MHA Montana Health Improvement Strategic Plan

“A Healthier Montana by 2020”
MHA Montana Health Improvement Strategic Plan

Vision Statement
MHA, in partnership with our communities, will make Montana a top 10 healthy state.

MHA Mission Statement
MHA is the principal advocate for the interests of members in their efforts to improve the health status of the communities they serve.

Top Tier Health Improvement Priorities
The health improvement priorities are areas for MHA members to focus on as part of the effort to create a healthier Montana.

- Increase immunizations
- Increase access to health care
- Decrease premature death
- Decrease prevalence of obesity
MHA Montana Health Improvement Initiative

Hospitals and health systems are playing greater roles in not only transforming the way care is delivered but working with community partners to improve the health status of those we serve. Across Montana, hospitals are working to advance overall health by collaborating with individuals and organizations to identify unmet regional health care needs and implement plans to meet those needs.

The MHA is positioned to help member hospitals attain community health improvement by selecting priority areas that can be improved through our work as a statewide association. Utilizing two nationally recognized programs around which to build a framework for assessing health status – (1) America’s Health Rankings, an annual report produced by United Health Foundation, and (2) County Health Rankings, a program of the Robert Wood Johnson Foundation – we will track progress in those identified areas using specific data programs and measures.

The overarching goal is improving the health status of Montanans, which will lead to a healthier and more productive state. Healthy communities provide opportunities for economic development, business recruitment, a stronger workforce, and access to quality and affordable health care.

MHA and its members will engage key stakeholders to accomplish the goals established in each priority area. These groups could include, but may not be limited to, the Montana University System, Montana Medical Association, Department of Public Health & Human Services, Montana Primary Care Association, public health entities, community groups, and grant foundations.

The following pages outline potential areas MHA members could focus on as part of the effort to create a healthier Montana. The list below suggests four areas of priority that may have the greatest impact in improving the health status of the state.
Current Health Improvement Priorities

**Immunization**
- a. Increase percentage of childhood immunizations
- b. Increase percentage of adolescent immunizations
- c. Decrease pertussis cases (per 100,000)

**Access to Health Care**
- a. Increase insurance coverage
- b. Increase primary care providers (per 100,000)
- c. Increase advanced practice providers (per 100,000)

**Decrease Premature Deaths**
- a. Decrease preventable drug deaths
- b. Alcohol abuse
- c. Tobacco use
- d. Suicide
- e. Seat belt use

**Obesity**
- a. Decrease the prevalence of obesity
Montana’s Health Care Ranking
Among all states, Montana ranks 22nd in overall health of its citizens based on the 2014 Annual Report prepared by America’s Health Rankings.

Strengths
- Low prevalence of obesity
- Low levels of air pollution
- Low prevalence of diabetes

Challenges
- High prevalence of binge drinking
- Low immunization coverage among teens
- Limited availability of primary care physicians

Highlights

Increased Pertussis Cases
• In the past year, pertussis increased by 300% from 13.7 to 55.0 cases per 100,000 population.

Decreased Smoking Prevalence
• In the past two years, smoking decreased by 14% from 22.1% to 19.0% of adults.
  • In 1990, the prevalence of smoking was 25.9% of adults.

Decreased Physical Inactivity
• In the past two years, physical inactivity decreased by 12% from 24.4% to 21.4% of adults.

Decreased Children in Poverty
• In the past two years, children in poverty decreased by 19% from 25.1% to 20.3%.

Increased Low Birthweight
• In the past 20 years, low birthweight increased by 32% from 5.6% to 7.4% of births.

Source: America’s Health Rankings
Increase Childhood and Adolescent Immunizations

The Issue
The increase in life expectancy during the 21st century is largely due to improvements in child survival; this increase is associated with reductions in infectious disease mortality, due largely to immunization. However, infectious diseases remain a major cause of illness, disability, and death. Immunization recommendations in the United States currently target 17 vaccine-preventable diseases across the lifespan (Healthy People, 2020).

Montana residents continue to contract vaccine-preventable diseases, such as viral hepatitis, influenza, pneumonia and pertussis. Even though most infants and toddlers have received all recommended vaccines by age 2, many under-immunized children remain, leaving the potential for outbreaks of disease. Many adolescents and adults are under-immunized as well, missing opportunities to protect themselves against diseases such as Hepatitis B, influenza, and pneumococcal disease.

Vaccines are among the most cost-effective preventive services. Each generation of babies vaccinated according to current recommendations results in:

- Saving 33,000 lives
- Preventing 14 million cases of disease
- Reducing direct health care costs by $9.9 billion
- Saving $33.4 billion in indirect costs (Healthy People, 2020)

Vaccination should not stop with babies and children; preteens and teenagers also need the human papillomavirus (HPV) vaccine, meningococcal vaccine, Dtap vaccine and flu vaccine. And adults should not assume that their childhood vaccinations will protect them forever; immunity can fade, newer vaccines are developed, and susceptibility to disease from infections (e.g. flu, pneumococcus) increases as we age – especially if chronic disease is present.

Reducing vaccine preventable diseases among all Montana residents by increasing childhood and adolescent immunizations can positively impact patients, providers, and communities.

A comprehensive, effective immunization program must ensure that the vaccines reach every eligible child, teenager, and adult at the recommended time. Immunization levels in Montana are less than impressive and gaps still exist, so much can be done to increase immunization rates across the state. Vaccine preventable disease rates in Montana are at low levels; however, this should not be reason to avoid addressing immunization rates. The ramifications are many: viruses and bacteria that cause vaccine preventable disease and death still exist and can be passed on to unprotected individuals. This can result in social, economic and health costs; sick children miss school, parents lose time from work, and providers are subject to these illnesses as well.
How we are doing today:

**Childhood Immunizations**
Current performance – 65.4% (Rank 44)

Short Term Goal
**Improve childhood immunization rates to 75% in 3 years**

Long Term Goal
**Improve childhood immunization rates to 85% in 5 years**
Adolescent Immunizations
Current performance – 54.7% (Rank 45)

Short Term Goal
Improve adolescent immunization rates to 70% in 3 years

Long Term Goal
Improve adolescent immunization rates to 80% in 5 years

Strategies to Attain Goals
1. Convene statewide working group to create and facilitate implementation of strategic plan built on evidence-based practices.

2. Seek grant funding to support marketing/awareness and provide other resources needed to increase immunizations.
Stakeholders to engage in strategic plan
- Department of Public Health & Human Services (DPHHS)
- Office of Public Instruction (OPI)
- Montana Primary Care Association
- Montana Public Health Association
- Montana Academy of Family Physicians (MAFP), Montana Medical Association (MMA), pediatricians
- Local health departments
- Montana Association of School Nurses
- Mountain Pacific Quality Health
- Medicaid and other payors

Data sources utilized for goal comparisons
America’s Health Rankings
DPHHS Immunization Program data

Work Plan
The Immunization Workgroup will meet on a quarterly basis to establish leadership and accountability for improving performance in immunization rates. Tasks performed by the Workgroup will include:

- Identify key stakeholders and their engagement in the project.
- Identifying immunization providers in each county and whether they report to the registry; note geographical gaps or lack of available resources.
- Reviewing existing partnerships created (e.g. hospital/county health department) to improve immunization rates to determine functional models that can be replicated.
- Determining best practices in place at high performing members of the workgroup.
- Describing the barriers to performance improvement (lack of education, religious beliefs, lack of providers, access to care, etc.) and how they can be minimized.
- Identification of key public policies, payment methods and resources needed to improve rates.

