



Public Health
IN THE **406**

MONTANA PUBLIC HEALTH DATA RESOURCE GUIDE

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Table of Contents

Table of Contents.....	1
Introduction	2
Indicator Based Information System	3
Behavioral Risk Factor Surveillance System.....	5
Central Tumor Registry	9
Child Death Review	12
Communicable Disease Surveillance System.....	15
Hospital Discharge Data System	18
NCHS Population Estimates	21
Newborn Hearing Screening.....	23
Occupational Health & Safety Surveillance Program.....	25
Oral Health Program Basic Screening Survey	28
Perinatal Hepatitis B Screening.....	30
Pregnancy Risk Assessment Monitoring System	33
Prevention Needs Assessment.....	36
Statewide Immunization Information System	39
Trauma Registry	42
Vital Statistics Surveillance System.....	45
Youth Risk Behavior Survey	48





Introduction

The implementation and evaluation of public health interventions and policy relies on the access of data from many different sources. This guide was designed to facilitate public health practitioners, stakeholders, and policymakers to find commonly requested data as well as to promote other sources that may not be as widely known. This is the first edition of Montana’s Public Health Data Resource Guide. As capacity grows, the guide will be updated to reflect new sources of data.

This guide is organized by program area and the data they collect. Each of these programs describes the strengths and limitations of the data, the items collected, and the means to gain access to the data. Programs differ in the type of information collected and may restrict its release according to law and departmental policy. However, most data are available in summary form or as an existing report. Some programs have the ability to perform custom analysis for items not routinely available—fees may apply.

The Montana Public Health Data Resource Guide is a valuable resource for exploring the state’s health. The Office of Epidemiology and Scientific Support welcomes recommendations of other data sources for future inclusion as well suggestions to make this guide more useful. Please send your suggestions to: Laura Williamson, 406-444-0064 or lwilliamson@mt.gov.





Montana Indicator Based Information System

[Program Webpage for IBIS](#)

Data Contact:

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Montana Department of Public Health and Human Services
Public Health and Safety Division
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Sources of Information:

The Montana Indicator Based Information System (MT-IBIS) is an online tool which makes information from a number of public health topics and datasets publicly available.

Description of the Data:

MT-IBIS provides community snapshot reports, queries for health datasets, and topics pages. As of summer 2018, the community snapshot reports include demographics and health status indicator measures such as chronic conditions and behavioral health. Users may query public health surveillance systems such as inpatient hospital admissions, population, vital statistics birth and death, the Montana Behavioral Risk Factor Surveillance System, and Montana Cancer Tumor Registry by year, geography, age, and race. Topics pages include information on health topics such as injury, maternal and child health, and behavioral health.

Strengths of the Data:

MT-IBIS provides an online, publicly available format for users to query health topics, indicators, and data. Data available on MT-IBIS are subject to the same strengths as the original data source. Please see data strengths of those data sources for more information.

Data Limitations:

Data available on MT-IBIS are subject to the same limitations as the original data source. Please see data limitations of those data sources for more information.



Specific Use of the Information:

MT-IBIS is used by epidemiologists, public health partners, and the public to get Montana statistics on public health topics of interest.

Dataset Available:

[MT-IBIS](#) is publicly available.

Data Release Policy:

MT-IBIS follows the data release and suppression guidelines of the original data source.





Behavioral Risk Factor Surveillance System

[Program Webpage for the Behavioral Risk Factor Surveillance System](#)

Data Contact:

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Sources of Information:

The Behavioral Risk Factor Surveillance System (BRFSS) is a cross-sectional telephone survey conducted annually in all 50 states, as well as the District of Columbia and three U.S. territories. It is co-sponsored by the Centers for Disease Control and Prevention (CDC) and the Montana Department of Public Health and Human Services (MT DPHHS) and has been administered throughout Montana since 1984. Non-institutionalized adults (18+) are randomly selected using both cell phone and land line numbers. Participation is voluntary and personally identifiable information is not collected; furthermore, all responses are kept confidential. The survey data is collected and cleaned by a contractor, currently the University of Missouri. The CDC performs some data analyses and the final data is provided to MT DPHHS for further analyses to better inform public health practices and policies throughout the state.

Description of the Data:

The BRFSS survey collects data relevant to health risk behaviors, chronic health diseases, and preventative health practices. It also collects information on various demographic factors including age, gender, race, income level, educational attainment, and more. To do this, the survey utilizes core questions that are asked by all states either annually or bi-annually. In addition, each State is given the opportunity to select optional modules and to add individualized questions specific to their public health needs. In Montana, this allows us to prioritize data collection in a manner that is both insightful of and beneficial to our residents and their health. In previous years, Montana has selected modules to examine topics such as industry and occupation, arthritis management, diabetes, and childhood asthma prevalence, among others. In addition, we have added questions to address oral health, binge drinking, veteran's health, and more.

The data gathered from the BRFSS survey are primarily utilized to obtain prevalence estimates that describe the health and health statuses of Montana residents. These results are then optimized to help guide program planning and implementation, as well as policy development, as appropriate. Ultimately,



this assists MT DPHHS and other partner organizations in their efforts to both improve and protect the health of all Montanans.

Strengths of the Data:

In Montana, the BRFSS survey collects data on diverse public health topics from a large sample size (average 7,000 respondents). Furthermore, we have over 30 years of quality BRFSS data produced from questions that have been tested for validity and reliability. Because of these factors, we are able to obtain estimates that are highly representative of the Montana adult population and several sub-populations within that. Other notable strengths associated with the BRFSS survey and the data that it produces include the following:

- The ability to add questions that reflect high priority or high concern areas for Montana
- The ability to compare Montana’s prevalence estimates to other states and the U.S. as a whole
- The ability to report data specific to each of Montana’s five health planning regions
- The ability to track Montana’s state-level progress towards Healthy People 2020 goals and objectives
- The ability to produce prevalence estimates for a wide range of chronic diseases and many of the risk factors associated with them (the BRFSS is the only source for chronic disease prevalence in the state of Montana)
- The ability to obtain meaningful data on Montana’s American Indian population through the BRFSS strategies employed to oversample this important population

Data Limitations:

As with any data source, the BRFSS data comes with a few key limitations. Such limitations included the following:

- The data are self-reported and therefore susceptible to potential biases
- Individuals who do not own a phone, as well as institutionalized adults such as those living in nursing homes, on military bases, or within prisons, are not included in the sample
- The sample size is not sufficient to produce annual county-level estimates
- We cannot assess incidence or whether or not measured risk factors/behaviors contributed to specific health outcomes

Specific Use of the Information:

As noted above, the BRFSS data is primarily used to obtain prevalence estimates of various health risk behaviors and chronic diseases, as well as the use of preventative health services. The Montana DPHHS then uses these estimates to report on the health of Montanans in multiple formats and through many strategic avenues. The results of the BRFSS data can be found in the State Health Assessment, county





health profiles, surveillance reports, and grant applications. It can also be drawn on to help inform and guide program planning and public health policy development, as well the respective implementation of each.

System Evaluation:

Both the MT DPHHS and our Contractor adhere to quality control standards set forth by the CDC. These standards are evaluated through monthly and annual reports produced for quality assurance purposes.

Data Set Availability:

Yearly data sets from 1984-present are available upon request. Format availability, specifically with regards to SAS or SPSS, is dependent upon the year requested. Multiple formats are potentially available. The availability of the most recent year of data will be dependent on the time of year and whether or not the data set has been finalized and released to MT DPHHS from the CDC. Data sets from 2011 and on will be made publicly available on the Montana Indicator Based Information System (IBIS). Publicly available data can be obtained from [MT IBIS](#) and [CDC](#). Requests for restricted files can be made with the [MT BRFSS request form](#). Additional information regarding our data release policy is below. Analyzed data may also be requested through the BRFSS Coordinator. There are no fees associated with accessing or using the BRFSS data.

