MONTANA COMMUNICABLE DISEASE EPIDEMIOLOGY

Weekly COVID-19 Update in Montana (as of 1/28/2022)

This report is a weekly snapshot of COVID-19 activity in Montana. Data are analyzed based on information available as of January 28, 2022. Data are provisional and expected to change as more information is received.

Case Data

Table 1. Summary of COVID-19 Activity – Montana, as of 1/28/2022

	TOTAL	RECENT WEEK	PERCENT CHANGE FROM PREVIOUS WEEK
LABORATORY TESTS	**2,499,271**	**57,211**	**-8%**
DEATHS	**3,000**	**16**	**-20%**

Figure 1. COVID-19 Cases and Hospitalizations over Time - Montana, as of 1/28/2022

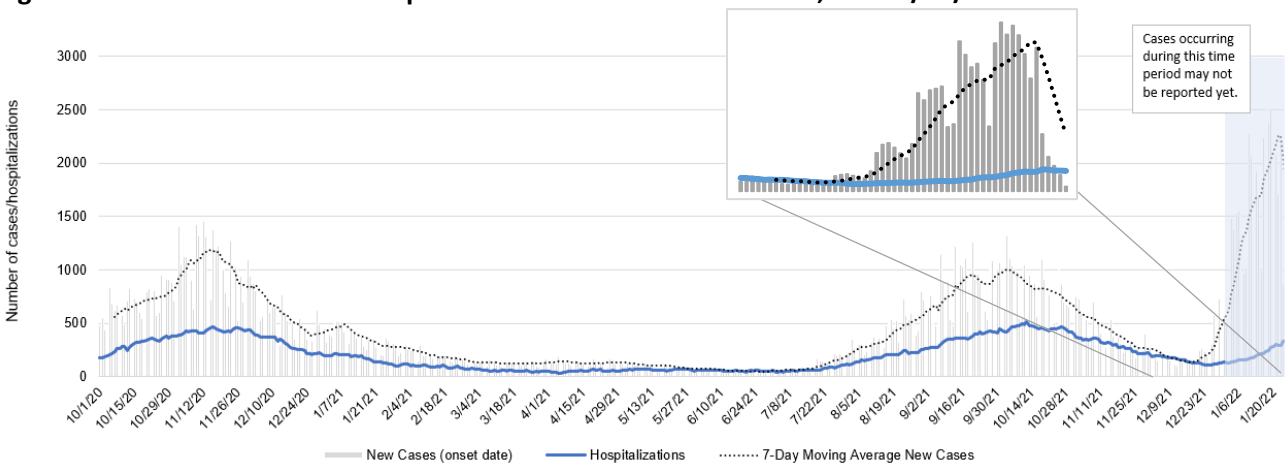
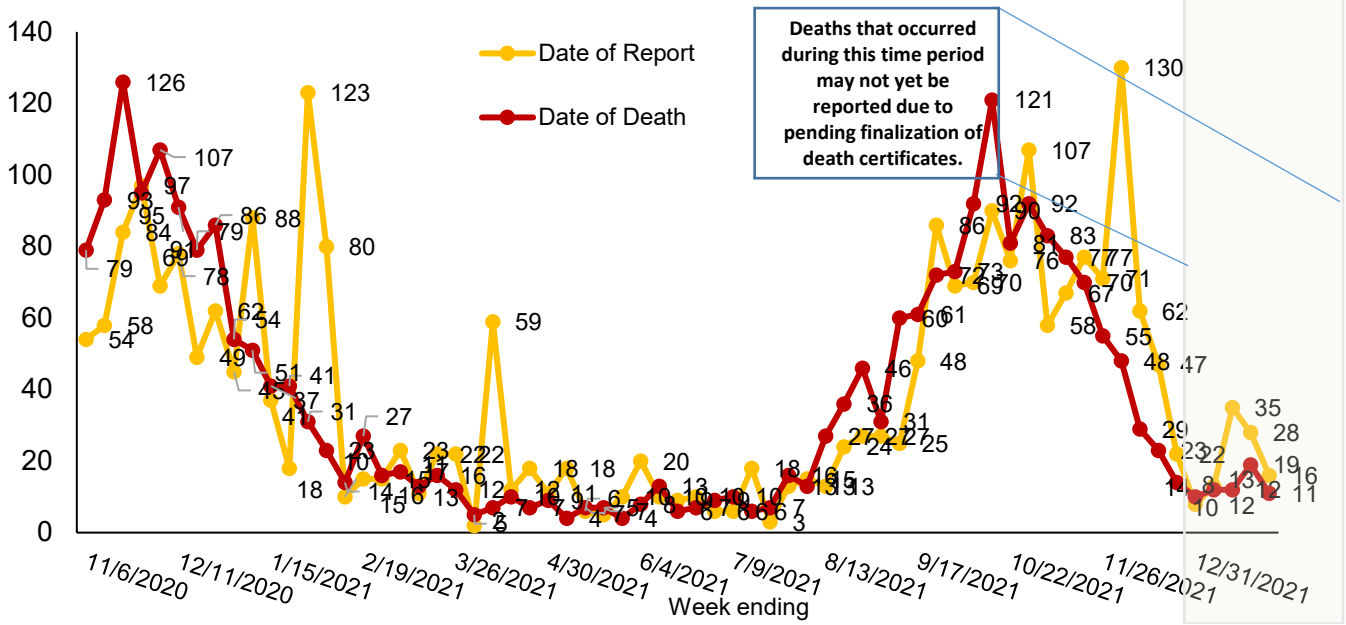