MHA will direct educational programming to include information relevant to best practices aimed at improving immunization rates as appropriate.

The Council on Representation and Advocacy will:

- Identify federal and state statutes, regulations and public policies that impair the ability to improve immunization rates.
- Identify insurance and other payer policies and practices that discourage immunization access.
- Recommend legislative and advocacy agenda for the 2017 legislative session and the 2017 federal advocacy plan.
Improve Access to Health Care

The Issue
Access to primary health care is a key policy issue in Montana and this country. It is important for the achievement of health equity and a healthy life for everyone.

Picture a young mother who has no place to go with her sick child, or a man who develops a fever or infection, and neither has insurance coverage or the means to cover health care costs. Both of these patients are destined to seek care at a hospital emergency room. Consider the neighbor who has multiple health issues - obesity, high blood pressure, and high cholesterol – and does not have a regular doctor who watches out for his health care problems and can make sure he is getting the proper care.

These scenarios highlight the difficulties encountered by citizens across the state to access the care needed by them and their families. It is difficult to access care and to stay healthy without a primary care provider and insurance coverage.

The lack of primary care providers and lack of insurance coverage are key challenges that need to be addressed to assure that primary health care is accessible and equitable to all Montana residents.

Primary Health Care Providers
Primary care providers, whether a family physician, an internist, a pediatrician, a physician assistant, or a nurse practitioner, are typically the first contact we have when seeking health care services. These providers diagnose and treat illness, disease and minor health problems before they become major problems that spin out of control. Primary care providers offer preventive care and are key to creating plans for managing the care of patients.

There is evidence that access to primary care helps people live longer, can prevent avoidable health conditions, helps avoid disability and generally improves our lives. Health ranking reports indicate that in areas of the nation where the number of primary care providers per person are high, unnecessary hospitalizations are lower as are deaths from heart disease, cancer and stroke.

Primary care providers have a major impact on the health of the community residents they serve; however, a shortage of primary care providers is nearing as there has been a decrease in the number of medical students interested in pursuing a primary care specialty. It is imperative that the number of primary care providers (family physician, internist, pediatrician, physician assistant, or nurse practitioner) be increased immediately.

Lack of Health Insurance
Health insurance coverage or the lack thereof is a primary determinant in whether or not people seek medical care, and where and when they seek care. And, it has a huge impact on the health status of people; individuals without insurance are more likely than those with coverage to postpone or simply not seek health care. Obviously the consequences of these choices can be detrimental to one’s health.

People without insurance are much more likely to report problems accessing needed medical care and are less likely to receive timely health care. As health care costs rise, access to care becomes less available, especially for the uninsured. Uninsured people are less likely to fill a prescription or take prescribed drugs.

People without insurance do not seek regular outpatient care and therefore are hospitalized more frequently for avoidable health problems; as a result they experience overall decline in their health status.
Increasing the number of individuals with health insurance will improve the health status of those currently uninsured and improve the overall health status of the state.

How we are doing today

**Lack of Health Insurance**
Current Performance – 17.2% (Rank 41)

Montana has a very high rate of uninsured residents. According to the Kaiser Family Foundation surveys, nearly 200,000 Montanans were without health coverage as late as 2013. The number of subsidized health policies available on the health insurance exchange has begun to show progress in reducing the rate of uninsured populations. More than 50,000 Montanans now have insurance due to the Affordable Care Act. MHA projects that the number of Montanans who obtain health coverage will continue to grow. Montana has also decided to expand coverage to low income childless adults through the Medicaid program.

The two new sources of insurance coverage are expected to reduce the uninsured rate in Montana from nearly 20% to as low as 8% by 2019.

**Short Term Goals**
Decrease the uninsured percentage from 17.2% to 13%

**Long Term Goals**
Decrease the uninsured percentage from 17.2% to 10%
Increase Primary Care Physicians (per 100,000)
Current Performance – 99 (Rank 41)
Information from the Board of Medical Examiners states that there are over 4,900 active physician licenses.

Short Term Goals
Increase number of primary care physicians per 100,000 from 100 to 102

Long Term Goals
Increase number of primary care physicians per 100,000 from 100 to 105

Source: America’s Health Rankings
Increase APRN and PA Providers

The Montana Board of Nursing provided the following statistics on APRN licenses in Montana; APRNs are certified as Nurse Practitioners, Registered Nurse Anesthetists, Nurse Midwives, or Clinical Nurse Specialists. Information from the Board of Medical Examiners states that there are just short of 600 active Physician Assistants in Montana.

![APRN & PA Providers Chart](chart.png)

**Short Term Goals**
- Increase number of advanced practice providers per 100,000 to 160

**Long Term Goals**
- Increase number of advanced practice providers per 100,000 to 180

**Strategies to attain goals**

MHA will convene a member workgroup to create and facilitate implementation of strategic plan to attain goals. (See 2016 work plan – below)

MHA will provide periodic reports to the member hospitals regarding activities to improve access. Reports will include data on increased covered lives by services area and how hospitals can participate in sign-up activities. Reports will also provide information on efforts to increase primary care physicians, APRNs and PAs and how hospitals can engage in advocating for these issues.

MHA through MHREF will pursue grants to support access efforts: i.e. Navigator grant, FCHIP, loan repayment, others as appropriate.
Stakeholders to engage in strategic plan
MHA and member facilities will work with numerous agencies, associations, and others during the implementation of its strategic plan to improve access to health care. These groups will include, but not be limited to: Governor’s Office, DPHHS, DLI, OCHE, University of Washington, WWAMI, GME Council, Rocky Mountain College, MMA, MPCA, MT AHEC, Insurance Commissioner, Congressional delegation, State Chamber of Commerce, CMS, Insurance Agencies, IHS, VA System and other state agencies.

Data sources utilized for goal comparisons
America’s Health Rankings
Kaiser Foundation
MT Department of Public Health & Human Services (DPHHS)
MT Department of Labor (DOL)
WWAMI
MT Area Health Education Center (AHEC)
MHA Members

Work Plan
The Workgroup on Access will meet to establish leadership and accountability for improving access to health care. Tasks under consideration of the Workgroup will include:

- MHA will provide support to Governor’s Office, DPHHS and DLI in efforts to implement the Montana HELP Act
- MHA will pursue 3-year Navigator grant to support increasing coverage through the Marketplace
- MHA will advocate for (continued) access to health care in vulnerable communities
- MHA to investigate creation of stand-alone foundation to support Medicaid premiums for HELP Act beneficiaries
- MHA will support GME Council efforts to increase funding for rural residency programs
- MHA will advocate for licensed healthcare personnel to be allowed to practice to the full extent of their education and training
- MHA will advocate at state and federal level for expansion of loan repayment programs for licensed healthcare personnel
- MHA to investigate expansion of APRN and PA programs
- MHA will engage the university system in pursuit of expanded funding and programs for health professional occupations
- MHA will support implementation of Nurse and Physician Licensure Compacts
- MHA will advocate at state and federal level for policies to remove barriers to telehealth adoption, including payment for services and for clarification regarding the definition of telehealth consultation
- MHA to develop state legislative agenda to support access initiatives
Decrease Premature Death

The Issue
Montana has a serious and worsening illegal drug, prescription narcotic and alcohol abuse problem. The state also has the third highest suicide percentage rate in the nation after Alaska (#2), and Wyoming (#1) based on 2012-2014 data from America’s Health Rankings. The shortage of mental health professionals and treatment centers to address these issues is of significant concern, and will only intensify as, what some medical groups are describing as an “epidemic”, continues to proliferate.

