MONTANA COMMUNICABLE DISEASE EPIDEMIOLOGY

Weekly COVID-19 Update in Montana (as of 3/11/2022)

This report is a weekly snapshot of COVID-19 activity in Montana. Data are analyzed based on information available as of March 11, 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 3/11/2022

	TOTAL	RECENT WEEK	PERCENT CHANGE FROM PREVIOUS WEEK
REPORTED CASES	**271,737**	**636**	**-75%**
LABORATORY TESTS	**2,679,261**	**18,111**	**-26%**
HOSPITALIZATIONS	**11,766**	**78**	**-24%**
DEATHS	**3,223**	**15**	**-29%**

Figure 1. COVID-19 Cases and Hospitalizations over Time – Montana, as of 3/11/2022

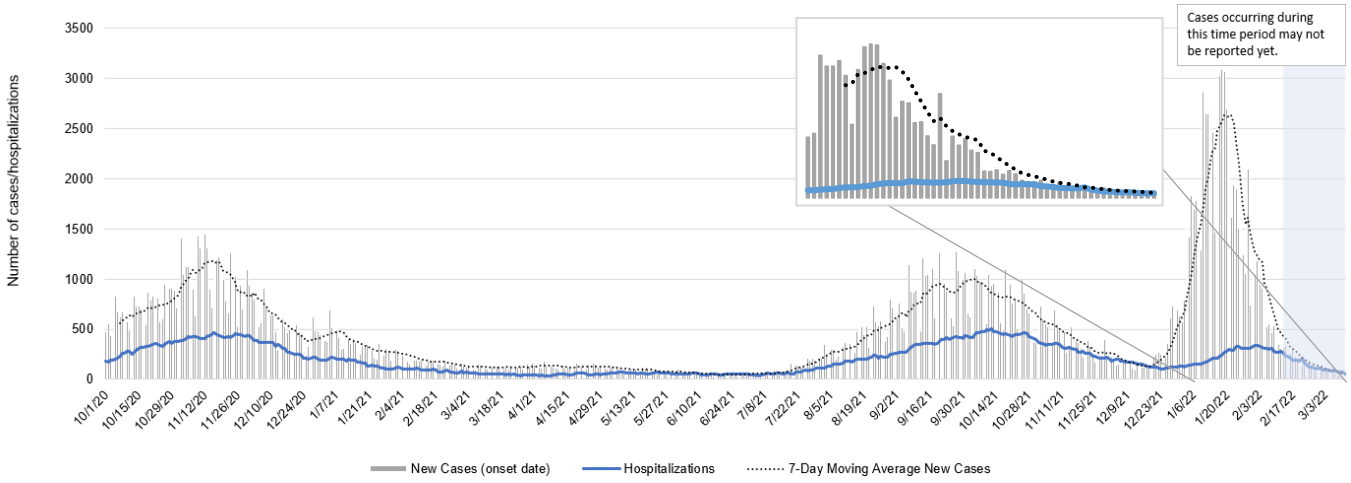


Figure 2: Status of Acute Care and ICU Beds – Hospitals in Montana, 3/2 - 3/15/2022

