Public Health Outcome Measures Report

November 2010
Public Health Outcome Measures Report Highlights

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About this Report
This report provides a printed snapshot of highlights from the full, on-line version of the Utah Department of Health (UDOH), Public Health Outcome Measures Report (PHOM). The PHOM serves as the UDOH annual report to the Utah legislature by providing summary information about the UDOH and specific data, graphs and text for over 100 important public health measures. The online report format allows programs across the Department to update the report as soon as new data and information become available.

For this printed version of the full report, we are highlighting 42 of the measures. UDOH staff selected these measures by referring to widely-accepted national and state health objectives such as the U.S. Department of Health and Human Services Healthy People objectives. Staff then led an effort to compile and finalize the this list by soliciting input from public health officials, representatives of local and community organizations, scholars and others. The objective was to select measures that:

- are broad in public health relevance,
- are few in number,
- provide a comprehensive view of community health,
- allow for reporting of data at the community level,
- have data from sources for which state and national benchmarks are available,
- are understandable and acceptable, and
- are outcome-oriented measures that imply interventions.

The Utah Department of Health regularly examines these measures to:

- track and evaluate progress towards goals,
- guide policy decisions, priorities, and long-range strategic plans,
- enhance performance-orientation and overall accountability,
- develop, focus, and streamline data collection and reporting capacity, and
- provide comprehensive information of Utah’s health and health care system.

We hope the report will provide readers an overall understanding of the current priority public health issues in Utah. For those who want to learn more about a particular topic, or want to explore other Utah public health topics, the full, on-line report includes more measures, and for many of the measures it also includes addition graphical data views.

The full, on-line PHOM is available at: http://ibis.health.utah.gov/phom.

This report is also available on-line at: http://health.utah.gov/ophapublications/phom/2010PHOM.pdf.

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Division of Medicaid and Health Financing

Ninety percent of Utah’s public health budget goes to patient care for Utahns who require assistance paying for their health care. The various health care financing programs are funded largely by federal dollars. The Division is working with several industry partners to develop and implement a pilot project on payment reform.

The Medicaid program currently covers an average of 225,000 Utahns each month. The Children’s Health Insurance Program (CHIP) covers over 40,000 children. The Primary Care Network (PCN) covers over 20,000 adults. The Utah Premium Partnership (UPP), a health insurance premium subsidy program, covers nearly 750 adults and children.

Division of Family Health and Preparedness

This division was created from the former Division of Health Systems Improvement with the addition of the Bureau of Maternal and Child Health and the Bureau of Children with Special Health Care Needs.

Utahns who come in contact with health care systems are protected by public licensing and regulation. Facilities as diverse as nursing homes, hospitals, radiology units, emergency medical responders, and child care providers are inspected and licensed by the Division of Family Health and Preparedness through the Bureau of Emergency Medical Services and Preparedness; the Bureau of Health Care Licensing, Certification, and Resident Assessment; and the Bureau of Child Development that includes the Child Care Licensing program. The Bureau of Emergency Medical Services and Preparedness also provides staff support for the Department’s Bioterrorism and Disaster Response activities.

Besides child care licensing, the Bureau of Child Development includes the early childhood programs, such as the Baby Watch/Early Intervention program that provides critical services to at-risk children with developmental delays to improve their school-readiness, the Office of Home Visiting and early childhood systems development.

The Division’s Bureau of Primary Care includes several programs focusing on health care for some of our most vulnerable populations.

- The Clinical Services Program (the Health Clinics of Utah and the Family Dental Plan) is designed to assure adequate access to needed health care services for Utah’s citizens served by the Medicaid program, which includes the Primary Care Network (PCN). This is done through three medical clinics (Ogden, Salt Lake, and Provo) and five dental clinics (Ogden, Salt Lake, Magna, Provo, and St. George) plus a mobile dental clinic which serves rural areas throughout our state.
- The Patient Safety initiative, begun in 2001 and coordinated with the Utah Hospital Association and HealthInsight, provides monitoring of numerous health outcomes in an effort to improve the safety of our health care delivery systems.
- The Office of Primary Care and Rural Health provides grants to safety net clinics and rural hospitals so that rural and underserved areas of our state can maintain adequate medical facilities, equipment, and trained personnel to care for our state’s medically underserved populations.
- The Office of American Indian/Alaska Native Health Affairs in cooperation with the Division of Medicaid and Health Financing supports efforts to improve the health status of this vulnerable population in our state and assure that we properly address consultation requirements for these government-to-government relationships.
- The Center for Multicultural Health is involved in numerous activities that support the delivery and improvement of health care services for vulnerable populations in our state that face disparities in health outcomes.
The Division's Bureau of Maternal and Child Health programs reduce illness, disability, and death among women of childbearing age, infants, children, and youth in the state. This Bureau does this work through continuous review and analysis of numerous data sources that staff use to identify health concerns, determine priorities, and establish program strategies and plans that improve the health of mothers, infants, and children. The Bureau provides leadership for many maternal and child health efforts in the state through its programs, contracts with local health departments for services, and federal grant opportunities. The Bureau is responsible for most maternal and child health issues, such as promotion of health among women of childbearing age, access to health care before and during pregnancy, healthy weight and nutrition, mental health, immunizations, and oral health. The Bureau, along with the Bureau of Children with Special Health Care Needs, is responsible for oversight of the federal Maternal and Child Health Block Grant (Title V) and as such, is responsible for 18 National and 10 State Performance Measures related to the health of mothers, infants, children, and youth, including those with special health care needs and their families. This Bureau also includes the federally funded (USDA) Women, Infants and Children (WIC) program that provides critical, nutritional support to pregnant and breastfeeding women, and to infants and small children up to age five. This program is administered through contracts with local health departments throughout the state.

The Division's Bureau of Children with Special Health Care Needs (CSHCN) programs reduce preventable death, disability, and illness due to chronic and disabling conditions by providing access to affordable high-quality health screening, specialty health care, and coordination/case-management of health services. The Bureau encompasses eight programs serving children and youth with chronic or disabling conditions for whom there are no other developmental or diagnostic services in their community. Bureau programs try to improve the system of care for Utah children and youth with special needs through direct clinical services or population-based services, such as newborn blood spot and newborn hearing screenings, and the promotion of system infrastructure building. These services are provided by Bureau staff or through contractual agreement with community providers.

**Division of Disease Control and Prevention**

The Division of Disease Control and Prevention (DCP) includes the Bureau of Epidemiology (BE), Bureau of Health Promotion (BHP), Office of the Medical Examiner (OME), and the Unified State Laboratory: Public Health (USLPH). This Division is charged with critical public health functions including detection of outbreaks and emerging public health problems (USLPH, OME, BE), tracking and assessing causes of diseases (All), and prevention of important causes of disease and disability (BE, BHP). A current Division priority is to identify approaches to track and prevent deaths from prescription drug overdoses.

The Bureau of Epidemiology (BE) tracks communicable diseases, works to prevent and control infectious diseases, detects and investigates outbreaks, assesses the health impacts of environmental hazards, manages a statewide immunization program, supports treatment of HIV/AIDS for those unable to afford it, and coordinates a statewide environmental sanitation program including 15 rules that protect Utahns from environmental threats. During the past year, BE was recognized for a national model system to track the pandemic of influenza H1N1. Important current priorities include: 1) increasing vaccination rates to protect all Utahns from preventable threats such as measles and pertussis; and 2) converting from manual methods of disease reporting to electronic laboratory reporting to improve timeliness and reduce both public and private reporting burden. The Bureau of Epidemiology is a critical component in the Department’s efforts to prepare for emerging infectious disease threats and bioterrorism.

The Bureau of Health Promotion works to reduce the leading causes of illness and death of Utahns through prevention, early detection, and management of injuries and chronic diseases and conditions, and promotion of early prenatal care. Unintentional injury is the primary cause of death for Utah children, adolescents, and young adults. The Violence and Injury Prevention Program seeks to improve safety for pedestrians, cyclists, and drivers. Chronic diseases, such as cancer, diabetes, and heart disease, account for 70 percent of all U.S. deaths. Three modifiable health behaviors addressed by the Bureau of Health Promotion, including unhealthy
eating, lack of physical activity, and tobacco use, are responsible for much of the illness and death related to chronic diseases. The Tobacco Prevention and Control Program has helped Utah achieve the lowest rate of adult tobacco use of any state in the U.S. However, tobacco remains the leading cause of preventable death and disability in Utah and remains a top public health priority. Obesity is one of the most important emerging public health problems in Utah. The Physical Activity, Nutrition and Obesity Program is coordinating the implementation of Utah's 10-Year Nutrition and Physical Activity Plan.

The Unified State Laboratory: Public Health recently moved into its new state-of-the-art facility where it provides essential laboratory testing to detect and investigate causes of outbreaks of infectious diseases, assure safe drinking and surface waters, certify clinical and environmental laboratories that serve Utah, and support death and criminal investigations that involve toxic substances including licit and illicit drugs and alcohol. The most important priorities for the USLPH this year are to: 1) complete the move into the new facility, module one of an eventual unified state laboratories building complex, and 2) identify resources and/or process improvements allowing reduced turn-around times for toxicology testing in support of Medical Examiner and law enforcement investigations.

The Office of the Medical Examiner investigates deaths to support law enforcement investigations of homicides, public health efforts to track important health problems such as suicide, injury, and causes of child mortality, and detect emerging public health problems such the epidemic of deaths due to prescription pain medication overdose.

**Center for Health Data**

Effective governance is fueled by strategic information. The Center for Health Data collects, manages, analyzes, and provides appropriate access to large-scale information resources that support Utah public health programs. Utah's premier web-based public health data resource, the Indicator-Based Information System for Public Health (IBIS-PH), acts as a central portal for much of this information. The heart of IBIS-PH is the Indicator Reports. Public health indicators are important measures of population health. IBIS-PH provides easily assessable, up-to-date data, graphs, and textual information for 184 of these measures; 101 of which are priority measures for the Utah Department of Health and are included in this report.

2009 marked the first year that the UDOH Survey Center combined their two major health surveys. The Behavioral Risk Factor Surveillance System (BRFSS), a telephone survey that has been ongoing in Utah for 26 years, is now used to collect insurance and access data that were previously collected on the Utah Healthcare Access Survey (UHAS). In 2009, 10,161 Utah adults participated in the BRFSS and information was gathered on 3,940 of Utah's children. Information such as health-related behaviors and health status is gathered to support statewide collaborative initiatives including the Utah Partnership for Healthy Weight and the Utah Cancer Action Network (UCAN). The health insurance and access questions were asked of approximately half of the total respondents: 5,007 adults and 1,720 children. These data accurately represent healthcare coverage in every local health district. The survey results are important to informing and assessing the Governor's Health System Reform initiative including providing estimates of the uninsured and the number of children eligible for the Children's Health Insurance Program (CHIP). Also, beginning in 2009, the Survey Center began doing BRFSS surveys with cell phone-only households in the state. In 2007, Utah had the second-highest rate (25.7%) of cell phone-only coverage in the nation. It is essential to include these people in survey samples in Utah in order to ensure data validity. In 2009, the Survey Center completed 987 interviews with Utah residents who only use a cell phone. In 2010, the Survey Center plans to complete 2,000 interviews with this group. The insurance and access questions are asked on this survey as well, since research has shown that cell phone-only individuals tend to have higher rates of uninsurance than people reached on landline phones. The Survey Center also gathered information on 680 adults and 170 children with asthma in 2009.

The Center registered 102,228 records of the vital events of Utahns, preserving the facts of their births, deaths, and family formation. This year, almost all births in Utah were registered
electronically. Electronic death certificate registrations varied between 63% for physicians using the EDEN (Electronic Death Entry Network) and 38% for physicians that are not EDEN participants. The compilations of these records, the vital statistics of Utah, provided data on infant health and leading causes of death to program managers, researchers, and the general public. In addition, 87,088 individuals were directly served with certified copies of their vital records for legal and other purposes.

The Center initiated a new project: the all payer claims database (APCD). This project collects claims data from payers in order to report on the cost and quality for episodes of care. Two reports from this new database were published in 2010. Data are also being provided to other stakeholder groups to support them in their missions. The Center also released five facility comparison reports for maternity and newborn care, hip and knee procedures, cardiac procedures, pneumonia care, and gallbladder removal. We released a new report on potentially preventable hospital readmissions. The Center reported on health plan quality with two reports: the Healthcare Effectiveness Data and Information Set (HEDIS) and the Consumer Assessment of Healthcare Providers and Systems - Health Plan Survey (CAHPS) for HMOs and PPOs in Utah. Finally, the Center released standard reports on its inpatient and ambulatory surgery datasets and offered data for public sales to researchers and other stakeholders.