Data Release Policy:

The BRFSS Coordinator will release data upon the receipt and review of an appropriately documented data request form. In order to protect respondent identity, data released externally will not include county information or industry and occupational information. Data users are required to provide a copy of all printed and published materials that use Montana BRFSS data to the MT BRFSS program. Such materials can be delivered to the Data Coordinator listed above. Data users should not release unreliable data that is characterized by one of the following three attributes: (1) small sample size ($n < 50$), (2) relative standard error $> 30\%$, (3) half-width confidence intervals $> 10\%$. It is highly recommended that data users report 95% Confidence Intervals or Standard Errors for all estimates obtained from BRFSS data. In addition, it is important for all data users to acknowledge that, due to methodological changes, any prevalence estimates calculated from 2011 onward cannot be directly compared to estimates from 2010 and earlier. More on this can be found at the [CDC website](#).

Data Publications:

Annual, surveillance, and special reports can be found on the MT BRFSS [website](#).

The Montana Chronic Disease Prevention and Health Promotion Bureau also commonly uses BRFSS data in their reports, many of which can be found at their [website](#).





Suggested Data Citation:

Montana Department of Public Health and Human Services (MT DPHHS) and Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Helena, MT: Montana Department of Public Health and Human Services, Public Health and Safety Division, [data years].



Central Tumor Registry

[Program Webpage for Central Tumor Registry](#)

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Sources of Information:

Montana Statute requires that hospitals, clinical pathologic laboratories, and health care practitioners report data on any reportable tumors that they diagnose or provide treatment for. Data is submitted either electronically using a national standard layout or (much less often) via fax submission of reporting forms. Electronic data is entered directly into the database. Data submitted on paper forms are key-entered into the database. The Montana Central Tumor Registry (MCTR) was established in 1979 and data is available from 1980 forward. Each new data year is generally 90% complete by the end of November of the following year, i.e. the 2015 data was 90% complete by November 2016; 95-100% complete by November 2017.

Description of the Data:

MCTR collects patient characteristics (identifiers, sex, date of birth, age at diagnosis, address at diagnosis, primary payer, race, usual occupation, usual industry, tobacco history, alcohol history, marital status at diagnosis, and co-morbidities and complications), cancer characteristics (place of diagnosis, date of diagnosis, primary site, laterality, pathology, histology, grade\differentiation, and staging), and treatment characteristics (places, dates, and types of treatment). MCTR conducts regular follow-up on cases to determine date of last contact, vital status, or recurrence of the cancer. MCTR also links to death records to record time and cause of death. MCTR collects data on all tumors that are diagnosed or treated in Montana and have data for Montana residents who are diagnosed or treated out of state because of data exchange agreements with most other states.





Strengths of the Data:

MCTR has earned the North American Association of Central Cancer Registries Silver or Gold certification for quality, completeness, and timeliness each year since 1999, meaning that the data is more than 95% complete and adheres to all national standards for data quality. Eighty percent (80%) of MCTR data is geocoded to the street address and 20% is geocoded at the zip code level (or P.O. box when street address doesn't exist).

Data Limitations:

Eighty (80%) of data is collected within 12 months of diagnosis; 90% collected within 15 months after diagnosis. Most cases are not reported to the MCTR until cancer treatment is complete. Reporting timeliness can vary among facilities depending on staffing or loss of staff. MCTR collects data on patient characteristics at the time of diagnosis but does not include information about risks or possible exposures that may have occurred prior to diagnosis (with the exception of tobacco and alcohol use history). As such the MCTR is not a suitable data source for exploring possible relationships between cancer and any behavioral or environmental risk factors. Likewise, MCTR would not be able to link cancer cases back to known environmental or occupational hazards or disasters.

Specific Use of the Information:

MCTR is the primary data source for determining cancer incidence across all types of cancer (including staging) and among population subsets (assuming sufficiently large counts to allow reporting). MCTR data can also be used to examine treatment trends and survivorship. MCTR submits data annually to CDC and the North American Association of Central Cancer Registries. Montana data is of high quality and is included in national datasets and across all of North America (United States Cancer Statistics [USCS] and Cancer in North America [CiNA]).

System Evaluation:

MCTR data is routinely run against standardized data edits. Data submissions are reviewed for missing or incomplete vital data elements (age, sex, race, county, payer, address, occupation/industry, tobacco history, alcohol history, and stage) and reported back to the facility. Submitted cases are visually reviewed as they are entered into the database for consistency and accuracy of coding. Inconsistent or incomplete data is queried to the provider for clarification on vital data fields (date of diagnosis, primary cancer site, histology, grade, stage, and treatment). Yearly data is considered complete to use when all data edits are clear and the data is estimated to be 90% complete.





Dataset Available:

MCTR data is available from 1980 through two years prior to the present year. Data sets can be requested via the MCTR Data Set Request Form emailed to the Cancer Surveillance & Epidemiology Program manager, Heather Zimmerman. Data sets will be released based on guidelines outlined in the MCTR Data Access Policy. Both the data access policy and the data set request form can be found on the MCTR website. Data sets can be provided in CSV, SPSS, or SAS formats.

Data Release Policy:

Summary statistics are available upon request and will adhere to the DPHHS Public Health and Safety Division [data release policy](#) of suppressing cell counts with fewer than 5 observations and will not compute rates for less than 20 events.

Data Publications:

MCTR produces an annual report summarizing the five most recent years of data. The annual report includes summary statistics for all-sites of cancer, the five most common cancer sites, cancer among American Indian populations, and a special feature that is determined based on current trends or cancer control program needs. MCTR also produces an average of two surveillance reports each year that explore specific topics in more depth. Topics are determined based on cancer control program needs. All publications are available on the Montana Cancer Control Programs website.

Suggested Data Citation:

Montana Department of Public Health and Human Services, Montana Central Tumor Registry, [data years and/or title of report], [method and date of accessing the data].





Child Death Review

[Program Webpage for the Child Death Review](#)

Data Contact:

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Sources of Information:

Death data and information on the circumstances of a death are collected by the county mortality review teams known as the Fetal, Infant, Child Mortality Review & Prevention Program (FICMMR). FICMMR team members gather data from a variety of medical, law enforcement, and social service sources in order to review the death. The team's access to data is strengthened by the provision of the Fetal, Infant, Child and Maternal Mortality Prevention Act, MCA 50-19-401-406. The FICMMR program began entering Montana death data since 2013 via a data use agreement with the National Center for Fatality Review and Prevention. Data from before this agreement is also available as far back as 2006.

Description of the Data:

The FICMMR program reviews every Montana fetal, infant and child death up through the age of 17. The FICMMR program reviews data collected by numerous agencies that may have been involved with the child's death. These data include: death certificate, medical and hospital records, law enforcement death scene investigation report, emergency medical service, toxicology and autopsy reports, Child & Family Service reports, background information on parents or caregivers, and more.

Strengths of the Data:

State law enables FICMMR teams to access records for a review. Other strengths include: data quality reviews conducted on each death report before approval, enhanced database upgrades via the National Center, allowance for custom questions for Montana, and the ability to report data from each county and American Indian reservations to help drive prevention efforts.



Data Limitations:

Data limitations in FICMMR data include a lack of timeliness --information is gathered and deaths are reviewed 12 months after the death. This is due to several factors: pending criminal investigations that can potentially pose a conflict of interest delaying the FICMMR review and finalization of a death certificate, and finalization of other medical reports. Another limitation is that review teams may not always be able to obtain all the needed records. While the MCA 50-19-401-406 provides notification of a FICMMR team's right to request and access records for a review, the law does not compel the provision of such which can create information gaps.

