Weekly COVID-19 Update in Montana (as of 12/31/2021)

This report is a weekly snapshot of COVID-19 activity in Montana. Data are analyzed based on information available as of December 31, 2021. Data are provisional and expected to change as more information is received.

Case Data

Table 1. Summary of COVID-19 Activity – Montana, as of 12/31/2021

	TOTAL	RECENT WEEK	PERCENT CHANGE FROM PREVIOUS WEEK
LABORATORY TESTS	**2,281,025**	**23,681**	**+19%**
DEATHS	**2,908**	**8**	**-64%**

Figure 1. COVID-19 Cases and Hospitalizations over Time - Montana, as of 12/31/2021

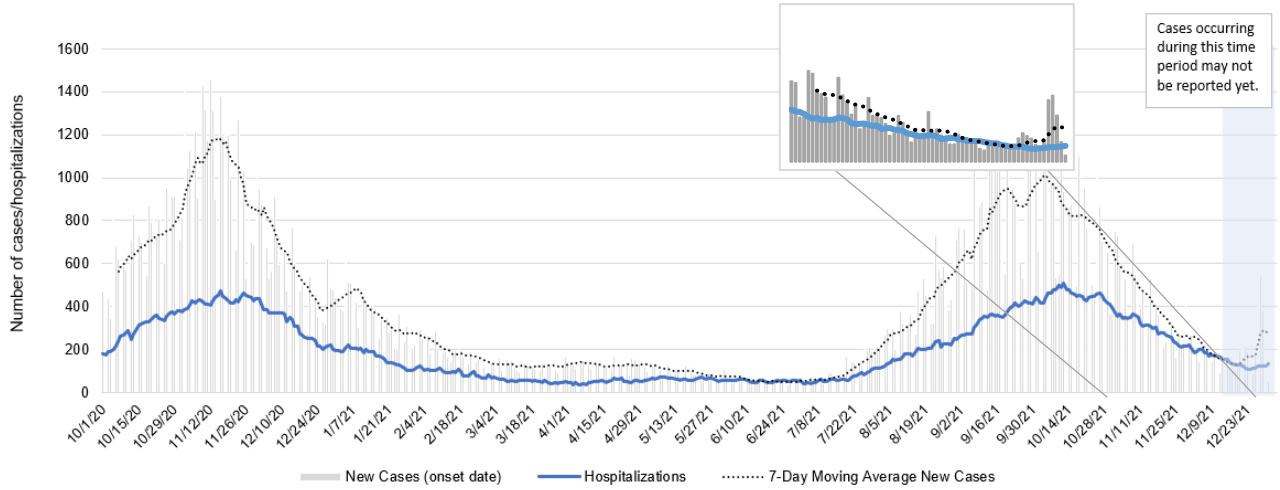
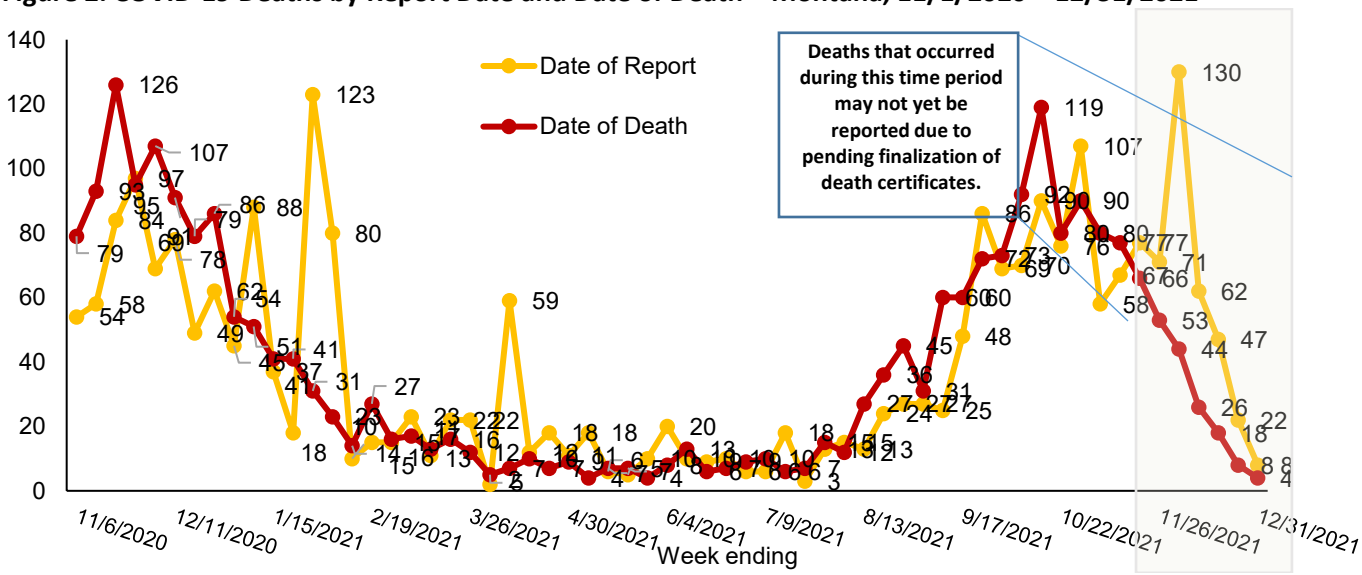