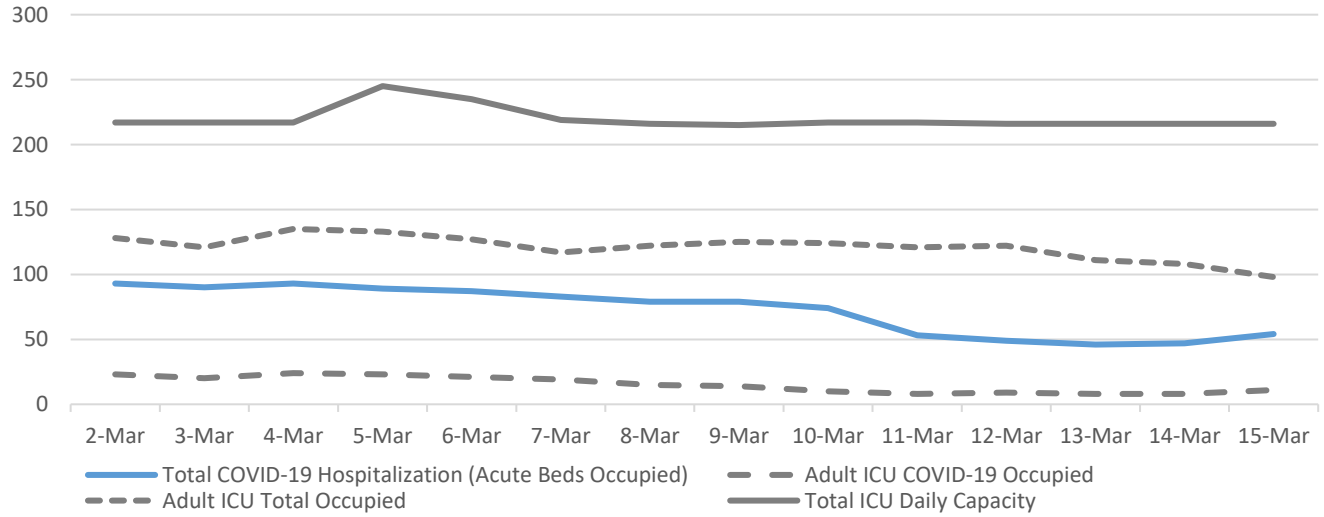
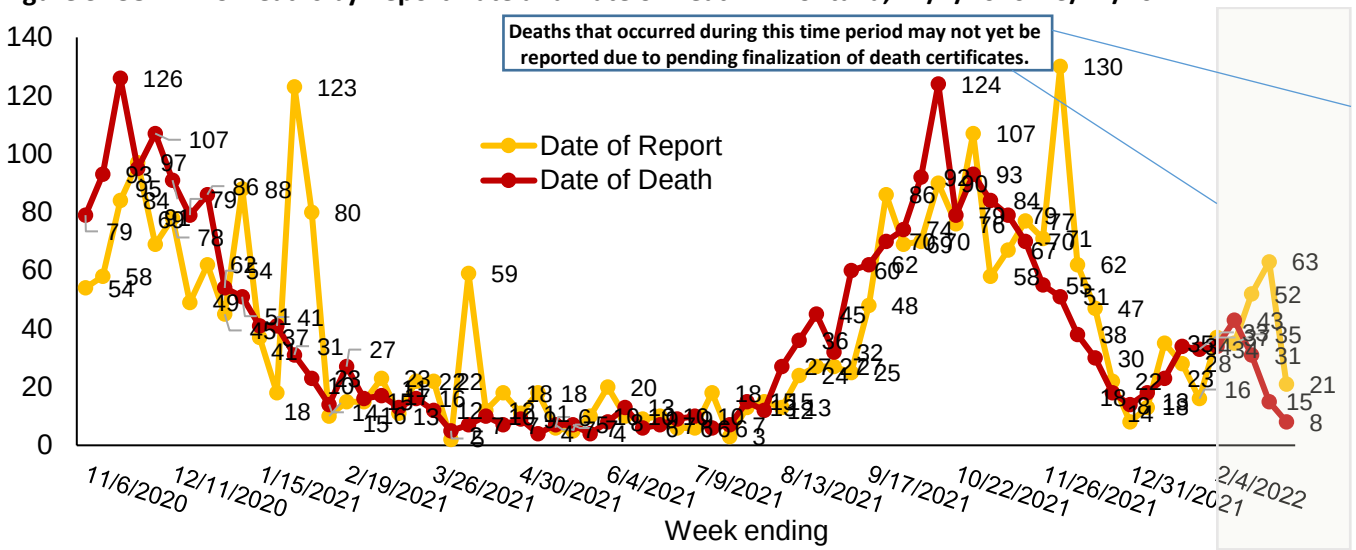


Figure 3. COVID-19 Deaths by Report Date and Date of Death – Montana, 11/1/2020 – 3/11/2022



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, 1,412,927 doses have been given across the state and 55% of the eligible population is considered fully vaccinated (table 2).

