

DATA DICTIONARY FOR MONTANA DEATH RECORDS



Introduction

This dictionary contains information on the structure, coding, and use of electronic death records collected by the Montana Office of Vital Statistics (OVS) and provided to researchers by the Vital Statistics Analysis Unit (VSAU) according to the guidelines of Montana statutory law (MCA 50-15-122). OVS stores electronic data abstracted from death certificates since 1954. However, this dictionary includes only the current version of the death certificate implemented in 2003. Data for deaths occurring prior to 2003 have some differences in variables and coding. If you require use of death data prior to 2003 please consult with the vital statistics epidemiologist on how coding changes may affect your analysis.

Some of these data items identify persons or institutions. Access to such items is restricted and these items are highlighted in green in this data dictionary. In order to gain access to identifying information, external researchers must obtain a written and approved research agreement with OVS that prohibits releases of information identifying persons or institutions other than those provided for in the agreement. Applications for external researchers can be obtained by contacting the [vital statistics epidemiologist](#). Epidemiologists working for the State of Montana may gain access to death data by applying for access through this [service request form](#); epidemiologist working at local public health organization within Montana may use this [form](#) and must login with a State of Montana Okta account to access the request form. Under no circumstances shall identifying information be given to any organization or individual to solicit sale of a product, offer any service for compensation, distribute partisan literature, or use for any other political or commercial purpose.

These data are maintained in SAS datasets and provided to researchers for use in epidemiological, medical, social scientific or other constructive research. Many SAS format files are available upon request for labeling the data.

Decedent Characteristics

Death certificates collect extensive information about the person who died, also called the descendant. The table below includes all decedent characteristics that may be useful in public health research.

There are several options for analysis by race and ethnicity. With the current version (2003 revision) of the death certificate, Montana can now ascertain multiple racial identities from a single decedent. Informants are asked whether the decedent belonged to one or more of 14 specific racial groups or any other unspecified race (see Appendix A for a full list of race and ethnicity variables). Informants are encouraged to "check one or more races to indicate what the decedent considered him or herself to be." They are also encouraged to identify any racial or

ethnic group or tribal affiliation that applies. This format for collecting information has resulted in a notable increase in the number of decedents with more than one race reported (i.e. multiple-race). For purposes of tabulation, the National Center for Health Statistics (NCHS) provides a “bridged race” variable, DRACEOVS, in which four racial groups—white, black, American Indian or Alaska native (AI/AN), and Asian and Pacific islander—are reported. Death records for which only a single race is reported are assigned a bridged category according to the race the informant provided and records with two or more races are assigned to one of the races reported using a probabilistic model. Bridged race categories are intended for the calculation of population-based rates in order to measure racial disparities. Historically, VSAU has used the bridged race variable for all analyses by racial categories. However, NCHS discontinued the calculation of bridged race population estimates in 2021 thus limiting the usefulness of the bridged race variable for rates from 2021 and forward. VSAU has since created a single race variable, DSRACE, that aligns with how race is reported in census population data. Analysts must consider what population data they are using when deciding which race variable is most appropriate for their analysis. There are no unknown values for DRACEOVS and DSRACE because a probabilistic model assigns a race based on the racial makeup of the population of Montana when no race is reported on the death certificate.

Variable name	Description	Coding	Notes
DFIRST	first name	Literal	
DMIDL	middle name	Literal	
DLAST	last name	Literal	
DSUFFIX	suffix	Literal	
DSEX	Sex	M = Male F = Female U = Unknown	
DSSN	Social Security Number		If unknown enter 9's
DAGES	Age at the time of death in years	0-135	
DAGEDAYS	age at the time of death in days	0-366	only calculated for infants less than 1 year old
DBIRDT	full date of birth	SAS serial date	
DBIRY4	Year of Birth	4-digit year	
DBIRMM	Month of Birth	01-12,99	
DBIRDD	Day of Birth	01-31,99	
DCNBA	Country of Birth	See NCHS manual Part 8A, https://www.cdc.gov/nchs/data/dvs/imp8a_printversion_112706.pdf starting on page 1321	not collected prior to 2008
DSTB	State of Birth	State codes, see Appendix C	
DADDRESS1 DADDRESS2	Residence Street Address	Literal	Street Address line 1 and line 2 respectively

Rows highlighted in green signify data items that are personally identifiable information and are only available with an approved application for the identified dataset.