Figure 2. COVID-19 Deaths by Report Date and Date of Death – Montana, 11/1/2020 – 12/31/2021



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, 1,331,355 doses have been given across the state and 53% 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 12/31/2021

	NUMBER	PERCENT OF ELIGIBLE POPULATION	WEEK ENDING 12/17	WEEK ENDING 12/24	WEEK ENDING 12/31
TOTAL DOSES ADMINISTERED	**1,304,188**		18,092	13,164	**9,927**
DOSE 1 ADMINISTERED	**594,275**	**64%**	2,652	2,264	**1,755**
FULLY VACCINATED INDIVIDUALS	**528,847**	**57%**	1,973	1,387	**1,239**

*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 12/31/2021

	NUMBER	PERCENT OF ELIGIBLE POPULATION	WEEK ENDING 12/17	WEEK ENDING 12/24	WEEK ENDING 12/31
TOTAL DOSES ADMINISTERED	**1,331,355**		20,564	14,482	**11,477**
DOSE 1 ADMINISTERED	**610,476**	**60%**	3,402	2,887	**2,451**
FULLY VACCINATED INDIVIDUALS	**539,806**	**53%**	3,692	2,082	**2,093**

*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 12/31/2021

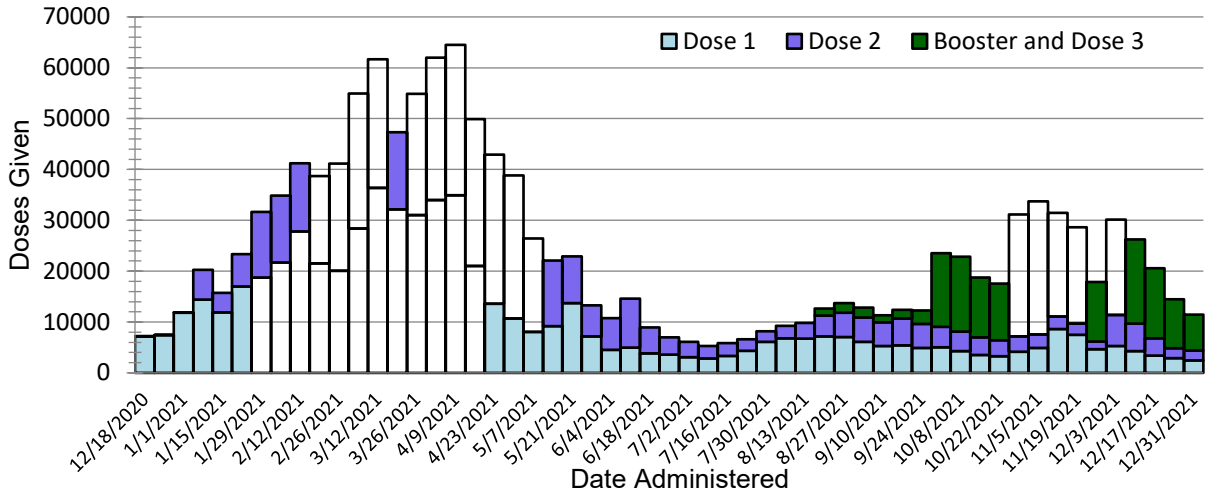
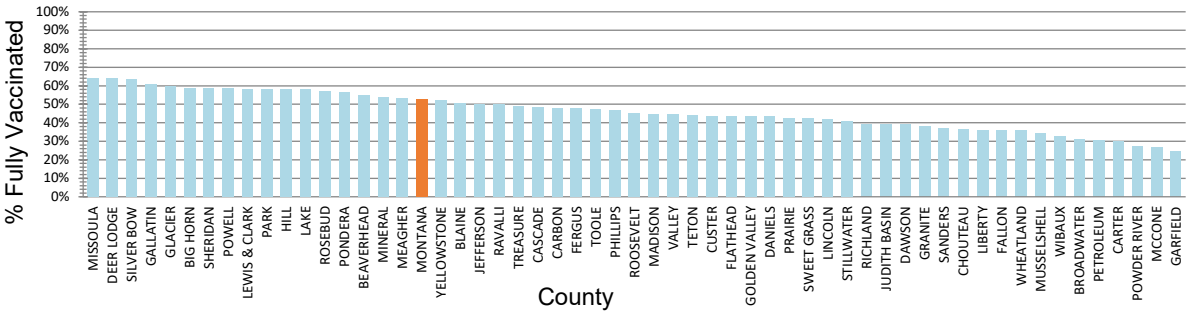