Figure 2. COVID-19 Deaths by Report Date and Date of Death – Montana, 11/1/2020 – 1/28/2022



Vaccine Data

Montana began vaccinating individuals in mid-December 2020 with a phased process: Phase 1A on December 14, 2020, Phase 1B on January 19, 2021, and Phase 1B+ on March 8, 2021. Vaccinations were opened to all Montanans age 16+ on April 1, 2021 and expanded to all Montanans age 12+ on May 10th, 2021. Most recently, the Pfizer vaccine was approved for the 5-11 year old age group on October 29th, 2021. To date, 1,377,117 doses have been given across the state and 54% of the eligible population is considered fully vaccinated (table 3).

Table 2: COVID-19 Vaccine Doses Administered for the 12 and older population – Montana, as of 1/28/2022

	NUMBER	PERCENT OF ELIGIBLE POPULATION	WEEK ENDING 1/14	WEEK ENDING 1/21	WEEK ENDING 1/28
TOTAL DOSES ADMINISTERED	**1,344,521**		9,877	7,430	**5,191**
DOSE 1 ADMINISTERED	**602,171**	**65%**	1,871	1,370	**1,102**
FULLY VACCINATED INDIVIDUALS	**534,422**	**57%**	1,122	940	**763**

*the data for the most recent week are preliminary and are expected to be an underestimate of the doses administered during the week, due to a reporting lag.

Table 3: COVID-19 Vaccine Doses Administered for the 5 and older population – Montana, as of 1/28/2022

	NUMBER	PERCENT OF ELIGIBLE POPULATION	WEEK ENDING 1/14	WEEK ENDING 1/21	WEEK ENDING 1/28
TOTAL DOSES ADMINISTERED	**1,377,117**		11,229	8,532	**6,054**
DOSE 1 ADMINISTERED	**620,960**	**61%**	2,555	1,905	**1,490**
FULLY VACCINATED INDIVIDUALS	**548,220**	**54%**	1,790	1,506	**1,238**

*the data for the most recent week are preliminary and are expected to be an underestimate of the doses administered during the week, due to a reporting lag.