Table 2: COVID-19 Vaccine Doses Administered for the 5 and older population – Montana, as of 3/11/2022

	NUMBER	PERCENT OF ELIGIBLE POPULATION	WEEK ENDING 2/25	WEEK ENDING 3/4	WEEK ENDING 3/11*
TOTAL DOSES ADMINISTERED	**1,412,927**		3,081	2,795	**2,066**
DOSE 1 ADMINISTERED	**629,654**	**62%**	741	626	**478**
FULLY VACCINATED INDIVIDUALS	**557,732**	**55%**	1,067	918	**706**

*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 4. COVID-19 Vaccine Doses Administered by Week, 5+ Years – Montana, as of 3/11/2022

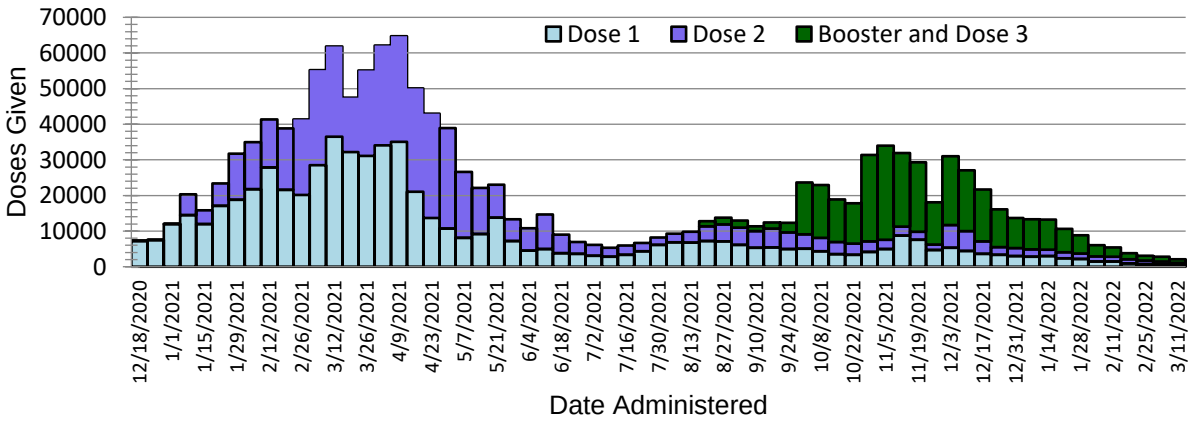
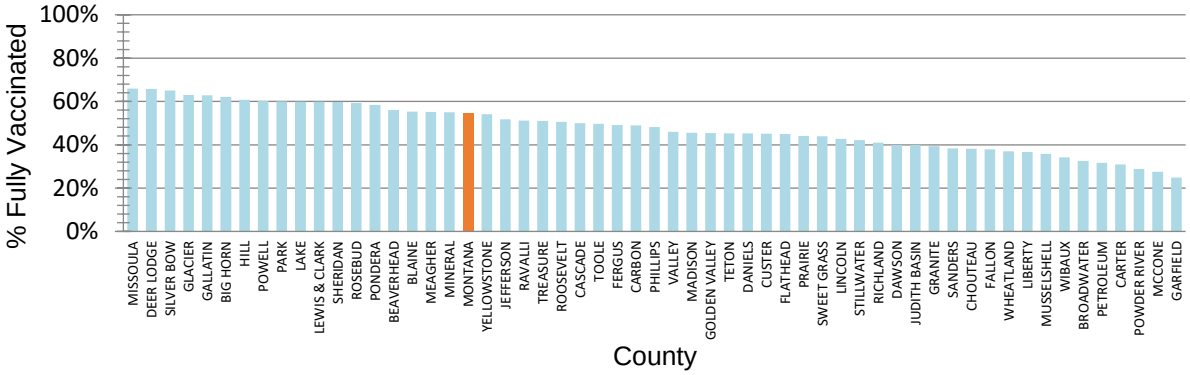


Figure 5. Percent of Eligible Montanans (5+ years) Fully Vaccinated by County – Montana, 3/11/2022



Variant and Breakthrough Cases

Figure 7 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 12,611 samples from Montana that were sequenced and their lineages were reported to GISAID since September 2020; figure 6 displays the number of specimens sequenced by week.