Variable name	Description	Coding	Notes
DCITYRFIPS	Residence City/Town	Literal	
DZIP	Residence Zip Code		Numeric variable
DZIPA	Residence Zip Code		Text variable, letters allowed for Canadian zip codes
DSTR	Residence State	State codes, see Appendix C	
DCORFIPS	Residence County	FIPS code, see Appendix C	
DURBANA	Residence Inside City Limits	Y= Yes N= No U=Unknown	
DARMED	Was Decedent ever in U.S. Armed Forces?	Y= Yes N= No U=unknown	
DMARITALA	Marital Status	S = Never Married M = Married A = Married but Separated W = Widowed D = Divorced N = Not Obtainable U = Unknown	
DEDUCA	Decedent's Education	1 = 8th grade or less 2 = 9th-12th grade; no diploma 3 = High School Graduate/GED co 4 = Some college/no degree 5 = Associate 6 = Bachelor's 7 = Master's Degree 8 = Doctorate/ Professional Degree 9 = Unknown	
DHISPANIC	Decedent of Hispanic Origin?	Y = Yes N = No U = Unknown	Recoded to group all Hispanic ethnicities together. 5 additional variables giving more specific information about Hispanic origin are listed in Appendix A
DRACEOVS	Decedent's Race, bridged race value	21= White 22= Black 23=American Indian/Alaska Native 24=Asian/Pacific Islander	

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Variable name	Description	Coding	Notes
DSRACE	Decedent's Race, single race value	1 = White 2 = Black 3 = AI/AN 4 = Asian 5 = Pacific Islander 6 = Multiple races	Only calculated for deaths occurring in 2020 and later
DOCCUPATION	Decedent's Usual Occupation	Literal	
DINDUSTRY	Decedent's Kind of Business/Industry	Literal	

Essential Death Characteristics

Cause of death is recorded on death certificates as a sequence of conditions and events that led to the death. These literals are sent to NCHS to determine the underlying cause of death, the condition or event that started the process ultimately leading to death. For most analysis by cause of death, underlying cause of death (DCAUSEC) is the appropriate variable to use. Underlying cause of death is the source of most cause of death statistics published by DPHHS and CDC. However, the literal causes of death may be needed for some analyses; for example, overdose deaths for specific drugs may not be able to be isolated by ICD-10 codes alone. Literal cause of death variables as well the "approximate interval between onset and death" for each cause are listed in Appendix B.

Contributing cause-of-death codes are also derived from the literals in the cause of death section of the death certificate. Montana has contributing cause information for all deaths occurring in Montana since 1993. Because of the substantial overlap of Montana occurrence and Montana residence deaths contributing cause variables exist for about 96% of Montana resident deaths. Contributing cause of death may be useful for analyses intended to innumerate the full impact of a condition even if it wasn't the direct cause of death.

Since 1999, both underlying and contributing causes-of-death has been recorded with ICD-10 (the tenth revision of the international cause of disease) codes. ICD-10 codes begin with a letter followed by two or three numerals. The fourth byte of any of these codes may be intentionally left blank.

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Variable name	Description	Coding	Note
DSTO	State of Occurrence	State codes, see Appendix C	
DCOOFIPS	County of Death occurrence	FIPS code, see Appendix C	
DEATHDT	Actual or Presumed Date of Death	SAS serial date	
DEATHMM	Month of Death	01-12,99	
DEATHDD	Day of Death	01-31(based on Month), 99	
DEATHY4	Year of Death	4-digit year	
DTHHRMN	Actual or Presumed Time of Death	0000-2359, 9999	
DEATHHR	Actual or Presumed Hour of Death	00-23	
DCAUSEC	Underlying cause of death	ICD-10 code	Coded in ICD-10 in the years 1999-present. All codes have a letter in the first byte, followed by two or three numerals.
RAXIS01C - RAXIS20C	Contributing causes of death	ICD-10 code	There can be up to 20 contributing causes of death included
DMANNERG	Manner of Death	N = Natural A = Accident S = Suicide H = Homicide P = Pending Investigation C = Could Not Be Determined	

Detailed Death Characteristics

The following variables contain more information about the place and circumstances of the death.

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Variable name	Description	Coding	Notes
DTYPEFACA	Place of Death	Hospital: 1 = Inpatient 2 = ER/ Outpatient 3 = DOA Nonhospital: 4 = Decedent's home 5 = Hospice facility 6 = Nursing home/Long term care facility 7 = Other	
DFCLITYS	Facility Name or address for place of death	Facility Codes	left blank for out of state occurrences
DFCLCITYA	City, Town or Location of Death	Literal	left blank for out of state occurrences
DCORONERA	Was Medical Examiner or Coroner Contacted?	Y= Yes N= No U=Unknown	
DAUTOPSYG	Was an Autopsy Performed?	Y= Yes N= No U=Unknown	
DFINDG	Were Autopsy Findings Available to Complete the Cause of Death?	Y= Yes N= No U=Unknown	
DTOBACCOG	Did Tobacco Use Contribute to Death?	Y= Yes N= No P= Probably U=Unknown	
DPREGG	If Female – Pregnancy status	1 = Not pregnant w/i past year 2 = Pregnant at the time of death 3 = Not pregnant, but pregnant w/i 42 days of death 4 = Not pregnant, but pregnant 43 days to 1 year before death 8 = Not Applicable 9 = Unknown if pregnant within past year	

Rows highlighted in green signify data items that are personally identifiable information and are only available with an approved application for the identified dataset.