The end product of the above mentioned afflictions can often result in premature death. “Premature death” is a measure of mortality that reflects the age of death for persons younger than 75 years of age. A person who dies very young contributes more towards the overall measure and causes it to increase more than someone who dies closer to age 75. Deaths occurring in younger people are more likely to be preventable than those occurring in older people and are often indicative of failures in the health care system and/or lifestyle factors.

http://www.americashealthrankings.org/Measures/Measure/MT/YPLL#sthash.2sFT9SQK.dpuf

When preventive care and intervention strategies are accessible that encourage modification for healthy lifestyles, potential prevention of many premature deaths can be achievable. A collaborative effort that includes a wide compass of healthcare entities will be the key component in facilitating development of successful and attainable intervention strategies resulting in the reduction of premature death in Montana.

Prescription Drug Abuse
Narrative - TBD

Source: Montana Hospital Discharge Data System (MHDDS)
Listed below are statistics obtained from the Montana Medical Association website http://knowyourdosemt.org/:

- Prescription drug abuse contributes to the death of more than 300 Montanans each year making prescription drug abuse 15 times more deadly than meth, heroin and cocaine combined.
- Montana kids report the third-highest rate of prescription drug abuse in the country, while 70% of abusers get their drugs from family members.
- Almost one in 10 – 9.6 percent – of Montana teens aged 12 to 17 have reported abusing prescription pain relievers. That is the third-highest rate for teens in the country. (2007 National Survey on Drug Use and Health)
- More than 18 percent of Montana’s middle school and high school students report abusing prescription drugs like Vicodin and OxyContin. By the time they reach the twelfth grade, almost 23 percent have abused these drugs. (2011 Montana Youth Risk Behavior Survey)
- Nearly 78 percent of kids have had conversations with their parents about the dangers of using beer and marijuana. Only 24 percent have had those conversations about prescription drugs. (2008 Partnership Attitude Tracking Survey: Teens)
- A study done by the Montana Department of Justice indicates 55.9% of abusers of prescription drugs get their drugs from friends and relatives, for free.

Alcohol Abuse
Alcohol consumption and binge drinking in Montana are of even higher concern. According to 2014 survey information from America’s Health Rankings, Montana has the 6th highest level of binge drinking in the nation with a rate of 20.8%. This rate measures the percentage of adults who had 4 or more (women) or 5 or more (men) alcoholic beverages on a single occasion in the past 30 days. The National Institute on Alcohol Abuse and Alcoholism defines binge drinking as a pattern of drinking that brings a person’s blood alcohol concentration (BAC) to 0.08 grams percent or above. This typically happens when men consume 5 or more drinks, and when women consume 4 or more drinks, in about 2 hours.

Tobacco Use
Many of the premature deaths in Montana could be prevented by reducing exposure to tobacco smoke. An estimated 61% of Chronic Lower Respiratory Disease (CLRD) deaths, 50% of cancer deaths (including 16 different cancers), 19% of heart disease deaths, and 5% of stroke deaths are attributable to cigarette smoking. Preventing children and adults from initiating tobacco use, helping current tobacco users quit, and protecting non-tobacco users from second hand smoke are essential for reducing premature deaths in Montana.

**Smoking**

- **United States-Percentage of population over age 18 that smokes on a regular basis**
- **United States-Percentage of adults who are smokers (self-report smoking at least 100 cigarettes in their lifetime and currently smoke). (2011 BRFSS Methodology)**
- **Montana-Percentage of population over age 18 that smokes on a regular basis**
- **Montana-Percentage of adults who are smokers (self-report smoking at least 100 cigarettes in their lifetime and currently smoke). (2011 BRFSS Methodology)**

Source: America's Health Rankings

**Youth Smoking**

- **United States-Percentage of high school students who smoked cigarettes on at least 1 day during the past 30 days**
- **Montana-Percentage of high school students who smoked cigarettes on at least 1 day during the past 30 days**

Source: America's Health Rankings
Suicide
2014 statistics collected by DPHHS’ Montana Suicide Review Team (MSR) reflect the following statistics in Montana:

- 243 total suicides in 2014 averaging 20 per month
- 81% male/19% female
- 59 veteran suicides which is 24% of the total
- 40% of the victims had an identified mental health disorder
- 75% of the victims exhibited warning signs

The socio-economic effects of suicide death are considerable. According to the American Foundation for Suicide Prevention, the cost of suicide death in the U.S. was estimated in 2010 to be more than $44 billion annually. With the burden of suicide falling most heavily on adults of working age, the cost to the economy results almost entirely from lost wages and work productivity. Completed suicide is devastating to surviving family and friends, often leaving them with conflicted feelings of guilt, sadness and anger, placing them at risk for depression due to preoccupation as to the reason for the event and whether they could have prevented it.

Seat Belt Use
Motor vehicle crashes are a leading cause of death during the first three decades of Americans’ lives. By wearing seat belts and properly buckling children into age-and size-appropriate car seats and booster seats, people can reduce the risks of serious injury and death in a crash by half.

In 2013, seat belt use in the United States ranged from 68.7 percent in South Dakota to 98.2 percent in Oregon. Montana experienced a 2.3% decrease in 2013 to 74.0% use. These results are from probability-based observational surveys conducted by 50 states, the District of Columbia, and U.S. Territories. The nationwide seat belt use was 87 percent as measured by the National Highway Traffic Safety Administration’s (NHTSA) National Occupant Protection Use Survey (NOPUS).
Strategies to Attain Goals
MHA will convene a member workgroup to create and facilitate implementation of strategic plan to attain goals. (See work plan – below)
MHA will provide periodic reports to the member hospitals regarding activities to decrease overall premature death.

Short Term Goals
- Prescription Drug Abuse - TBD
- Alcohol Abuse - TBD
- Tobacco Use - TBD
- Suicide - TBD
- Seat Belt Use - TBD

Long Term Goals
- Prescription Drug Abuse - TBD
- Alcohol Abuse - TBD
- Tobacco Use - TBD
- Suicide - TBD
- Seat Belt Use - TBD

Stakeholders to engage in Strategic Plan
Montana Suicide Review Team (MSR)/Department of Public Health and Human Service (DPHHS)
Montana Public School Districts
Montana Medical Association (MMA)
MHA Member Healthcare Facilities/Hospitals/Providers/Clinics
Community and City Managers/Council
Government Representatives
Office of Public Instruction (OPI)
Mental Health Centers/Facilities/Providers
Commercial Insurance Companies
Montana Department of Justice (DOJ)
Montana Legislators

Strategies to attain goals
MHA will reach out to the above listed entities with state specific and national data regarding alcohol, illicit and prescription drug use, and suicide rates. This information will include the various statistics gathered reflecting the significant increase and overall social-economic effect these afflictions have on our state’s healthcare system, communities and families. MHA will facilitate communication and collaborative efforts with the listed stakeholders in an effort to develop a workforce with focus toward improving access to mental health, rehabilitation services, addiction counseling and education focusing on the development of techniques and practices that will encourage positive social and lifestyle changes resulting in reduction of suicide events, alcohol and drug abuse.