Specific Use of the Information:

FICMMR data are used to identify death trends and identify prevention efforts at both the state and local levels. For example, these data provided state officials with critical child maltreatment information gathered by the FICMMR teams which established a partnership between the FICMMR program and the Family Services Division at the Montana Department of Public Health and Human Services. As another example, analysis of FICMMR data revealed the large disparity between white and American Indian infant sleep-related deaths and the risk factors contributing to the deaths, many preventable. These data were used to develop a new safe sleep initiative between the FICMMR program, the Rocky Mountain Tribal Epidemiology Center and a tribe. Additionally, local FICMMR teams use the dataset to identify death trends in their counties and prioritize prevention efforts. De-identified and aggregate death data from Montana is included in national datasets after a vigorous application and review process conducted by the National Center for Fatality Review & Prevention.

System Evaluation:

Every death case report receives a quality assurance review. The review is manual and checks for accuracy, consistency of response, missing data fields and incomplete data fields. Counties are notified of the needed modifications and a second review is conducted before a case report is approved.

Dataset Available:

Montana's FICMMR case reporting system for 2013 deaths through present. Data are available in aggregate reports only. De-identified, aggregate data is available to state workgroups and partners who assist in child death prevention efforts per the "Guidelines for the Release of Public Health Data Derived from Personal Health Information."

Data Release Policy:

Data release follow the Public Health and Safety Division's policy "Guidelines for the Release of Public Health Data Derived from Personal Health Information." This includes suppressing cell counts with fewer





than five observations and not computing rates for less than 20-events. Additionally, the National Center for Fatality Review and Prevention (NCFRP), which holds the Child Death Review data for 45 states, provides for the release of aggregated national data as long as no state data is identified individually in a publication without that state's permission. Cells are suppressed if the stratified data represent fewer than 6 cases. Rates are not calculated because the data are not representative of the general population due to selective case review criteria in most states.

Data Publications:

As of 2018, only four years of data are available in the FICMMR case reporting system (2013-2016). At the five-year mark, reports will be identified and produced.

Suggested Data Citation:

The Fetal, Infant, Child and Maternal Mortality Review & Prevention Program, (FICMMR), Family & Community Health Bureau, DPHHS, [2013 forward]; Data courtesy of county FICMMR teams.





Communicable Disease Surveillance System

[Program Webpage for the Communicable Disease Surveillance System](#)

Data Contact:

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Sources of Information:

Montana statutes require the reporting of conditions and communicable diseases of public health significance to local and state public health authorities. MIDIS, the Montana Infectious Disease Information System, and eHARS, the electronic HIV/AIDS Reporting System are nationally developed applications for the secure receipt and storage of information submitted to local and state public health authorities. The systems contain records for all communicable diseases reportable in the state of Montana. Case reports are entered into each system by state and local health departments and supplemented electronically by laboratory reports. Systems are accessed only by selected local and state public health staff. The purposes of the systems are to collect data for analysis, conduct patient disease investigations, and implement and monitor the effectiveness of disease prevention and treatment efforts. Both systems transmit limited information to the US Centers for Disease Control and Prevention for analysis.

Description of the Data:

MIDIS and eHARS databases include: information detailing diagnosis and laboratory testing, geographic and demographic information, details related to case investigations including risk factors/behaviors for HIV, STD, and approximately 70 other reportable conditions.



Strengths of the Data:

Inclusion of reportable conditions identified by a provider, laboratory or other sources in the Communicable Disease Surveillance System is required by statute.

Data Limitations:

Data in the Communicable Disease Surveillance System are limited to what is submitted by providers, laboratories, and state and local health departments. There is potential for underreporting of disease due to undiagnosed conditions or failure to report as required. Data analysis may also be limited due to a low number of disease events.

Specific Use of the Information:

- Monitor reportable communicable disease case counts
- Analyze data trends
- Provide records of care
- Evaluate effectiveness of disease intervention activities
- Ensure that appropriate disease control measures are taken

System Evaluation:

Data is reconciled quarterly and annually with local health departments and the CDC. Internal database requirements ensure the completeness and quality of data.

Dataset Available:

Summary data is available upon request. Detailed data on general communicable disease are available from 2007 to present; HIV/AIDS data are available from 1985 to present. Earlier data on general communicable disease are much more limited but available for most years beginning in 1917. Recent data can be generated electronically in a variety of electronic formats; early data are available in PDF or hard copy format.

Data Release Policy:

Data are released in compliance with the Montana state law, specifically according to the Government Healthcare Information Act. In addition, DPHHS follows the integrated security and confidentiality guidelines for reportable communicable diseases as mandated by the CDC as well as [policies of the Public Health and Safety Division](#).





Data Publications:

- Aggregate data for all reportable conditions are released in the Communicable Disease Epidemiology (CDEpi) weekly disease report
- Data are published in the CDEpi Annual Report
- Aggregate data are released to the CDC for publication in the MMWR
- HIV and STD data are published in quarterly and annual disease summaries

Suggested Data Citation:

Montana Department of Public Health and Human Services, Communicable Disease Surveillance System, [data years].





Hospital Discharge Data System

[Program Webpage for the Hospital Discharge Data System](#)

Data Contact:

Office of Epidemiology and Scientific Support
Montana Department of Public Health and Human Services
Public Health and Safety Division
1400 Broadway, Helena, MT 59620
(406) 444-0064
lwilliamson@mt.gov

Sources of Information:

The Montana Department of Public Health and Human Services (DPHHS) has a memorandum of agreement with the Montana Hospital Association (MHA) to receive a subset of inpatient admission (2000 onward) and emergency department (ED; 2010 onward) data elements based on the Uniform Billing 2004 form (UB-04). The MHDDS currently includes short stay non-Federal hospitals that participate with MHA. Large Montana hospitals all submit data annually to MHA, most critical access hospitals also submit data; this captures an estimated 95% of admissions in Montana.

Description of the Data:

Inpatient and emergency department data include:

- Demographic elements, such as age, sex, and county of residence
- Health related elements, such as primary, principal and secondary, subsequent diagnosis codes (1 primary and up to 8 secondary), and external cause codes (E-codes)
- Billing elements, such as primary payer, total charges, ICD-9-CM and ICD-10-CM surgical procedure codes (inpatient only), and Current Procedural Terminology codes (ED only)

ICD-9-CM coding was used through Sept 31, 2015, ICD-10-CM coding replaced it beginning Oct 1, 2015. For most chronic conditions, ICD-9-CM and ICD-10-CM coded admissions are comparable. Injury admissions and ED encounters are not comparable; as of August 2017, the Council of State and Territorial Epidemiologists works with the Safe States Alliance and CDC to develop [new injury definitions for ICD-10-CM](#).



Strengths of the Data:

Montana hospital discharge data is based on billing systems and has information on more than 95% of admissions and encounters in Montana. Hospitalization data is a unique source for measuring the burden of chronic conditions such as myocardial infarction, asthma, and diabetes. In addition, hospital discharge data includes charges, which describes the financial impact of conditions on Montana's health.

Data Limitations:

The MHDDS data sets do not contain patient identifiers so hospital discharges cannot be linked to other data sets, and the data cannot be de-duplicated if individuals are admitted more than once during a time interval of interest. No interstate agreements exist for exchange of data on Montana residents hospitalized out of state. It does not include information from federal facilities, such as Indian Health Service hospitals or Veterans Affairs hospitals. Hospital discharge data systems vary greatly from state to state. Because of this variation, there may not be standardized definitions of conditions.

Specific Use of the Information:

Hospital discharge data, inpatient and emergency department admission, describes the burden of a number of diseases and conditions, including asthma, diabetes, cardiovascular disease, injury and for special topics, such as abusive head trauma and neonatal abstinence syndrome.

Hospital discharge data is used to measure the burden of many chronic diseases, particularly through the use of the [Agency for Healthcare Research and Quality's Prevention Quality Indicators](#), behavioral health and substance abuse through the Council of State and Territorial Epidemiologists' Surveillance [Indicators of Substance Abuse and Mental Health](#), and the [CDC's state injury indicators](#).