As of March 15, there have been 3,473 cases across Montana infected with the Omicron variant. In the last 3 weeks, 83/83 (100%) specimens that were collected and sequenced were Omicron. Omicron is the dominant circulating strain in the state and is displayed in brown on the chart below. DPHHS has been monitoring sublineages of the Omicron variant, including BA.2. There have been 16 cases of BA.2 reported, the first detection was January 30, 2022. During that same time period, Montana had 1004 detections of Omicron sublineages BA1.1 and BA.1.

Figure 6. Number of COVID-19 samples sequenced by collection date, Montana 3/12/2022

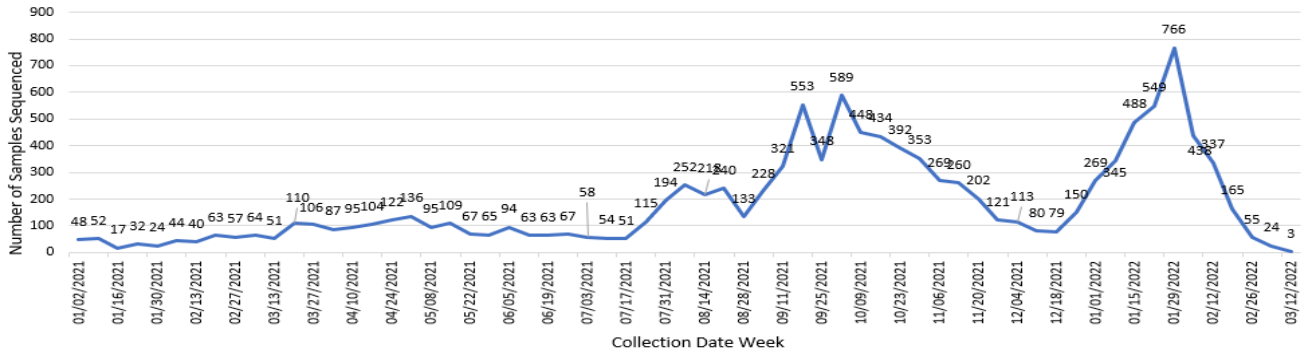
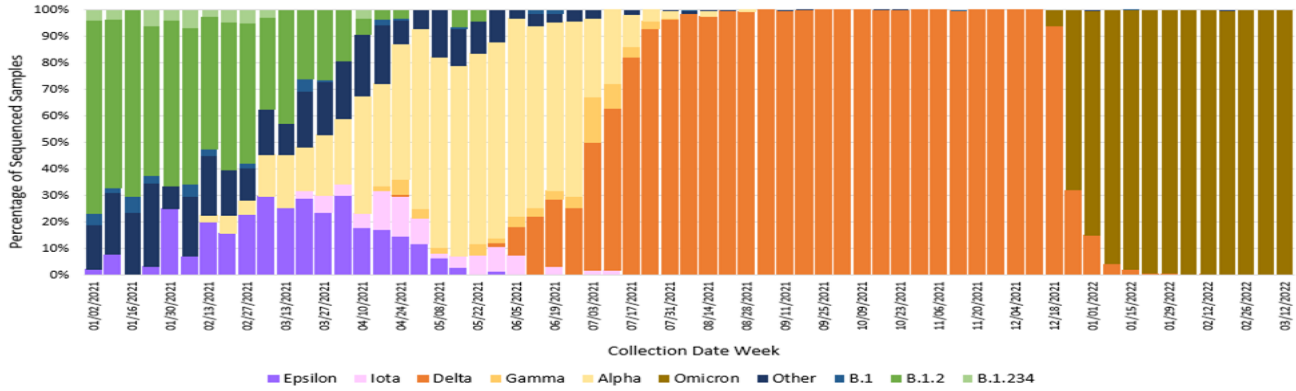