The Center provides leading support to the State Health IT Coordinator/Executive Director for UDOH and Utah HIT Governance Council to coordinate various ARRA-funded Health IT initiatives. Working with the Utah Health Information Network (UHIN), Utah Partnership for Value-Driven Healthcare at HealthInsight and several health professional/facility associations, the Center leads Utah statewide strategic planning for health information exchange and coordinates public health's participation in the statewide clinical health information exchange (cHIE) in Utah. The Center also collaborates with health informatics researchers in the University of Utah's Rocky Mountain Center of Excellence for Public Health Informatics to develop new informatics tools to better support public health practice.

Content updated: October 2010
Our vision for Utah:
A place where all people can enjoy the best health possible, where all can live, grow and prosper in clean and safe communities.

Mission Statement:
The mission of the Utah Department of Health is to protect the public’s health through preventing avoidable illness, injury, disability and premature death; assuring access to affordable, quality health care; and promoting health lifestyles.

We do this by working in partnership with public and private organizations and individuals within the community to:
• maintain an up-to-date public health information technology (IT) infrastructure in order to collect, analyze and disseminate health data to monitor health events using:
  • population health status and healthcare access data
  • healthcare system performance data
  • birth and death certificates
  • communicable disease data
  • laboratory confirmation of infections and toxins
  • autopsies of suspicious deaths
• identify and prioritize health problems;
• implement programs and interventions which are designed to:
  • investigate episodes of disease
  • control the factors that allow preventable diseases to occur within our communities
  • educate and inform the public about improving their health and making good health care decisions
  • pay for or provide essential health care services
  • improve the quality of health care services by inspecting and monitoring facilities including hospitals, nursing homes, home health care agencies, and laboratories; and
• evaluate the implementation, effectiveness, and cost-benefit of health interventions to improve programs and services.

Utah Department of Health Mission Statement Indexed to UDOH Areas of Program Focus
The mission of the Department of Health is to protect the public’s health through:
• preventing avoidable disease, injury, disability, or premature death caused by:
  • injuries
  • heart disease and stroke
  • cancer
  • dental disease
  • diabetes
  • asthma
  • arthritis
  • premature birth
  • birth defects
  • childhood disabilities
  • lead poisoning
  • health and safety risks in child care settings
  • community-acquired infectious diseases
  • sexually-acquired infectious diseases
  • emerging infectious diseases or bioterrorism
• assuring access to affordable health care among:
  • children
  • people with disabilities
  • low-income adults and seniors
  • rural populations
  • ethnic minority populations
• assuring access to quality health care from:
  • hospitals
  • extended care providers in facilities or at home
  • emergency medical services
  • laboratories
  • childcare providers
• promoting healthy lifestyles that include:
  • physical activity
  • nutrition
  • tobacco avoidance
  • preventive services
  • safety
  • responsible sexual behavior
# Utah Department of Health Budget

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## Program Expenditures - Old Organization

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## Program Expenditures - New Organization

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<td><strong>$2,175,604,500</strong></td>
<td><strong>$1,983,165,500</strong></td>
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| Positions                                                     | 1,027        | 995              | 990           |

This information was last updated October 27, 2010
At the local level, public health services in Utah are organized into 12 health districts with 55 service delivery sites. Six of the 12 local health departments are single county and six are multi-county districts.

The local health districts in Utah include the following:
- Bear River (Box Elder, Cache, Rich counties)
- Central Utah (Juab, Millard, Piute, Sevier, Wayne, Sanpete counties)
- Davis County
- Salt Lake Valley
- Southeastern Utah (Carbon, Emery, Grand, San Juan counties)
- Southwest Utah (Garfield, Iron, Kane, Washington, Beaver counties)
- Summit County
- Tooele County
- TriCounty (Daggett, Duchesne, Uintah counties)
- Utah County
- Wasatch County
- Weber-Morgan

Local health departments provide many essential health services including investigation of disease outbreaks, regulation of known sources of health hazards such as food establishments, and health education and prevention services such as immunizations and preventive health screenings.

The private health care system, including hospitals, physicians, health plans, schools, and private-non-profit agencies, deliver many important local public health services as well.

The highest priority health problems vary among local districts, especially between the more urbanized Wasatch Front districts and the more rural districts.

During the 2002 Winter Olympics, local health departments made sure emergency medical services were available and coordinated, enforced environmental and food regulations, performed disease surveillance and control, and participated in disaster preparedness and public information.

Local health departments are often the front line for reporting communicable diseases and other events, such as signs and symptoms of exposure to biologic agents of terrorism. HAN, Utah’s Health Alert Network, consists of a network of local, state, and private health providers who share information through instantaneous electronic transmission to provide a timely response to disease outbreaks whether natural or the result of terrorism.

Utah’s public health capacity is provided by both state and local public health entities, as well as community health centers and community based organizations.
Part 1. Underlying Demographic Context of the Population
Why Is This Important?
Shifts in life expectancy are often used to describe trends in mortality. Being able to predict how populations will age has enormous implications for the planning and provision of services and support. Small increases in life expectancy translate into large increases in the population.

As the life expectancy of a population lengthens, the number of people living with chronic illnesses tends to increase because chronic illnesses are more common among older persons.


Data Sources

Data Notes
Reed-Merrill method was used to compute life expectancy.

How Are We Doing?
Prevention and control of infectious diseases has had a profound impact on life expectancy during the 20th century. In the United States life expectancy at birth from 1900 to 2000 increased from 48 to 74 years for men, and from 51 to 79 years for women. In contrast to life expectancy at birth, which increased sharply early in the century, life expectancy at age 65 improved primarily after 1950. Among men, life expectancy at age 65 rose from 12 to 17 years and among women from 12 to 19 years. Improvements in nutrition, hygiene, and medical care contributed to decreases in death rates throughout the lifespan.
What Is Being Done?
Now that people are living longer, it is important to look at ways that those added years can be lived in good health. Exercise, healthy diet and weight, not smoking, moderate use of alcohol, and injury prevention habits such as wearing seat belts all contribute to a healthy life span.

Improvements in life expectancy increase the proportion of older individuals living in society. Policy-makers must be aware of this trend in order to provide viable and attractive options for elderly persons who require assistance with activities of daily living.

Date Indicator Content Last Updated: 10/28/10
PHOM Indicator Profile Report of Utah Population Characteristics: Poverty, Children Age 17 and Under

Why Is This Important?
Poverty in the early years of a child’s life, more than at any other time, has especially harmful effects on continuing healthy development and well-being, including developmental delays and infant mortality. Well-being in later childhood, such as teen pregnancy, substance abuse, and educational attainment, are also influenced by early childhood poverty.(1)

Percentage of Children in Poverty by Year, Utah and U.S., 1995-2009

Data Sources
U.S. Current Population Survey;

Data Notes
The poverty level for a family of four in 2009 was $22,050. The U.S. Poverty Guidelines are published in January of each year, and may be found online at http://aspe.hhs.gov/poverty/09poverty.shtml.

Risk Factors
One of the best ways for adults to avoid poverty is to get a good education. Adolescents who give birth are more likely to live in poverty.

The association between poverty and health status is probably bi-directional. That is, persons with chronic mental or physical illness are less able to achieve their educational goals and get good jobs. At the same time, persons who have lower incomes are less able to afford health care and may have less healthy lifestyles. For instance, persons with lower education and income levels are more likely to smoke cigarettes and less likely to get regular exercise.
How Are We Doing?
In 2009, the most recent year for which we have data at the state level, an estimated 12.2% of Utah children aged 17 or under (approximately 105,000 Utah children) were living in poverty as defined as less than 100 percent of the poverty level.

Children born into poverty are less likely to have regular health care, proper nutrition, and opportunities for mental stimulation and enrichment.

What Is Being Done?
While the Utah Department of Health has no program designed to reduce the number of children in poverty, there are programs such as Medicaid and CHIP (Children’s Health Insurance Program) that pay for health care for eligible children.

Date Indicator Content Last Updated: 10/20/10
Part 2. Health Care Services and Systems
Why Is This Important?
Persons with health insurance were more likely than persons without health insurance to have a regular source of primary health care, and were more likely to have routine preventive care. Persons without coverage have often delayed seeking needed care and found services difficult to afford.


Data Sources

Data Notes
These data were formerly collected on the Utah Healthcare Access Survey (UHAS, formerly HSS). Beginning in 2009, these data are being collected on the Behavioral Risk Factor Surveillance System (BRFSS). Because this data from the two surveys cannot be combined, this indicator will only be updated with 2009 data. As such, some views (such as Small Area and Race) will not be available until next year. For more information on the change in survey instruments, please see: http://health.utah.gov/opha/publications/hsu/09May_Insurance.pdf. For more historical estimates of the uninsured in Utah, please see: http://health.utah.gov/opha/publications/2009brfss/Cheatsheet_2009.pdf. The estimates for uninsured Utahns produced by the BRFSS are believed to be the most valid available. For a thorough discussion of why state health insurance estimates differ from those produced by the U.S. Current Population Survey (CPS), please refer to the State Health Access Data Assistance Center (SHADAC) Issue Brief #12: www.shadac.org/publications/issuebriefs/.
**Risk Factors**
There is an association between poverty and lack of insurance. Approximately (75.6%) of the total uninsured population are people living below 200% of the federal poverty level.

**How Are We Doing?**
An estimated 314,300 Utahns (11.2%) were without health insurance coverage in 2009.

**What Is Being Done?**
The Utah Department of Health administers programs to improve access to care, such as Medicaid, Children’s Health Insurance Program (CHIP), the Primary Care Network (PCN), and Utah’s Premium Partnership for Health Insurance (UPP). The Department also works to improve the "safety net" for persons who lack health insurance. This is done through primary care grants to rural areas and clinics for children with disabilities. Local health departments provide preventive services such as immunizations and screenings at low or no cost to eligible persons who cannot afford them.

**Healthy People 2010 Objective 1.1:**
Persons with health insurance (crude, under age 65 years)

**U.S. Target for 2010:** 100%

**State Target for 2010:** 100%

**Date Indicator Content Last Updated: 10/28/10**
**Why Is This Important?**
Asthma can usually be managed in an outpatient setting, reducing the need for inpatient hospitalization. Tracking rates of hospitalization can aid in identifying populations or areas with inadequate access to routine medical care.

An asthma attack can cause hospitalization and can be initiated by a variety of triggers. Some of these include exposures to environmental tobacco smoke, dust mites, cockroach allergen, mold, pets, strenuous physical exercise, and air pollution. Two key air pollutants that can affect asthma are ozone (found in smog) and PM or particulate matter (found in haze, smoke, and dust).

The majority of problems associated with asthma, including hospitalization, are preventable if asthma is managed according to established guidelines. Effective management includes control of exposure to factors that trigger exacerbations, adequate pharmacological management, continual monitoring of the disease, and patient education in asthma care.

**Hospitalizations due to Asthma by Most Sensitive Age Groups: 0-17 and 65+, Utah, 2004-2008**

**Data Sources**
Population Estimates: Utah Governor’s Office of Planning and Budget; Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health;

**Data Notes**
The ICD-9 code used to define asthma is 493.

**How Are We Doing?**
Utah has been consistently below the Healthy People 2010 objective of 7.7 hospitalizations per 10,000 residents. In 2008 Utah’s hospitalization rate was 5.2 per 10,000. Of particular interest...
is the high number of hospitalizations due to asthma among males aged 1-4, and females aged 65+.

**What Is Being Done?**

The Utah Asthma Task Force, with participation from the Utah Department of Health's Asthma Program, American Lung Association of Utah, health care providers, school personnel, and other professionals working with asthma developed the Utah Asthma Plan. This statewide plan identifies numerous strategies that will help fulfill the vision of "Utah communities working together to improve the quality of life for people with chronic asthma symptoms by increasing awareness, access, and education." Action groups are currently working on a number of projects identified in the state plan. In addition, surveillance is ongoing to assess the burden of asthma, asthma trends, and to evaluate how asthma affects health-related quality of life.

**Healthy People 2010 Objective 24.2b:**
Hospitalizations for asthma - Children and adults (age adjusted per 10,000 standard population, ages 5 to 64 years)

**U.S. Target for 2010:** 7.7/10,000 population

**Date Indicator Content Last Updated: 10/26/10**
Why Is This Important?
Ambulatory care sensitive (ACS) conditions are conditions for which effective outpatient care can prevent hospitalizations. Diabetes is a disease for which regular physician visits can help to control blood sugar (glucose), fats (lipids), and blood pressure; screen for diabetes-related eye, foot, and kidney problems; and provide early treatment and patient education in self-management. Physician visits and early treatment can prevent otherwise avoidable hospitalizations and serious illness and injuries to patients. Diabetes complications include loss of consciousness, heart disease, stroke, circulation, kidney and nerve damage, impotence, blindness, amputation of extremities, and death.