Injury Characteristics

For deaths where the cause of death is an external injury additional details are collected about the injury and its causes. These fields are blank for all deaths not caused by an external injury.

Variable name	Description	Coding	Notes
DINJDT	Date of Injury	SAS serial date	
DINJMM	Month of Injury	01-12,99	
DINJDD	Day of Injury	01-31,99	
DINJY4	Year of Injury	4-digit,9999	
DINJHRMN G	Time of Injury	0000-2359, 9999	
DINJHR	Hour of Injury	00-23,99	
DINJPLG	Place of Injury	Literal	
DINJWORK G	Injury at Work?	Y = Yes N = No U = Unknown X = Not applicable	
DINJADD1 DINJADD2	Location of Injury	Literal	Street Address line 1 and line 2 respectively
DINJCITYA	City Of Injury	Literal	
DINJCOFIP S	County Of Injury, FIPS	FIPS codes, see Appendix C	
DINJZIP	Zip Code of Injury		Numeric value
DINJSTA	State of Injury	Literal	
DINJDESC	Describe How Injury Occurred	Literal	
DTRAFFIC	If Transportation Accident Specify the role of the decedent	DR = Driver/Operator PA = Passenger PE = Pedestrian OT = Other	
DTRAFFICL	Character string describing the other role in transportation accident	Literal	

Rows highlighted in green signify data items that are personally identifiable information and are only available with an approved application for the identified dataset.

Appendix A: Detailed Race and Ethnicity Variables

Hispanic Origin

Hispanic origin of the decedent can be selected as follows:

No, Not Spanish/Hispanic/Latino

Yes, Mexican, Mexican American, Chicano

Yes, Puerto Rican

Yes, Cuban

Yes, Other Spanish/Hispanic/Latino_____

Unknown

Refused

Not Obtainable

If any of the Hispanic options are checked an "H" is coded for that field. Any Hispanic options that are not checked an "N" will automatically be coded.

If Unknown is selected, a "U" will automatically be coded.

If "Other Spanish/Hispanic/Latino" is selected, enter the description(s) of the Hispanic origin.

For the analysis file, all responses are recoded as follows:

H (Hispanic)= Y (yes)

N (Non-hispanic) = N (no)

U (Unknown) = U (Unknown)

Variable name	Description	Coding
DANCESTM	Mexican	Y = YES N = NO U = UNKNOWN
DANCESTP	Puerto Rican	See above
DANCESTC	Cuban	See above
DANCESTO	Other Hispanic	See above
DANCESTA	Specific other Hispanic origin	Literal

Multiple Race

Race of the decedent is reported with one or more the following categories, selecting all that apply:

- White
- Black or African American
- American Indian or Alaskan Native
- Asian Indian
- Chinese
- Filipino
- Japanese
- Korean
- Vietnamese
- Other Asian_____
- Native Hawaiian
- Guamanian or Chamorro
- Samoaan
- Other Pacific Islander_____
- Other_____
- Unknown
- Refused
- Not Obtainable

If "American Indian or Alaskan Native" is selected enter the name of the tribe(s).

If "Other Asian, Other Pacific Islander or Other" is selected enter the description(s) of the race.

If any of the Race options are checked an "Y" is coded for that field, any Race options that are not checked an "N" will automatically be coded.

If the item is blank, it should be left blank and queried. If the query is unsuccessful, enter "Unknown".

Variable name	Description	Coding
DRACE1	White	Y = YES N = NO U = UNKNOWN
DRACE2	Black	See above
DRACE3	American Indian	See above

Variable name	Description	Coding
DRACE4	Asian Indian	See above
DRACE5	Chinese	See above
DRACE6	Filipino	See above
DRACE7	Japanese	See above
DRACE8	Korean	See above
DRACE9	Vietnamese	See above
DRACE10	Other Asian	See above
DRACE11	Native Hawaiian	See above
DRACE12	Guamanian	See above
DRACE13	Samoan	See above
DRACE14	other Pacific Isl.	See above
DRACE15	other race	See above
DRACE16	1 st AI/AN	literal
DRACE17	2 nd AI/AN	literal
DRACE18	1 st other Asian	literal
DRACE19	2 nd other Asian	literal
DRACE20	1 st other Pacific islander	literal
DRACE21	2 nd other Pacific islander	literal
DRACE22	1 st other race	literal
DRACE23	2 nd other race	literal

Appendix B: Cause of Death Literals

Cause of death is entered as a chain of events that directly caused the death. The “immediate cause of death”, on line A, is the last in the chain of events but should not include terminal events such as cardiac or respiratory arrest without also showing the etiology. Line B is the condition that led to line A. Line C is the condition that led to Line B and so on. The literal entries are exported to nosologists at NCHS, who will code the underlying cause of death and the contributing causes. For most analysis by cause of death, underlying cause of death (DCAUSEC, listed in the Essential Death Characteristics table) is the appropriate variable to use. Underlying cause of death is the source of most cause of death statistics published by DPHHS and CDC.