Work Plan
The Work Group on Eliminating Premature Deaths will establish leadership and accountability initiating quarterly meetings with appropriate stakeholders. Tasks performed include the following:

- Meet with the previously listed stakeholders to determine their taskforce representative.
- Provide current national, state and county level statistical information to determine need and direction.
• Provide leadership in reviewing current initiatives and consider collaboration, e.g., MMA/DOJ/BCBS’ initiative; ‘knowyourdosemt.org’
• Identify barriers to successful prevention program implementation (e.g., lack of mental healthcare providers/facilities, socio-economic factors preventing access to healthcare, lack of education regarding the risks of drug and alcohol use/abuse), and development of strategies toward these barriers with appropriate stakeholder members.
• Provide educational opportunities, e.g., presentation(s) to increase awareness of the issues during Convention/Health Summit.
• Provide ongoing stewardship toward collaborative efforts to insure successful outcomes.

The Council on Representation and Advocacy will:

• Work with state legislators on regulatory issues such as physician reporting and monitoring of their opioid prescribing practices.
• Recommend legislation allowing APRNs to practice at the full extent of their training and licensure providing prescription authority for Suboxone, a medication used to treat narcotic (opiate) addiction.
• Review other federal and state statutes, identifying opportunities for intervention that would lead to additional regulatory legislation.
Decrease Prevalence of Obesity

The Issue
The obesity epidemic is one of the country’s most serious health problems. Nationwide, adult obesity rates have doubled since 1980, from 15 to 30 percent, while childhood obesity rates have more than tripled. Rising obesity rates have significant health consequences, contributing to increased rates of more than 30 serious diseases including heart disease, type 2 diabetes, stroke, certain cancers, hypertension, liver disease, kidney disease, Alzheimer’s disease, dementia, respiratory conditions, osteoarthritis, as well as poor general health.

How we are doing today
According to America’s Health Rankings, a comparative health index of states, 2014 statistics rank Montana at number six nationwide for lowest obesity rates with an adult obesity percentage of 24.6. However, the state has experienced a significant increase since 2004, when it had an obesity rate of 18.8%, and 8.7% in 1990, an increase of more than 182%.

The plethora of obesity associated conditions create a significant strain on the health care system resulting in increased costs and, in Montana as well as other rural states, considerable stress on an already depleting healthcare workforce.

There is significant evidence of the influence environment has on the obesity epidemic. Genetics and medical history are contributing factors; however, poor diet and physical inactivity are major lifestyle contributors to obesity. To address the obesity issue nationwide and in our state, we must promote the changes needed in our social and physical environments to better facilitate changes in lifestyle.

Obesity Facts:

- Obesity is the result of a “caloric imbalance” – too few calories expended for the amount of calories consumed, affected by various, genetic, behavioral, and environmental factors. (CDC 24/7: Saving Lives. Protecting People. Adolescent and School Health)
- In the United States, more than two-thirds of adults are overweight or obese and about one-third of children and adolescents ages six to 19 are considered to be overweight or obese. (National Institute of Diabetes, Digestive and Kidney Diseases)
- Obesity is a leading factor in preventable death; According to the National Institute of Health, an estimated 300,000 deaths per year are due to the obesity epidemic.
- An estimated $147 billion was spent on obesity or obesity-related health issues in the year 2008; current statistics indicate more than one-quarter of health care costs are related to obesity. (CDC 24/7: Saving Lives. Protecting People. Adolescent and School Health)
- Recognition of the possibility of an underlying mental health component with obesity is imperative to weight loss program success.

Strategies to attain goals
MHA will convene a member workgroup to create and facilitate implementation of strategic plan to attain goals. (See work plan – below)

MHA will provide periodic reports to the member hospitals regarding activities to decrease overall obesity.
Short Term Goals
Decrease overall obesity rate in Montana from 24.6% to 20% by 2020

Long Term Goals
Sustain above goal while continuing to reduce obesity rate to 15% by 2025

Stakeholders to engage in Strategic Plan
MHA and member facilities will work with numerous agencies, associations, and others during the implementation of its strategic plan to decrease overall obesity. These groups will include, but not be limited to: Department of Public Health and Human Services (DPHHS); Montana public school districts/board members; Montana Medical Association (MMA); member healthcare facilities, hospitals, providers, clinics; insurance companies; child care centers; Community and City Managers/Councils; government representatives; Office of Public Instruction (OPI); mental health centers.

Strategies to attain goals
MHA will reach out to the above listed entities with state specific data regarding obesity. This information will include the various statistics gathered reflecting the significant increase in obesity rates, and associated healthcare disorders/costs related to obesity. MHA will facilitate communication and collaborative efforts with the listed stakeholders in an effort to develop a workforce with focus toward implementation of public policy, providing and supporting educational opportunities, and recommendation of reform that will encourage positive social and lifestyle changes resulting in obesity reduction.

Additional possible specific strategies to be considered
1. MHA will work with community leaders, school districts and other public service entities to increase the availability of healthier food and beverages choices in public service venues, including schools, child care centers, and community recreational facilities.

2. MHA will work with community leaders/school districts and other public service entities to restrict availability of less healthy foods and beverages in public service venues including schools, child care centers, and community recreational facilities.

3. MHA will work with the stakeholder workgroup to encourage schools to increase the opportunity for extracurricular physical activity opportunities with improved school-based PE curricula, especially at the K-6 and middle school levels.

4. MHA will work with the stakeholder workgroup community leaders to improve access to public recreational facilities, including enhancing infrastructure supporting bicycling, walking and running.

5. MHA will work with the stakeholder workgroup to encourage additional mandatory nutritional curricula at all school levels.

6. MHA will facilitate development of a Community Coalition(s) supporting public educational opportunities/awareness, addressing the harmful effects of obesity/instruction in weight reduction/healthy nutritional habits with emphasis on regular exercise.

7. MHA will work with the medical providers/hospitals to enhance early screening for obesity with follow up nutritional counseling/education for both children and parent(s).

8. MHA will work with local businesses, member hospitals, insurance companies and school districts to
encourage development of robust wellness/incentive programs.

**Work Plan**
The Work Group on obesity will establish leadership and accountability initiating quarterly meetings with the appropriate stakeholders. Tasks performed include the following:

- Meet with previously listed stakeholders to determine their taskforce representative.
- Provide current state and county level statistical information to determine need and direction.
- Provide leadership in reviewing successful community models/programs to implement toward a strategic plan, e.g. ‘Shape up Shelby’ which includes their ‘Walk and Wheel Wednesdays’ initiative.
- Identify barriers to successful weight loss/lifestyle changes (e.g., lack of education, underlying mental health issues, socio-economic factors) and develop strategies with appropriate stakeholder members.
- Provide educational opportunities, e.g., presentation regarding development of wellness programs for member facilities during Convention/Health Summit.
- Provide ongoing stewardship toward collaborative efforts to insure successful outcomes.
Appendix
A1. America’s Health Rankings Core Measure Impact

America’s Health Rankings® is the longest-running annual assessment of the nation’s health on a state-by-state basis. For the past 25 years, America’s Health Rankings® has provided a holistic view of the health of the nation. America’s Health Rankings® is the result of a partnership between United Health Foundation, American Public Health Association, and Partnership for Prevention™.