Adult Hospitalizations due to Diabetes, Short-term Complications, Utah and U.S., 1999-2008

Data Sources
Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health; National Healthcare Quality and Research; Healthcare Cost and Utilization Project (HCUP), AHRQ;

Data Notes
As of November 2004, the IBIS diabetes information is based on four diabetes indicators developed by the Agency for Healthcare Research and Quality Prevention Quality Indicators. National Healthcare Quality and Research provided the values for the national rate based on the National Inpatient Sample. Numerator includes principal or secondary diagnosis code for diabetes, short-term complications (250.10-250.13, 250.20-250.23, 250.30-250.33). From 1999 through 2008 the annual rate has increased. The 2008 rate is significantly higher than the 1999 rate. From 2000 through 2006, the Utah annual rate was statistically significantly lower than the national rate, which was obtained from the Agency for Healthcare Research and Quality/Healthcare Cost and Utilization Project (AHRQ/HCUP). The Agency for Healthcare
Research and Quality substantially revised the Prevention Quality Indicators (Version 3.0) in 2006.

**Risk Factors**
Lack of access to preventive health care services, such as routine doctor visits and diabetes education, increases the risk of hospitalization for people with diabetes. Ketoacidosis is one of the most common reasons for hospitalization among the younger population with type 1 diabetes; however, it is also one of the most avoidable. Among older adults, the most common ACS condition is hyperosmolar coma. The risk of hyperosmolar coma increases with age.

**How Are We Doing?**
From 1999 through 2008, the risk-adjusted rate of Utah residents aged 18 years and older hospitalized for diabetes with short-term complications has increased. Based on 95% confidence intervals, the increase from 1999 to 2008 is statistically significant. The rate has decreased slightly for diabetes with long-term complications, uncontrolled diabetes, and amputation of lower extremities, but the decrease is not statistically significant.

**What Is Being Done?**
The Utah Diabetes Prevention and Control Program recognizes the importance of diabetes education and its role in preventing unnecessary hospitalizations. The Diabetes Prevention and Control Program currently certifies 13 state diabetes education programs throughout Utah.

**Healthy People 2010 Objective 5.12:**
Biannual glycosylated hemoglobin measurement - Persons with diabetes (age adjusted, ages 18 years and older)

**U.S. Target for 2010:** 72%

**State Target for 2010:** 75%

**Date Indicator Content Last Updated:** 10/20/08
Why Is This Important?
Ambulatory care sensitive (ACS) conditions are conditions for which effective outpatient care can prevent hospitalizations. Outpatient care including annual immunizations for influenza and pneumonia during the influenza season for at-risk people (see "What Is Being Done?" below). These immunizations can lessen the severity of bacterial pneumonia symptoms and prevent hospitalizations and death.

Risk-adjusted Discharge Rates for Adult Bacterial Pneumonia per 100,000 Population, Utah and U.S., 1999-2008

Data Sources
Population Estimates: Utah Governor’s Office of Planning and Budget; Healthcare Cost and Utilization Project (HCUP), AHRQ; Utah Inpatient Hospital Discharge Data, Office of Health Care Statistics, Utah Department of Health;

Data Notes
As of November 2004, the IBIS bacterial pneumonia indicator information is based on one indicator developed by the Agency for Healthcare Research and Quality Prevention Quality Indicators. The Agency for Healthcare Research and Quality and Healthcare Cost and Utilization Project (HCUP) provide the values for the national rate. Numerator includes principal diagnosis code for bacterial pneumonia (481, 482.2, 482.3, 482.31, 482.32, 482.39, 482.9, 483.0, 483.1, 483.8, 485, 486) and excludes some secondary diagnoses such as sickle-cell/HB-C disease (282.41, 282.42, 282.60, 282.61, 282.62, 282.63, 282.64, 282.68, 282.69). The 2008 rate is significantly lower than the 1999 rate. From 2000 through 2006, the Utah annual rate was statistically significantly lower than the national rate, which was obtained from the Agency for Healthcare Research and Quality/Healthcare Cost and

**How Are We Doing?**

From 1999 through 2008, the risk-adjusted rate of adult Utah residents hospitalized for bacterial pneumonia has decreased. Based on 95% confidence intervals, the annual rate in 2008 is significantly lower than the annual rate for 1999, 2003, 2005, and 2006, showing a downward trend from 2005.

**What Is Being Done?**

For patients at higher risk, two annual vaccinations can help prevent pneumonia and influenza. Pneumococcal vaccine is recommended for all immunocompetent individuals aged 65 and over and for selected others at high risk. Influenza vaccine is recommended annually for pregnant women during any trimester of pregnancy, all persons aged 50 and older, and for persons aged six months and older with selected conditions placing them at high risk. A pneumococcal conjugate vaccine is recommended for children.

**Healthy People 2010 Objective 1.9c:**

Hospitalization for ambulatory-care-sensitive conditions - Immunization-preventable pneumonia or influenza (admissions per 10,000 population, ages 65 years and older)

**U.S. Target for 2010:** 7.9/10,000 population

**State Target for 2010:** To be determined

**Date Indicator Content Last Updated:** 10/20/09
Why Is This Important?
As each new health care need arises, an individual's first point of contact with the health care system is typically his or her personal doctor. In most cases a personal doctor can effectively and efficiently manage a patient's medical care because they understand that person's medical history and social background. Having a regular source of health care is also an indicator of overall access to care.

Percentage of Adults Who Reported Having One Person They Think of as Their Personal Doctor or Health Care Provider by Age and Sex, Utah, 2009

Data Sources
Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health;

Risk Factors
In 2009, males were significantly more likely than females to have no personal doctor or health care provider (30.2% and 17.5%, respectively).

How Are We Doing?
In 2009, 76.2% of Utah adults reported having one person they think of as their personal doctor or health care provider. However, 23.8% of Utahns did not have one person they think of as their personal doctor or health care provider. Lack of a primary provider was more common among young adults, especially men aged 18 to 34 (only 55.9% reported having a personal doctor in 2009).

In 2009, Wasatch (84.3%) Local Health District had the highest percentage of people who reported having a primary provider.
What Is Being Done?
The Utah Department of Health has programs such as Medicaid, Children’s Health Insurance Program (CHIP), Utah’s Premium Partnership for Health Insurance (UPP), and the Primary Care Network (PCN) to pay health care costs for low-income children and adults and those with disabilities.

Healthy People 2010 Objective 1.4a:
Source of ongoing care (age adjusted, all ages)
U.S. Target for 2010: 96%
State Target for 2010: 96%

Date Indicator Content Last Updated: 10/28/10
Why Is This Important?
Breast cancer is the most commonly occurring cancer in U.S. women (excluding basal and squamous cell skin cancers) and the leading cause of female cancer death in Utah. Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage. Clinical trials have demonstrated that routine screening with mammography can reduce breast cancer deaths by 20% to 30% in women aged 50 to 69 years (1-6), and by about 17% in women aged 40 to 49 years (7,8).

There is consensus that women aged 40 or older should undergo routine screening with mammography at least every two years. The American Cancer Society recommends that women aged 40 or older have an annual mammogram, while the National Cancer Institute, the U.S. Preventive Services Task Force, and the U.S. Department of Health and Human Services recommend that women 40 years or older undergo mammography every one to two years (9, 10, 11). Women who are at higher than average risk of breast cancer should seek expert medical advice about whether they should begin screening before age 40 and the frequency of that screening (10).


Data Sources
Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS);

Data Notes
Age-adjusted to U.S. 2000 standard population.
**Risk Factors**
The most important risk factor for breast cancer is increasing age. Other established risk factors include personal or family history of breast cancer, history of abnormal breast biopsy, genetic alterations, early age at onset of menses, late age at onset of menopause, never having children or having a first live birth at age 30 or older, and history of exposure to high dose radiation. Associations have also been suggested between breast cancer and oral contraceptives, long-term use of hormone replacement therapy, obesity (in post-menopausal women), alcohol, and a diet high in fat. Some studies suggest that exercise in youth might give life-long protection against breast cancer and that even moderate physical activity as an adult could lower breast cancer risk. More research is needed to confirm these findings.

**How Are We Doing?**
Between 1989 and 2008, the percentage of Utah women aged 40 or older who reported receiving a mammogram within the last two years increased from 51.6 percent to 67.2 percent. There was no significant difference in mammography screening rates among the different racial and ethnic groups. Two of the twelve local health districts reported significantly lower screening rates than the state (Central and Utah County Health Districts). After dividing the health districts into 61 small areas the prevalence of mammograms range from a high of 80.1 percent in Provo/BYU to a low of 50.3 percent in South Salt Lake.

**What Is Being Done?**
The UDOH Utah Cancer Control Program (UCCP) distributes free mammography vouchers to women who receive a clinical breast exam at a UCCP sponsored clinic and meet age and income guidelines. The 2000 Utah legislature approved a resolution encouraging private health insurance companies and employers to include insurance coverage for the screening and detection of breast, colorectal, and prostate cancers.

**Healthy People 2010 Objective 3.13:**
Mammograms - Adults receiving within past 2 years (age adjusted, females aged 40 years and older)
**U.S. Target for 2010:** 70%
**State Target for 2010:** 80% in 2010

**Date Indicator Content Last Updated:** 10/28/10
Why Is This Important?
Women who receive early and consistent prenatal care (PNC) enhance their likelihood of giving birth to a healthy child. Health care providers recommend that women begin prenatal care in the first trimester of their pregnancy.

Prenatal Care in the First Trimester of Pregnancy by Race, Utah, 2008

Data Sources
Utah Birth Certificate Database, Office of Vital Records and Statistics, Utah Department of Health;

Risk Factors
The risk factors for late entry are (2006 Utah PRAMS data):
- women less than 20 years of age
- women with less than 12 years of education
- non-White women
- Hispanic women
- unmarried women
- women with an annual household income less than $15,000/year
- unintended pregnancy
- women who had no private insurance prior to conception

How Are We Doing?
The percentage of Utah mothers receiving prenatal care in the first trimester had been on a decline since 1995.

What Is Being Done?
The Utah Department of Health Baby Your Baby Program sponsors a statewide media campaign and provides information and referral services to pregnant women in Utah. A
pregnancy risk line is available to pregnant women. The Pregnancy Risk Assessment Monitoring System (PRAMS) collects and analyzes data to identify characteristics of Utah women and their utilization of prenatal care. The Reproductive Health Program will utilize this data to target interventions in those populations identified as having poor first trimester entry.

**Healthy People 2010 Objective 16.6a:**
Prenatal care - Beginning in first trimester  
**U.S. Target for 2010:** 90%  
**State Target for 2010:** 90%

**Date Indicator Content Last Updated: 11/01/10**
**Why Is This Important?**

Immunizations are the most cost-effective health prevention measures. Development of vaccinations had been cited by the U.S. Public Health Service as one of the Ten Great Public Health Achievements in the 20th Century.(1) Vaccines play an essential role in reducing and eliminating disease.

By two years of age, it is recommended that all children should have received 4 doses of diphtheria-tetanus-pertussis (DTP), 3 doses of polio, 1 dose of measles-mumps-rubella (MMR), 3 doses of Hepatitis B, 3 doses of Haemophilis Influenza, type B (Hib), and 1 dose of Varicella vaccine. This recommendation is referred to in shorthand as "4:3:1:3:3:1."


![Graph showing vaccination coverage from 2003 to 2009](image)

**Data Sources**

National Immunization Survey, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention;

**How Are We Doing?**

Utah's coverage levels decreased from having 76.6% of 2-year-old children fully immunized in 2008 to having 70.3% of 2-year-old children fully immunized in 2009. The 95% confidence intervals for these years overlap indicating there is not a statistically significant difference between the two surveys. Much of the decrease in coverage is likely explained by the manufacturer shortage of Hib vaccine in 2009. These data also typically fluctuate from year to year and it is useful to look at 5-10 year trends to gain a clear understanding of how well Utah is immunizing its children.

Utah had an increase in individual vaccine rates for 4 DTaP (2.9%), 3 Polio (1.2%), and 1 MMR (0.6%). There was an expected decrease in 3 Hib (-7.9%), a decrease in 1 Varicella (-
7.6%), and a very slight decrease in 3 Hep B (-0.4%). None of these changes were statistically significant at alpha = 0.05.

**What Is Being Done?**
Utah Department of Health's Immunization Program conducts annual assessments of private and public health care providers' immunization records to obtain state immunization levels. During these site visits Utah Immunization Program provider representatives also train clinic staff on appropriate vaccine storage, handling, and administration according to ACIP recommended practices. Utah also has immunization coalitions that are working to maintain or improve current levels of immunization and to increase public awareness of immunizations.

Utah's Statewide Immunization Information System (USIIS) provides a mechanism for health care providers to track patient immunizations and send reminder cards to Utah parents whose children are due for immunizations. USIIS also includes adult immunizations, such as pneumonia, tetanus, influenza, and smallpox.