Variable name	Description	Coding
DCODLA	Cause—line A	literal
DINTLA	Interval—line A	literal
DCODLB	Cause—line B	literal
DINTLB	Interval—line B	literal
DCODLC	Cause—line C	literal
DINTLC	Interval—line C	literal
DCODLD	Cause—line D	literal
DINTLD	Interval—line D	literal
DCODPT2	Cause—part 2: Any other significant conditions contributing to the death but not resulting in the underlying cause	literal

Appendix C: State and County Codes

State Codes

.	'BLANK'	29	'NEVADA'
0	'VOIDED'	30	'NEW HAMPSHIRE'
1	'ALABAMA'	31	'NEW JERSEY'
2	'ALASKA'	32	'NEW MEXICO'
3	'ARIZONA'	33	'NEW YORK'
4	'ARKANSAS'	34	'NORTH CAROLINA'
5	'CALIFORNIA'	35	'NORTH DAKOTA'
6	'COLORADO'	36	'OHIO'
7	'CONNECTICUT'	37	'OKLAHOMA'
8	'DELAWARE'	38	'OREGON'
9	'D.C.'	39	'PENNSYLVANIA'
10	'FLORIDA'	40	'RHODE ISLAND'
11	'GEORGIA'	41	'SOUTH CAROLINA'
12	'HAWAII'	42	'SOUTH DAKOTA'
13	'IDAHO'	43	'TENNESSEE'
14	'ILLINOIS'	44	'TEXAS'
15	'INDIANA'	45	'UTAH'
16	'IOWA'	46	'VERMONT'
17	'KANSAS'	47	'VIRGINIA'
18	'KENTUCKY'	48	'WASHINGTON'
19	'LOUISIANA'	49	'WEST VIRGINIA'
20	'MAINE'	50	'WISCONSIN'
21	'MARYLAND'	51	'WYOMING'
22	'MASSACHUSETTS'	52	'PUERTO RICO '
23	'MICHIGAN'	53	'VIRGIN ISLANDS'
24	'MINNESOTA'	54	'GUAM'
25	'MISSISSIPPI'	55	'CANADA'
26	'MISSOURI'	56	'CUBA'
27	'MONTANA'	57	'MEXICO'
28	'NEBRASKA'	59	'REST OF WORLD'
		99	'UNKNOWN'

FIPS Codes for Montana Counties

1	=	'BEAVERHEAD'	105	=	'VALLEY'
3	=	'BIG HORN'	107	=	'WHEATLAND'
5	=	'BLAINE'	109	=	'WIBAUX'
7	=	'BROADWATER'	111	=	'YELLOWSTONE'
9	=	'CARBON'	113	=	'YELLOWSTONE PARK'
11	=	'CARTER'	OTHER	=	'~NOT STATED'
13	=	'CASCADE'			
15	=	'CHOUTEAU'			
17	=	'CUSTER'			
19	=	'DANIELS'			
21	=	'DAWSON'			
23	=	'DEER LODGE'			
25	=	'FALLON'			
27	=	'FERGUS'			
29	=	'FLATHEAD'			
31	=	'GALLATIN'			
33	=	'GARFIELD'			
35	=	'GLACIER'			
37	=	'GOLDEN VALLEY'			
39	=	'GRANITE'			
41	=	'HILL'			
43	=	'JEFFERSON'			
45	=	'JUDITH BASIN'			
47	=	'LAKE'			
49	=	'LEWIS & CLARK'			
51	=	'LIBERTY'			
53	=	'LINCOLN'			
55	=	'MCCONE'			
57	=	'MADISON'			
59	=	'MEAGHER'			
61	=	'MINERAL'			
63	=	'MISSOULA'			
65	=	'MUSSELSHELL'			
67	=	'PARK'			
69	=	'PETROLEUM'			
71	=	'PHILLIPS'			
73	=	'PONDERA'			
75	=	'POWDER RIVER'			
77	=	'POWELL'			
79	=	'PRAIRIE'			
81	=	'RAVALLI'			
83	=	'RICHLAND'			
85	=	'ROOSEVELT'			
87	=	'ROSEBUD'			
89	=	'SANDERS'			
91	=	'SHERIDAN'			
93	=	'SILVER BOW'			
95	=	'STILLWATER'			
97	=	'SWEET GRASS'			
99	=	'TETON'			
101	=	'TOOLE'			
103	=	'TREASURE'			