System Evaluation:

Data is provided by CompDATA, MHA's data vendor, who does data cleaning. In addition, the MHDDS checks data for missing values and range from year to year. Because MHA collects the data, the MHDDS has limited ability to give feedback to hospitals.

Dataset Available:

Direct access to MHDDS data is only available to internal DPHHS employees; summary analysis is available to the general public and basic analysis can be performed using Montana's Indicator Based Information System (MT-IBIS). Inpatient admission data is available from 2000 forward; ED data is available from 2010 forward. Some data elements are available from certain timeframes forward, for example, external cause codes are only available from 2009 onward.





Data Release Policy:

Data access is available for internal DPHHS users only, although all parties may request summary analysis. Data released outside of internal purposes must comply with the [Guidelines for the Release of Public Health Data Derived from Personal Health Information](#). Hospital confidentiality is protected in data releases; DPHHS cannot release hospital specific data (or data that pertains to a specific hospital) without permission from that hospital.

Data Publications:

Surveillance and special reports are available on the [MHDDS website](#).

Suggested Data Citation:

Montana Hospital Discharge Data System, [appropriate year(s)]; Data courtesy participating Montana Hospital Association members.





NCHS Population Estimates

[Program Webpage for the NCHS Population Estimates](#)

Data Contact:

Office of Epidemiology and Scientific Support
Montana Department of Public Health and Human Services
Public Health and Safety Division
1400 Broadway, Helena, MT 59620
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Sources of Information:

The National Center for Health Statistics releases bridged-race population estimates of the resident population of the United States for use in calculating vital rates. The bridged-race population estimates are produced under a collaborative arrangement with the U. S. Census Bureau. The bridging methodology is described in the report, "[United States Census 2000 Population with Bridged Race Categories](#)", which was published in September 2003.

Description of the Data:

Population estimates by bridged race, age, sex, and county of residence from 1990 onward.

Strengths of the Data:

Highly detailed population estimates that are used for calculating rates throughout the Public Health and Safety Division.

Data Limitations:

Data contain only count of population and do not contain other demographic information, such as income or education.

Specific Use of the Information:

NCHS population estimates are used as standard denominators for nearly all public health datasets in the Public Health and Safety Division.



System Evaluation:

Data are provided by NCHS on public websites.

Dataset Available:

Dataset is available on Montana IBIS, available as SAS files with formatting, or available as a text file directly from NCHS.

Data Release Policy:

The data are public and contain no restrictions on releases.

Data Publications:

NCHS population estimates are available on MT-IBIS.

Suggested Data Citation:

National Center for Health Statistics. Bridged-race intercensal estimates of the July 1, 1990-July 1, 1999; July 1, 2000-July 1, 2009 Postcensal estimates of the resident population of the United States for July 1, 2010-July 1, 2016 United States resident population by year, county, single-year of age, sex, bridged race, and Hispanic origin, prepared by the U.S. Census Bureau with support from the National Cancer Institute. Available on the [National Vital Statistics System webpage](#) as of April 24, 2004; Oct 26, 2012; June 27, 2018 (Note: Date varies with series).





Newborn Hearing Screening

[Program Webpage for the Newborn Hearing Screening](#)

Data Contact:

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Sources of Information:

Newborn screening information is collected directly by authorized individuals at Montana hospitals, contracted hearing screeners, midwives, and CSHS staff into a web based application called HiTrack. Data has been collected since 2002 and the demographic information entered by the users is supplemented with the data available from Vital Statistics.

Description of the Data:

The data includes results of an initial inpatient hearing screen, the results of a later outpatient hearing screening (if necessary) and hearing evaluation results on all infants born in Montana. It also contains Critical Congestive Heart Disease(CCHD) Screening results, notes, and demographic data.

Strengths of the Data:

Hearing and CCHD screening is a legal requirement, and the hospitals must enter their results at least monthly. Since the screening data are matched to vital statistics data, which include all births in Montana, data within the last five years are very complete.

Data Limitations:

Demographic information prior to 2014 is not as complete - which can limit some reporting. For example, running an analysis of hearing loss in infants by location would work for recent years, but not in earlier years, due to a lack of an address in the older data.



Specific Use of the Information:

The counts and rates of babies screened, passed screening, and referred for diagnosis are reported and closely monitored. Each year, a deidentified summary is submitted to the CDC that includes detail hearing screening results for Montana births.

System Evaluation:

Data entry for key fields are required and drop downs for gender, race, education, dates and other fields insure standard entries. Duplication of newborn entries can occur but a de-duplication process is run regularly. Other quality assurance checks are also done.

Dataset Available:

The deidentified summary submitted to CDC is also available to members of the public upon request. This data can be delivered in a variety of formats including excel, text files, and xml.

Data Release Policy:

Data are released in compliance with the Montana state law, as well as [policies of the Public Health and Safety Division](#).

Data Publications:

The CDC publishes the [statistics](#) for all participating states, including Montana.

Suggested Data Citation:

Montana Department of Public Health and Human Services, Newborn Screening, [data years].





Occupational Health & Safety Surveillance Program

[Program Webpage for MOHSS Program](#)

Data Contact:

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Sources of Information:

The Montana Occupational Health & Safety Surveillance program (MOHSS) is funded by the Centers for Disease Control and Prevention/National Institute for Occupational Safety and Health (CDC/NIOSH). The MOHSS program conducts surveillance of non-fatal and fatal work-related injuries and illnesses in Montana, analyzes occupational health data, develops priorities for intervention based on high-risk work activities, and shares useful information to occupational health and safety stakeholders across Montana.

The MOHSS program is housed in the Employment Relations Division of the Montana Department of Labor & Industry. As a result, MOHSS has direct access to Montana workers' compensation claims data on work-related injuries and illnesses, and other labor and industry information. The MOHSS program uses many additional data sources to build the surveillance system, including data from the Montana Department of Labor & Industry, U.S. Bureau of Labor Statistics (BLS), Montana Department of Public Health and Human Services (DPHHS), National Academy of Social Insurance (NASI), National Council on Compensation Insurance (NCCI), and U.S. Department of Labor.

Description of the Data:

MOHSS data are obtained by directly contacting the proprietary program, or by using online public query systems.

The MOHSS program has been granted access to or receives summary statistics from these restricted data sources:

- Montana Workers' Compensation Claims Data
 - Housed at Montana Department of Labor & Industry
- MT Department of Public Health and Human Services
 - Behavioral Risk Factor Surveillance System (BRFSS)
 - Hospital Discharge Data System



- Office of Vital Records
- Central Tumor Registry
- Blood lead levels – electronic lab data, ABLES program
- National Council on Compensation Insurance (NCCI)

Public data sources include:

- U.S. Bureau of Labor Statistics
 - Survey of Occupational Injuries and Illnesses (SOII)
 - Census of Fatal Occupational Injuries (CFOI)
 - Geographic Profiles of Employment and Unemployment
 - Current Population Survey (CPS)
 - Quarterly Census of Employment and Wages (QCEW)
- American Association of Poison Control Centers
- National Academy of Social Insurance (NASI)
- Occupational Safety and Health Administration (OSHA)
- Mine Safety and Health Administration (MSHA)

Strengths of the Data:

The purpose of the MOHSS program is to build a solid surveillance program that can be used to inform intervention and prevention strategies for the Montana workforce. The strengths of the MOHSS program are timely, multi-source surveillance and analysis of work-related injuries (non-fatal and fatal) to identify actionable risk factors. Another strength of the MOHSS program is our collaboration and effective communication with stakeholders across Montana.

Data Limitations:

The MOHSS data sources do not capture all occupational injuries and illnesses in Montana, due to systemic underreporting of work-related injuries, and exclusions in workers' compensation coverage for certain employment types. While the MOHSS program may not have an exact count of work-related injuries and illnesses, the combination of data sources allows the program to cast a wide net to capture as much information as possible on work-related injuries and illnesses in Montana. Specific data limitations for individual data sources can be obtained through the proprietary data set contact.

