schaeffer





Quick Stats¹

	Polk County	Iowa
Percent of population with 1 dose	69.6%	63.8%
Percent of population with 2 doses	63%	58.1%
7d Lab Test Positivity	11.6%	10.8%
Total cases per 100,000 the last 7d	352	357
CDC County Transmission Level*	High	
Average daily cases the last 7d	247	1609

*[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 have stabilized after the post-Thanksgiving surge. Hospitalizations in Iowa and the metro remain very high. Influenza activity is increasing slowly.

Omicron resources

- The experience in the UK provides excellent insight; nearly half of cases are attributed to Omicron three weeks after its identification
- Omicron spreads faster in households than Delta
- Research pending on whether Omicron causes more severe illness and hospitalization

Other news & research

- The Omicron variant appears to increase the risk of reinfection, suggesting it might have increased ability to evade immunity from prior infection. More research is needed to determine if similar results are seen for vaccine-induced immunity. [Increased risk of SARS-CoV-2 reinfection associated with emergence of the Omicron variant in South Africa](#)
- COVID-19 VE against hospitalization remains high despite the emergence of the Delta (B.1.617.2) variant, but declining VE among adults ≥ 65 years of age underscores the importance of prioritizing this group for vaccine boosters. [Covid-19 Vaccine Effectiveness in New York State | NEJM](#)
- [Viral Dynamics of SARS-CoV-2 Variants in Vaccinated and Unvaccinated Persons | NEJM](#)
- [Third COVID-19 Vaccine Dose Boosts Neutralising Antibodies in Poor Responders](#)
- Children with asthma, especially those with recent history of asthma hospitalization or multiple courses of steroids for asthma exacerbations, are at elevated risk of hospitalization for COVID-19 and should be prioritized for COVID-19 vaccination and other prevention measures. [Risk of COVID-19 hospital admission among children aged 5–17 years with asthma in Scotland: a national incident cohort study - The Lancet Respiratory Medicine](#)
- Risk of hospitalization and severe COVID-19 outcomes are higher among children with a potential comorbidity; CDC recommends COVID-19 vaccines for persons ages 5 years and older and emphasizes use of multiple COVID-19 prevention strategies to protect children <5 years of age. [COVID-19 trends and severity among symptomatic children aged 0-17 years in ten EU countries, 3 August 2020 – 3 October 2021](#)
- [Early Release - Probable Transmission of SARS-CoV-2 Omicron Variant in Quarantine Hotel, Hong Kong, China, November 2021 - Volume 28, Number 2—February 2022 - Emerging Infectious Diseases journal - CDC](#)
- In matched cohorts of BNT162b2 or mRNA-1273 vaccinated U.S. veterans (n = 219,842 per group) during January–July 2021, risk of COVID-19 hospitalization in the 24 weeks after vaccine dose 1 was low in both groups (1.33 events/1,000 persons [95% CI 1.16-1.57] and 0.78 events/1,000 persons [95% CI 0.64-0.91], respectively). However, compared with mRNA-1273, BNT162b2 vaccination was associated with a higher risk of hospitalization (RR 1.70, 95% CI 1.42-2.24) and ICU admission (RR 1.38, 95% CI 1.01-2.42). [Comparative Effectiveness of BNT162b2 and mRNA-1273 Vaccines in U.S. Veterans](#)



