



Central Iowa COVID19 Update

Wednesday, November 3, 2021



Aperio

Statistical Consulting

Dr. Meg Schaeffer





Quick Stats¹

	Polk County	Iowa
Percent of population with 1 dose	65%	55.7%
Percent of population with 2 doses	59.9%	59.8%
7d Lab Test Positivity	8.4%	8.2%
Total cases per 100,000 the last 7d	193	216
CDC County Transmission Level*	High	
Average daily cases the last 7d	145	974

*[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

- State cases have stagnated averaging just under 1000 per day. Polk County is declining though slowly. Hospitalizations remain above 100 per day.
- The FDA and CDC approved the use of a pediatric vaccine made by Pfizer for children 5-11 years of age. Polk County will start administering pediatric vaccinations on Thursday, November 4th.
 - [ACIP November 2-3, 2021 Presentation Slides | Immunization Practices | CDC](#)
 - <https://www.facebook.com/polkcohealth/posts/252698773564391>
- [COVID vaccine mandate: Most Des Moines hospital staff have complied](#)
- [Deer in Iowa are contracting COVID-19, but DNR says its still safe to hunt and consume](#)
- [Laboratory-Confirmed COVID-19 Among Adults Hospitalized with COVID-19–Like Illness with Infection-Induced or mRNA Vaccine-Induced SARS-CoV-2 Immunity](#) Patients hospitalized with COVID-19–like illness whose previous infection or vaccination occurred 90–179 days earlier, vaccine-induced immunity was more protective than infection-induced immunity against laboratory-confirmed COVID-19.
- [Vaccinating Adolescents and Children Significantly Reduces COVID-19 Morbidity and Mortality across All Ages: A Population-Based Modeling Study](#) Vaccinating adolescents and children provides direct benefits to those groups and may also provide indirect benefit by reducing SARS-CoV-2 infections, morbidity, and mortality among other age groups.
- [COVID-19 mRNA vaccines drive differential antibody Fc-functional profiles in pregnant, lactating, and nonpregnant women \(science.org\)](#) Receipt of both primary series vaccine doses is critical for protecting the health of pregnant and lactating persons.
- [Immunogenicity of standard and extended dosing intervals of BNT162b2 mRNA vaccine: Cell Longer durations between 1st and 2nd doses of an mRNA primary series might enhance post-vaccination immune responses in those who have not been previously infected.](#)
- [Short-term and Long-term Rates of Post-acute Sequelae of SARS-CoV-2 Infection: A Systematic Review | JAMA Network Open](#) Long COVID appears to be common following infection, may significantly affect survivors' health, and may place an additional burden on healthcare systems.
- [Assessment of Cognitive Function in Patients After COVID-19 Infection | JAMA Network Open](#)
- [Covid-19 Vaccination during Pregnancy and First-Trimester Miscarriage | NEJM](#) COVID-19 vaccination was not associated with increased odds of 1st trimester miscarriage in a case-control study using registry data (February–August 2021).
- [Effectiveness of BNT162b2 Vaccine against Delta Variant in Adolescents | NEJM](#)
- [Protective Immunity after Natural Infection with Severe Acute Respiratory Syndrome Coronavirus-2 \(SARS-CoV-2\) – Kentucky, USA, 2020](#) Among 41,647 state residents with documented SARS-CoV-2 infection during March–August 2020, the protective effect against reinfection 3–9 months after initial infection was 75%–86% for those aged 20–59 years and 53%–81% for those ≥60 years.