Figure 7. Percent of COVID-19 variants in sequenced samples by collection date, Montana 3/12/2022



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 3/11/2022, Montana reports 41,834 cases of confirmed breakthrough disease, which includes 1,391 hospitalizations and 376 deaths. CDC data from December show that unvaccinated adults were more than 3 times more likely to become infected with COVID, compared to fully vaccinated adults with a booster dose. Additionally, unvaccinated adults had 41 times the risk of dying from COVID-19 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 March 11, 2022** to review vaccination status. Since the beginning of April 2021, 80% of Montanans who were hospitalized and 77% of those who died were unvaccinated at the time of infection (Table 3). Of the 6,926 individuals who were hospitalized during this time period, 131 (2%) were <18 years old, 940 (14%) were 18 to 44 years old, 2,275 (33%) were 45 to 64 years old and 3,580 (52%) were ≥65 years old.

Additionally, COVID-19-related hospitalization and death data from **January 15– March 11, 2022** (last 8 weeks) were analyzed to review vaccination status. 66% of Montanans who were hospitalized and 68% of those who died had not received a COVID-19 vaccine (Table 4). Of the 1,079 individuals who were hospitalized during this time period, 37 (3%) were <18 years old, 110 (10%) were 18 to 44 years old, 272 (25%) were 45 to 64 years old and 660 (61%) were ≥65 years old.

Table 3. Vaccination status of COVID-19 hospitalizations and deaths – April 1, 2021 to March 11, 2022

	HOSPITALIZATIONS	DEATHS
TOTAL REPORTED	**6,926**	**1,632**
UNVACCINATED	5,543 (80%)	1,257 (77%)
VACCINATED (BREAKTHROUGH CASE)	1,383 (20%)	375 (23%)
UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**<1-102 (63)**	**23-103 (71)**
VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**7-103 (73)**	**20-101 (81)**

Table 4. Vaccination status of COVID-19 hospitalizations and deaths – January 15 to March 11, 2022

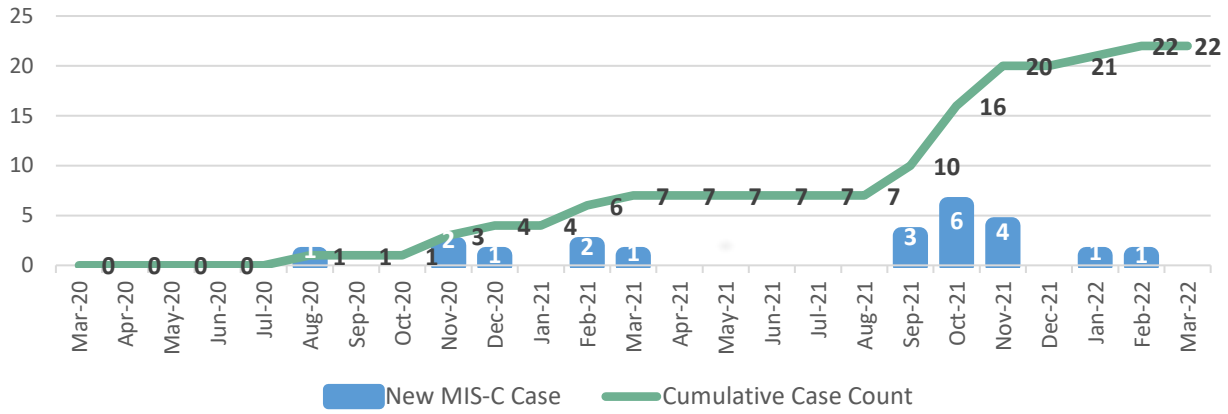
	HOSPITALIZATIONS	DEATHS
TOTAL REPORTED	**1,079**	**203**
UNVACCINATED	709 (66%)	139 (68%)
VACCINATED (BREAKTHROUGH CASE)	370 (34%)	64 (32%)
UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**<1-101 (68)**	**40-101 (75)**
VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**7-103 (72)**	**48-100 (79)**

[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. March 15, 2022.