Due to the increased costs of vaccine, public health clinics are now able to provide publicly purchased vaccine only to those who meet eligibility criteria and don't have insurance coverage.

**Healthy People 2010 Objective 14.24a:**
Fully immunized young children and adolescents - Children 19 to 35 months

**U.S. Target for 2010:** 80%
**State Target for 2010:** 90%

**Date Indicator Content Last Updated:** 10/28/10
**Why Is This Important?**
Influenza, or flu, is an acute viral infection involving the respiratory tract that can occur in epidemics or pandemics. Influenza can cause a person, especially older persons, to be more susceptible to bacterial pneumonia.

Who should get Influenza vaccine?  
All people six months of age and older should receive influenza vaccine yearly in the fall or winter. Those that should strongly consider the vaccine are as follows:  
- People 50 years of age or older  
- Children age 6 months to 5 years  
- Residents of nursing homes and other chronic-care facilities  
- Adults and adolescents with chronic pulmonary or cardiovascular disorders, including asthma  
- Health care workers, care givers, and others who might transmit influenza virus to persons at high-risk for complications from infection  
- People who are less able to fight infections because of a disease they are born with, infection with Human Immunodeficiency Virus (HIV), treatment with medications such as long-term steroids, and/or treatment for cancer with X-rays or medications  
- Adults and adolescents who required regular medical follow-up or hospitalization during the preceding year because of chronic illnesses (including diabetes mellitus), kidney diseases, and blood cell diseases such as sickle cell anemia  
- Women who are pregnant during the flu season (December-March)  
- Persons 6 months to 18 years of age who receive long-term aspirin therapy and therefore might be at risk for developing Reye syndrome after influenza


![Graph showing the percentage of adults aged 65+ who reported receiving an influenza vaccination in Utah and U.S. from 1995 to 2009. The graph shows a general increase in vaccination rates over the years.]
Data Sources
Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS);

Data Notes
U.S. data are the average for all states and the District of Columbia; they do not include the U.S. territories.

Risk Factors
Risk factors for serious complications of influenza include:
- Older age (50+)
- Residence in a nursing home and other chronic care facility
- Chronic pulmonary or cardiovascular disorders, including asthma
- Lowered ability to fight infections because of a disease they are born with, infection with Human Immunodeficiency Virus (HIV), treatment with medications such as long-term steroids, and/or treatment for cancer with X-rays or medications
- Chronic illnesses (including diabetes mellitus), kidney diseases, and blood cell diseases such as sickle cell anemia
- Pregnancy in the second or third trimester during the flu season (December-March)
- Long-term aspirin therapy and therefore possibly at risk for developing Reye syndrome after influenza
- Very young age (6-23 months)

How Are We Doing?
The percentage of Utahns aged 65+ who received a flu vaccine is measured by the Behavioral Risk Factor Surveillance System (BRFSS) survey, and was found to be 68.8% in 2009. This represents a 6.1% decline in coverage from the previous year, although the decline was not statistically significant. Some of the decline may be explained by the H1N1 pandemic. Some individuals who normally would receive an annual flu vaccine may have only received an H1N1 vaccine during 2009.

In 2008, most (288) of the 341 deaths from influenza and pneumonia were among persons aged 65 and over. There was a 9.3% increase in influenza and pneumonia deaths from 2007, while there was a 3.1% increase in total population. In 2008 there were a total of 6,136 influenza and pneumonia associated hospitalizations which represents an increase of 3.9% from 2007. Of those hospitalized in 2008 for influenza and pneumonia, 2,770 (45.1%) were in the 65+ age group. The total hospital charges for 2008 were over $97 million, with 51% of all hospital charges for persons 65 and over. Hospital charges increased by almost $12 million compared to 2007, and the cost per hospitalization increased from $15,006 in 2007 to $16,275 in 2008.

What Is Being Done?
The UDOH Immunization Program and Office of Epidemiology educate health care providers, clinic staff, and the public about prevention methods and support investigation of outbreaks.

Healthy People 2010 Objective 14.29a:
Influenza and pneumococcal vaccination of high-risk adults - Noninstitutionalized adults - Influenza vaccine (age adjusted, ages 65 years and older)

U.S. Target for 2010: 90%
State Target for 2010: 90%

Date Indicator Content Last Updated: 10/28/10
Part 3. Risk Factors for Illness
Why Is This Important?
Ozone can cause several adverse health effects in anyone, but especially in sensitive populations such as children, older adults, people with preexisting lung diseases such as asthma, and people who are physically active outdoors. Some of these health problems include painful breathing, chest tightness, headache, coughing, increased asthma symptoms, lung inflammation, temporary reduction in lung capacity, and over time ozone is associated with chronic lung problems and respiratory infections. Adverse health effects from ozone are more likely to occur when ozone levels exceed the Environmental Protection Agency's standard, but are possible when ozone levels are below the standard, especially in sensitive populations.

Ground-level ozone, not to be confused with the atmosphere’s protective ozone layer, is created by reactions between environmental pollutants and light and heat. Ozone is the main component of smog and is dangerous to our health and environment. The creation of ozone is facilitated by warm weather and sunshine, therefore, ozone levels are usually higher in the summer and in the mid-afternoon.

Maximum 8-hour Average Ozone Concentrations Over the National Ambient Air Quality Standard, Average Number of Days by Geography, Utah

Data Sources
U.S. Environmental Protection Agency, Air Quality System (AQS);

Data Notes
Averages calculated using available years which can vary depending on location. This Map was made using an interval break method called "equal interval" where classes are based on equal-sized sub-ranges according to numeric value.
How Are We Doing?
Several of the most urban counties in Utah have days that do not comply with the new ozone standard of 0.075 ppm. Utah's Department of Environmental Quality (DEQ) is working to decrease the number of days over the ozone standard.

What Is Being Done?
In response to the EPA's new ozone standard of 0.075 ppm, the Department of Environmental Quality has begun fitting school buses with cleaner technology, and state office buildings have begun using more energy-efficient practices and policies.

The DEQ's three-day air quality forecasting program uses a red, yellow, and green stoplight color code to inform the public about how they can help keep pollution levels low and safe. A green day informs the public that pollution levels are low, and they can safely drive and spend time outside. A yellow day informs the public that they should consider limiting driving to reduce pollution levels. A red day strongly encourages the public to reduce driving and other polluting activities to prevent pollution levels from exceeding the health standard.

Ultimately, the air quality for Utah's citizens is dependant on each individual taking steps to reduce the amount of energy being used and pollution being emitted.

Healthy People 2010 Objective 8.1a:
Harmful air pollutants - Persons exposed to ozone
U.S. Target for 2010: 0%
State Target for 2010: 0%

Date Indicator Content Last Updated: 09/21/10
Why Is This Important?
The 2006 Surgeon General Report "The Health Consequences Involuntary Exposure to Tobacco Smoke" concludes that there is no safe level of secondhand smoke exposure. Children exposed to secondhand smoke are at increased risk for sudden infant death syndrome, acute respiratory infections, ear problems, and more severe asthma. Smoking by parents causes respiratory symptoms and slows lung growth in their children. Exposure of adults to secondhand smoke has immediate adverse effects on the cardiovascular system and causes coronary heart disease and lung cancer. Educational interventions and public policy to prevent exposure to tobacco smoke lead to improved health and substantial savings in societal and health care costs.

Children Aged 17 or Less Exposed to Cigarette Smoke Inside the Home by Local Health District, Utah, 2006-2008 (aggregated data)

Data Sources
Utah Healthcare Access Survey (formerly Utah Health Status Survey), Office of Public Health Assessment, Utah Department of Health;

Data Notes
Population estimates of local health district are based on 2007 Baseline projections, Governor's Office of Planning and Budget, REMI model system. Rates are not age-adjusted. These data were formerly collected on the Utah Healthcare Access Survey (UHAS, formerly HSS). Beginning in 2009, these data are being collected on the Behavioral Risk Factor Surveillance System (BRFSS). Because data from the two surveys cannot be combined and at least two years of data are needed for local health district level estimates, this indicator was not updated with 2009 data. For more information on the change in survey instruments, please see: http://health.utah.gov/opha/publications/hsu/09May_Insurance.pdf
**Risk Factors**
Local areas that report high rates of cigarette smoking also report high rates of childhood exposure to secondhand smoke (SHS). Other locations where children are at risk for SHS exposure include cars, friends' or relatives' homes, multiple dwelling units without smoke-free policies, parks, and outdoor sports facilities such as rodeos.

**How Are We Doing?**
Data from the 2008 Utah Healthcare Access Survey show that 1.9% of Utah children (approximately 15,000 children) were exposed to secondhand smoke inside the home during the past month. Since 2001, child exposure to secondhand smoke in homes declined by 68%.

**What Is Being Done?**
Policies creating smoke-free environments are the most effective and economical means of protecting non-smokers from exposure to secondhand smoke. The Tobacco Prevention and Control Program (TPCP) at the Utah Department of Health and its partners inform Utahns about the negative health effects of secondhand smoke through the TRUTH anti-tobacco marketing campaign, community-based education, and an extensive website. Local health departments, schools, and community agencies provide families, businesses, and communities with assistance in reducing secondhand smoke exposure in homes, workplaces, and at recreational venues. When necessary, both the state and local health departments enforce requirements of the Utah Indoor Clean Air Act that were developed to protect Utahns and visitors to the state from secondhand smoke exposure.

The Utah Tobacco Quit Line (1-800-QUIT-NOW), Utah's online cessation support service utahquitnet.com, and local group-based quitting programs offer free tobacco cessation assistance to Utah adults and teens.

**Healthy People 2010 Objective 27.9:**
Exposure to tobacco smoke at home - Children (ages 6 years and under)

**U.S. Target for 2010:** 6%
**State Target for 2010:** 5%

**Date Indicator Content Last Updated: 10/28/10**
Why Is This Important?
Being overweight increases the risk of many chronic diseases, including heart disease, stroke, hypertension, type 2 diabetes, osteoarthritis, and some cancers. Obesity is the second leading cause of preventable death in the U.S.(1)

Utahns have been gaining weight so rapidly that in 2009 almost two-thirds (59.5%) of all adults were overweight or obese. The obesity epidemic among Utahns threatens to reverse the decades-long progress made in reducing death from chronic disease.

Percentage of Adults Who Were Overweight or Obese by Year, Utah and U.S., 1989-2009

Data Sources
Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS);

Data Notes
Overweight or Obese is defined as a BMI of 25 or more. Age-adjusted to U.S. 2000 standard population.

Risk Factors
Genetic or familial factors may increase the risk for being overweight or obese for some people, but anyone whose calorie intake exceeds the number of calories they burn is at risk. Physical activity and a healthy diet are both important for maintaining a healthy weight.
How Are We Doing?
The percentage of adults who were overweight or obese increased steadily in Utah and the U.S. in the last decade. In Utah, the percentage of overweight or obese individuals increased from 39.3% in 1989 to 59.5% in 2009.

What Is Being Done?
In 2008, through funding from the Centers for Disease Control and Prevention, a Physical Activity, Nutrition, and Obesity (PANO) program was established in the Department's Bureau of Health Promotion. In the first year, partners were convened to develop a statewide obesity plan. The state plan was released April 2010 and addresses the six areas of focus: 1) increase physical activity; 2) increase consumption of fruits and vegetables; 3) decrease the consumption of sugar sweetened beverages; 4) increase breastfeeding initiation, duration, and exclusivity; 5) reduce the consumption of high energy dense foods; and 6) decrease television viewing.

In 2007, a newly-formed nonprofit Utah Partnership for Healthy Weight was incorporated. The Partnership works to coordinate the many ongoing and future initiatives within Utah's communities.

In Schools:
(1) The Gold Medal School (GMS) Initiative helps elementary schools set up policy and environmental supports that make it easier for students and staff to be physically active and eat healthy food.
(2) The Physical Activity, Nutrition, and Obesity Program (PANO) and Action for Healthy Kids are working with local school boards to improve or develop policies for nutritious foods in schools. This includes recommendations for healthy vending options.
(3) The "Unplug 'n Play" program encourages students and their families to limit TV and other screen time to less than two hours per day.
(4) Height and weight trends are being tracked in a sample of elementary students to monitor Utah students.
(5) Action for Healthy Kids brings partners together to improve nutrition and physical activity environments in Utah's schools by implementing the school-based state plan strategies.

In Worksites:
(1) The Utah Council for Worksite Health Promotion gives awards to Utah businesses that offer employee fitness and health promotion programs. The Council takes the lead in implementing worksite-based state plan strategies.