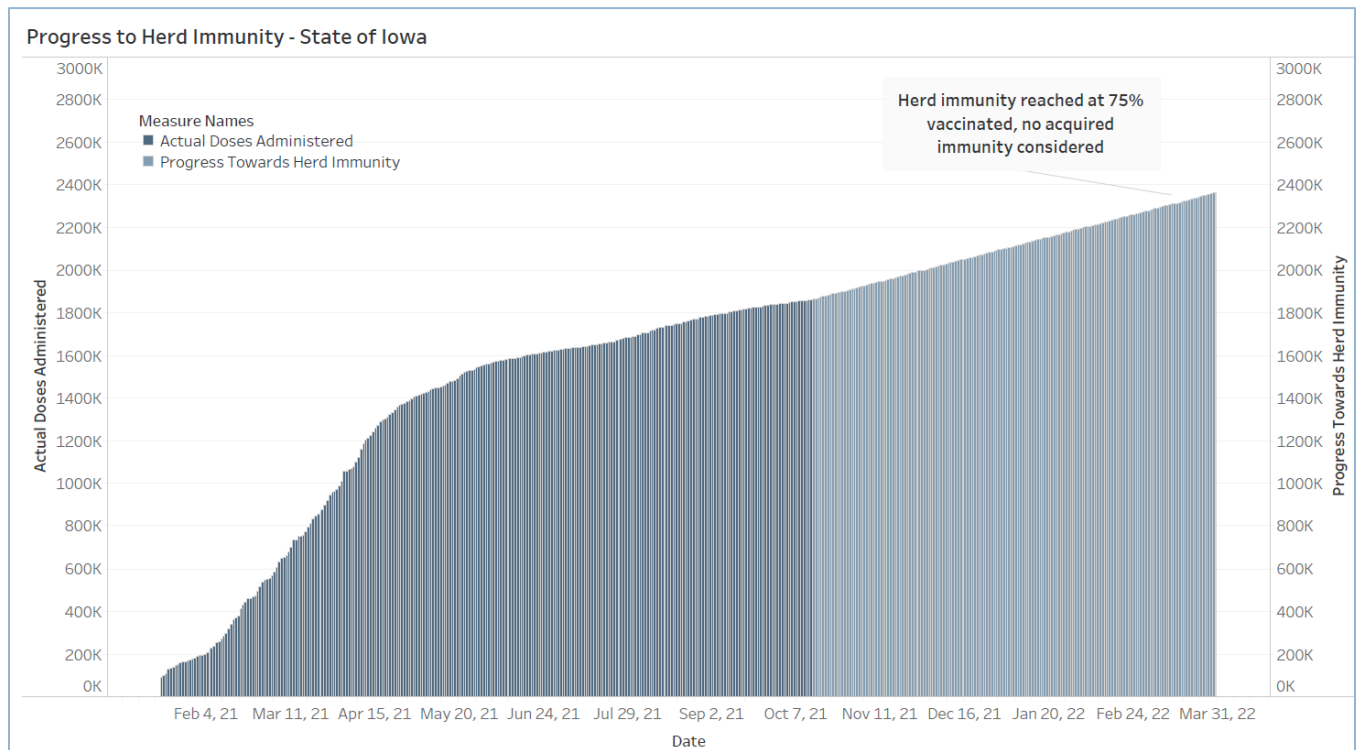
Vaccine Progress

Polk Co Vaccination Rates CDC Covid Data Tracker Data (*)	At Least One Dose	Difference prev week	Fully Vaccinated	Difference prev week
Total	318,690	2,046	293,419	1,759
% of Total Population	65.0%	0.4%	59.9%	0.4%
Population ≥ 12 Years of Age	318,675	2,047	293,418	1,759
% of Population ≥ 12 Years of Age	78.0%	0.5%	71.8%	0.5%
Population ≥ 18 Years of Age	293,319	1,887	270,707	1,590
% of Population ≥ 18 Years of Age	79.5%	0.6%	73.3%	0.4%
Population ≥ 65 Years of Age	65,248	653	61,386	333
% of Population ≥ 65 Years of Age	98.7%	1.0%	92.9%	0.5%