Multisystem Inflammatory Syndrome in Children (MIS-C)

As of March 11, 2022, there have been a total of 22 reported cases of multisystem inflammatory syndrome in children, or MIS-C, reported in Montana. There have been no deaths. Ages range from less than 1 year to 20 years old; median is 8 years. Ten cases were female, 12 were male. Cases are from 13 counties around Montana. The first case of MIS-C was reported in August 2020; 15 of the 22 cases have been reported since September 2021 (Figure 8).

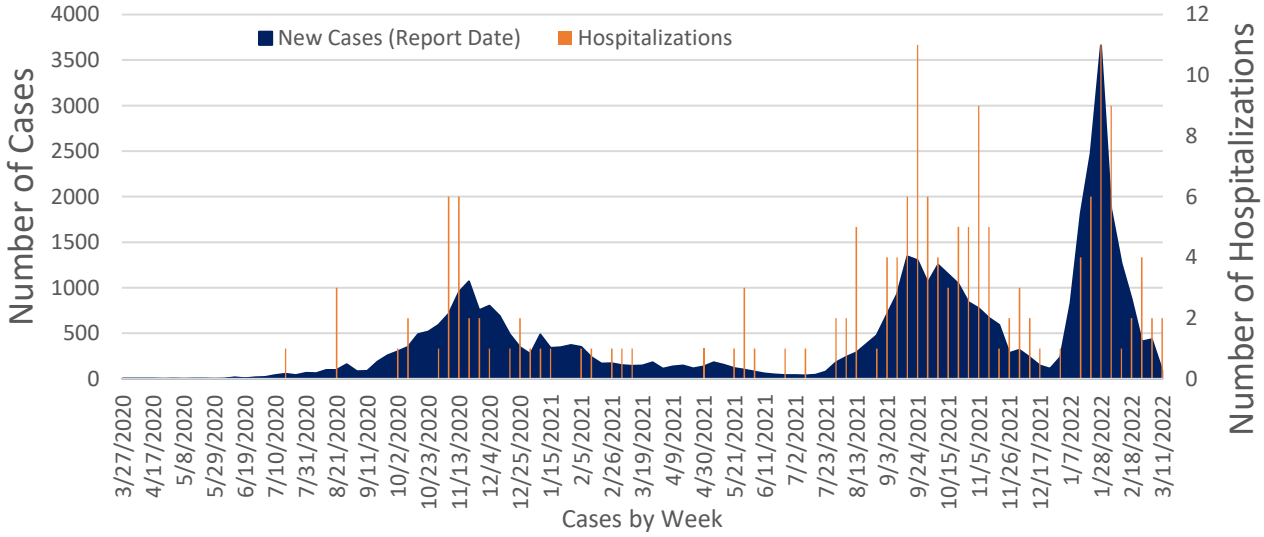
Figure 8. Montana MIS-C Cases by Month of Onset, March 2020 – March 2022



Cases and Hospitalizations Associated with COVID-19 Among Children

To date, there have been 42,756 children <18 years old in Montana diagnosed with COVID-19. Of those, 167 (<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 increased sharply during the recent Omicron surge (Figure 9). There were 94 cases of COVID-19 in children reported during the week of March 5 – March 11, 2022, which is a 78% decrease in cases among that age group compared to the previous week. Two hospitalizations in children were reported that week.