Specific Use of the Information:

- Calculation of occupational health indicators, including incidence rates
- Timely monitoring of occupational health and safety issues in Montana
- Communication of findings to industry and worker organizations (stakeholders)
- Publications on work-related injuries, illnesses, and fatalities in Montana
- Data requests from internal and external agencies and organizations



- Production of materials to educate stakeholders across Montana
- Multi-state data collaborations
- Inform intervention and prevention activities in Montana

System Evaluation:

The process and results of the MOHSS program are evaluated through quarterly and annual progress reports to the Centers for Disease Control and Prevention (CDC). Data quality issues are routinely discussed and addressed within the MOHSS program and the Workers' Compensation Claims Assistance Bureau in the Montana Department of Labor & Industry.

Dataset Available:

MOHSS uses data from several public and restricted data sets. The MOHSS program can provide data in the form of written reports, Excel files, Text or CSV files, or SAS datasets. For data requests related to Montana workers' compensation claims data, please contact the MOHSS program.

For data requests related to public data sets, please contact the MOHSS program, or the primary data set custodian. For data requests related to restricted data sets, please contact the primary data set custodian or program.

Data Release Policy:

MOHSS has direct access to Montana workers' compensation claims data, and is equipped to perform data queries for specific inquiries. Other MOHSS program data is derived from data sets maintained by other entities, and any data release inquiries should be made directly to the custodians of those data sets. Confidentiality is maintained in all data releases by removing identifying information.

Data Publications:

Beginning in 2017, MOHSS publishes a quarterly newsletter and an annual epidemiology report. A new report on trends in occupational health indicators for Montana from 2004-2014 was released in early 2017. Additional relevant reports will be posted online after being finalized. Past publications are posted on the MOHSS webpage.

Suggested Data Citation:

Montana Occupational Health & Safety Surveillance Program (MOHSS). Montana Department of Labor & Industry, [data years].



Oral Health Program Basic Screening Survey

[Program Webpage for Oral Health Program](#)

Data Contact:

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Sources of Information:

The Montana Basic Screening Survey is a cross-sectional survey measuring oral health and access to dental services among third grade head start children. Data were collected through open mouth dental screenings based on the Association of State and Territorial Dental Directors Basic Screening Survey (BSS) Manual protocol and collected on paper screening forms. Parents were given the opportunity to opt out of the screening for their children. The head start survey conducted in 2016 included 582 children. The third grade survey conducted in 2014 included 1,862 children.

BSS survey data provide descriptive data for both children and adults in Montana through probability sampling. Data were collected based on standardized BSS protocol and stratified by urban/rural classifications and proportion of school population served by free and reduced lunch populations when available.

Description of the Data:

The data from these surveys measures prevalence of dental decay experience, untreated decay, and dental sealants. These outcomes can be used to estimate oral health and access to dental services among children in third grade and children in the Head Start program.

Strengths of the Data:

The information gathered through the BSS is useful for monitoring Montana's progress in accomplishing the [Healthy People 2020 oral health objectives](#).



Data Limitations:

BSS data collection is not a thorough clinical examination and does not make clinical diagnosis.

Specific Use of the Information:

Montana BSS data was used by the Montana Oral Health Program to monitor the prevalence of dental decay and access to preventive dental sealants. Data are submitted to the Centers for Disease Control and Prevention (CDC) to be included in the National Oral Health Surveillance System.

System Evaluation:

Data analysis was conducted in consultation with the Association of State and Territorial Dental Directors (ASTDD). ASTDD assists states throughout the U.S. in sampling and methodologies in collecting and analyzing open-mouth dental screening data.

Dataset Available:

Data establish an estimate of state-wide prevalence through data brief. Community-level data is shared only with participant schools when requested.

Data Release Policy:

State estimates are released but not individual or site level data.

Data Publications:

Data briefs for third grade and Head start data sets can be found on the [DPHHS Oral Health Program website](#).

Suggested Data Citation:

Montana Department of Public Health and Human Services, Basic Screening Survey, [data years].





Perinatal Hepatitis B Screening

[Program Webpage for Perinatal Hepatitis B](#)

Data Contact:

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Sources of Information:

System data is based upon reports of all hepatitis B virus (HBV) positive lab results and the associated identifying information and demographics via electronic laboratory reporting transferred from laboratories into the Montana Infectious Disease Information System (MIDIS). Other MIDIS data is obtained from hepatitis B surface antigen (HBsAg) positive results from fax reports from out-of-state reference laboratories or local laboratories and hand entered into MIDIS by the perinatal hepatitis B coordinator or local health jurisdictions.

Women of childbearing age with HBsAg positive results are followed up to determine if they are pregnant, and if so, assigned to local health departments for perinatal hepatitis B prevention case management. Case management data is obtained from the patient, the patient's healthcare provider, delivery facility, and the infant's healthcare provider.

Montana Code Annotated mandates that women seeking prenatal care submit a blood sample for hepatitis B surface antigen status and requires laboratories report all HBsAg positive results of pregnant women to local health departments (LHD) or the state perinatal hepatitis B coordinator.

The MIDIS surveillance system is Epidemiology and Laboratory Capacity (ELC) funded.

Description of the Data:

Reports of positive HBsAg tests on all prenatal patients are entered into the MIDIS system. The Immunization Program then obtains the demographic and clinical information from the local health department and enters the patient information into a restricted access registry. When the infant is born, the health department reports: DOB, dates of hepatitis B immune globulin (HBIG) and hepatitis B vaccine administration, weight, and insurance status. Local health jurisdictions case manage the infant to document completion of the hepatitis B vaccine series and date and result of post vaccination



serology testing including hepatitis B surface antibody (anti-HBs) and titer, and hepatitis B surface antigen (HBsAg). Montana has a five-year average of 8 infants born to HBsAg positive mothers per year.

The Montana Immunization Program perinatal hepatitis B coordinator follows up with case managers from local health jurisdictions monthly for missing data. Montana has not had a case of perinatal hepatitis B. Perinatal hepatitis B prevention data is reported to the Centers for Disease Control and Prevention (CDC) via the Annual Immunization Progress Report.

Strengths of the Data:

The information surveys and monitors children born to hepatitis B positive mothers for possible disease transmission indications.

Data Limitations:

Information is limited to what is provided by laboratories, local health departments, primary care physicians, and birthing hospitals. Some cases may be missed due to no prenatal care.

Specific Use of the Information:

- Monitor the prevalence of hepatitis B in the population of delivering mothers in Montana birthing hospitals
- Assure that infants at risk of perinatal hepatitis B transmission receive hepatitis B immune globulin and vaccine within 12 hours of birth to help prevent disease
- Assure follow-up of appropriate laboratory testing to identify a case of perinatal hepatitis B

System Evaluation:

The system is evaluated annually by a report submitted to the CDC. The report contains the number of births to HBsAg positive mothers, vaccination completion rates and post-vaccination testing rates.

Dataset Available:

Summary data available upon request.





Data Release Policy:

The current registry is a restricted access database housed on a server in Helena. Montana follows the integrated security and confidentiality guidelines for HIV, STD, viral hepatitis and TB surveillance programs mandated by the CDC.

Data Publications:

Aggregate data are released to the CDC for publication in the Morbidity and Mortality Weekly Report (MMWR).

Suggested Data Citation:

Montana Department of Public Health and Human Services, Montana Infectious Disease Information System, [data years].





Pregnancy Risk Assessment Monitoring System

[Program Webpage for PRAMS](#)

Data Contact:

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Sources of Information:

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a population-based surveillance system that collects information about maternal behaviors and experiences before, during, and just after pregnancy. PRAMS is a mixed mode surveillance system that uses mail and telephone surveys to collect data. Each month a random sample of women who gave birth 3 months prior are selected from the live birth certificate files. Participation in the survey is voluntary and identifiable data are never reported. PRAMS is co-sponsored with states by the Centers for Disease Control and Prevention (CDC), and as of 2017, it is currently conducted in 47 states, Washington DC, Puerto Rico, and other US territories. Montana Department of Public Health and Human Services (MT DPHHS) participated in a one-year point-in-time PRAMS study in 2002 and currently conducts PRAMS beginning 2017. The mail survey data is collected and entered by MT DPHHS and the phone data is collected by an outside contractor. The CDC performs the data cleaning, basic analysis, and provides the final data set.