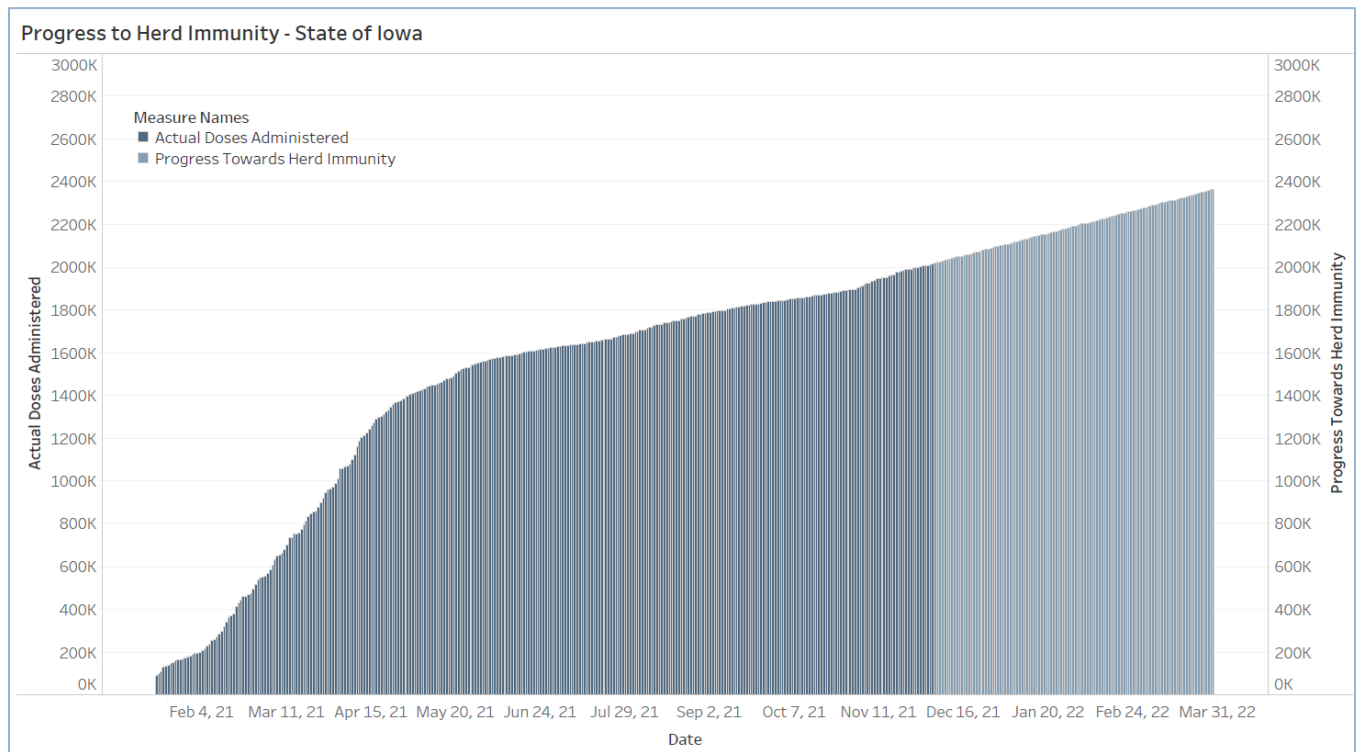
Vaccine Progress

Polk Co Vaccination Rates CDC Covid Data Tracker Data (*)	At Least One Dose	Difference prev week	Fully Vaccinated	Difference prev week
Total	341,238	3,186	308,909	4,154
% of Total Population	69.6%	0.6%	63.0%	0.8%
Population ≥ 12 Years of Age	341,225	NA	308,909	NA
% of Population ≥ 12 Years of Age	74.9%	NA	67.8%	NA
Population ≥ 18 Years of Age	329,764	1,987	301,993	1,514
% of Population ≥ 18 Years of Age	80.7%	0.5%	73.9%	0.4%
Population ≥ 65 Years of Age	303,486	1,813	278,365	1,325
% of Population ≥ 65 Years of Age	82.2%	0.5%	75.4%	0.4%

(*) 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.