Figure 3. COVID-19 Vaccine Doses Administered by Week, 5+ Years – Montana, as of 1/28/2022

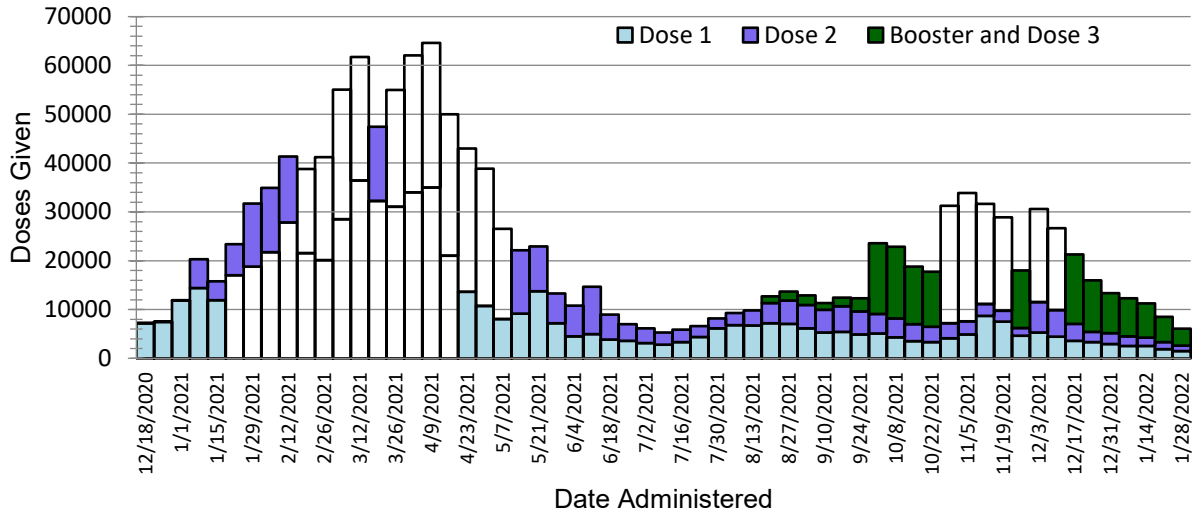
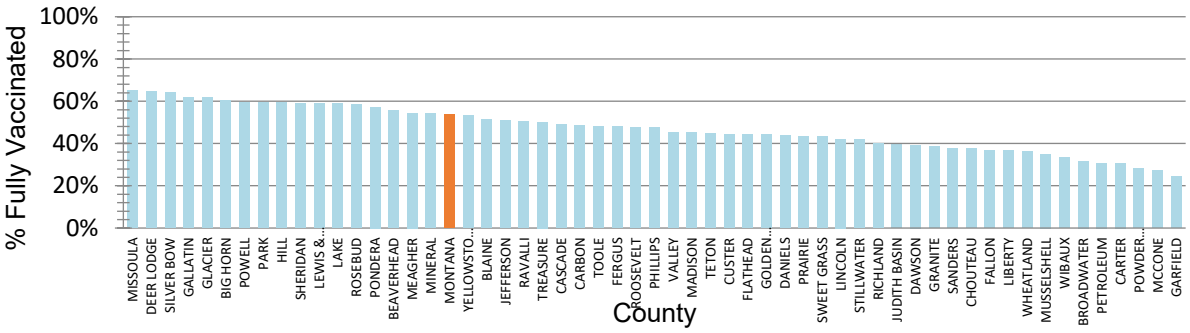


Figure 4. Percent of Eligible Montanans (5+ years) Fully Vaccinated by County – Montana, 1/28/2022



Variant and Breakthrough Cases

Figure 6 displays the percentage of the most common SARS-CoV-2 lineages detected each week, of all Montana samples sequenced that were collected that week. There were 9,974 samples from Montana that were sequenced and their lineages were reported to GISAID since September 2020; figure 5 displays the number of specimens sequenced by week.

As of February 1, there have been 1,021 cases in Montana infected with the Omicron variant, detected in most of Montana's local and tribal health jurisdictions. Last week, 48/48 (100%) specimens that were collected and sequenced were Omicron. In the last four weeks 705/726 (97%) specimens that were collected and sequenced were Omicron, one was B.1, and the remainder were Delta. Omicron is the dominant circulating strain in the state, and is displayed in brown on the chart below.