Core Measure Impact
Which measures have the greatest impact on a state’s overall ranking? The size of the circle illustrates the impact that each individual measure has on Montana’s overall rank of 22. Green measures have a positive impact and red measures have a negative impact on the state’s overall ranking.

Measure Definitions

**Air pollution** - average exposure of the general public to particulate matter of 2.5 microns or less in size (PM2.5). Montana’s Rank: 4

**All determinants** - weighted sum of the number of standard deviations each core determinant is from the national average. Montana’s Rank: 23

**All outcomes** - weighted sum of the number of standard deviations each core outcome is from the national average. Montana’s Rank: 15
**Binge drinking** - percentage of adults who self-report having 4 or more (women) or 5 or more (men) alcoholic beverages on at least 1 occasion in the past month. (2011 BRFSS Methodology) Montana’s Rank: 45

**Cancer Deaths** - number of deaths due to all causes of cancer per 100,000 population. Montana’s Rank: 11

**Cardiovascular deaths** - number of deaths due to cardiovascular disease, including heart disease and stroke, per 100,000 population. Montana’s Rank: 16

**Children in poverty** - percentage of persons younger than 18 years who live in households at or below the poverty threshold. Montana’s Rank: 33

**Chlamydia** - number of new cases of chlamydia per 100,000 population. Montana’s Rank: 16

**Cholesterol check** - percentage of adults who have had their blood cholesterol checked within the last 5 years. (2011 BRFSS Methodology) Montana’s Rank: 39

**Colorectal cancer screening** - the percentage of adults aged 50 to 75 years who self-reported receiving recommended Colorectal cancer screening using high-sensitivity fecal occult blood testing, sigmoidoscopy, or colonoscopy. Montana’s Rank: 47

**Dental visit, annual** - percentage of adults who have visited the dentist or a dental clinic within the past year for any reason. (2011 BRFSS Methodology) Montana’s Rank: 38

**Dentists** - number of practicing dentists per 100,000 population. © American Dental Association. Republished with permission. All rights reserved. Any form of reproduction is strictly prohibited without prior written permission of American Dental Association. Montana’s Rank: 20

**Diabetes** - percentage of adults who responded yes to the question “Have you ever been told by a doctor that you have diabetes?” (Excludes pre-diabetes and gestational diabetes). (2011 BRFSS Methodology) Montana’s Rank: 5

**Disparity in health status** - difference in the percentage of adults aged 25 and older with vs without a high school education who report their health is very good or excellent. Montana’s Rank: 18

**Drug deaths** - number of deaths due to drug injury of any intent (unintentional, suicide, homicide, or undetermined) per 100,000 population. (3-year average) Montana’s Rank: 26

**Excessive drinking** - percentage of adults that report either binge drinking (consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days) or heavy drinking (consuming more than one (women) or 2 (men) drinks per day on average. Montana’s Rank: 45

**Fruits** - number of fruits consumed by adults in an average day. (2011 BRFSS methodology) Montana’s Rank: 24

**Heart attack** - percentage of adults who have been told by a health professional that they had a heart attack (myocardial infarction). (2011 BRFSS Methodology) Montana’s Rank: 28

**Heart disease** - percentage of adults who have been told by a health professional that they had a heart
attack (myocardial infarction). (2011 BRFSS Methodology) Montana’s Rank: 12

**High blood pressure** - percentage of adults who have been told by a health professional they have high blood pressure. (2011 BRFSS Methodology) Montana’s Rank: 7

**High cholesterol** - percentage of adults who have had their cholesterol checked and been told it was high. (2011 BRFSS Methodology) Montana’s Rank: 7

**High health status** - percentage of adults reporting their health is very good or excellent. (2011 BRFSS Methodology) Montana’s Rank: 10

**High school graduation** - percentage of incoming ninth graders who graduate in 4 years from a high school with a regular degree. Montana’s Rank: 12

**Immunization - Adolescents** - percentage of adolescents aged 13 to 17 years who have received 1 dose of Dtap since the age of 10 years, 1 dose of meningococcal conjugate vaccine, and 3 doses of HPV (females). (National Immunization Survey-Teen, 2012) Montana’s Rank: 45

**Immunization - Children** - percentage of children aged 19 to 35 months receiving recommended doses of Dtap, polio, MMR, Hib, hepatitis B, varicella, and PCV vaccines. Montana’s Rank: 44

**Immunization Dtap** - percentage of adolescents aged 13-17 years who have received ≥1 dose of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Dtap) since age 10 years. Montana’s Rank: 33

**Immunization HPV female** - percent of 13-17 year old females who received ≥3 doses of human papillomavirus (HPV) vaccine, either quadrivalent or bivalent. Some adolescents may have received more than the three recommended HPV doses. Montana’s Rank: 42

**Immunization MCV4** - percentage of adolescents aged 13-17 years with ≥1 dose of meningococcal conjugate vaccine or meningococcal -unknown type (MenACWY) vaccine. Montana’s Rank: 48

**Income disparity** - a value of 0 represents total income equality and 1 indicates complete income inequality. (Gini coefficient) Montana’s Rank: 24

**Income disparity ratio** - the ratio of the median household income of the 80th percent of households and the median household income for those at the 20th percent of households. Montana’s Rank: 31

**Infant mortality** - number of infant deaths (before age 1) per 1,000 live births. Montana’s Rank: 20

**Infectious disease** - combined average z-score using the incidence of chlamydia, pertussis, and Salmonella per 100,000 population. Montana’s Rank: 32

**Insufficient sleep** - percentage of adults who report sleeping less than 7 hours in a 24-hour period, on average. Montana’s Rank: 6

**Lack of health insurance** - percentage of the population that does not have health insurance privately, through their employer, or the government. (Two year average) Montana’s Rank: 41

**Low birthweight** - percentage of infants weighing less than 2500 grams (5 pounds, 8 ounces) at birth. Montana’s Rank: 18
Median household income - dollar amount that divides the household income distribution into 2 equal groups. Montana’s Rank: 39

Obesity - percentage of adults who are obese, with a body mass index (BMI) of 30.0 or higher. (2011 BRFSS Methodology). Montana’s Rank: 6

Obesity - youth - percentage of high school students who were greater or equal to the 95th percentile for body mass index, based on sex and age-specific reference data from the 2000 CDC growth charts. Montana’s Rank: NA

Occupational fatalities - number of fatal occupational injuries in construction, manufacturing, trade, transportation, utilities, professional, and business services per 100,000 workers. Overall - weighted sum of the number of standard deviations each core measure is from the national average. Montana’s Rank: 36

Personal income, per capita - per capita personal income in current dollars. Montana’s Rank: 35

Pertussis - number of new cases of pertussis per 100,000 population. Montana’s Rank: 43

Physical activity - percent of adults who indicated that they participated in physical activities during the past month. (2011 BRFSS Methodology) Montana’s Rank: 10

Physical inactivity - percentage of adults who report doing no physical activity or exercise (such as running, calisthenics, golf, gardening or walking) other than their regular job in the last 30 days. (2011 BRFSS Methodology) Montana’s Rank: 10

Poor mental health days - number of days in the past 30 days adults reported their mental health was not good. (2011 BRFSS Methodology) Montana’s Rank: 11

Poor physical health days - number of days in the past 30 days adults report their physical health was not good. (2011 BRFSS Methodology) Montana’s Rank: 30

Premature death - number of years of potential life lost prior to age 75 per 100,000 population. Montana’s Rank: 31