Figure 4. Percent of Eligible Montanans (5+ years) Fully Vaccinated by County – Montana, 12/31/2021



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 8,820 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. A variant is a lineage that has one or more mutations that differentiate it from other lineages in circulation. Currently, Delta and Omicron are the only Variants of Concern circulating. **As of January 4th, there have been 84 cases in Montana infected with the omicron variant.** These cases are from 22 counties: Beaverhead, Blaine, Cascade, Chouteau, Deer Lodge, Fergus, Flathead, Gallatin, Glacier, Hill, Jefferson, Lake, Lewis and Clark, Musselshell, Mineral, Missoula, Pondera, Powell, Silver Bow, Teton, Wibaux, and Yellowstone counties.
Last week, 26/33 (79%) specimens that were collected and sequenced were Omicron, the remaining 7 were Delta. The week prior, 36/63 (57%) specimens that were collected and sequenced were Omicron, the remaining were Delta. Beginning in July 2021, the Delta variant (dark orange) became the dominant variant in Montana. Omicron is displayed in dark brown on the chart below.

Figure 5. Number of COVID-19 samples sequenced by collection date, Montana 1/4/2022 [n=8,820]

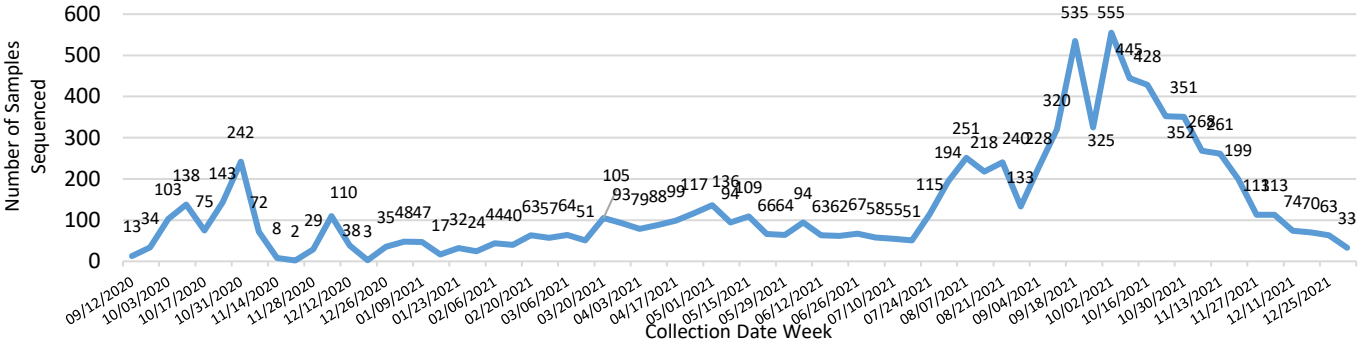
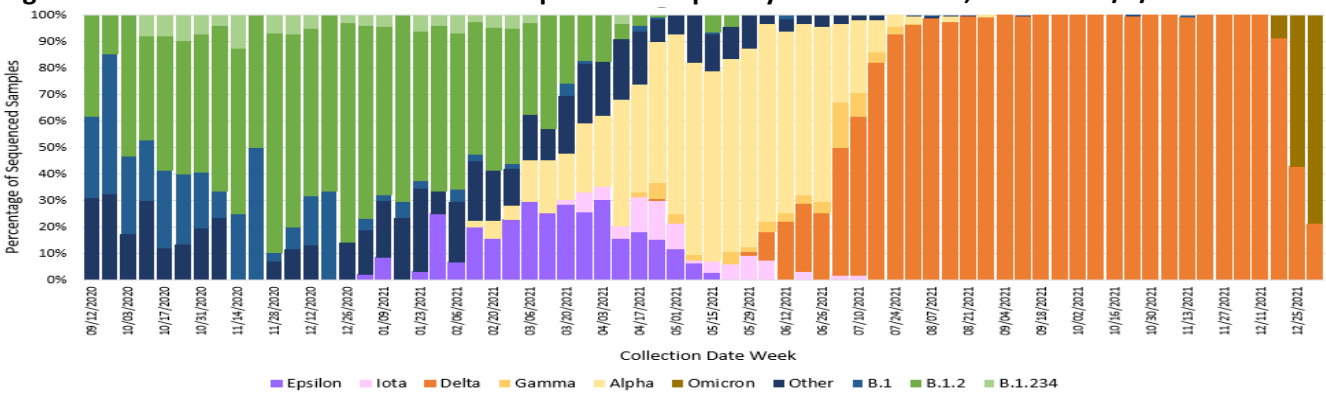