Figure 5. Number of COVID-19 samples sequenced by collection date, Montana 1/29/2022 [n=9,974]

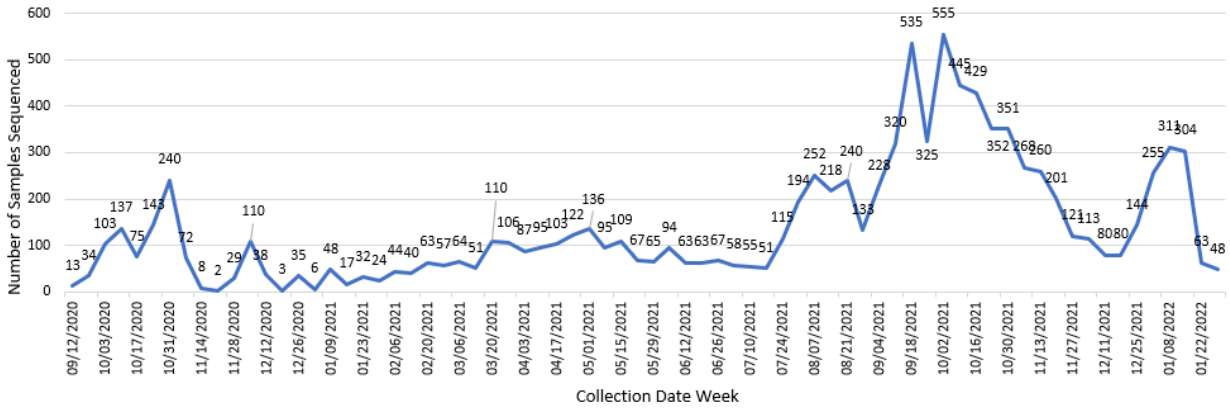
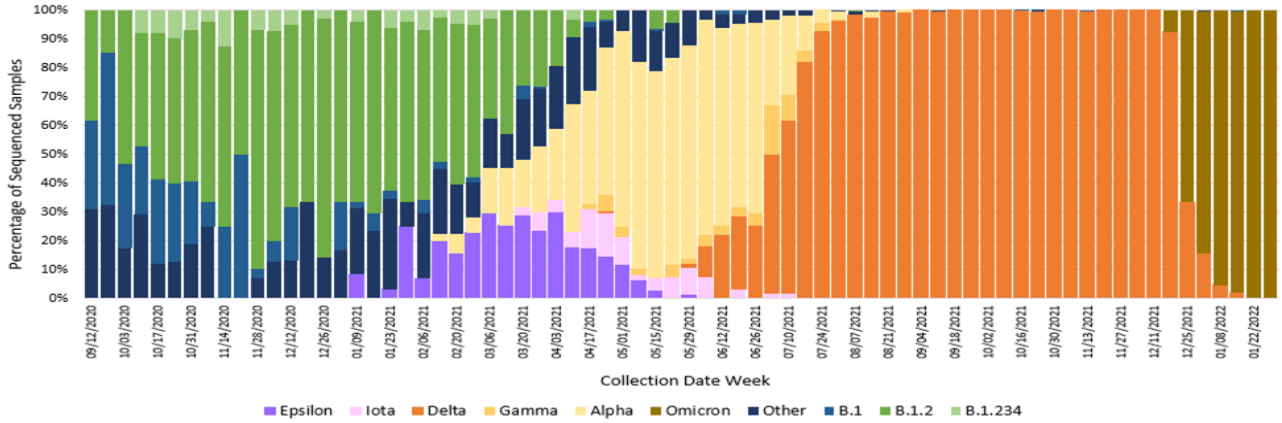


Figure 6. Percent of COVID-19 variants in sequenced samples by collection date, Montana 1/29/2022