Link to Zip Code-Level Vaccination

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



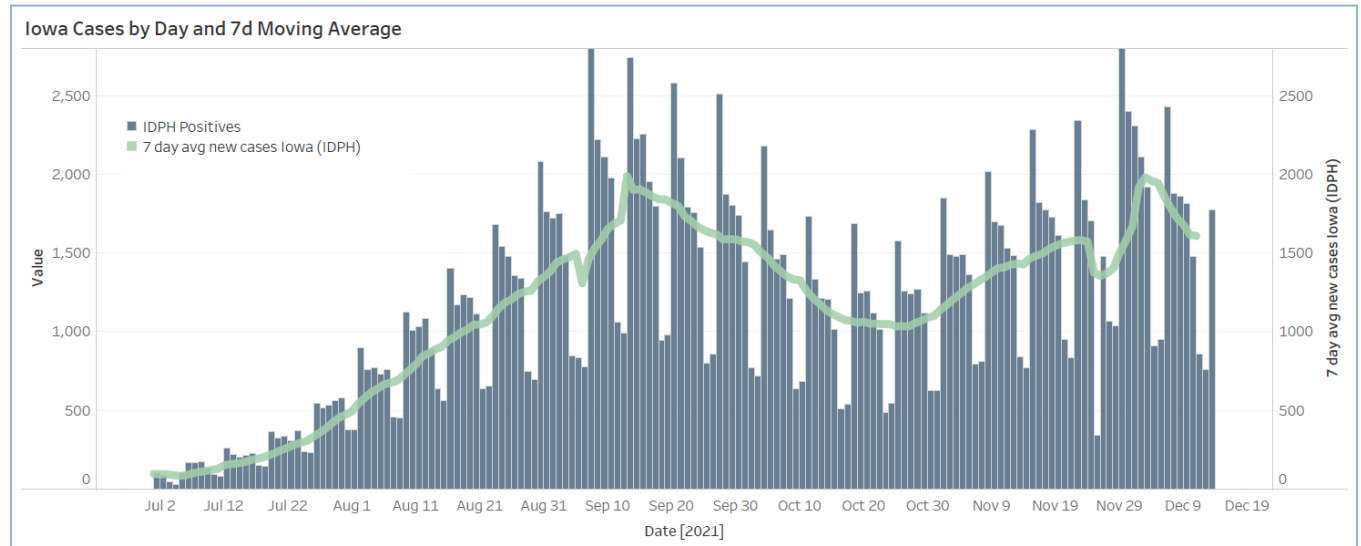
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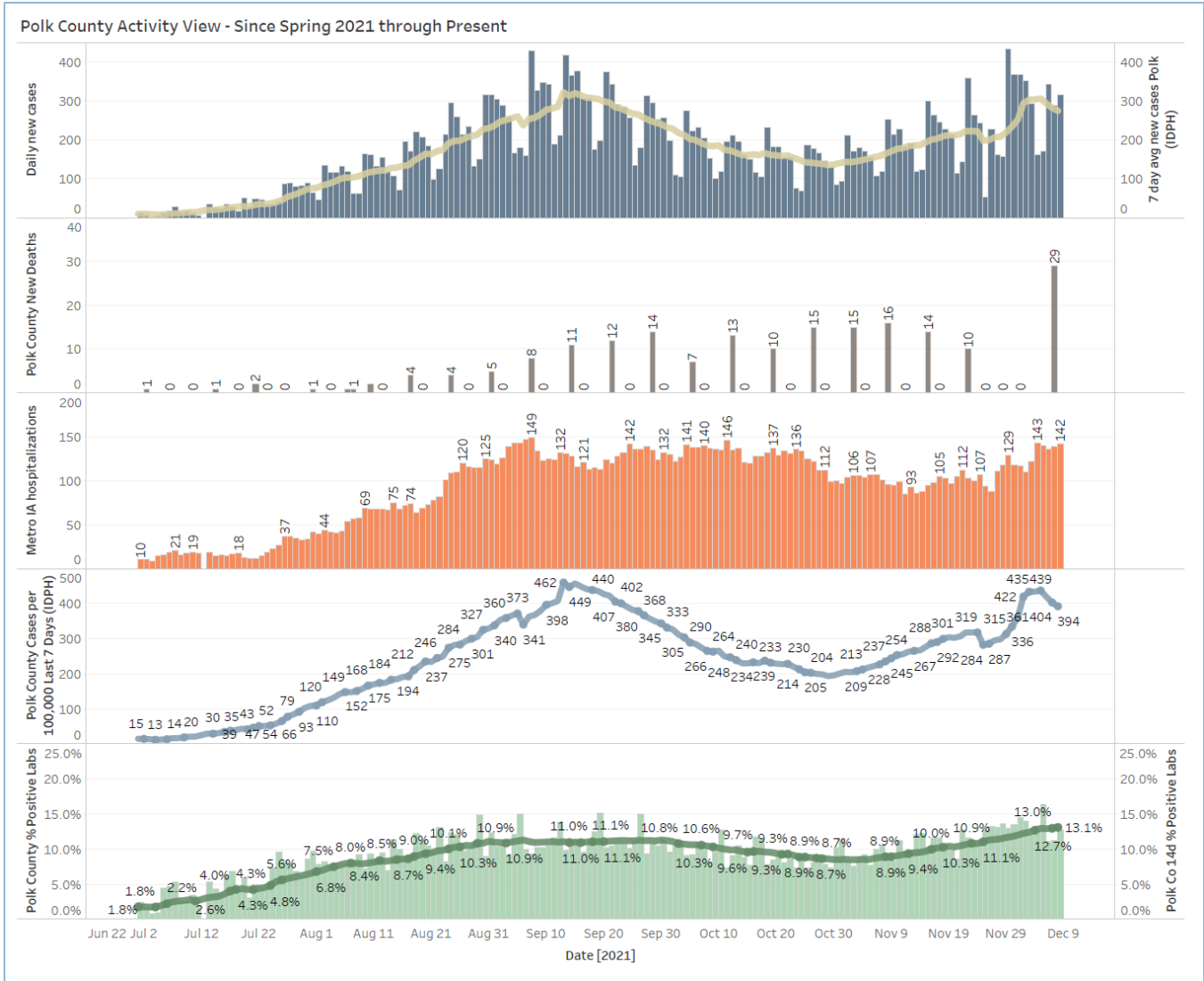
School Data

New Student/Staff Case Rates per 1000																
Week Ending	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
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
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
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
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
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
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
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
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