Description of the Data:

The PRAMS survey collects data about perinatal maternal behavior and experiences that may be associated with adverse birth outcomes. Data are collected on a variety of topics including: access to prenatal care, quality of prenatal care, insurance status, infant sleeping position, medical problems during pregnancy, delivery of the infant, government assistance, pregnancy intent, smoking, and oral health. Some demographic factors, including age and income level, are asked on the PRAMS survey while others, including race, marital status, and educational attainment, are ascertained from the birth certificate. The survey asks core questions that are asked by all states and each state is given the opportunity to add standard questions specific to their public health needs. In Montana, this allows us to prioritize data collection in a manner that is both insightful and beneficial to our residents and their health. In previous years, Montana has selected modules to examine topics such as preconception care, vaccination, car seat use, drug use, and reasons for induction and low risk Cesarean section. The data gathered from PRAMS are primarily utilized to obtain prevalence estimates that describe mothers' health, behaviors, and attitudes that cannot be obtained from the birth certificate. These results are



then used to help guide program planning and implementation, as well as policy development. Ultimately, this assists MT DPHHS and other partner organizations in their efforts to both improve and protect the health of all Montanans.

Strengths of the Data:

In Montana, PRAMS collects data on diverse public health topics from a large sample size (average 1,700 mothers). Data are weighted so results can be generalized to Montana's entire population of pregnant women. Other notable strengths associated with the PRAMS survey and the data that it produces include the following:

- The ability to add questions that reflect high priority or high concern areas for Montana
- The ability to compare Montana's prevalence estimates to other states and the U.S. as a whole
- The ability to track Montana's state-level progress towards Healthy People 2020 goals and objectives
- The ability to produce prevalence estimates for a wide range of maternal and infant risk factors (PRAMS is the only source of data in the state of Montana)
- The ability to obtain meaningful data on Montana's American Indian population through the PRAMS strategies employed to oversample this important population

Data Limitations:

As with any data source, PRAMS data comes with a few key limitations. Such limitations included the following:

- The data are self-reported and therefore susceptible to potential biases
- PRAMS surveys are mailed based on address information collected from the birth certificate files and surveys are only printed in English. Transient populations and non-English speaking populations are therefore more difficult to reach
- The sample size is not sufficient to produce county-level estimates
- Fetal deaths, stillbirths, abortions, out-of-state births, and birth certificates with missing identification (i.e. mother's last name or mailing address) are excluded from the sample.

Specific Use of the Information:

PRAMS provides data that is not available from other sources about preconception, pregnancy, and the first few months after birth. The Montana DPHHS then uses the data to develop and evaluate programs, provide data for grant applications, identify emerging issues, support new legislative policies, and evaluate health disparities. PRAMS data can be found in the State Health Assessment, PRAMS annual reports, surveillance reports, and grant applications.





System Evaluation:

The MT PRAMS program and phone contractor adhere to quality control standards and protocols set forth by the CDC. Montana State University Institutional Review Board (IRB) and CDC IRB reviewed and approved all MT PRAMS protocol. Data collection and data entry are monitored for accuracy and adherence to protocol.

Dataset Available:

Yearly data is available two years after the survey year. Data are only available in SAS format. The availability of the most recent year of data will be dependent on the time of year and whether or not the data set has been finalized and released to MT DPHHS from the CDC. Prevalence estimates will be made publicly available on the Montana Indicator Based Information System (IBIS). Data sets can be requested from MT DPHHS. Additional information regarding our data release policy is below. Analyzed data may also be requested through the PRAMS Coordinator.

Data Release Policy:

The PRAMS Coordinator will release data upon the receipt and review of the required data request form. Requests for data containing protected health information must be previously approved by an IRB committee. Data users are required to provide a copy of all printed and published materials that use Montana PRAMS data to the MT PRAMS program. Data users should not release unreliable data that is characterized by one of the following three attributes: (1) small sample size ($n < 50$), (2) relative standard error $> 30\%$, (3) half-width confidence intervals $> 10\%$. It is highly recommended that data users report 95% Confidence Intervals or Standard Errors for all estimates obtained from PRAMS data.

Data Publications:

When available, annual, surveillance, and special reports can be found on the MT PRAMS website.

Suggested Data Citation:

Montana Department of Public Health and Human Services (MT DPHHS) and Centers for Disease Control and Prevention (CDC). Pregnancy Risk Assessment Monitoring System (PRAMS) Data. Helena, MT: Montana Department of Public Health and Human Services, Public Health and Safety Division, [data years].





Prevention Needs Assessment

[Program Webpage for the Prevention Needs Assessment](#)

Data Contact:

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Sources of Information:

The Montana Prevention Needs Assessment (MPNA) is conducted bi-annually on even number years in school districts across the state. In addition, 38 other states have or are conducting this survey. The MPNA is developed and administered by Bach Harrison, LLC (a survey research and evaluation services firm) and the Montana Department of Public Health and Human Services - Addictive and Mental Disorders Division and has been administered throughout Montana since 1998. Schools can elect to participate as it is voluntary to participate in the survey. Identifiable information is not collected. For schools agreeing to participate in the Montana survey, all students in grades 8, 10, and 12 are asked to complete the survey. Schools also have the option to have all students in grades 7, 9, and 11 participate if they so choose.

Description of the Data:

The MPNA collects data on risky behaviors associated with the use of alcohol, tobacco, and other drugs, such as school dropout, delinquency, and violence - that can result in injury or impede positive development among youth. The survey also collects information on risk and protective factors, which are attitudes and opinions research has shown to be highly correlated with these risky behaviors.

Strengths of the Data:

The MPNA has been administered state-wide in even-numbered years since 1998 and therefore, the State has ample trend data available at the county, region, and state levels (school and district-level data are protected from public use). The survey is offered as a census of grades 8, 10, and 12 (grades 7, 9, and 11 optional also). At a local level, MPNA data is an integral part of the science of prevention, and many districts and schools are encouraged to participate (though participation is not mandatory).



Another strength of the data is its relevance. In each MPNA administration, survey content is carefully considered to ensure that it is gathering relevant and helpful information. For example, when the survey started in 1998, mental health and suicide data were not gathered as they are in recent administrations.

The number of participant varies from year to year with the most recent administrations at 10,810 in 2016, 10,731 in 2014, 14,575 in 2012, and 17,506 in 2010 with an average of 13,000 over the last four cycles.

Data Limitations:

As the survey is voluntary, participation at the county-level can vary from year to year. The data are self-reported and therefore susceptible to potential biases.

Specific Use of the Information:

Bach Harrison (survey contractor) does not share data to be included in larger national datasets; however, Montana's data is included in Bach Harrison's "Bach Harrison Norm" calculations, which are designed to provide states with an average of other states participating in the Prevention Needs Assessment for comparison with state-level risk and protective factor scales.

Data is most commonly used for local, county, regional, and state level reporting, needs assessment, grant proposals, and evaluation. As the survey gathers data on risk and protective factors (within the school, family, community, and peer/individual domains) substance use, antisocial behaviors, tobacco use, mental health/suicide, and other health behaviors, the data can be used and applied across many fields. School districts and schools use the data for prevention planning, mental health and other health behavior needs assessment and evaluation, grant writing, and accreditation documentation. Within the prevention field, the data is most often used for needs assessment, evaluation, reporting, etc. Data is often used by researchers for targeted subject-based work and trend analysis.