A breakthrough COVID-19 infection is defined as a positive SARS-CoV-2 specimen collected ≥14 days after completing the primary COVID-19 vaccine series of an FDA-authorized COVID-19 vaccine. Studies show that protection from COVID vaccination decreases over time; in response, the CDC has recommended booster doses for eligible populations to protect against waning immunity. As of 1/28/2022, Montana reports 30,785 cases of confirmed breakthrough disease, which includes 1,129 hospitalizations and 309 deaths. CDC data from November show that unvaccinated adults were more than 4 times more likely to become infected with COVID, compared to fully vaccinated adults. However, when booster doses were considered, unvaccinated adults were more than 13 times more likely to become infected compared to fully vaccinated adults with booster doses.[1]

Hospitalizations and Deaths and Vaccination Status

COVID-19-related hospitalizations and deaths were analyzed between **April 1, 2021 and January 28, 2022** to review vaccination status. Since the beginning of April 2021, 82% of Montanans who were hospitalized and 79% of those who died were unvaccinated at the time of infection (Table 4). Of the 6,154 individuals who were hospitalized during this time period, 110 (2%) were <18 years old, 877 (14%) were 18 to 44 years old, 2,075 (34%) were 45 to 64 years old and 3,092 (50%) were ≥65 years old.

Additionally, COVID-19-related hospitalization and death data from **December 4, 2021 – January 28, 2022** (last 8 weeks) were analyzed to review vaccination status. Seventy-three percent of Montanans who were hospitalized and 81% of those who died had not received a COVID-19 vaccine (Table 5). Of the 821 individuals who were hospitalized during this time period, 22 (3%) were <18 years old, 95 (12%) were 18 to 44 years old, 234 (29%) were 45 to 64 years old and 470 (57%) were ≥65 years old.

Table 4. Vaccination status of COVID-19 hospitalizations and deaths – April 1 to January 28, 2022

	HOSPITALIZATIONS	DEATHS
TOTAL REPORTED	**6,154**	**1,422**
UNVACCINATED	5,045 (82%)	1,118 (79%)
VACCINATED (BREAKTHROUGH CASE)	1,109 (18%)	304 (21%)
UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**<1-102 (62)**	**22-103 (71)**
VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**7-101 (74)**	**20-101 (81)**

Table 5. Vaccination status of COVID-19 hospitalizations and deaths – December 4 to January 28, 2022

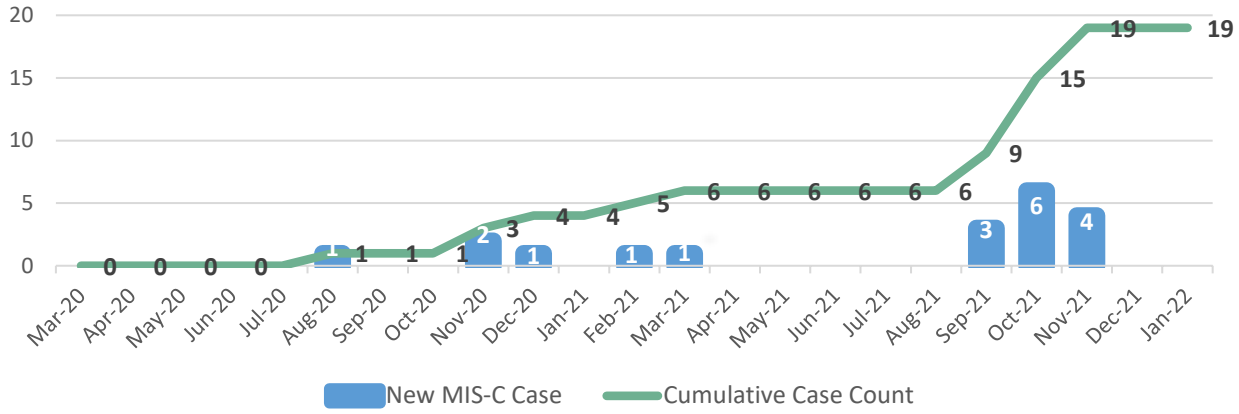
	HOSPITALIZATIONS	DEATHS
TOTAL REPORTED	**821**	**131**
UNVACCINATED	598 (73%)	106 (81%)
VACCINATED (BREAKTHROUGH CASE)	223 (27%)	25 (19%)
UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**<1-101 (65)**	**37-101 (71)**
VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**7-98 (72)**	**58-101 (80)**

[1] CDC – COVID Data Tracker – Rates of COVID-19 Cases and Deaths by Vaccination Status. https://covid.cdc.gov/covid-data-tracker/#rates-by-vaccine-status. January 25, 2022.