Figure 6. Percent of COVID-19 variants in sequenced samples by collection date, Montana 1/4/2022



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. Depending on the specific vaccine administered, completion of series could be one or two doses of vaccine. As of 12/31/21, Montana reports 17,728 cases of confirmed breakthrough disease, which includes 949 hospitalizations and 285 deaths. Over the past 8 weeks (November 6 – December 31) the number of cases among unvaccinated individuals was 3.0 times higher than the number of cases among vaccinated individuals; the number of hospitalizations and deaths among unvaccinated individuals were 4.4 and 3.0 times higher, respectively, compared to vaccinated individuals.

Hospitalizations and Deaths and Vaccination Status

COVID-19-related hospitalizations and deaths were analyzed between **April 1 and December 31** to review vaccination status. Since the beginning of April this year, 83% of Montanans who were hospitalized and 79% of those who died were unvaccinated at the time of infection (Table 4). Of the 5,583 individuals who were hospitalized during this time period, 92 (2%) were <18 years old, 804 (14%) were 18 to 44 years old, 1,934 (35%) were 45 to 64 years old and 2,753 (49%) were ≥65 years old.

Additionally, COVID-19-related hospitalization and death data from **November 6 – December 31** (last 8 weeks) were analyzed to review vaccination status. Eighty-one percent of Montanans who were hospitalized and 75% of those who died had not received a COVID-19 vaccine (Table 5). Of the 939 individuals who were hospitalized during this time period, 16 (2%) were <18 years old, 90 (10%) were 18 to 44 years old, 329 (35%) were 45 to 64 years old and 504 (54%) were ≥65 years old.

Table 4. Vaccination status of COVID-19 hospitalizations and deaths – April 1 to December 31, 2021

	HOSPITALIZATIONS	DEATHS
TOTAL REPORTED	**5,583**	**1330**
UNVACCINATED	4,650 (83%)	1045 (79%)
VACCINATED (BREAKTHROUGH CASE)	933 (17%)	285 (21%)
UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**<1-102 (62)**	**22-103 (71)**
VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**16-101 (74)**	**20-101 (81)**

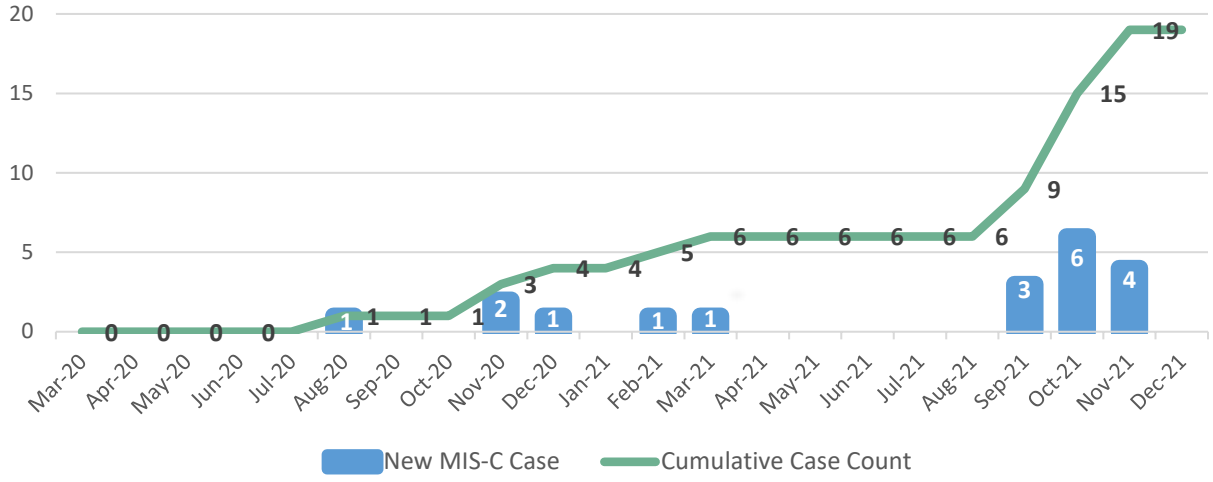
Table 5. Vaccination status of COVID-19 hospitalizations and deaths – November 6 to December 31, 2021