System Evaluation:

Bach Harrison LLC, which has been the survey contractor since 1998, follows rigorous data cleaning processes to ensure that final data reported and included in the final datasets are clean, accurate, and reflect only honest participation. Surveys are carefully logged and attributed to the schools that returned the data and surveys are scanned using OMR scanners. In terms of data cleaning, Bach Harrison uses a rigorous system of checks and cleaning methods to ensure accurate reporting. Bach Harrison makes use of five validity checks to exclude dishonest participants. Surveys that indicate one or more of the following checks are eliminated from final analyses and reporting: 1) surveys that indicate "not honest at all" on the final survey question regarding honesty, 2) surveys which indicate an impossible grade/age response option combination, 3) surveys that indicate any use of a fictitious drug, 4) surveys that indicate an impossibly high combination/frequency of substance use in the past month, and 5) surveys that indicate higher past-month use than lifetime use.



Dataset Available:

Datasets are available for the following years: 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, and 2018. SPSS is the format most commonly requested, though the datasets can also be requested in Excel, SAS, or Text format.

Data Release Policy:

Bach Harrison, survey contractor, advises the following for data release: 1) Grade-level findings with fewer than 20 honest participants per grade are strongly cautioned, particularly for risk and protective factor scale items. 2) Cell counts with fewer than 5 observations should not be reported for any demographics or other grouping. 3) All analyses should remove dishonest participants prior to reporting.

Data Publications:

Data for the Montana PNA can be found on the Montana Social Indicators website. Reports released prior to 2018 can also be accessed by contacting Christine Steele.

Suggested Data Citation:

Montana Department of Public Health and Human Services, Prevention Needs Assessment. [data years].





Statewide Immunization Information System

[Program Webpage for imMTrax](#)

Data Contact:

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Sources of Information:

imMTrax, Montana's Immunization Information System (IIS), is a free program administered by the Montana Department of Public Health and Human Services (DPHHS) containing immunization records for participating Montanans of all ages. imMTrax combines multiple immunization records from Montana healthcare providers (public and private), vital records, and parental "shot cards" to form one complete, electronically preserved record.

imMTrax is only accessed by health professionals, local public health, and school personnel for authorized purposes.

The primary purposes of imMTrax are to assist users in assessing individual immunization needs, determine compliance with school or childcare-entry vaccination requirements, and estimate vaccination coverage among a specific healthcare provider's practice.

Participation in imMTrax is voluntary. Patients or parents/guardians must provide consent in order for immunization information to be made accessible in imMTrax.

Description of the Data:

imMTrax collects demographic and immunization information from private and public healthcare providers; including hospitals, federally qualified health centers, local health departments, rural health clinics, Tribal and Indian Health Services, medical clinics, doctors' offices, and pharmacies.

The immunization information collected includes vaccination given, date administered, administering or submitting healthcare provider, trade name, lot number, lot expiration date, anatomical site and route of administration, and when applicable, Vaccines for Children (VFC) eligibility status.



The demographic information collected include patient name, date of birth, sex, mother's maiden name, address, phone number, race, and ethnicity.

Strengths of the Data:

imMTrax collects demographic and immunization information that may be updated over the lifespan of each participating Montanan. Participation by Montana healthcare providers continues to grow, resulting in more information being added to imMTrax.

Data Limitations:

imMTrax does not contain immunization information for all Montana residents because healthcare provider and patient participation in imMTrax is voluntary. Healthcare providers are not required to add immunization information to imMTrax. Patients or parents/guardians must provide consent in order for immunization information to be made accessible in imMTrax.

The accuracy of demographic or immunization information in imMTrax is dependent on correct entry by the healthcare provider submitting the information.

Specific Use of the Information:

imMTrax is only accessed by health professionals, local public health, and school personnel for authorized purposes.

imMTrax information may be used by healthcare providers to assess an individual patient's immunization history and current or future needs. Healthcare providers may also use imMTrax information to estimate vaccine coverage at their own practice. imMTrax can produce reports and other output for healthcare providers to determine which patients need immunization services.

School personnel or health professionals may use imMTrax to determine compliance with Montana school and childcare-entry requirements. The Montana School Certificate of Immunization (HES 101) for child care and school entry can be obtained and printed from imMTrax.

imMTrax information may be used by DPHHS to estimate state-wide or other geographical immunization coverage estimates.

Data Release Policy:

imMTrax is only accessed by and released to health professionals, local public health, and school personnel for authorized purposes. Data may also be released to patients or parents/guardians.



Data Publications:

imMTrax information, healthcare provider enrollment forms, and additional program information are available at the [website](#).

Suggested Data Citation:

Montana Department of Public Health and Human Services, imMTrax, [data years].





Trauma Registry

[Program Webpage for Trauma Registry](#)

Data Contact:

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Sources of Information:

All Montana health care facilities are required to report trauma patients to the State Trauma Registry. Montana health care facilities which are required to report and required information is defined in Montana Administrative Rule 37.104.3014. The Trauma Registry was established in 1990 and data are available from 2003 forward.

Data are submitted electronically. Smaller volume facilities enter data directly into a web-based application on the centralized server, while larger facilities enter data into locally hosted software applications and upload their files to the centralized registry.

Description of the Data:

Each health care facility is responsible for reporting on trauma patients to whom they provided care, provided that they meet the defined inclusion criteria (including out of state residents who are treated in a reporting facility). [Inclusion criteria](#) are reviewed and updated annually by system stakeholders. Trauma registrars at each health care facility collect, code, and enter data describing patient characteristics, injury characteristics (date, time, and place of injury, intent/manner and cause/mechanism of injury), prehospital information (response times, vital signs, interventions), details of trauma team activation, referral information if the patient was an inter-facility transfer, emergency department/ resuscitation details (ED arrival date/time and status, vital signs, labs, Post-ED disposition), providers (Type of provider, name, response time), procedures (ICD10 PCS codes, location, start and end date/time, physician), diagnosis (ICD10 CM diagnosis codes, AIS scores), outcome (Discharge date/time, status, and condition, complications, total ICU and Ventilator days, discharged /transferred to, billing data). The data is extracted from the medical record and EMS run report.



Strengths of the Data:

State Trauma Registry data have high levels of completeness and data quality because health care facilities are legally required to report and all cases are reviewed by the trauma coordinator at DPHHS.

Trauma registry data captures the whole process from the injury incident to prehospital care to discharge. Additionally, trauma registry data are unique in that it includes detailed physiological information, unlike other sources such as hospital discharge data which are based on the billing information.

Data Limitations:

The data in the registry are not population based; it does not include all injured patients. It only captures the more severe patients that represent the "next level up" in care resources required, according to the inclusion criteria. Inclusion criteria may vary state to state, therefore Montana data may not be comparable with other states. The registry does not conduct patient follow-up; therefore injury-related death or other functional outcomes are not available. In addition, patients who die before reaching the hospital are not included in the State Trauma Registry.

The variation between trauma registrars (such as different methods for estimating missing values), as well as staff turnover, may affect the data quality. Inconsistency of EMS data are also a challenge, since many of the variables depend on the hospital receiving a high-quality EMS report.

Specific Use of the Information:

The Trauma Registry data are used primarily for performance improvement to enhance quality of patient care by using pre-identified audit filters. The Regional Trauma Advisory Committees (RTACs) and State Trauma Care Committee (STCC) review registry data and use it to guide their activities. Registry data are also used to identify opportunities for injury prevention. Selected data are submitted on a regular basis to the National Trauma Data Bank and the Trauma Quality Improvement Program.

System Evaluation:

There are validation checks built into the software/ web version to help with quality control. Inconsistent or incomplete data are queried to the facility's trauma registrar based on review by the State Trauma Coordinator.





Dataset Available:

Data from 2003 forward can be requested via a data request form, and if approved, reports are run by the State office using Excel. Data from 1990 to 2002 are not currently available due to use of an old database system. These will be converted into a dataset so the data can be used in the future.