(*) 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>



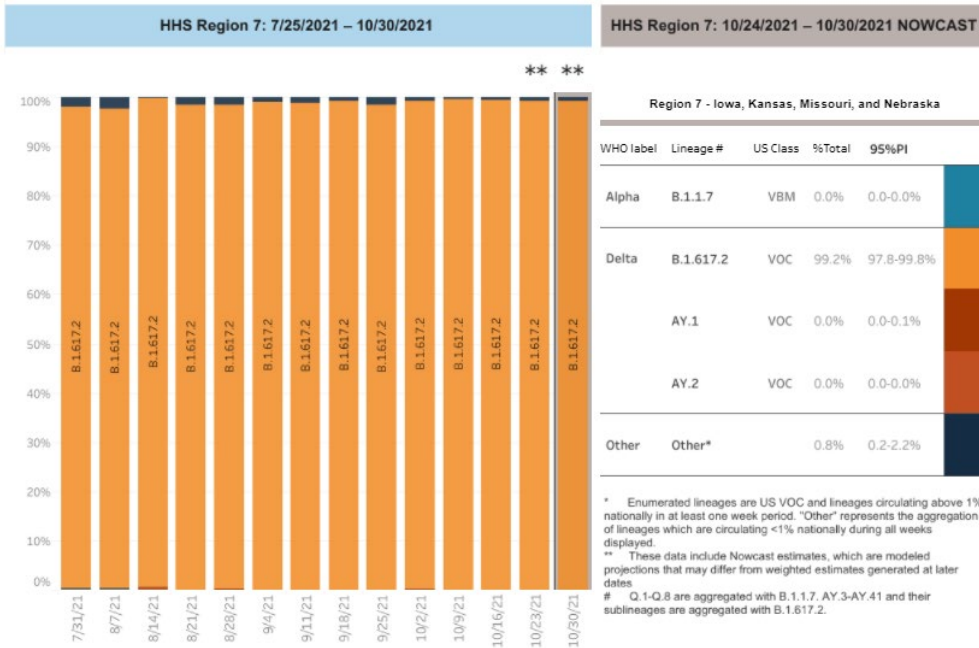


School Data

New Student/Staff Case Rates										
Week Ending	1-Sep	8-Sep	15-Sep	22-Sep	29-Sep	6-Oct	13-Oct	3-Nov	27-Oct	3-Nov
DMPS*	3.39	6.18	5.76	6.21	6.52	4.42	3.27	2.30	2.1	0.9
Ankeny	0.00	0.00	7.25	4.67	4.67	3.33	4.33	3.67	2.0	1.6
Waukee	0.00	0.00	3.57	2.78	2.78	2.35	2.09	2.43	1.7	4.2
WDM	5.78	4.67	3.89	4.33	4.33	2.67	2.67	1.22	2.0	2.8
Johnston	0.00	0.00	2.57	4.71	4.71	3.57	2.29	2.29	2.4	2.1
SE Polk	0.00	0.00	15.14	4.71	4.00	4.71	3.00	1.00	1.1	1.0
Urbandale	0.00	0.00	3.75	1.75	1.75	5.25	3.00	1.25	1.3	1.3
Total	4.59	5.42	5.99	4.17	4.11	3.76	2.95	2.02	1.8	1.8

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
DMPS*	112	204	190	205	215	146	108	76	68	31
Ankeny	0	0	102	65	65	47	58	45	34	25
Waukee	0	0	41	43	43	35	32	36	20	49
WDM	52	42	35	39	39	24	24	11	18	25
Johnston	0	0	18	33	33	25	16	16	17	15
SE Polk	0	0	113	33	33	38	28	12	13	8
Urbandale	0	0	15	8	8	21	12	5	5	5
Total	164	246	514	426	436	336	278	201	175	158
Polk Avg Cases	1751	2009	2158	1885	1633	1368	1192	1137	1029	