	HOSPITALIZATIONS	DEATHS
TOTAL REPORTED	**939**	**186**
UNVACCINATED	764 (81%)	140 (75%)
VACCINATED (BREAKTHROUGH CASE)	175 (19%)	46 (25%)
UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**<1-99 (64)**	**31-99 (71)**
VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)	**17-101 (73)**	**20-101 (78)**

Multisystem Inflammatory Syndrome in Children (MIS-C)

As of December 31, 2021, 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 – December 2021



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

County	26 Nov	3 Dec	10 Dec	17 Dec	24 Dec	31 Dec	change from previous week*	Trendline
Beaverhead	15	12	10	4	1	14	13	
Big Horn	16	11	18	11	1	6	5	
Blaine	15	19	9	8	0	3	3	
Broadwater	33	22	15	11	7	5	-2	
Carbon	40	15	15	16	4	19	15	
Carter	1	0	0	1	0	9	9	
Cascade	114	171	110	90	74	128	54	
Chouteau	13	4	8	2	3	9	6	
Custer	21	22	16	9	4	16	12	
Daniels	1	1	4	4	1	0	-1	
Dawson	25	29	18	16	17	23	6	
Deer Lodge	8	12	7	5	5	18	13	
Fallon	11	17	12	5	6	0	-6	
Fergus	10	14	12	9	11	17	6	
Flathead	229	178	116	122	111	224	113	
Gallatin	220	362	183	162	253	595	342	
Garfield	1	3	2	0	0	9	9	
Glacier	48	20	20	6	7	18	11	
Golden Valley	0	2	2	0	0	0	0	
Granite	3	1	0	0	0	1	1	
Hill	11	24	14	8	7	9	2	
Jefferson	50	37	13	8	5	20	15	
Judith Basin	2	0	0	1	0	1	1	
Lake	70	55	71	35	21	42	21	
Lewis and Clark	139	182	104	57	86	148	62	
Liberty	2	0	1	1	0	1	1	
Lincoln	42	29	22	27	15	39	24	
Madison	10	29	11	13	8	15	7	
McCone	0	6	5	5	0	0	0	
Meagher	3	5	1	1	1	4	3	

Missoula	141	142	109	102	149	425	276	
Park	31	53	39	26	13	55	42	
Phillips	12	9	4	2	0	2	2	
Powder River	0	1	0	1	1	0	-1	
Prairie	3	7	4	4	2	1	-1	
Richland	11	41	17	21	23	35	12	
Rosebud	11	44	6	3	3	4	1	
Sheridan	10	18	1	1	1	1	0	
Stillwater	2	38	1	0	1	3	2	
Teton	6	6	1	12	6	15	9	
Treasure	7	7	0	0	0	0	0	
Wheatland	1	3	1	0	4	0	-4	
Yellowstone	323	296	206	139	136	320	184	
MONTANA	**1895**	**2217**	**1359**	**1058**	**1066**	**2444**	**1378**	