Preterm birth - percentage of babies born before 37 weeks gestation. Montana’s Rank: 24

Preventable hospitalizations - discharge rate among the Medicare population for diagnoses that are amenable to non-hospital based care. Montana’s Rank: 11

Primary care physicians - number of primary care physicians (including general practice, family practice, OB-GYN, pediatrics, and internal medicine) per 100,000 population. Montana’s Rank: 41

Public health funding - state dollars dedicated to public health and federal dollars directed to states by the Centers for Disease Control and Prevention and the Health Resources and Services Administration. Montana’s Rank: 16

Salmonella - number of new cases of Salmonella per 100,000 population. Montana’s Rank: 10
**Smoking** - percentage of adults who are smokers (self-report smoking at least 100 cigarettes in their lifetime and currently smoke). (2011 BRFSS Methodology) Montana’s Rank: 24

**Stroke** - percentage of adults who have been told by a health professional they had a stroke. (2011 BRFSS Methodology) Montana’s Rank: 34

**Suicide** - number of deaths due to intentional self-harm per 100,000 population. Montana’s Rank: 48

**Teen birth rate** - number of births per 1,000 females aged 15 to 19 years. Montana’s Rank: 28

**Teeth extractions** - percentage of adults aged 65 and older who have all teeth removed due to teeth decay or gum disease. Montana’s Rank: 34

**Underemployment rate** - percentage of the civilian labor force that is unemployed, plus all marginally attached workers, plus total employed part-time for economic reasons (U-6 definition). Montana’s Rank: 15

**Unemployment rate, annual** - percentage of the civilian labor force that is unemployed (U-3 definition). Montana’s Rank: 14

**Vegetables** - number of vegetables consumed by adults in an average day. (2011 BRFSS Methodology) Montana’s Rank: 15

**Violent crime** - number of murders, rapes, robberies, and aggravated assaults per 100,000 population. Montana’s Rank: 17

**Youth smoking** - percentage of high school students who smoked cigarettes on at least 1 day during the past 30 days. Montana’s Rank: NA

Source: America’s Health Rankings
A2. Kindergarten Immunizations

Opting Out
Estimated percentage of children enrolled in kindergarten with nonmedical exemption from vaccination, 2013-14 school year

Source: Centers for Disease Control and Prevention
The Wall Street Journal
A3. Montana HELP Act Impact

Impact of the Montana HELP Act on the Uninsured in MT

*Source: Fiscal Note for SB 405
A4. Decrease Prevalence of Obesity

MT Quick Stats

Geographic Distribution of Diagnosed Diabetes and Obesity Prevalence in Montana, 2008-2012

Diabetes Prevalence (%) by County

<table>
<thead>
<tr>
<th>Year</th>
<th>County 1</th>
<th>County 2</th>
<th>County 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>6.6-7.5</td>
<td>8.9-10.5</td>
<td>10.6+</td>
</tr>
<tr>
<td>2010</td>
<td>7.6-8.8</td>
<td>8.9-10.5</td>
<td>10.6+</td>
</tr>
<tr>
<td>2012</td>
<td>8.9-10.5</td>
<td>10.6+</td>
<td>10.6+</td>
</tr>
</tbody>
</table>

Obesity Prevalence (%) by County

<table>
<thead>
<tr>
<th>Year</th>
<th>County 1</th>
<th>County 2</th>
<th>County 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>0.19-4</td>
<td>19.5-23.8</td>
<td>23.9-27.0</td>
</tr>
<tr>
<td>2010</td>
<td>19.5-23.8</td>
<td>23.9-27.0</td>
<td>27.1-30.7</td>
</tr>
<tr>
<td>2012</td>
<td>19.5-23.8</td>
<td>23.9-27.0</td>
<td>27.1-30.7</td>
</tr>
</tbody>
</table>

Note: Rates are age-adjusted to the 2000 US standard population.

- During 2008-2012, the percentage of MT adults with diagnosed diabetes and obesity prevalence grew across all counties.
- In 2012, the highest diagnosed diabetes prevalence was in Big Horn County (13.4%) and lowest in Gallatin County (4.5%). The state diabetes prevalence increased from 6.3% in 2008 to 6.7% in 2012.
- Obesity prevalence was highest in Roosevelt County (34.8%) and lowest in Gallatin County (16.5%). The state obesity prevalence increased from 23.5% in 2008 to 24.3% in 2012.

CONTACT
Chronic Disease Prevention and Health Promotion Bureau
1-844-MT-HLT-4-U
(1-844-684-5848)
ChronicDiseasePrevention@mt.gov

RESOURCES
- Visit our websites for more information:
  o Diabetes Program: www.diabetes.mt.gov
  o Nutrition and Physical Activity Program: http://dphhs.mt.gov/publichealth/napa

August, 2015
### A5. BMI Table

<table>
<thead>
<tr>
<th>BMI</th>
<th>Weight Status</th>
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<tbody>
<tr>
<td>Below 18.5</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.5 - 24.9</td>
<td>Normal</td>
</tr>
<tr>
<td>25.0 - 29.9</td>
<td>Overweight</td>
</tr>
<tr>
<td>30.0 - 34.9</td>
<td>Obese (Class 1)</td>
</tr>
<tr>
<td>35.0 - 39.9</td>
<td>Obese (Class 2)</td>
</tr>
<tr>
<td>40.0 and higher</td>
<td>Extreme obesity (Class 3)</td>
</tr>
</tbody>
</table>


2015 County Health Rankings
Montana
INTRODUCTION

The County Health Rankings & Roadmaps program helps communities identify and implement solutions that make it easier for people to be healthy in their homes, schools, workplaces, and neighborhoods. The Robert Wood Johnson Foundation (RWJF) collaborates with the University of Wisconsin Population Health Institute (UWPHI) to bring this program to cities, counties, and states across the nation. Ranking the health of nearly every county in the nation, the County Health Rankings illustrate what we know when it comes to what is making people sick or healthy. The Roadmaps to Health and RWJF Culture of Health Prize show what we can do to create healthier places to live, learn, work, and play.

WHAT ARE THE COUNTY HEALTH RANKINGS?

Published online at countyhealthrankings.org, the Rankings help counties understand what influences how healthy residents are and how long they will live. The Rankings are unique in their ability to measure the current overall health of each county in all 50 states. They also look at a variety of measures that affect the future health of communities, such as high school graduation rates, access to healthy foods, rates of smoking, obesity, and teen births. Communities use the Rankings to identify and garner support for local health improvement initiatives among government agencies, healthcare providers, community organizations, business leaders, policy makers, and the public.

MOVING FROM DATA TO ACTION

Roadmaps to Health help communities bring people together to look at the many factors that influence health, select strategies that work, and make changes that will have a lasting impact. The Roadmaps focus on helping communities move from awareness about their county’s ranking to action to improve people’s health. The Roadmaps to Health Action Center is a one-stop shop of information to help any community member or leader who wants to improve their community’s health by addressing factors that we know influence health, such as education, income, and community safety.