Multisystem Inflammatory Syndrome in Children (MIS-C)

As of January 28, 2022, Montana has a total of 19 reported cases of multisystem inflammatory syndrome in children, or MIS-C. There have been no deaths. Ages range from less than 1 year to 20 years old; median is 8 years. Nine cases were female, 10 were male. Cases are from 13 counties around Montana. The first case of MIS-C was reported in August 2020; 13 of the 19 cases have been reported since September 2021 (Figure 7).

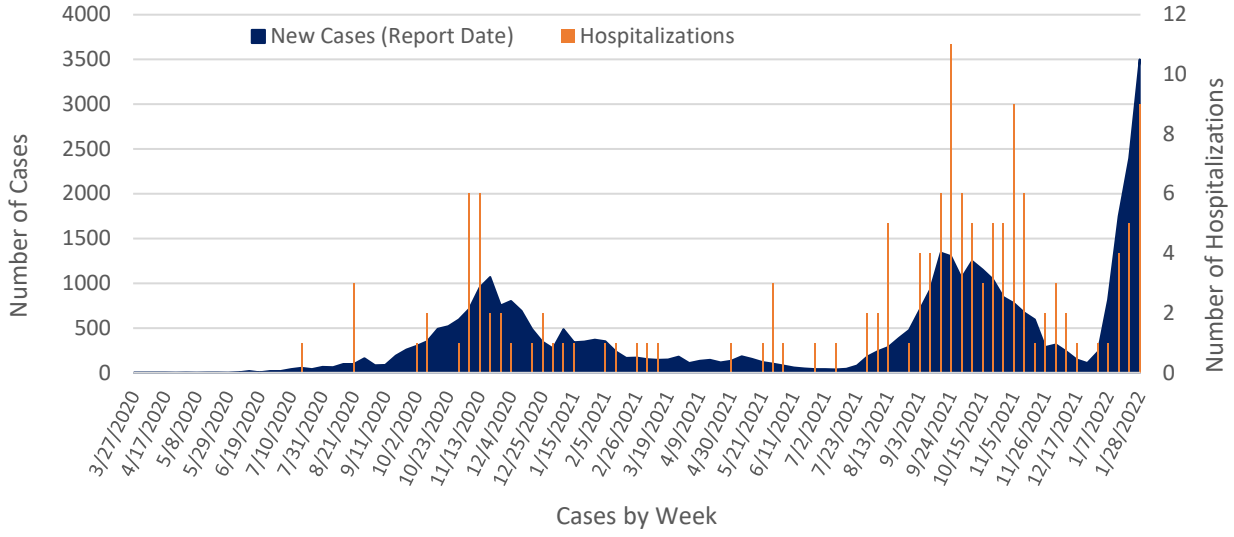
Figure 7. Montana MIS-C Cases by Month, March 2020 – January 2022



Cases and Hospitalizations Associated with COVID-19 Among Children

To date, there have been 37,419 children <18 years old in Montana diagnosed with COVID-19. Of those, 146 (<1%) have been hospitalized. Case rates among children follow a similar pattern to COVID-19 cases among all age groups (see Figure 1 for comparison) and have increased sharply during the recent Omicron surge (Figure 8). There were 3,501 cases of COVID-19 in children reported during the fourth week of January 2022, which is the highest number of cases reported in children in one week since the beginning of the pandemic and is a 47% increase in cases among that age group compared to the previous week. Nine hospitalizations in children were reported that week.