In the Community:
(1) The "A Healthier You Legacy Awards Program" is a collaborative effort of the UDOH and community partners. It is a unique program that started as part of the Salt Lake 2002 Olympic Winter Games. The Program recognizes the efforts of communities, schools, and worksites to increase opportunities for their constituents to participate in health-enhancing areas: nutrition, physical activity, and healthy behaviors. Criteria categories for the award include policy, infrastructure, and outcomes. Recipients can receive bronze, silver, gold, and platinum awards for meeting criteria under these categories.
(2) UDOH joined with Intermountain Healthcare and KUTV in a health promotion program aimed at improving the overall health of Utah residents. The Check Your Health media campaign promotes the message "Eat Healthy, Be Active!" The campaign encourages all Utah families to make healthy food choices, develop a regular family mealtime, use correct portion sizes, and get at least 30 minutes of moderate to vigorous physical activity every day. The campaign specifically targets females ages 25-54.
(3) Local health departments receive federal dollars to mobilize community partners to improve or develop active community environments where people can walk and bike safely.
(4) The PANO program leads a statewide coalition to implement strategies within the state plan.

Date Indicator Content Last Updated: 08/04/10
PHOM Indicator Profile Report of Obesity Among Children and Adolescents

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Why Is This Important?
The number of overweight or obese children and adolescents is increasing annually and diseases previously thought to be diseases of adults, such as type 2 diabetes, high blood pressure, and high cholesterol, are now being diagnosed in children and adolescents.

Percentage of Utah Children Who Were Obese by Grade and Sex, 1st, 3rd, and 5th Grades, Utah, 2010

![Bar chart showing percentage of obese children by grade and sex in 2010](chart.png)

Data Sources
Utah Department of Health, Bureau of Health Promotion, Heart Disease and Stroke Prevention Program. (2002) Height/Weight Measurement;

Data Notes
In 2002 the Utah Department of Health administered a pilot study to weigh and measure 10,000 students in grades K-8. This study was done in a relatively small number of schools and was not designed to be representative of all children in Utah. Information from this study helped in the design the 2006 study. Data obtained from the 2006 Utah Height/Weight Study of over 4,300 1st, 3rd, and 5th grade students performed by the Utah Department of Health. Data from this study were collected to be representative of all 1st, 3rd, and 5th grade children in Utah. The study was repeated in 2008, where data was collected from 4,123 1st, 3rd, and 5th grade students.

How Are We Doing?
The percentage of obese children in Utah has increased dramatically over the past decade. From 1994 to 2010 the number of obese third grade boys increased by 97%, from 6.0% in 1994 to 11.8% in 2010. The percentage of obese third grade girls increased by 40% over the same time period. In 2010, 8.4% of third grade girls were obese compared to 6.0% in 1994.
In 2009, 6.4% of public high school students were obese; boys were twice as likely as girls to be obese (8.3% compared to 4.4%). It is likely that these data, based on self-reported height and weight underrepresent the prevalence of overweight among high school students.

**What Is Being Done?**

In 2008, through funding from the Centers for Disease Control and Prevention, a Physical Activity, Nutrition, and Obesity (PANO) program was established in the Department's Bureau of Health Promotion. In the first year, partners were convened to develop a statewide obesity plan. The state plan was released in 2010 and addresses the six areas of focus: 1) Increase physical activity; 2) Increase consumption of fruits and vegetables; 3) Decrease the consumption of sugar sweetened beverages; 4) Increase breastfeeding initiation, duration, and exclusivity; 5) Reduce the consumption of high energy dense foods; 6) Decrease television viewing.

In 2007, a newly-formed nonprofit "Utah Partnership for Healthy Weight" was incorporated. Currently the Partnership is focused on bringing informational and financial resources not readily available to state health departments, to obesity prevention efforts in Utah. The Partnership will work together to coordinate the many ongoing and future initiatives within Utah's communities.

In Schools:

1. The Gold Medal School (GMS) Initiative helps elementary schools set up policy and environmental supports that make it easier for students and staff to be physically active and eat healthy food.
2. The Physical Activity, Nutrition, and Obesity Program (PANO) and Action for Healthy Kids are working with local school boards to improve or develop policies for nutritious foods in schools. This includes recommendations for healthy vending options.
3. The "Unplug 'n Play" program encourages students and their families to limit TV and other screen time to less than two hours per day.
4. Height and weight trends are being tracked in a sample of elementary students to see how Utah students compare to the U.S.
5. Action for Healthy Kids brings partners together to improve nutrition and physical activity environments in Utah’s schools by implementing the school-based state plan strategies.

In the Community:

1. The "A Healthier You Legacy Awards Program" is a collaborative effort of the UDOH and community partners. It is a unique program that started as part of the Salt Lake 2002 Olympic Winter Games. The Program recognizes the efforts of communities, schools, and worksites to increase opportunities for their constituents to participate in health-enhancing areas: nutrition, physical activity, and healthy behaviors. Criteria categories for the award include policy, infrastructure, and outcomes. Recipients can receive bronze, silver, gold, and platinum awards for meeting criteria under these categories.
2. UDOH joined with Intermountain Healthcare and KUTV in a health promotion program aimed at improving the overall health of Utah residents. The Check Your Health media campaign promotes the message "Eat Healthy, Be Active!" The campaign encourages all Utah families to make healthy food choices, develop a regular family mealtime, use correct portion sizes, and get at least 30 minutes of moderate to vigorous physical activity every day. The campaign specifically targets females ages 25-54.
3. Local health departments receive federal dollars to mobilize community partners to improve or develop active community environments where people can walk and bike safely.

**Healthy People 2010 Objective 19.3c:**

Overweight or obesity in children and adolescents (ages 6 to 19 years)

**U.S. Target for 2010:** 5%

**Date Indicator Content Last Updated: 10/27/10**
PHOM Indicator Profile Report of Physical Activity: Recommended Levels Among Adults
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Why Is This Important?
Physical activity is recognized as an independent protective factor against cardiovascular disease. Physical activity has been shown to reduce the risk of some cancers, type 2 diabetes, stroke, and heart disease; and improve general physical and mental health.(1) Weight-bearing activity can improve bone density, reducing the risk of hip fractures in elderly persons. Regular activity helps to relieve pain from osteoarthritis.(2) Regular physical activity is also known to improve affective disorders such as depression and anxiety, and increase quality of life and independent living among the elderly.(3)


![Graph showing percentage of adults getting recommended physical activity from 2001 to 2009 for Utah and the U.S.](image)

Data Sources
Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS);

Data Notes
Through the year 2000, this indicator focused on leisure time activities, but did not capture information on occupational activities and activity incorporated into daily life. Beginning in 2001, the BRFSS questions were restructured and in addition to leisure time activity; they now reflect work-related and daily life physical activity. Due to changes in the questions, the rates of regular and vigorous physical activity are substantially higher beginning in 2001. Healthy People 2010 targets were also modified at this time. Data collected prior to 2001 are not comparable to data collected in 2001 and beyond. Age-adjusted to U.S. 2000 population.
Risk Factors
The percentage of persons who reported no physical activity during leisure time was higher among women, older adults, people who were overweight or obese, and those with less formal education and less income.

How Are We Doing?
In 2009, 58.7% of Utah males and 56.6% of Utah females reported getting the recommended amount of physical activity. Lowest rates were found in Davis County Health District (49.2%), and highest rates were found in Summit County Local Health District (65.6%). Small area rates ranged from 35.7% (Woods Cross/North Salt Lake) to 72.9% (Cedar City).

What Is Being Done?
In June 2010, the PANO program released the 10-year Nutrition and Physical Activity Plan, a long term approach to addressing the factors that influence obesity in Utah. This plan was the result of workgroups in areas including Community, Health Care, Schools, Worksites, Government, and Media. A copy of the State Plan can be found at: http://health.utah.gov/obesity/pages/Obesity/Resources_and_Publications.php

In Schools: (1) The Gold Medal School Program (GMS) helps elementary schools establish policy and environmental supports that make it easier for students and staff to be physically active and eat healthy food. (2) The Physical Activity, Nutrition and Obesity (PANO) Program assists elementary schools with Walk to School Day and Safe Routes to School.

In Worksites: (1) The Utah Council for Worksite Health Promotion awards recognition to businesses that offer employee fitness and health promotion programs. (2) The Bureau of Health Promotion's worksite wellness workgroup provides toolkits and other resources for employers interested in implementing wellness programs.

In the Community: (1) The PANO program and local health departments work with partners to improve or develop active community environments where people can walk and bike safely. (2) PANO program sponsors UtahWalks, a website with information on places to walk and bike throughout Utah. It also has ideas on how to create places for people to walk and bike.

Healthy People 2010 Objective 22.2:
Moderate physical activity (age adjusted, ages 18 years and older)
U.S. Target for 2010: 50%
State Target for 2010: 65%

Date Indicator Content Last Updated: 08/31/10
Why Is This Important?
Research indicates that bearing a child during adolescence is associated with long-term difficulties for the mother, her child, and society. These consequences are often attributable to poverty and other adverse socioeconomic circumstances that frequently accompany early childbearing.

Compared to babies born to older mothers, babies born to adolescent mothers, particularly young adolescent mothers, are at higher risk of low birthweight and infant mortality. These babies are more likely to grow up in homes that offer lower levels of emotional support and cognitive stimulation, and they are less likely to earn a high school diploma. For the mothers, giving birth during adolescence is associated with limited educational attainment, which in turn can reduce future employment prospects and earning potential.

Birth Rate for Women Aged 15-19 by Race, Utah, 2008

Data Sources
Utah Birth Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Population Estimates: Utah Governor's Office of Planning and Budget;

Risk Factors
Experiencing birth during adolescence can increase a teen's risk of acquiring a sexually-transmitted infection as well as seriously hinder future financial stability due to limited educational attainment.

How Are We Doing?
The teen birth rate per 1,000 females aged 15-19 in Utah, for the past 5 years were: 2005 - 30.1; 2006 - 32.7; 2007 - 34.7; 2008 - 34.4; 2009 - 31.0*.
72.2% of Utah women aged 15-17 and 66.9% of Utah women aged 18-19 reported their pregnancy as unintended in the 2007 Pregnancy Risk Assessment and Monitoring Survey (PRAMS).

* Preliminary data

**What Is Being Done?**
The Utah Department of Health, Maternal and Infant Health Program continues to work on improving the health of Utah adolescents. The Adolescent Health activities are guided by the Utah Adolescent Health Network, a group of diverse stakeholders. The mission of the Adolescent Health Network is to improve the overall health and well being of Utah adolescents. The Network recently completed a state report: Utah Adolescent Reproductive Health Report. This report is available electronically on the following website: http://health.utah.gov/mihp/pdf/2010_Adolescent_Health_Update.pdf

Teen Pregnancy Prevention Funding Opportunities:
The Utah Department of Health will be releasing two funding announcements in January and April 2011 for addressing teen pregnancy prevention in Utah. Both funding sources are made possible by the U.S. Department of Health and Human Services, Administration for Children and Families.

The first funding opportunity is for Abstinence Education Programs. The Request for Proposals (RFP) will be released in late January 2011. Local governments, public or private not for profit organizations, for profit organizations, state offices and agencies, units of local governments, and Indian tribal governments are encouraged to apply for contract funds. The target population will be Utah youth ages 10-16 with a specific focus on youth in the Utah Juvenile Justice System, youth of Hispanic origin and/or non-White race, and youth residing in areas with birth rates higher than Utah’s state rate.

The second funding opportunity is for Personal Responsibility Education Programs (PREP). Funds must be used for a program designed to educate adolescents on both abstinence and contraception to prevent pregnancy and sexually transmitted infections, including HIV/AIDS, and at least three adulthood preparation subjects. Local governments, public or private not for profit organizations, for profit organizations, state offices and agencies, units of local governments, and Indian tribal governments are encouraged to apply for contract funds. The target population will be Utah youth ages 14-19 with a specific focus on youth in the Utah Juvenile Justice System, youth of Hispanic origin and/or non-White race, current teen moms, and youth residing in areas with birth rates higher than Utah’s state rate.

Please note that the program awards are contingent upon receipt of federal funding.

Parents Matter Program: The Utah Adolescent Health Network collaborated with Planned Parenthood Association of Utah to pilot the Parents Matter program. This program was developed, implemented, and evaluated with funds from the Centers for Disease Control (CDC). It is an evidence-based, parent intervention designed to promote positive parenting and effective parent-child communication about sexuality and sexual risk reduction for parents of 9-12 year olds. The Parents Matter program will continue to be provided based on the availability of funds. For more information on this program, please visit the following website: http://www.cdcnpin.org/parentsmatter/program.asp

**Date Indicator Content Last Updated: 10/28/10**
**PHOM Indicator Profile Report of Births From Unintended Pregnancies**

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**Why Is This Important?**
In the United States, unintended pregnancy is a major public health problem. Unintended pregnancy is a general term that includes pregnancies that a woman reports were either mistimed or unwanted at the time of conception. Women with an unintended pregnancy are less likely to seek early prenatal care or receive adequate prenatal care, they are more likely to smoke or drink during pregnancy, and are less likely to initiate or maintain breastfeeding.