Within the Action Center you will find:
- Online step-by-step guidance and tools to move through the Action Cycle
- What Works for Health – a searchable database of evidence-informed policies and programs that can improve health

1 www.countyhealthrankings.org/montana
LEARNING FROM OTHERS
At countyhealthrankings.org, we feature stories from communities across the nation who have used data from the County Health Rankings or have engaged in strategies to improve health. The RWJF Culture of Health Prize recognizes communities that are creating powerful partnerships and deep commitments to enable everyone in our diverse society to lead healthy lives now and for generations to come. The Prize is awarded annually by RWJF to honor communities that are working to build a Culture of Health by implementing solutions that give everyone the opportunity for a healthy life. In 2015, up to 10 winning communities will each receive a $25,000 cash prize and have their stories shared broadly with the goal of inspiring locally driven change across the nation.

Prize winners are selected based on how well they demonstrate their community’s achievement on their journey to a Culture of Health in the following areas:

- Defining health in the broadest possible terms
- Committing to sustainable systems changes and long-term policy-oriented solutions
- Cultivating a shared and deeply held belief in the importance of equal opportunity for health
- Harnessing the collective power of leaders, partners, and community members
- Securing and making the most of resources
- Measuring and sharing progress and results

Visit countyhealthrankings.org or rwjf.org/prize to learn about the work of past Prize winners and the application process.

HOW CAN YOU GET INVOLVED?
You might want to contact your local affiliate of United Way Worldwide or the National Association of Counties – their national parent organizations have partnered with us to raise awareness and stimulate action to improve health in their local members’ communities. By connecting with other leaders interested in improving health, you can make a difference in your community. In communities large and small, people from all walks of life are taking ownership and action to improve health. Visit countyhealthrankings.org to get ideas and guidance on how you can take action in your community. Working with others, you can improve the health of your community.
**HOW DO COUNTIES RANK FOR HEALTH OUTCOMES?**

The green map below shows the distribution of Montana’s health outcomes, based on an equal weighting of length and quality of life. Lighter colors indicate better performance in the respective summary rankings. Detailed information on the underlying measures is available at countyhealthrankings.org.

![Map showing county rankings](image)

<table>
<thead>
<tr>
<th>County</th>
<th>Rank</th>
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<th>Rank</th>
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<td>Roosevelt</td>
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<td>44</td>
<td>Gallatin</td>
<td>1</td>
<td>Meagher</td>
<td>42</td>
<td>Rosebud</td>
<td>37</td>
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<td>Blaine</td>
<td>41</td>
<td>Garfield</td>
<td>NR</td>
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<td>Musselshell</td>
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<td>Carter</td>
<td>NR</td>
<td>Granite</td>
<td>18</td>
<td>Park</td>
<td>24</td>
<td>Stillwater</td>
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<td>Cascade</td>
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<td>38</td>
<td>Judith Basin</td>
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3 www.countyhealthrankings.org/montana
**HOW DO COUNTIES RANK FOR HEALTH FACTORS?**

The blue map displays Montana’s summary ranks for health factors, based on weighted scores for health behaviors, clinical care, social and economic factors, and the physical environment. Lighter colors indicate better performance in the respective summary rankings. Detailed information on the underlying measures is available at countyhealthrankings.org.

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## 2015 COUNTY HEALTH RANKINGS: MEASURES AND NATIONAL/STATE RESULTS

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
<th>US Median</th>
<th>State Overall</th>
<th>State Minimum</th>
<th>State Maximum</th>
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<tbody>
<tr>
<td><strong>HEALTH OUTCOMES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premature death</td>
<td>Years of potential life lost before age 75 per 100,000 population</td>
<td>7681</td>
<td>7227</td>
<td>4316</td>
<td>19463</td>
</tr>
<tr>
<td>Poor or fair health</td>
<td>% of adults reporting fair or poor health</td>
<td>17%</td>
<td>14%</td>
<td>7%</td>
<td>23%</td>
</tr>
<tr>
<td>Poor physical health days</td>
<td>Average # of physically unhealthy days reported in past 30 days</td>
<td>3.7</td>
<td>3.5</td>
<td>2.3</td>
<td>4.7</td>
</tr>
<tr>
<td>Poor mental health days</td>
<td>Average # of mentally unhealthy days reported in past 30 days</td>
<td>3.5</td>
<td>3.3</td>
<td>1.6</td>
<td>5.2</td>
</tr>
<tr>
<td>Low birthweight</td>
<td>% of live births with low birthweight (&lt; 2500 grams)</td>
<td>8%</td>
<td>7.3%</td>
<td>3.4%</td>
<td>14.4%</td>
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<tr>
<td><strong>HEALTH FACTORS</strong></td>
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<td><strong>HEALTH BEHAVIORS</strong></td>
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<tr>
<td>Adult smoking</td>
<td>% of adults who are current smokers</td>
<td>21%</td>
<td>18%</td>
<td>9%</td>
<td>35%</td>
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<tr>
<td>Adult obesity</td>
<td>% of adults that report a BMI ≥ 30</td>
<td>31%</td>
<td>24%</td>
<td>17%</td>
<td>37%</td>
</tr>
<tr>
<td>Food environment index</td>
<td>Index of factors that contribute to a healthy food environment, (0-10)</td>
<td>7.3</td>
<td>7.2</td>
<td>2.9</td>
<td>8.5</td>
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<tr>
<td>Physical inactivity</td>
<td>% of adults aged 20 and over reporting no leisure-time physical activity</td>
<td>27%</td>
<td>22%</td>
<td>14%</td>
<td>32%</td>
</tr>
<tr>
<td>Access to exercise opportunities</td>
<td>% of population with adequate access to locations for physical activity</td>
<td>65%</td>
<td>72%</td>
<td>3%</td>
<td>99%</td>
</tr>
<tr>
<td>Excessive drinking</td>
<td>% of adults reporting binge or heavy drinking</td>
<td>16%</td>
<td>19%</td>
<td>11%</td>
<td>26%</td>
</tr>
<tr>
<td>Alcohol-impaired driving deaths</td>
<td>% of driving deaths with alcohol involvement</td>
<td>31%</td>
<td>47%</td>
<td>0%</td>
<td>80%</td>
</tr>
<tr>
<td>Sexually transmitted infections</td>
<td># of newly diagnosed chlamydia cases per 100,000 population</td>
<td>291</td>
<td>381</td>
<td>78</td>
<td>1601</td>
</tr>
<tr>
<td>Teen births</td>
<td># of births per 1,000 female population ages 15-19</td>
<td>41</td>
<td>35</td>
<td>8</td>
<td>107</td>
</tr>
<tr>
<td><strong>CLINICAL CARE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uninsured</td>
<td>% of population under age 65 without health insurance</td>
<td>17%</td>
<td>22%</td>
<td>16%</td>
<td>33%</td>
</tr>
<tr>
<td>Primary care physicians</td>
<td>Ratio of population to primary care physicians</td>
<td>2015:1</td>
<td>1305:1</td>
<td>9195:1</td>
<td>779:1</td>
</tr>
<tr>
<td>Dentists</td>
<td>Ratio of population to dentists</td>
<td>2670:1</td>
<td>1504:1</td>
<td>3138:0</td>
<td>958:1</td>
</tr>
<tr>
<td>Mental health providers</td>
<td>Ratio of population to mental health providers</td>
<td>1128:1</td>
<td>428:1</td>
<td>5692:1</td>
<td>221:1</td>
</tr>
<tr>
<td>Preventable hospital stays</td>
<td># of hospital stays for ambulatory-care sensitive conditions per 1,000</td>
<td>65.3</td>
<td>47</td>
<td>24</td>
<td>128</td>
</tr>
<tr>
<td>Diabetic monitoring</td>
<td>% of diabetic Medicare enrollees ages 65-75 that receive HbA1c monitoring</td>
<td>85%</td>
<td>82%</td>
<td>32%</td>
<td>93%</td>
</tr>
<tr>
<td>Mammography screening</td>
<td>% of female Medicare enrollees ages 67-69 that receive mammography screening</td>
<td>61%</td>
<td>64.2%</td>
<td>36.0%</td>
<td>76.2%</td>
</tr>
<tr>
<td><strong>SOCIAL AND ECONOMIC FACTORS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school graduation</td>
<td>% of ninth-grade cohort that graduates in four years</td>
<td>85%</td>
<td>83%</td>
<td>53%</td>
<td>93%</td>
</tr>
<tr>
<td>Some college</td>
<td>% of adults ages 25-44 with some post-secondary education</td>
<td>56%</td>
<td>67.4%</td>
<td>42.0%</td>
<td>81.1%</td>
</tr>
<tr>
<td>Unemployment</td>
<td>% of population aged 16 and older unemployed but seeking work</td>
<td>7%</td>
<td>5.6%</td>
<td>2.0%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Children in poverty</td>
<td>% of children under age 18 in poverty</td>
<td>24%</td>
<td>21%</td>
<td>10%</td>
<td>38%</td>
</tr>
<tr>
<td>Income inequality</td>
<td>Ratio of household income at the 80th percentile to income at the</td>
<td>4.4</td>
<td>4.4</td>
<td>3.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Children in single-parent households</td>
<td>% of children that live in a household headed by single parent</td>
<td>31%</td>
<td>29%</td>
<td>2%</td>
<td>48%</td>
</tr>
<tr>
<td>Social associations</td>
<td># of membership associations per 10,000 population</td>
<td>12.6</td>
<td>14.3</td>
<td>5.2</td>
<td>33.5</td>
</tr>
<tr>
<td>Violent crime</td>
<td># of reported violent crime offenses per 100,000 population</td>
<td>199</td>
<td>272</td>
<td>24</td>
<td>481</td>
</tr>
<tr>
<td>Injury deaths</td>
<td># of deaths due to injury per 100,000 population</td>
<td>73.8</td>
<td>88</td>
<td>42</td>
<td>191</td>
</tr>
<tr>
<td><strong>PHYSICAL ENVIRONMENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air pollution – particulate matter</td>
<td>Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)</td>
<td>11.9</td>
<td>10.9</td>
<td>10.1</td>
<td>11.6</td>
</tr>
<tr>
<td>Drinking water violations</td>
<td>% of population potentially exposed to water exceeding a violation</td>
<td>1.0%</td>
<td>12%</td>
<td>0%</td>
<td>88%</td>
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<tr>
<td>Severe housing problems</td>
<td>% of households with overcrowding, high housing costs, or lack of</td>
<td>14%</td>
<td>15%</td>
<td>5%</td>
<td>22%</td>
</tr>
<tr>
<td>Driving alone to work</td>
<td>% of workforce that drives alone to work</td>
<td>80%</td>
<td>75%</td>
<td>57%</td>
<td>82%</td>
</tr>
<tr>
<td>Long commute – driving alone</td>
<td>Among workers who commute in their car alone, % commuting &gt; 30 minutes</td>
<td>29%</td>
<td>16%</td>
<td>9%</td>
<td>41%</td>
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</table>
### 2015 COUNTY HEALTH RANKINGS: DATA SOURCES AND YEARS OF DATA