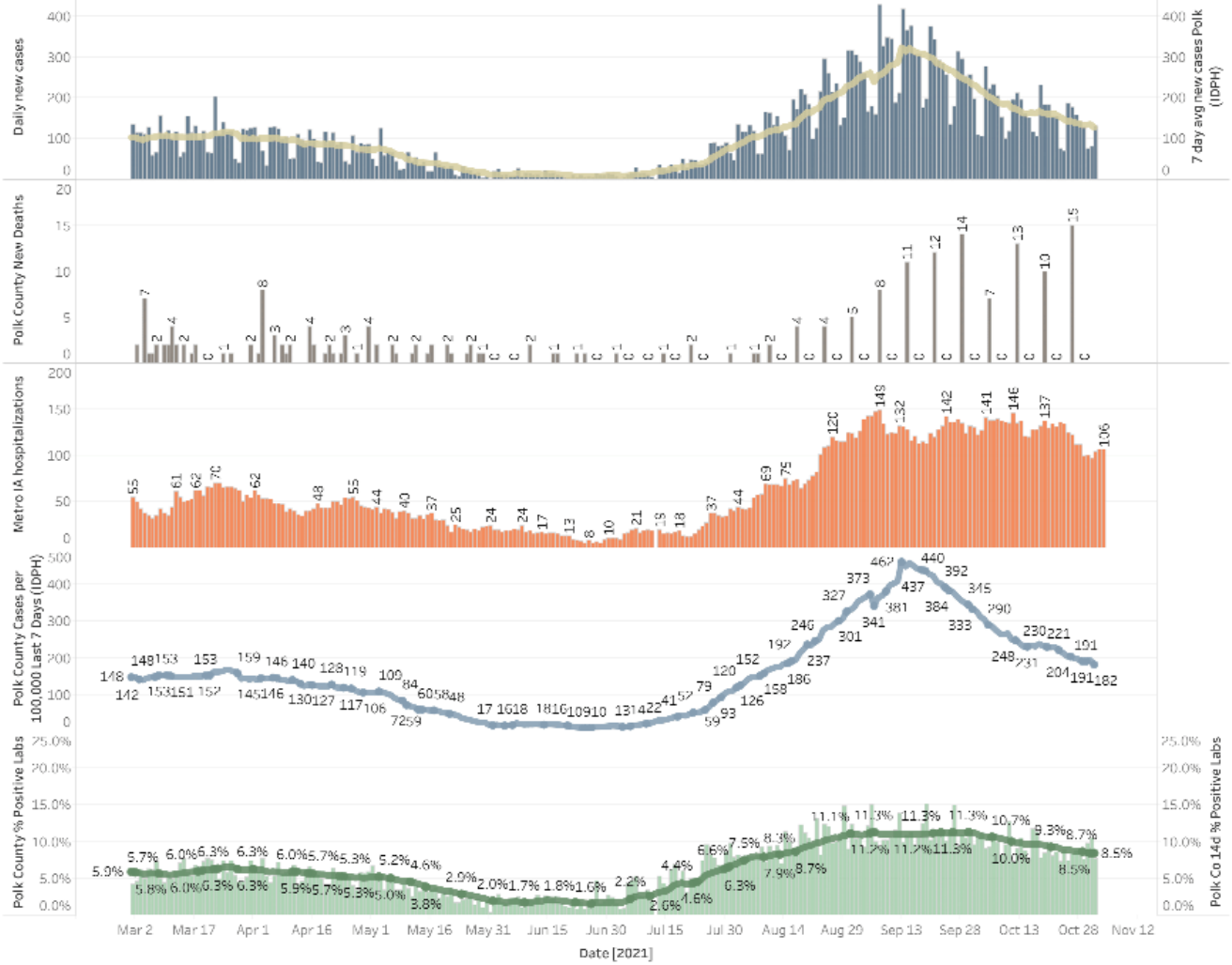
Variant Prevalence



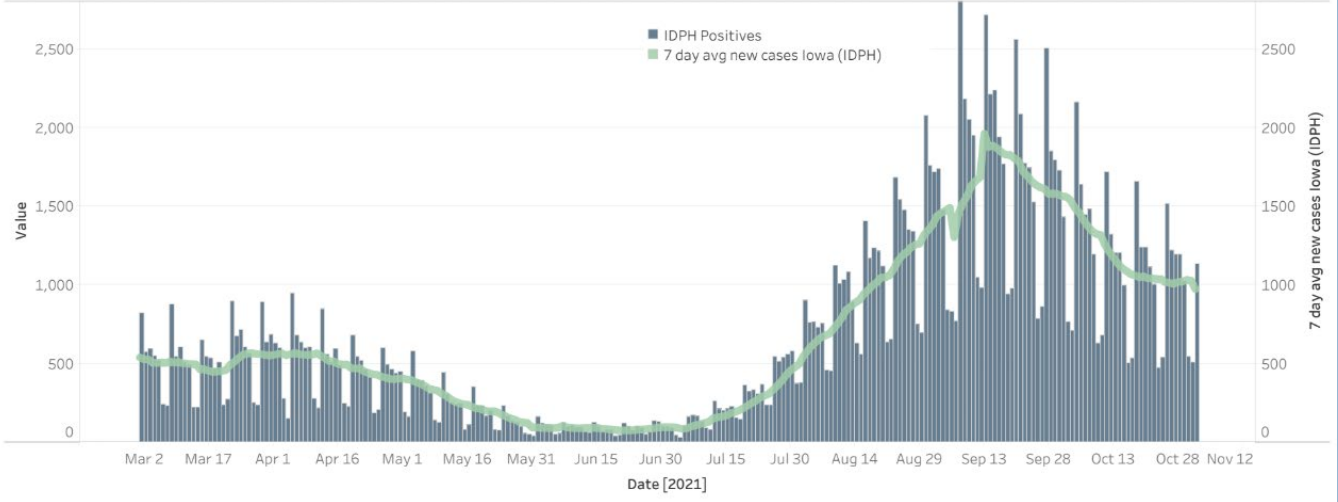
Central Iowa COVID19 Update



Polk County Activity View - Since Spring 2021 through Present



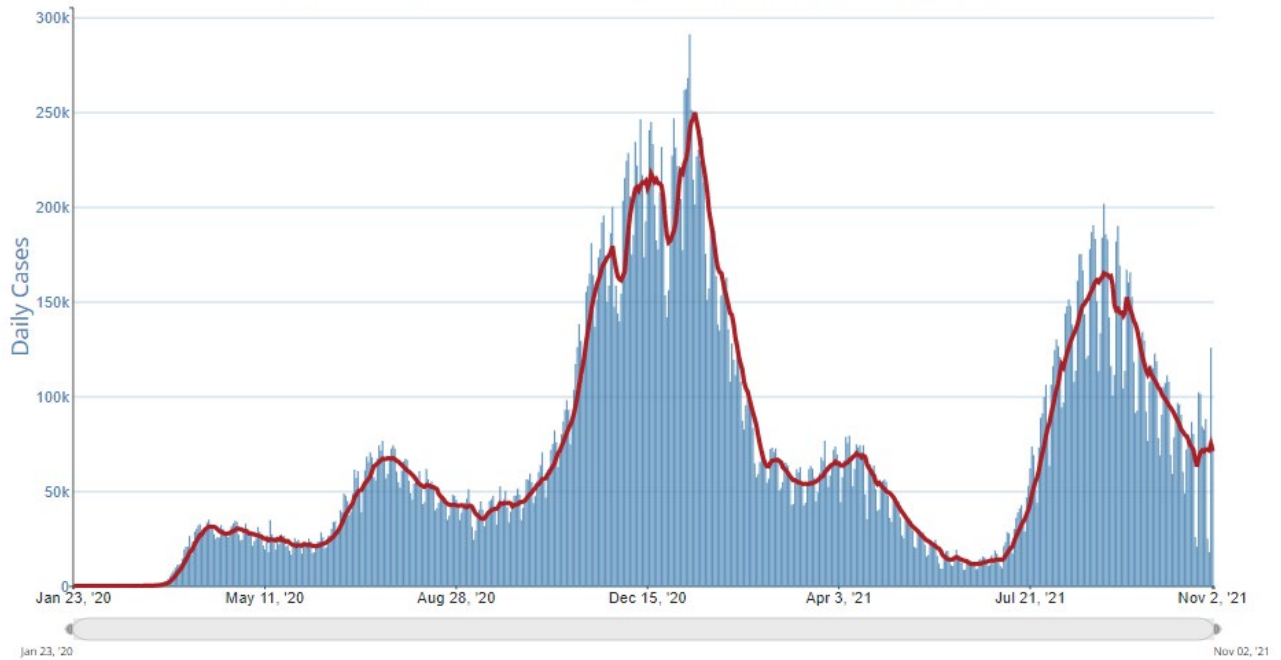
Iowa Cases by Day and 7d Moving Average



Central Iowa COVID19 Update



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	73,007	22	-8%	48,930	15	-16%	1,276.9	0.38	58%
Alaska >	599	82	-30%	210	29	-3%	2.9	0.39	53%
Montana >	716	67	-21%	424	40	-12%	11.0	1.03	51%
North Dakota >	495	65	-1%	263	34	-6%	5.7	0.75	46%
Wyoming >	366	63	-13%	206	36	-10%	9.9	1.70	44%
Colorado >	2,915	51	+23%	1,320	23	+15%	26.7	0.46	62%
New Hampshire >	674	50	+24%	194	14	+14%	4.1	0.30	63%
Utah >	1,453	45	+13%	527	16	-4%	12.7	0.40	54%
New Mexico >	944	45	+38%	447	21	+18%	8.7	0.42	62%
Arizona >	3,273	45	+50%	1,835	25	+7%	39.8	0.55	53%
Idaho >	793	44	-40%	483	27	-18%	14.9	0.83	44%