**Women With Live Births Who Reported Their Most Recent Pregnancy Was Unintended, Utah, 1999-2008**

![Graph showing percentage of unintended pregnancies from 1999 to 2008.]

**Data Sources**
Utah Pregnancy Risk Assessment Monitoring System (PRAMS), Utah Department of Health;

**Risk Factors**
Having an unintended pregnancy can contribute to short interpregnancy spacing (span between the birth of one child and the conception of another), which increases the risk of infant morbidity and mortality. In addition, unintended pregnancy can contribute to an increase in the rate of abortions as well as late entry into prenatal care. Women with inadequate care due to late entry are more likely to deliver a low birth weight baby.

**How Are We Doing?**
In 2008, 30.0% (17,800) of Utah women reported their birth was the result of an unintended pregnancy. Of the women who reported their pregnancies as unintended, 58.4% said they were using birth control at the time of conception. Contraceptive failure rates are reportedly low and vary between methods used. But more often, failure results from improper use.
**What Is Being Done?**
In order to accomplish and to exceed the HP2010 goal of 70% of pregnancies being intended, public health efforts may include:

Health Education - increase knowledge of human reproduction, conception, and proper use of available contraceptive methods; and promote optimal spacing of pregnancies for healthy outcomes.

Reproductive Health Services - increase dialogue between health care providers and women regarding reproductive health and family planning options.

Access to Health Care - improve insurance coverage for family planning services.

**Date Indicator Content Last Updated: 10/12/09**
Why Is This Important?
Tobacco use remains the leading preventable cause of death and disease in the United States. In Utah, smoking claims more than 1,150 lives each year. It exacerbates or causes nearly every chronic condition and contributes to Utah’s primary causes of death including heart disease, respiratory disease, and cancer. Smoking increases the risk for cancer of the lungs, larynx, esophagus, mouth, and bladder and contributes to cancer of the cervix, pancreas, and kidneys. Exposure to secondhand smoke increases the risk for heart disease and lung cancer among nonsmokers.

Percentage of Adults Who Reported Current Cigarette Smoking, Adults Aged 18 and Older, Utah and U.S., 1989-2009

Data Sources
Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS);

Data Notes
The Behavioral Risk Factor Surveillance System (BRFSS) survey is conducted with a representative sample of non-institutionalized Utah adults living in households with a telephone. Age-adjusted to U.S. 2000 population.

Risk Factors
Cigarette smoking is more common among persons with lower levels of formal education, and among those in lower income groups.
How Are We Doing?
Utah's adult smoking rate has decreased by one-third since the UDOH Tobacco Prevention and Control Program started receiving Master Settlement Agreement funds in 2000. Declines in smoking before 2000 had not been statistically significant.

However, approximately 190,000 Utah adults continue to smoke. People with low household income and fewer years of formal education report higher rates of tobacco use than the general population. Recent surveys show that approximately 80% of Utah smokers want to quit. Comprehensive and free tobacco cessation services are essential to help Utah smokers quit and ensure a decline in tobacco use rates among all population groups.

What Is Being Done?
The Tobacco Prevention and Control Program (TPCP) at the Utah Department of Health and its partners use comprehensive programs to prevent the initiation of tobacco use among young people, to help tobacco users quit, to eliminate nonsmokers' exposure to secondhand smoke, and to reduce tobacco-related disparities. These programs include The TRUTH anti-tobacco marketing campaign, free statewide quitting services, school- and community-based prevention programs, and efforts to improve tobacco policies in order to protect nonsmokers from secondhand smoke and support tobacco-free norms. The TRUTH campaign uses television, radio, billboard, print, and on-line media to reach mainstream and high risk youth, adults, pregnant women, Native Americans, Hispanics/Latinos, and rural populations. The campaign's goals are to counter tobacco industry messages, inform Utahns about quitting services, and reinforce and support local tobacco control efforts. Quitting services available to Utahns include a toll-free Tobacco Quit Line (1-800-QUIT-NOW), a web-based quitting service (utahquitnet.com), free quitting medications and counseling services for uninsured tobacco users and tobacco users on Medicaid, as well as group-based quitting classes for adults and youth in local communities. Efforts to protect nonsmokers from secondhand smoke focus on strengthening tobacco-free policies in apartment complexes, workplaces, schools, and outdoor venues frequented by children.

Healthy People 2010 Objective 27.1a:
Cigarette smoking - Adults (age adjusted, ages 18 years and older)

U.S. Target for 2010: 12%
State Target for 2010: 11%

Date Indicator Content Last Updated: 10/28/10
Why Is This Important?
Tobacco use remains the leading cause of preventable disease and death in the United States. Children and adolescents who smoke are at increased risk for developing respiratory illnesses, impaired lung growth, cancer, heart disease, and weakened immune systems and one third of those who continue to use tobacco will die from tobacco-related diseases. In addition, youth smokers are less physically fit and less likely to be committed to their education than their nonsmoking peers. Since nearly all adult smokers begin smoking during adolescence, preventing youth from starting to use tobacco products is expected to result in a substantial decrease in tobacco-related disease and death.

Current Cigarette Smoking by Year, High School Students, Grades 9-12, Utah and U.S., 1991-2009

Data Sources
Utah Youth Risk Behavior Surveillance System, Utah Department of Health; Youth Risk Behavior Surveillance System, National Center for Chronic Disease Prevention and Health Promotion;

Data Notes
The Youth Risk Behavior Survey (YRBS) is conducted with a representative sample of Utah public high school students in grades 9 to 12. Surveys were only conducted in odd numbered years.

How Are We Doing?
Utah teen smoking almost doubled from the mid-80s to the mid-90s (Bahr Survey, 1984-1997). Since the mid-90s teen smoking rates declined from 17% to 8.5%. Most of the decline happened between 1997 and 2001. Teen smoking has been stable since 2001.
What Is Being Done?
The Tobacco Prevention and Control Program at the Utah Department of Health and its partners aim at reducing youth tobacco use through a variety of programs and initiatives.

These programs include The TRUTH anti-tobacco marketing campaign, school- and community-based prevention activities, tobacco cessation programs tailored to teens, and efforts to strengthen tobacco-free norms and protect children and nonsmokers from secondhand smoke through expanded tobacco-free policies.

The TRUTH campaign uses television, radio, billboard, and print media to reach mainstream and high risk youth with anti-tobacco messages. The campaign's goals are to counter tobacco industry advertising, inform about quit services, and reinforce and support local tobacco control initiatives. Quit services available to Utah teens include a toll-free Tobacco Quit Line tailored to teens (1-800-QUIT-NOW), a web-based quit service (utahquitnet.com), and group-based quit classes. Efforts to strengthen tobacco-free policies focus on schools, multi-unit housing, and outdoor venues frequented by children and adolescents.

Healthy People 2010 Objective 27.2b:
Adolescent use of cigarettes in past month - Students (grades 9 through 12)

**U.S. Target for 2010:** 16%
**State Target for 2010:** 10%

Date Indicator Content Last Updated: 10/28/10
PHOM Indicator Profile Report of Alcohol Consumption - Binge Drinking

Why Is This Important?
Binge drinking is an indicator of potentially serious alcohol abuse, and is related to driving under the influence of alcohol. It is a problem nationally, especially among males and young adults. Alcohol abuse is strongly associated with injuries and violence, chronic liver disease, fetal alcohol syndrome, and risk of other acute and chronic health conditions. Binge drinking among women of childbearing age is a problem because of the risk for prenatal alcohol exposure. Birth defects associated with prenatal alcohol exposure can occur during the first 6 to 8 weeks of pregnancy before a woman knows she is pregnant.


Data Sources
Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS);

Data Notes
A drink of alcohol is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. From 1989-2005, binge drinking on the BRFSS was defined as consuming five or more drinks of alcohol on an occasion one or more times during the past 30 days for both males and females. Starting in 2006, the definition of binge drinking changed to consuming five or more drinks on an occasion for men, or four or more drinks on an occasion for women one or more times during the past 30 days. Data for this graph have been analyzed using the new definition, which is only available from 2005 forward (refer to ‘Data Interpretation Issues’ for question text) U.S. data are the average value for all states and the District of Columbia; they do not include U.S. territories. These rates are crude rates, not age-adjusted, given that the Healthy People 2010 Objective is based on crude rates.
**Risk Factors**
People experiencing poor mental health are more likely to drink excessively.

**How Are We Doing?**
In Utah, the percentage of adults who reported binge drinking in the past 30 days fluctuated between highs of 12% in 1989 and 1993 to a low of 7.7% in 1997. In 2009, 8.8% (crude rate) of Utah adults reported recent binge drinking. Utah is below the Healthy People 2010 objective of 13.4% for this measure.

**What Is Being Done?**
The Utah Division of Substance Abuse and Mental Health is the agency responsible for ensuring that substance abuse and mental health prevention and treatment services are available statewide. The Division also acts as a resource by providing general information, research, and statistics to the public regarding substances of abuse and mental health services. <http://www.dsamh.utah.gov>

**Healthy People 2010 Objective 26.11c:**
Binge drinking - Adults (ages 18 years and older)
**U.S. Target for 2010:** 13.4%

**Date Indicator Content Last Updated: 10/26/10**
Why Is This Important?
According to the U.S. Public Health Service, "Health risk behaviors that contribute to the leading causes of illness, death, and social problems among youth and adults often are established during youth, extend into adulthood, and are interrelated."(1)

Percentage of Students Who Used an Illegal Substance on One or More of the Past 30 Days: Alcohol, Utah and U.S., 1991-2009

Data Sources
Utah Youth Risk Behavior Surveillance System, Utah Department of Health; Youth Risk Behavior Surveillance System, National Center for Chronic Disease Prevention and Health Promotion;

Data Notes
High school students only. Alcohol use was defined as at least one drink of alcohol. Question text: During the past 30 days, on how many days did you have at least one drink of alcohol?

How Are We Doing?
The most commonly-abused substance among Utah high school students during the Spring of 2009 was alcohol (18.2%), followed by marijuana (10.0%), and cocaine (2.8%).

What Is Being Done?
According to the U.S. Public Health Service, "Adopting a multicomponent approach to youth substance abuse prevention may increase the long-term effectiveness of prevention efforts. This approach includes focusing on mobilizing and leveraging resources, raising public awareness, and countering pro-use messages. Several strategies may be effective, such as increasing the involvement of parents and parent groups at the local level, increasing the number of adults volunteers involved in drug prevention at the local level, changing normative attitudes among youth from 'everyone's using drugs' to 'everyone has better things to do than
drugs,’ and increasing the proportion of youth participating in positive skill-building activities.”(2)

Date Indicator Content Last Updated: 10/27/09
Part 4. Common Preventable Diseases and Conditions
**Why Is This Important?**
The infant death rate is an important measure of a nation's health and a worldwide indicator of health status and social well-being. It is a critical indicator of the health of a population. Three causes account for more than half of all infant deaths in Utah: birth defects (1.22 per 1,000 live births); conditions in the perinatal period (includes disorders of short gestation and can reflect the overall state of maternal health, as well as the quality and accessibility of primary health care for pregnant women) (2.07 per 1,000); and SIDS (0.31 per 1,000). Other medical conditions and deaths due to unintentional and intentional injuries account for a much smaller proportion of infant deaths.

**Infant Mortality: Deaths at Under 1 Year of Age, Utah and U.S., 1980-2008**

**Data Sources**

**Data Notes**

**Risk Factors**
Some of the mother's behaviors during the prenatal period, such as smoking and using alcohol, are associated with an increased risk of infant mortality.
How Are We Doing?
The infant mortality rate has been declining throughout the past 20 years both locally and nationally. Despite this decline, the problem of infant mortality remains substantial. During 2008, 264 Utah infants died during their first year of life, each death representing a tragedy for parents, siblings, and other family members.

What Is Being Done?
Improvements in early obstetric intervention and perinatal and postneonatal care have been linked to this decline in infant mortality. However, there still remain significant disparities among various racial/ethnic groups. The UDOH Maternal and Infant Health Program is currently 1) reviewing data obtained from the Pregnancy Risk Assessment Monitoring System (PRAMS) and the Perinatal Mortality Review Program (PMRP) to identify modifiable risk factors for infant mortality and develop appropriate interventions; 2) making health information available on-line for researchers, students, health care professionals, and the general public to increase awareness of factors associated with infant death (i.e. the Indicator Based Information System (IBIS) database and the Reproductive Health/Maternal and Infant Health Program website); 3) educating prenatal health care providers to help pregnant clients cease smoking to reduce the postneonatal mortality rate and reduce low birth weight births which contribute to neonatal mortality; 4) promoting preconception and interconception health care for all women of childbearing age, with special emphasis on attaining and maintaining healthy weight; and 5) working with community partners and health professionals to disseminate information on 17P, a newer drug to help prevent recurrent preterm birth.