Figure 8. COVID-19 Cases and Hospitalizations by Month, March 2020 – January 2022, Among Children <18



Reported COVID-19 Cases by County with Trendline – Montana, past 6 weeks

County	24 Dec	31 Dec	7 Jan	14 Jan	21 Jan	28 Jan	change from previous week*	Trendline
Beaverhead	1	15	38	52	129	141	12	
Big Horn	1	6	21	53	152	401	249	
Blaine	0	3	17	23	101	139	38	
Broadwater	7	5	17	26	41	39	-2	
Carbon	4	19	43	85	60	87	27	
Carter	0	9	0	1	1	11	10	
Cascade	74	127	303	542	949	1708	759	
Chouteau	3	9	15	25	25	21	-4	
Custer	4	17	28	67	139	129	-10	
Daniels	1	0	1	9	22	10	-12	
Dawson	17	23	29	48	80	106	26	
Deer Lodge	5	18	38	97	158	157	-1	
Fallon	6	0	9	2	39	22	-17	
Fergus	11	17	56	58	40	138	98	
Flathead	112	216	468	756	508	1241	733	
Gallatin	255	593	1472	2661	2306	1767	-539	
Garfield	0	9	4	19	7	12	5	
Glacier	7	18	56	85	127	332	205	
Golden Valley	0	0	1	2	6	7	1	
Granite	0	1	22	19	30	10	-20	
Hill	7	9	39	107	165	308	143	
Jefferson	5	21	32	90	125	142	17	
Judith Basin	0	1	5	11	11	13	2	
Lake	21	41	91	147	245	520	275	
Lewis and Clark	86	150	435	498	669	1499	830	
Liberty	0	1	7	33	18	26	8	
Lincoln	15	38	94	118	186	222	36	
Madison	8	15	44	67	88	53	-35	
McCone	0	0	5	6	21	14	-7	
Meagher	1	4	9	9	30	43	13	

Missoula	151	426	914	1165	1377	2393	1016	
Park	13	55	60	94	417	276	-141	
Phillips	0	2	13	15	45	34	-11	
Powder River	1	0	2	3	5	12	7	
Prairie	2	1	9	12	16	4	-12	
Richland	23	36	65	67	28	147	119	
Rosebud	3	3	16	30	43	83	40	
Sheridan	1	1	4	3	32	23	-9	
Stillwater	1	3	5	34	69	33	-36	
Teton	6	15	33	74	76	61	-15	
Treasure	0	0	0	1	2	7	5	
Wheatland	4	0	2	2	17	30	13	
Yellowstone	136	319	765	1504	1453	2815	1362	
MONTANA	**1071**	**2435**	**5747**	**9588**	**11428**	**16776**	**5348**	

†Note: Data are based on the date of report into the Montana Infectious Disease Information System (MIDIS). Underlined numbers in the above table reflect adjusted counts and may include cases diagnosed but not reported in earlier time frames. These adjustments result from local and state data reconciliation efforts, conducted to ensure accurate data.