†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	5,342	4,302	2,182	4,994	11,826	59%	55%
BIG HORN	11,975	7,837	6,693	2,181	7,059	16,711	65%	59%
BLAINE	6,044	3,532	2,856	1,206	3,059	7,594	58%	51%
BROADWATER	6,092	2,234	1,648	802	1,881	4,684	37%	31%
CARBON	10,476	5,424	4,685	2,331	5,021	12,440	52%	48%
CARTER	1,141	368	320	155	342	843	32%	30%
CASCADE	76,124	41,249	32,881	13,914	36,772	88,044	54%	48%
CHOUTEAU	5,430	2,160	1,796	1,155	1,974	5,111	40%	36%
CUSTER	10,692	5,201	4,168	1,999	4,672	11,368	49%	44%
DANIELS	1,559	723	622	303	676	1,648	46%	43%
DAWSON	8,071	3,409	2,842	1,248	3,145	7,499	42%	39%
DEER LODGE	8,887	6,188	5,109	2,785	5,675	14,082	70%	64%
FALLON	2,646	1,039	906	397	952	2,342	39%	36%
FERGUS	10,495	5,360	4,604	2,342	4,995	12,306	51%	48%
FLATHEAD	99,993	50,415	39,357	18,420	43,530	108,192	50%	44%
GALLATIN	110,900	80,097	61,346	27,252	67,340	168,695	72%	61%
GARFIELD	1,188	316	247	95	290	658	27%	24%
GLACIER	12,447	10,189	6,912	2,598	7,460	19,699	82%	60%
GOLDEN VALLEY	788	368	311	135	343	814	47%	44%
GRANITE	3,218	1,415	1,121	500	1,229	3,036	44%	38%
HILL	14,914	9,565	7,288	3,242	8,638	20,095	64%	58%
JEFFERSON	11,819	6,543	5,534	2,765	5,934	14,842	55%	50%
JUDITH BASIN	1,880	781	674	335	735	1,790	42%	39%
LAKE	29,280	19,219	15,740	7,296	16,918	42,255	66%	58%
LEWIS & CLARK	66,257	43,827	35,794	18,413	38,596	98,034	66%	58%
LIBERTY	2,234	845	708	401	807	1,954	38%	36%
LINCOLN	19,480	9,182	7,432	3,578	8,119	20,192	47%	42%
MADISON	8,589	4,302	3,412	1,834	3,839	9,548	50%	45%
MCCONE	1,562	440	412	184	421	1,036	28%	27%
MEAGHER	1,726	987	843	413	921	2,243	57%	53%
MINERAL	4,302	2,559	1,839	1,001	2,305	5,399	59%	54%
MISSOULA	115,881	82,622	68,538	33,942	74,474	185,102	71%	64%
MUSSELSHELL	4,458	1,678	1,346	611	1,541	3,635	38%	35%
PARK	15,969	10,897	8,395	4,067	9,298	23,359	68%	58%
PETROLEUM	483	158	138	77	147	373	33%	30%
PHILLIPS	3,675	1,855	1,417	806	1,724	4,078	50%	47%
PONDERA	5,389	3,458	2,669	1,261	3,035	7,388	64%	56%
POWDER RIVER	1,588	483	382	172	436	1,037	30%	27%
POWELL	6,534	4,082	3,044	1,184	3,827	8,310	62%	59%
PRAIRIE	994	458	399	218	421	1,075	46%	42%
RAVALLI	42,972	23,877	19,122	10,272	21,461	53,271	56%	50%
RICHLAND	10,310	4,292	3,375	1,519	4,044	9,186	42%	39%
ROOSEVELT	9,918	5,155	3,776	1,475	4,459	10,406	52%	45%
ROSEBUD	8,160	5,268	4,148	1,765	4,660	11,181	65%	57%
SANDERS	11,641	4,844	4,060	1,861	4,341	10,765	42%	37%
SHERIDAN	3,075	1,904	1,673	893	1,805	4,470	62%	59%
SILVER BOW	33,267	23,193	19,807	9,750	21,104	52,750	70%	63%
STILLWATER	9,451	4,223	3,340	1,761	3,882	9,324	45%	41%
SWEET GRASS	3,523	1,652	1,268	685	1,490	3,605	47%	42%
TETON	5,819	3,028	2,114	1,059	2,550	6,201	52%	44%
TOOLE	4,391	2,209	1,687	549	2,069	4,445	50%	47%
TREASURE	623	415	281	129	304	825	67%	49%
VALLEY	6,931	3,294	2,638	1,452	3,085	7,384	48%	45%
WHEATLAND	2,035	774	673	323	725	1,770	38%	36%
WIBAUX	898	347	288	106	296	741	39%	33%
YELLOWSTONE	153,378	89,194	73,881	32,619	79,986	195,694	58%	52%
MONTANA	**1,020,663**	**610,476**	**490,861**	**230,018**	**539,806**	**1,331,355**	**60%**	**53%**