The UDOH Center for Multicultural Health is working throughout the state to help decrease and eliminate health inequities resulting from cultural and socioeconomic gaps.

Healthy People 2010 Objective 16.1c:
All Infant deaths (within 1 year) (per 1,000 live births)
U.S. Target for 2010: 4.5/1,000 live births
State Target for 2010: 4.5/1,000 live births

Date Indicator Content Last Updated: 01/06/10
Why Is This Important?
Low birth weight increases the risk for infant mortality and morbidity. As birth weight decreases, the risk for death increases. Low birth weight infants who survive often require intensive care at birth, may develop chronic illnesses, and later may require special education services. Health care costs and length of hospital stay are higher for low birth weight infants. Utah data indicate that for infants weighing between 1,500 and 2,499 grams costs are 6 times higher, and almost 85 times higher for newborns with a birth weight less than 1,500 grams.

Percentage of Live Born Infants With Low Birth Weight, Utah and U.S., 1980-2009*

Data Sources

Data Notes
Low birth weight is defined as less than 2,500 grams (about 5 pounds, 8 ounces). *2009 data are preliminary

Risk Factors
Risk factors for low birth weight include:
- Preterm births
- Maternal chronic disease, such as hypertension
- Maternal obstetric family history, such as having been born low birth weight themselves
- Multiple gestation (e.g. twins)
- Low pre-pregnancy weight
- Tobacco or alcohol use during pregnancy
- Lack of or inadequate prenatal care
- Short intervals between pregnancies
- Previous pregnancy resulting in a low birth weight infant

**How Are We Doing?**
Utah's low birth weight percentage increased from 6.0% in 1991 to 7.0% in 2009 (preliminary data), moving away from the Healthy People 2010 Objective of 5.0%.

**What Is Being Done?**
In an effort to reduce the low birth weight rate, emphasis has been placed on preconception care to assist women in achieving optimal pregnancy spacing and to attain their optimal pre-pregnancy weight. Chronic maternal disease such as hypertension and diabetes should be diagnosed and treated prior to conception. Programs to reduce tobacco use during pregnancy have been developed and research continues into the role of periodontal disease in pregnancy on low birth weight. The Utah Department of Health has recently implemented the “Power Your Life” campaign to reach women of reproductive age about the importance of being health prior to pregnancy to improve outcomes. The centerpiece of the campaign is the Power Your Life website at www.poweryourlife.org.

Women are also encouraged to seek early and continuous care throughout their pregnancies and to achieve an adequate weight gain during pregnancy. All women should receive a thorough formal risk assessment at their initial prenatal visit, with updates throughout pregnancy to identify risk factors for low birth weight and develop appropriate interventions, if needed. Standards for assisted reproductive technology should be adhered to, to reduce the frequency of higher order multiple pregnancies. Additionally, all women should be educated regarding the danger signs of pregnancy and the importance of fetal kick counts to facilitate early recognition of problems to permit earlier intervention, thereby improving pregnancy outcomes. Pregnant women also need appropriate referrals to services such as WIC, and nutritional and psychosocial counseling for at risk women.

**Healthy People 2010 Objective 16.10a:**
Low birth weight (LBW), infants (less than 2,500 grams)

**U.S. Target for 2010:** 5.0%
**State Target for 2010:** 5.0%

**Date Indicator Content Last Updated: 11/01/10**
Why Is This Important?
Salmonellosis is an infectious disease caused by Salmonella bacteria. Most persons infected with Salmonella develop diarrhea, fever, and abdominal cramps 12 to 72 hours after exposure. The illness usually lasts 4 to 7 days, and most persons recover without treatment. In some patients, the Salmonella infection may spread from the intestines to the blood stream and can lead to hospitalization or death unless the person is treated promptly. The elderly, infants, and those with impaired immune systems are more likely to have a severe illness. The infection is acquired by eating or drinking food contaminated with Salmonella bacteria. Illness may also be spread by direct contact with an infected person or animal. Salmonella bacteria are commonly found in food products such as eggs, egg products, meats, poultry, unpasteurized dairy products, and contaminated produce. Domestic animals including poultry (especially baby ducks and chicks), reptiles (e.g., lizards and snakes), amphibians (especially turtles), and farm animals (e.g., cattle and pigs) may carry the bacteria.

Number of Reported Salmonella Infections per 100,000 Population, Utah, 1993-2009, and U.S., 1995-2008

Data Sources
Utah Department of Health, Bureau of Epidemiology; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); Population Estimates: Utah Governor's Office of Planning and Budget;

Data Notes
The U.S. rates are derived from the Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report Summary of Notifiable Diseases. The Utah rates are derived from Utah annual surveillance reports. Utah and U.S data are preliminary and may change.
Risk Factors
All age groups can be infected with Salmonella, but young children, the elderly, and those with compromised immune systems are the most severely affected.

How Are We Doing?
The number of reported Salmonella infections in Utah decreased from 26.4 cases per 100,000 population in 1999 to 11.4 per 100,000 population in 2009. A portion of the decrease in the number of cases reported in Utah may be attributed to efforts of the Utah Department of Agriculture and Food through their Egg and Poultry Grading service. The mission of this service is to assure Utah consumers safe, wholesome, quality eggs, egg products, and poultry. More information of the Egg and Poultry Grading service can be found by visiting: http://ag.utah.gov/divisions/regulatory/egg.html.


What Is Being Done?
From 1994 to 2000, Salmonella Enteritidis (SE) averaged approximately 55% of all Salmonella infections during that time period. This was primarily due to several outbreaks associated with eating raw or undercooked eggs. However, since 2000, there has only been one outbreak of salmonellosis associated with eggs. This has resulted in a decrease in the number of Salmonella infections overall and a decrease in the proportion of Salmonella infections that are due to SE. In 2009, 25% of all Salmonella infections was the serotype SE. The improvements in Salmonella rates can be directly linked to the Utah Egg Quality Assurance Program (UEQAP) described in the section "How Are We Doing?"

Additionally, improvements in laboratory and epidemiologic techniques, as well as improved communication between state and local jurisdictions, has resulted in improved outbreak detection, especially for outbreaks due to uncommon sources of Salmonella.

Per the Communicable Disease Rule R386-702-3, health care providers and laboratories are required to report salmonellosis cases to the Bureau of Epidemiology or a Local Health Department. The Bureau of Epidemiology assists Local Health Departments with the investigation of cases and outbreaks and implementation of control measures to prevent further cases.

Local Health Departments make an attempt to interview every case of salmonellosis reported to public health. Information gathered during these interviews includes food history, water exposure, animal exposure, travel history, and contact with ill individuals. Data from these interviews are analyzed and used to identify outbreaks and common sources of infection.

Some general guidelines to prevent the spread of Salmonella include the following:
- Always refrigerate meat, cook meats completely, and never eat raw meat.
- Always refrigerate eggs and cook eggs and food containing raw eggs completely. Never eat dough, batter, sauces, ice cream, or other foods that contain raw eggs.
- Use only pasteurized milk and juices.
- Carefully wash hands before and after preparing food, after using the toilet, changing diapers, or touching animals.


Date Indicator Content Last Updated: 10/27/10
Why Is This Important?
Escherichia coli are very common bacteria that can cause diarrheal illness in humans, although non-pathogenic strains are also found in stool. The UDOH tracks one category of E. coli that cause diarrhea, known as Shiga toxin-producing E. coli or STEC. These bacteria are sometimes referred to as enterohemorrhagic E. coli or EHEC. The most common strain of STEC is O157:H7, but there are many other strains of E. coli that produce Shiga toxin. Rather than listing all of them individually, strains of E. coli that produce Shiga toxin are listed as STEC in this report.

All age groups can be infected with Shiga toxin-producing E. coli, but young children, the elderly, and those with unhealthy immune systems are the most severely affected. The bacteria live in the intestines of some healthy cattle, and contamination of the meat can occur in the slaughtering process. Eating ground beef that has been inadequately cooked is a common way of getting the infection. Other sources of infection may include unpasteurized milk or juice; drinking or swimming in water that is contaminated with sewage; eating contaminated fruits or vegetables; or contact with animals that are infected.

Number of Reported STEC Infections per 100,000 Population by Year, Utah, 1998-2009

Data Sources
Utah Department of Health, Bureau of Epidemiology; Population Estimates: Utah Governor’s Office of Planning and Budget;

Data Notes
UDOH tracks one category of E. coli that cause diarrhea, known as Shiga toxin-producing E. coli or STEC. These bacteria are sometimes referred to as enterohemorrhagic E. coli or EHEC. The most common strain of STEC is O157:H7, but there are many other strains of E. coli that...
produce Shiga toxin. Rather than listing all of them individually, all strains of E. coli that produce Shiga toxin are listed here as STEC. Utah rates are derived from Utah annual surveillance reports published by the Bureau of Epidemiology. Includes all Shiga-toxin Producing E. coli (STEC) cases

**Risk Factors**
All age groups can be infected with E. coli, but young children, the elderly, and those with compromised immune systems are the most severely affected.

**How Are We Doing?**
E. coli O157:H7 infections became reportable in Utah in 1990, during which time six cases were reported. The increase in number of cases reported annually since 1990 may be due to improved reporting and better laboratory detection methods.

In 2006, the number of STEC infections per 100,000 Utah population (5.89) was more than double the 2005 rate due to a multi-state outbreak of E. coli O157:H7 associated with spinach; 18 laboratory-confirmed cases were identified among Utah residents. Since 2006, the Utah rate of STEC has decreased. In 2009, one outbreak of E. coli O157:H7 occurred in Utah, in which there were 14 laboratory-confirmed cases identified, yet the source of the illness was not determined.

Because diagnosis solely on the basis of detection of Shiga toxin does not sufficiently protect the public's health, characterizing STEC isolates by serotype and pulsed-field gel electrophoresis (PFGE) patterns is critical to detect, investigate, and control outbreaks. Screening of stool specimens by clinical diagnostic laboratories for Shiga toxin by enzyme immunoassay, subsequent bacterial culture using sorbitol MacConkey agar (SMAC), and forwarding enrichment broths from Shiga toxin-positive specimens that do not yield STEC O157 to state or local public health laboratories are important for public health surveillance of all STEC infections.

**What Is Being Done?**
Per the Communicable Disease Rule R386-702-3, health care providers and laboratories are required to report cases of Shiga toxin-producing E. coli to the Bureau of Epidemiology or the Local Health Department. The Communicable Disease Investigation and Response Program at the Utah Department of Health assists Local Health Departments with the investigation of cases and outbreaks and implementation of control measures to prevent further cases.

Local Health Departments make an attempt to interview every case of Shiga toxin-producing E. coli infection reported to public health. Information gathered during these interviews includes food history, water exposure, animal exposure, travel history, and contact with ill individuals. Data from these interviews are analyzed and used to identify outbreaks and common sources of infection.

**Date Indicator Content Last Updated: 10/27/10**
Why Is This Important?
Infections caused by the bacterium Chlamydia trachomatis are the most frequently reported notifiable disease in the U.S., with 1,210,523 cases reported in 2008. Nearly 71% of reported chlamydial infections in the U.S. were among those 15 to 24 years of age. This is evident in Utah as well with 66% of chlamydia cases being among those between 15 and 24 years of age (2009). Chlamydia infections in both men and women are commonly asymptomatic, yet screenings occurring mostly among females produce higher rates of reported infections. Females with chlamydia infection are at risk for developing pelvic inflammatory disease (PID) and both men and women may become infertile as a result of untreated chlamydia infections. Untreated chlamydia infections can damage the reproductive systems of both males and females. Susceptibility to more serious infections such as HIV also increases when an individual is infected with chlamydia. In addition, pregnant women with chlamydia can pass the infection to their infant during delivery, potentially resulting in pneumonia or neonatal ophthalmia.


Data Sources
Utah Department of Health, Bureau of Epidemiology; U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); Population Estimates: Utah Governor's Office of Planning and Budget;

Data Notes
Rates were calculated by dividing the number of cases for each year by the total population within that year and multiplying by 100,000. Prior to 2009, Utah rates were calculated using the morbidity report date; effective 2009, rates were calculated using the date of diagnosis. Rates for the U.S. are not yet available for 2009.
Risk Factors
Risk factors for sexually transmitted diseases include:
- sexual activity among young adults 25 and younger
- multiple sex partners
- prior history of STDs
- unprotected sex
- sexual contact with prostitutes (male or female)
- illicit drug use

Those who fall within one or more of these categories should be tested for STDs in regular intervals. Sites of infection may include pharynx, rectum, vagina, cervix, and urethra. Due to anatomical and biochemical differences, women are also at increased risk for acquiring chlamydia than men.