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Years of Data</th>
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<tbody>
<tr>
<td><strong>HEALTH OUTCOMES</strong></td>
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<tr>
<td>Length of Life</td>
<td>Premature death</td>
<td>National Center for Health Statistics – Mortality files</td>
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<tr>
<td>Quality of Life</td>
<td>Poor or fair health</td>
<td>Behavioral Risk Factor Surveillance System</td>
</tr>
<tr>
<td></td>
<td>Poor physical health days</td>
<td>Behavioral Risk Factor Surveillance System</td>
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<tr>
<td></td>
<td>Poor mental health days</td>
<td>Behavioral Risk Factor Surveillance System</td>
</tr>
<tr>
<td></td>
<td>Low birthweight</td>
<td>National Center for Health Statistics – Natality files</td>
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<td><strong>HEALTH FACTORS</strong></td>
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<tr>
<td><strong>Tobacco Use</strong></td>
<td>Adult smoking</td>
<td>Behavioral Risk Factor Surveillance System</td>
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<tr>
<td><strong>Diet and Exercise</strong></td>
<td>Adult obesity</td>
<td>CDC Diabetes Interactive Atlas</td>
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<td>Food environment index</td>
<td>USDA Food Environment Atlas, Map the Meal Gap</td>
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<td></td>
<td>Physical inactivity</td>
<td>CDC Diabetes Interactive Atlas</td>
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<td></td>
<td>Access to exercise opportunities</td>
<td>Business Analyst, Delorme map data, ESRI, &amp; US Census Tigerline Files</td>
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<td><strong>Alcohol and Drug Use</strong></td>
<td>Excessive drinking</td>
<td>Behavioral Risk Factor Surveillance System</td>
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<td>Alcohol-impaired driving deaths</td>
<td>Fatality Analysis Reporting System</td>
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<td><strong>Sexual Activity</strong></td>
<td>Sexually transmitted infections</td>
<td>National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention</td>
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<td>Teen births</td>
<td>National Center for Health Statistics – Natality files</td>
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<tr>
<td><strong>CLINICAL CARE</strong></td>
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<tr>
<td>Access to Care</td>
<td>Uninsured</td>
<td>Small Area Health Insurance Estimates</td>
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<td>Primary care physicians</td>
<td>Area Health Resource File/American Medical Association</td>
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<td>Dentists</td>
<td>Area Health Resource File/National Provider Identification file</td>
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<td>Mental health providers</td>
<td>CMS, National Provider Identification file</td>
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<td>Quality of Care</td>
<td>Preventable hospital stays</td>
<td>Dartmouth Atlas of Health Care</td>
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<td>Diabetic monitoring</td>
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<td>Education</td>
<td>High school graduation</td>
<td>data.gov, supplemented w/ National Center for Education Statistics</td>
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<td>Some college</td>
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<td>Income</td>
<td>Children in poverty</td>
<td>Small Area Income and Poverty Estimates</td>
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<td>Income inequality</td>
<td>American Community Survey</td>
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<td>Family and Social Support</td>
<td>Children in single-parent households</td>
<td>American Community Survey</td>
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<td>Social associations</td>
<td>County Business Patterns</td>
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<tr>
<td>Community Safety</td>
<td>Violent crime</td>
<td>Uniform Crime Reporting – FBI</td>
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<td>Injury deaths</td>
<td>CDC WONDER mortality data</td>
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<td><strong>PHYSICAL ENVIRONMENT</strong></td>
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<td>Air and Water Quality</td>
<td>Air pollution – particulate matter</td>
<td>CDC WONDER environmental data</td>
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<td>Drinking water violations</td>
<td>Safe Drinking Water Information System</td>
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<td>Housing and Transit</td>
<td>Severe housing problems</td>
<td>Comprehensive Housing Affordability Strategy (CHAS) data</td>
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<td>Driving alone to work</td>
<td>American Community Survey</td>
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<tr>
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<td>Long commute – driving alone</td>
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</tr>
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</table>

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1 Not available for AK and HI.
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