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
DMPS*	112	204	190	205	215	146	108	76	68	31	82	70	74	118	167	125
Ankeny	0	0	102	65	65	47	58	45	34	25	33	48	40	39	70	60
Waukee	0	0	41	43	43	35	32	36	20	49	64	90	105	63	65	48
WDM	52	42	35	39	39	24	24	11	18	25	53	51	45	45	69	46
Johnston	0	0	18	33	33	25	16	16	17	15	19	24	6	14	24	20
SE Polk	0	0	113	33	33	38	28	12	13	8	9	16	22	29	37	20
Urbandale	0	0	15	8	8	21	12	5	5	5	4	13	17	12	15	7
Total	164	246	514	426	436	336	278	201	175	158	264	312	309	320	447	326
Polk Weekly Cases	1751	2009	2158	1885	1633	1368	1192	1137	1032	999	1164	1370	1511	1621	2036	
Polk County Weekly Case Rate	357	410	440	385	333	279	243	232	211	204	238	280	308	331	416	



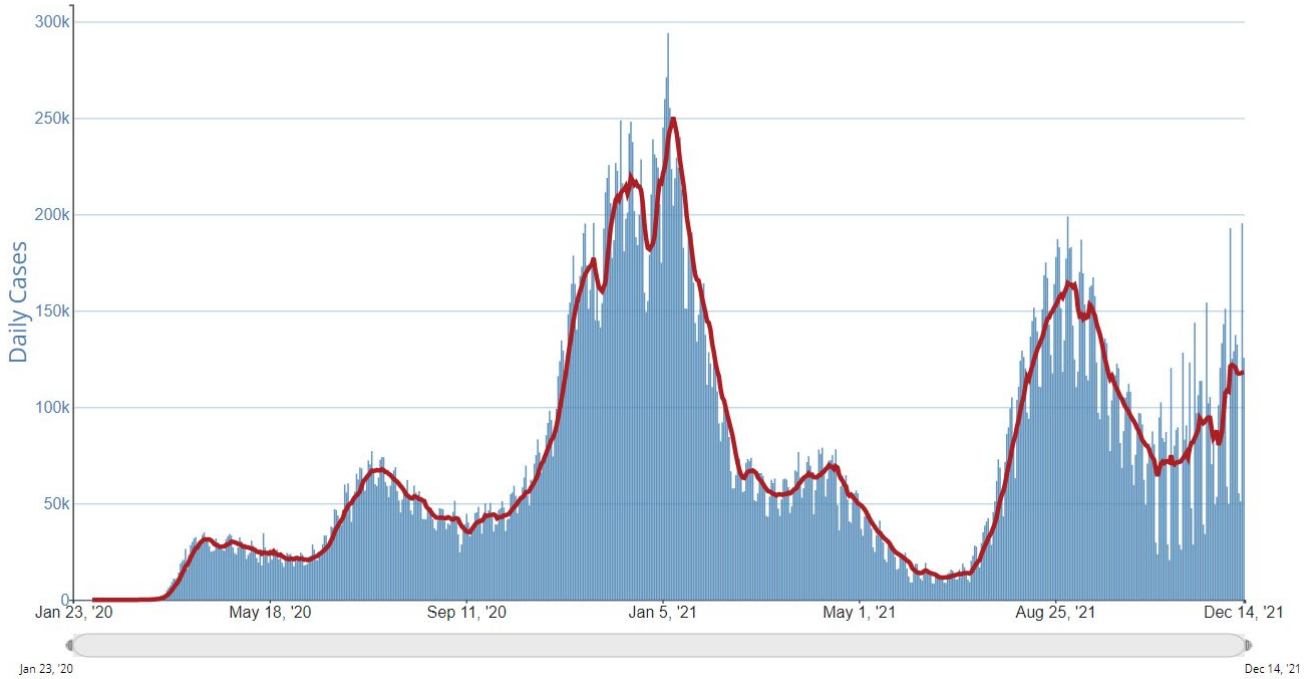
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Daily Trends in Number of COVID-19 Cases in The United States Reported to CDC



	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	121,000	36	+40%	67,505	20	+20%	1,297.1	0.39	61%
Northern Mariana Islands >	104	193	+118%	—	—	—	0.4	0.80	71%
Rhode Island >	1,090	103	+82%	242	23	+63%	3.9	0.37	75%
New Hampshire >	1,243	91	+27%	465	34	+20%	7.0	0.51	66%
Maine >	1,073	80	+182%	403	30	+16%	3.1	0.23	75%
Wisconsin >	4,494	77	+38%	1,845	32	+22%	40.6	0.70	61%
Connecticut >	2,653	74	+199%	690	19	+77%	8.0	0.22	74%
Massachusetts >	4,831	70	+69%	1,184	17	+51%	24.9	0.36	74%
Delaware >	654	67	+76%	341	35	+46%	3.4	0.35	63%
Michigan >	6,543	66	-4%	4,748	48	+9%	115.9	1.16	56%
Indiana >	4,404	65	+36%	2,883	43	+38%	51.9	0.77	52%