Figure 9. COVID-19 Cases and Hospitalizations by Week, March 2020 – March 11, 2022, Children <18



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

County	4 Feb	11 Feb	18 Feb	25 Feb	4 Mar	11 Mar	change from previous week*	Trendline
Beaverhead	61	29	12	12	10	1	-9	
Big Horn	205	335	240	9	6	11	5	
Blaine	33	188	23	9	61	11	-50	
Broadwater	34	25	30	13	6	5	-1	
Carbon	52	33	15	11	15	8	-7	
Carter	3	2	2	2	6	1	-5	
Cascade	1176	960	963	717	462	90	-372	
Chouteau	28	27	13	12	3	2	-1	
Custer	80	53	35	8	8	4	-4	
Daniels	11	13	1	3	3	0	-3	
Dawson	110	37	8	8	11	2	-9	
Deer Lodge	112	76	28	39	30	16	-14	
Fallon	18	17	6	0	0	0	0	
Fergus	66	76	74	22	17	3	-14	
Flathead	1007	634	1041	643	736	59	-677	
Gallatin	723	423	257	180	127	81	-46	
Garfield	2	4	3	0	0	1	1	
Glacier	273	175	204	32	86	12	-74	
Golden Valley	6	5	0	1	0	0	0	
Granite	15	8	9	2	0	1	1	
Hill	157	158	32	24	87	7	-80	
Jefferson	91	64	21	4	6	0	-6	
Judith Basin	5	6	3	1	0	0	0	
Lake	170	128	234	65	17	8	-9	
Lewis and Clark	966	327	171	93	62	34	-28	
Liberty	15	10	5	7	5	0	-5	
Lincoln	173	89	41	41	15	22	7	
Madison	47	24	12	4	1	3	2	
McCone	13	6	3	1	0	0	0	
Meagher	10	17	3	3	1	0	-1	

County	4 Feb	11 Feb	18 Feb	25 Feb	4 Mar	11 Mar	change from previous week*	Trendline
Mineral	37	23	14	4	4	1	-3	
Missoula	1561	534	307	160	130	75	-55	
Musselshell	14	21	5	4	3	1	-2	
Park	130	176	87	14	20	7	-13	
Petroleum	0	1	0	0	0	0	0	
Phillips	21	23	9	1	9	3	-6	
Pondera	58	32	8	4	3	1	-2	
Powder River	6	6	5	2	1	0	-1	
Powell	45	51	9	5	5	4	-1	
Prairie	14	6	3	0	0	0	0	
Ravalli	214	119	42	46	26	23	-3	
Richland	80	44	20	13	20	31	11	
Roosevelt	203	156	67	26	28	7	-21	
Rosebud	81	356	142	68	12	2	-10	
Sanders	36	42	16	11	13	7	-6	
Sheridan	22	24	8	1	8	0	-8	
Silver Bow	181	134	71	40	18	8	-10	
Stillwater	41	30	14	7	26	0	-26	
Sweet Grass	21	9	2	7	2	1	-1	
Teton	33	14	11	9	2	1	-1	
Toole	63	23	8	3	1	3	2	
Treasure	6	2	0	0	0	0	0	
Valley	53	41	18	12	7	2	-5	
Wheatland	23	18	6	0	2	1	-1	
Wibaux	5	0	1	0	0	0	0	
Yellowstone	1487	656	325	204	460	76	-384	
MONTANA	**10097**	**6490**	**4687**	**2607**	**2581**	**636**	**-1945**	