Data Release Policy:

Summary statistics are covered under the DPHHS Public Health and Safety Division [data release policy](#). Data are suppressed when the event is fewer than five and rates are not calculated when the corresponding event is less than 20.

Data Publications:

Trauma Registry data was used in a 3rd Preventable Mortality Study completed in 2013 which has yet to be published. An annual Trauma Data Report will be produced at the end of 2017.

Suggested Data Citation:

Montana Department of Public Health and Human Services, Montana Trauma Registry, [data years].





Vital Statistics Surveillance System

[Program Webpage for Vital Statistics](#)

Data Contact:

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Sources of Information:

Information in the vital statistics system consists of six vital events that are required to be reported and maintained by law; live births, deaths, fetal deaths, induced abortion, marriage, and divorce. The Office of Vital Records (OVR) utilizes an electronic registration system for births, deaths, and fetal deaths.

Description of the Data:

For live births and fetal deaths, the electronic registration system collects identifying information, demographic data—including race, Hispanic origin, and education level of the parents; items related to the mother's previous pregnancy history; circumstances of the birth such as plurality, birth weight, obstetric procedures, and abnormal conditions of the newborn; and medical risk factors, such as tobacco and alcohol use during pregnancy (and cause of death in the case of fetal deaths). Data are collected on all births and deaths that occur in Montana or that occur to a Montana resident out-of-state. For deaths, the system collects identifying information on the decedent; demographic data such as address, age, sex, race, and occupation; circumstances of the death, such as date and place; the underlying cause of death, and contributing causes of death. Deaths to infants less than one year of age are matched to their corresponding death certificates and the resulting linked infant birth/death files contain all the data mentioned above from both the birth and death certificates. For marriages and divorces, the system collects identifying information on the spouses, and the date and county of the event on all marriages and divorces that occur.



Strengths of the Data:

Vital events are required to be reported by law, ensuring nearly 100% registration. Unlike surveys, vital statistics are population based. OVR has statistical datasets for births and deaths from 1954 to present and indexes of these vital events beginning in 1860. Fetal death data is available from 1989 to present while linked infant birth/death records are available from 2008 to present.

Data Limitations:

OVR relies on other jurisdictions to transfer records of vital events that occur to Montana residents outside of the state. It is unlikely that Montana receives 100% of these out of state records, therefore, state records may vary slightly from nationally published statistics.

Data is generally available six to nine months after the end of the previous calendar year. The delay is the result of waiting for out state records, last minute edits, and data cleaning.

Much has been written on the completeness of vital records. The information contained on these certificates is limited by the person certifying the event, their access to medical/legal records, autopsy results, and information provided by relatives, friends, or witnesses.

Specific Use of the Information:

Provide birth and death statistics for a variety of state, federal, and local programs.

Provide data to assess the health of the population (i.e. infant mortality, leading causes of death, maternal health characteristics, or infant birth weight).

System Evaluation:

The electronic vital registration system provides edit checks as the user enters the information. Quality assurance checks are conducted on-going to ensure completeness.

Dataset Available:

Identifiable birth, death, and linked infant birth/death data are available research institutions pending approval from the department. De-identified tabulated statistics are available to the public according to the departments data release policy. Data for research purposes and custom statistical analysis are subject to fees according to statute and administrative rule.





Data Release Policy:

All vital statistics are covered under the DPHHS Public Health and Safety Division [data release policy](#). Data are suppressed when the event is fewer than five and rates are not calculated when the corresponding event is less than 20.

Data Publications:

VSAU produces an annual report summarizing health outcomes from each of the vital records collected—birth, death, fetal death, induced abortion, marriage, and divorce. VSAU also produces surveillance reports on selected vital events and technical reports each year. All publications are available through the [Vital Statistics Analysis Unit's webpage](#).

Suggested Data Citation:

Montana Department of Public Health and Human Services, Montana Vital Statistics Analysis Unit, [data years and/or title of report], [method and date of accessing the data].





Youth Risk Behavior Survey

[Program Webpage for Youth Behavior Risk Survey](#)

Coordinator/Data Contact:

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Sources of Information:

The Youth Risk Behavior Survey (YRBS) is administered by the Montana Office of Public Instruction through a cooperative agreement with the U.S. Centers for Disease Control and Prevention (CDC). The YRBS is a self-reported student survey conducted biennially the last week of February in odd-numbered years in Montana high schools, middle schools, non-public accredited, and alternative high schools. Montana has attained weighted data YRBS results since Montana adopted the survey in 1991.

Description of the Data:

The YRBS monitors six categories of priority health behaviors among youth and young adults: 1) behaviors that contribute to unintentional injuries and violence; 2) tobacco use; 3) alcohol and other drug use; 4) sexual behaviors that contribute to unintended pregnancy and sexually transmitted infections (STIs); 5) unhealthy dietary behaviors; and 6) physical inactivity. In addition, the YRBS monitors the prevalence of obesity and asthma and other priority health behaviors.

The CDC's 2015 YRBS standard questionnaire contained 89 questions. This questionnaire was used as the starting point for the Montana questionnaire. States can add or delete questions from the standard questionnaire. The modified Montana questionnaire included 94 questions reflective of state health-risk behaviors and concerns.

Strengths of the Data:

The Montana High School YRBS dataset is obtained through a two-stage random sampling of public high schools and selected classes. Survey procedures are designed to protect students' privacy by allowing for anonymous and voluntary participation; and with 4,741 students participating in 2017, the response rate was 94%. Before survey administration, local parental permission procedures are followed. Students complete the self-administered questionnaire during one class period and record their responses directly on a computer-scan answer sheet. Montana has attained weighted data YRBS results since 1991; thus, the data are representative of all students in grades 9-12 attending Montana high schools.



Data Limitations:

YRBS data apply only to youth who attend school and, therefore, are not representative of all persons in this age group.

Data are self-report and subject to reporting bias.

Specific Use of the Information:

Montana YRBS data are used widely to compare the prevalence of health risk behaviors among subpopulations and minority youth (e.g., Native American youth); assess trends in health behaviors over time; monitor progress toward achieving 21 national health objectives for Healthy People 2020 and one of the 26 leading health indicators; provide comparable state data; and help develop and evaluate school and community policies, programs, and practices designed to decrease health-risk behaviors and improve health outcomes among youth.

System Evaluation:

Data are weighted based on race, sex, and grade level in order to produce representative results. Furthermore, CDC has conducted two test-retest studies and revised certain questions in order to improve reliability. CDC has also tested the validity of height and weight in the YRBS survey and found that height was overestimated and weight was underestimated. This indicates that YRBS may underestimate obesity. It may underestimate other health risks as well.

Dataset Available:

Public data reports are available on the YRBS web site for High School, Grades 7-8; American Indian Students on or Near a Reservation, American Indian Students in Urban Schools, Alternative School, Non-Public Accredited School and Students with Disabilities. Data reports are also available for each of the nine Montana Association of School Superintendents (MASS) regions. County data are available for those Montana counties with two or more schools participating in the YRBS. School-specific data are available through a password secure portal to district superintendents and the district YRBS coordinator. Further analysis of Montana YRBS data has resulted in topic-specific reports such as suicide ideation, alcohol use, tobacco use, and breakfast consumption. Contact the YRBS coordinator for the raw data set.

Data Release Policy:

Data are shared with the use of a Conditional Use Agreement. To protect confidentiality the names of participating schools are not available. Contact the Montana YRBS coordinator if requesting the raw data set.





Data Publications:

The CDC includes the results of all states that conduct the YRBS in the Morbidity and Mortality Weekly Report. Youth Online, CDC's website and tool for using YRBS data, can analyze and create tables and graphs and perform statistical tests on high school results from 2001-2015 by site and health topic. National data publications can be found on the [CDC YRBS website](#) and statewide data publications can be found on the [Montana YRBS website](#).

Suggested Data Citation:

Montana Office of Public Instruction, Youth Risk Behavior Survey, [year].