County name	Eligible population 5+	Dose 1	Dose 2	Dose 3	Fully Immunized	Total Doses Administered	Percent eligible with first dose (5+)	Percent Fully Vaccinated (5+)
BEAVERHEAD	9,091	5,426	4,350	2,483	5,046	12,259	60%	56%
BIG HORN	11,975	8,083	6,864	2,530	7,236	17,477	67%	60%
BLAINE	6,044	3,624	2,901	1,368	3,107	7,893	60%	51%
BROADWATER	6,092	2,281	1,698	892	1,932	4,871	37%	32%
CARBON	10,476	5,509	4,722	2,541	5,065	12,772	53%	48%
CARTER	1,141	368	329	172	351	869	32%	31%
CASCADE	76,124	42,076	33,420	16,165	37,389	91,661	55%	49%
CHOUTEAU	5,430	2,203	1,844	1,236	2,031	5,283	41%	37%
CUSTER	10,692	5,275	4,249	2,214	4,751	11,738	49%	44%
DANIELS	1,559	733	632	324	686	1,689	47%	44%
DAWSON	8,071	3,472	2,862	1,503	3,171	7,837	43%	39%
DEER LODGE	8,887	6,265	5,172	3,069	5,741	14,506	70%	65%
FALLON	2,646	1,065	928	443	976	2,436	40%	37%
FERGUS	10,495	5,416	4,659	2,573	5,052	12,648	52%	48%
FLATHEAD	99,993	51,272	39,936	20,628	44,169	111,836	51%	44%
GALLATIN	110,900	81,404	62,288	30,263	68,379	173,955	73%	62%
GARFIELD	1,188	318	251	101	293	670	27%	25%
GLACIER	12,447	10,362	7,118	2,992	7,674	20,472	83%	62%
GOLDEN VALLEY	788	378	316	150	348	844	48%	44%
GRANITE	3,218	1,442	1,139	573	1,247	3,154	45%	39%
HILL	14,914	9,737	7,479	3,779	8,845	20,995	65%	59%
JEFFERSON	11,819	6,647	5,623	3,059	6,029	15,329	56%	51%
JUDITH BASIN	1,880	788	682	372	744	1,842	42%	40%
LAKE	29,280	19,583	16,018	8,214	17,209	43,815	67%	59%
LEWIS & CLARK	66,257	44,521	36,280	20,232	39,122	101,033	67%	59%
LIBERTY	2,234	851	719	433	818	2,003	38%	37%
LINCOLN	19,480	9,315	7,511	3,930	8,207	20,756	48%	42%
MADISON	8,589	4,347	3,436	1,977	3,868	9,760	51%	45%
MCCONE	1,562	447	415	231	424	1,093	29%	27%
MEAGHER	1,726	1,000	856	463	939	2,319	58%	54%
MINERAL	4,302	2,598	1,868	1,088	2,337	5,554	60%	54%
MISSOULA	115,881	83,733	69,314	37,605	75,296	190,652	72%	65%
MUSSELSHELL	4,458	1,694	1,368	681	1,563	3,743	38%	35%
PARK	15,969	11,048	8,560	4,699	9,477	24,307	69%	59%
PETROLEUM	483	159	140	83	149	382	33%	31%
PHILLIPS	3,675	1,873	1,438	859	1,745	4,170	51%	47%
PONDERA	5,389	3,515	2,719	1,375	3,091	7,609	65%	57%
POWDER RIVER	1,588	497	391	189	448	1,077	31%	28%
POWELL	6,534	4,168	3,089	1,676	3,878	8,933	64%	59%
PRAIRIE	994	458	408	225	430	1,091	46%	43%
RAVALLI	42,972	24,204	19,332	11,222	21,695	54,758	56%	50%
RICHLAND	10,310	4,367	3,432	1,726	4,109	9,525	42%	40%
ROOSEVELT	9,918	5,512	4,019	1,879	4,736	11,410	56%	48%
ROSEBUD	8,160	5,395	4,266	2,024	4,787	11,685	66%	59%
SANDERS	11,641	4,947	4,100	2,183	4,386	11,230	42%	38%
SHERIDAN	3,075	1,924	1,687	954	1,819	4,565	63%	59%
SILVER BOW	33,267	23,554	20,075	10,722	21,396	54,351	71%	64%
STILLWATER	9,451	4,294	3,385	1,960	3,935	9,639	45%	42%
SWEET GRASS	3,523	1,689	1,301	765	1,524	3,755	48%	43%
TETON	5,819	3,077	2,154	1,178	2,591	6,409	53%	45%
TOOLE	4,391	2,282	1,717	663	2,118	4,662	52%	48%
TREASURE	623	422	290	137	313	849	68%	50%
VALLEY	6,931	3,329	2,687	1,584	3,139	7,600	48%	45%
WHEATLAND	2,035	799	688	374	742	1,861	39%	36%
WIBAUX	898	348	291	122	299	761	39%	33%
YELLOWSTONE	153,378	90,866	75,182	36,676	81,368	202,724	59%	53%
MONTANA	**1,020,663**	**620,960**	**498,598**	**257,559**	**548,220**	**1,377,117**	**61%**	**54%**