†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	5,484	4,400	2,590	5,098	12,474	60%	56%
BIG HORN	11,975	8,227	7,057	2,751	7,431	18,035	69%	62%
BLAINE	6,044	3,729	3,130	1,499	3,339	8,358	62%	55%
BROADWATER	6,092	2,376	1,740	937	1,981	5,053	39%	33%
CARBON	10,476	5,583	4,773	2,663	5,122	13,019	53%	49%
CARTER	1,141	376	331	181	353	888	33%	31%
CASCADE	76,124	42,782	34,005	17,534	38,068	94,321	56%	50%
CHOUTEAU	5,430	2,226	1,885	1,285	2,072	5,396	41%	38%
CUSTER	10,692	5,349	4,305	2,333	4,815	11,987	50%	45%
DANIELS	1,559	742	650	343	705	1,735	48%	45%
DAWSON	8,071	3,519	2,911	1,596	3,220	8,026	44%	40%
DEER LODGE	8,887	6,352	5,266	3,219	5,842	14,837	71%	66%
FALLON	2,646	1,083	952	468	1,002	2,503	41%	38%
FERGUS	10,495	5,477	4,751	2,753	5,149	12,981	52%	49%
FLATHEAD	99,993	51,992	40,649	22,109	44,939	114,750	52%	45%
GALLATIN	110,900	82,651	63,394	33,280	69,597	179,325	75%	63%
GARFIELD	1,188	319	253	104	296	676	27%	25%
GLACIER	12,447	10,461	7,282	3,159	7,840	20,902	84%	63%
GOLDEN VALLEY	788	387	326	158	358	871	49%	45%
GRANITE	3,218	1,447	1,157	607	1,264	3,211	45%	39%
HILL	14,914	9,895	7,680	4,057	9,067	21,632	66%	61%
JEFFERSON	11,819	6,730	5,702	3,255	6,115	15,687	57%	52%
JUDITH BASIN	1,880	797	688	385	750	1,870	42%	40%
LAKE	29,280	19,882	16,336	8,758	17,551	44,976	68%	60%
LEWIS & CLARK	66,257	45,053	36,767	21,278	39,642	103,098	68%	60%
LIBERTY	2,234	856	721	444	821	2,021	38%	37%
LINCOLN	19,480	9,432	7,622	4,189	8,330	21,243	48%	43%
MADISON	8,589	4,395	3,478	2,059	3,915	9,932	51%	46%
MCCONE	1,562	453	420	237	429	1,110	29%	27%
MEAGHER	1,726	1,005	869	495	953	2,369	58%	55%
MINERAL	4,302	2,626	1,895	1,182	2,364	5,703	61%	55%
MISSOULA	115,881	84,793	70,299	40,592	76,344	195,684	73%	66%
MUSSELSHELL	4,458	1,725	1,403	722	1,599	3,850	39%	36%
PARK	15,969	11,162	8,667	4,949	9,594	24,778	70%	60%
PETROLEUM	483	163	142	85	153	390	34%	32%
PHILLIPS	3,675	1,902	1,464	902	1,771	4,268	52%	48%
PONDERA	5,389	3,545	2,773	1,441	3,150	7,759	66%	58%
POWDER RIVER	1,588	499	401	203	458	1,103	31%	29%
POWELL	6,534	4,215	3,144	1,889	3,934	9,248	65%	60%
PRAIRIE	994	465	414	242	438	1,121	47%	44%
RAVALLI	42,972	24,444	19,618	11,856	22,001	55,918	57%	51%
RICHLAND	10,310	4,459	3,534	1,843	4,217	9,836	43%	41%
ROOSEVELT	9,918	5,676	4,263	2,109	5,015	12,048	57%	51%
ROSEBUD	8,160	5,436	4,311	2,171	4,836	11,918	67%	59%
SANDERS	11,641	5,029	4,160	2,311	4,461	11,500	43%	38%
SHERIDAN	3,075	1,929	1,704	977	1,837	4,610	63%	60%
SILVER BOW	33,267	23,769	20,306	11,216	21,656	55,291	71%	65%
STILLWATER	9,451	4,335	3,425	2,038	3,977	9,798	46%	42%
SWEET GRASS	3,523	1,699	1,322	790	1,547	3,811	48%	44%
TETON	5,819	3,109	2,193	1,243	2,634	6,545	53%	45%
TOOLE	4,391	2,335	1,769	831	2,183	4,935	53%	50%
TREASURE	623	425	295	141	318	861	68%	51%
VALLEY	6,931	3,372	2,727	1,678	3,185	7,777	49%	46%
WHEATLAND	2,035	805	698	398	753	1,901	40%	37%
WIBAUX	898	355	299	128	307	782	40%	34%
YELLOWSTONE	153,378	92,322	76,661	39,223	82,936	208,206	60%	54%
MONTANA	**1,020,663**	**629,654**	**507,387**	**275,886**	**557,732**	**1,412,927**	**62%**	**55%**