How Are We Doing?
Chlamydia rates in Utah have increased since 2000. This can be attributed to increased screening efforts, use of increasingly sensitive diagnostic testing, efforts to increase reporting by providers and laboratories, and improved information systems for reporting. Such increased rates can be interpreted as an advancement in chlamydia infection control as more infections are identified and treated, providing opportunity to intervene in the spread of infection.

Chlamydia infections in both men and women are commonly asymptomatic, yet screenings occurring mostly among females produce higher rates of reported infections. However, with the increased availability of urine testing, men are increasingly being tested for chlamydial infection. From 2004 through 2009 in Utah, the chlamydia rate in men increased by 65% as compared with a 31% increase in women over this period.

What Is Being Done?
Persons who test positive for chlamydia are confidentially interviewed by a local public health nurse to educate the patient, ensure proper treatment, and to obtain sexual partner information for follow up. This process helps prevent reported cases from spreading disease and the patient from becoming reinfected.

The Utah Department of Health HIV, STD and Viral Hepatitis C Prevention Program, along with local health departments, currently provides STD presentations upon request to a variety of organizations, agencies and facilities.

Date Indicator Content Last Updated: 10/21/10
Why Is This Important?
Syphilis is a complex sexually transmitted disease (STD) caused by the bacterium Treponema pallidum (spp. pallidum). The initial stage (primary syphilis) is characterized by a highly infectious painless open sore, called a chancre, at the site of infection. Chancres occur mainly on the external genitals, vagina, anus, or in the rectum. Syphilis is passed from person to person through direct contact with the chancre. Sexual transmission can also occur during the secondary stage of syphilis. An infant can acquire syphilis through the placenta if the mother is infected. In later stages of the disease, the bacteria move throughout the body, damaging many organs over time. The open nature of the syphilitic sores makes it easier to acquire HIV, if exposed, or to transmit the virus, if infected. Public health intervention and education measures are crucial in eliminating syphilis.

Primary and Secondary Syphilis, Utah and U.S., 1990-2009

Data Sources
Utah Department of Health, Bureau of Epidemiology; U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); Population Estimates: Utah Governor’s Office of Planning and Budget;

Data Notes
Rates were calculated by dividing the number of cases for each year by the total population within that year and multiplying by 100,000. Rates for the U.S. are not yet available for 2009.

Risk Factors
Risk factors for sexually transmitted diseases include:
- sexual activity among young adults 25 and younger
- multiple sex partners
- prior history of STDs
- unprotected sex
- sexual contact with prostitutes (male or female)
- illicit drug use

Those who fall within one or more of these categories should be tested for STDs in regular intervals. Sites of primary syphilis infection may include penis, rectum, anus, vagina, cervix, vulva, or mouth.

**How Are We Doing?**
In 2009, 31 cases of primary and secondary (P&S) syphilis cases were reported. Thirteen of the cases were primary syphilis, and 18 cases were secondary syphilis. The rate for P&S syphilis in 2009 was 1.11 per 100,000, a 185% increase from the rate of 0.39 per 100,000 documented in 2005.

**What Is Being Done?**
Persons who test positive for syphilis are confidentially interviewed by a local public health nurse to educate the patient, ensure proper treatment, and to obtain sexual partner information for follow up. This process potentially prevents those diseases reported from being spread and from the patient becoming reinfected. The Centers for Disease Control and Prevention recommendations for testing, treatment, and follow-up are adhered to by the Utah Department of Health and the local health departments.

The Utah Department of Health HIV, STD and Viral Hepatitis C Prevention Program, along with local health departments, currently provides STD presentations upon request to a variety of organizations, agencies and facilities.

**Healthy People 2010 Objective 25.3:**
Primary and secondary syphilis - Transmission of (per 100,000 population)

**U.S. Target for 2010:** 0.2/100,000 population

**State Target for 2010:** 0.2/100,000 population

**Date Indicator Content Last Updated:** 10/28/10
Why Is This Important?
Although much less common than chlamydia infections, gonorrhea, caused by Neisseria gonorrhoeae, is a priority public health concern in Utah. Untreated gonorrhea infections can damage the reproductive systems of both males and females. Females with gonorrhea infection are at risk for developing pelvic inflammatory disease (PID), and both men and women may become infertile as a result of untreated gonorrhea infections. Also, susceptibility to more serious infections such as HIV also increases when an individual is infected with gonorrhea. Furthermore, pregnant women with gonorrhea can pass the infection to their infant during delivery, potentially resulting in ophthalmia neonatorum. Gonorrhea can spread to joints and become systemic (disseminated gonorrhea). In addition to the cervix and urethra, the rectum and pharynx are also important sites of gonococcal infection.


Data Sources
Bureau of Communicable Disease Control, Utah Department of Health; Utah Department of Health, Bureau of Epidemiology; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); Population Estimates: Utah Governor's Office of Planning and Budget;

Data Notes
Rates were calculated by dividing the number of cases for each year by the total population within that year and multiplying by 100,000. Prior to 2009, Utah rates were calculated using the morbidity report date; effective 2009, rates were calculated using the date of diagnosis. Rates for the U.S. are not yet available for 2009.

Risk Factors
Risk factors for sexually transmitted diseases include:
- sexual activity among young adults 25 and younger
- multiple sex partners
- prior history of STDs
- unprotected sex
- sexual contact with prostitutes (male or female)
- illicit drug use

Those who fall within one or more of these categories should be tested for STDs in regular intervals. Sites of infection may include pharynx, rectum, vagina, cervix, and urethra.

**How Are We Doing?**
Since 2005, Utah has seen a 53% decrease in the gonorrhea case rate: 12.2 cases per 100,000 persons reported in 2009 as compared to 28.5 per 100,000 in 2005. From 2001 to 2006, however, the rate had increased 243% from 9.9 cases per 100,000 in 2001 to 34.0 cases per 100,000 in 2006.

In 2009, gonorrhea rates in the state were higher in males (19.2/100,000) than females (5.0/100,000). The highest rates of gonorrhea in Utah in 2009 were among males aged 25 to 29 (70.2/100,000) and males aged 20 to 24 (58.8/100,000).

**What Is Being Done?**
Persons who test positive for gonorrhea are confidentially interviewed by a local public health nurse to educate the patient, ensure proper treatment, and to obtain sexual partner information for follow up. This process potentially prevents those diseases reported from being spread and from the patient becoming reinfected. The Centers for Disease Control and Prevention recommend that patients with gonococcal infections be presumptively treated for chlamydia if chlamydial infection is not ruled out.

The Utah Department of Health HIV, STD and Viral Hepatitis C Prevention Program, along with local health departments, currently provides STD presentations upon request to a variety of organizations, agencies and facilities.

**Healthy People 2010 Objective 25.2a:**
Gonorrhea - New cases in the total population (per 100,000 population)
**U.S. Target for 2010:** 19 new cases/100,000
**State Target for 2010:** 12.5 new cases/100,000 population

**Date Indicator Content Last Updated: 10/21/10**
**Why Is This Important?**
HIV is a blood-borne virus. Transmission occurs primarily through sexual contact with an infected person, sharing needles for the injection of drugs, or before, during, or after the birth of children of HIV-infected mothers. The Bureau of Epidemiology has the responsibility of tracking cases of HIV/AIDS in order to monitor trends in the disease and whenever possible to interrupt the transmission of HIV. This is done by collecting pertinent demographic information on reported HIV-positive individuals and by conducting follow-up on newly diagnosed individuals and their partners. No treatment is available to cure HIV, although antimicrobial and antiretroviral treatments are available to extend survival among those who are infected with human immunodeficiency virus (HIV).

**Number of People Believed to Be Living With HIV or AIDS by Year, Utah, 1988-2008**

**Data Sources**
HIV/AIDS Surveillance Program, Utah Department of Health;

**Data Notes**
The number presumed living indicates the number of people reported and believed alive at the end of each year; these are cumulative numbers and should not be added.

**How Are We Doing?**
As of October 2010, a total of 2,529 individuals diagnosed with HIV (regardless of AIDS diagnosis) were currently known to be living in Utah.

AIDS-related deaths have been decreasing, primarily because of improved efficacy of combination antiretroviral therapies. This trend has led to an increased number of people living with HIV disease in Utah, thus impacting the health care systems and increasing the need for HIV/AIDS Prevention and HIV/AIDS Treatment and Care programs.
Of those HIV-positive individuals known to be living in Utah as of October 2010, the majority (37.7%) are between 40-49 years of age. Those HIV-positive individuals known to be living aged 50-59 years make up 25.7% and 30-39 year olds make up 21.6%. Of the total 2,529 individuals known to be living with HIV, 2,175 (86%) are male, and 354 (14%) are female.

Male-to-male sexual contact (MSM) is the most common means of HIV exposure (55.3%) reported among men of all races followed by male-to-male sexual contact and injection drug-use (MSM+IDU) at 13.4%. The racial breakdown of men living with HIV shows 72.5% are White (non-Hispanic), 17.5% are Hispanic, 6.9% are Black, 1.3% are American Indian/Alaskan Native, and 1.2% are Asian/Pacific Islander.

Heterosexual contact is the most common means of HIV exposure (47.2%) reported among women followed by injection drug use (IDU) at 27.4%. The racial breakdown of women living with HIV shows 52% are White (non-Hispanic), 22.3% are Black, 20.3% are Hispanic, 2.3% are American Indian/Alaskan Native, and 2.3% are Asian/Pacific Islander.

**What Is Being Done?**
Community-based prevention efforts include:
- HIV testing as a part of routine medical care
- Targeting high-risk populations to get tested
- Encouraging safer sexual practices
- Encouraging drug users to get treatment and increase harm reduction practices
- Encouraging pregnant women or women considering pregnancy to be tested for HIV

**Healthy People 2010 Objective 13.5:**
(Developmental) New HIV/AIDS cases diagnosed among adolescents and adults (number)
**U.S. Target for 2010:** To be determined
**State Target for 2010:** 49 cases

**Date Indicator Content Last Updated:** 11/04/10
Why Is This Important?
Motor vehicle crashes (MVCs) are the second leading cause of unintentional injury death in Utah. In 2009, MVCs accounted for 227 deaths.


Data Sources
Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Population Estimates: Utah Governor's Office of Planning and Budget; National Center for Injury Prevention and Control's Web-based Injury Statistics Query and Reporting System (WISQARS);

Data Notes
ICD-9 codes E810-E819; ICD-10 codes V02-04 [.1-.9], V09.2, V12-14 [.3-.9], V19 [.4-.6], V20-V28 [.3-.9], V29-79 [.4-.9], V80 [.3-.5], V81-82 [.1], V83-86 [.0-.3], V87 [.0-.8], V89.2; ICD-9 and ICD-10 adjusted for comparability. Data have been age-adjusted to U.S. 2000 standard population.

Risk Factors
The most important factors contributing to motor vehicle crash injuries are failure to use seat belts, excessive speed, and driving under the influence of alcohol or drugs. Not using a safety belt or a child safety restraint while traveling in a motor vehicle greatly increases the probability of being injured or killed in a crash. When not using these safety devices, a person is more likely to be ejected from the vehicle or to be thrown against the windshield or some other part of the vehicle. A person's driving ability is affected by a Blood Alcohol Concentration (BAC) as low as .02%. The likelihood of a crash increases significantly over .05%. Fifteen percent of fatal crashes in Utah involve alcohol-impaired drivers (2). When alcohol is involved, crashes tend to be more severe. As blood alcohol levels increase, balance, coordination, and reasoning ability worsen.
**How Are We Doing?**
The MVC death rate has been decreasing in Utah over the past two decades.

Residents who live in rural areas tend to have higher MVC death rates than those residing in urban areas. TriCounty (26.8 per 100,000 population) and Southeastern (26.1 per 100,000 population) health districts had the highest MVC mortality, and Davis County (7.4 per 100,000 population) and Salt Lake Valley (7.7 per 100,000 population) had the lowest.

Motor vehicle crash death rates were nearly twice as high for males (12.5 per 100,000 population) as females (6.3 per 100,000 population) in Utah in 2007-2009.

Males aged 20-24 had the highest rates (19.9 per 100,000 population) followed by males aged 65 and above (19.6 per 100,000 population) and males aged 15-19 (17.7 per 100,000 population). Among females the highest rate was found in those aged 65 and above (10.5 per 100,000 population).

**What Is Being Done?**
VIPP is partnering with local health departments, the Utah Teen Traffic Safety Task Force, and other partners to focus on teens in preventing motor vehicle-related deaths.

In 1998, a graduated licensing law was enacted in Utah to address the concern of teenage driving and crashes. Graduated driver licensing requirements are in place to assist teenage drivers in developing responsible driving behaviors.

The Utah Legislature has passed a variety of laws to promote safety belt use, although there is still no primary seat belt law. The Utah Department of Public Safety conducts an annual safety belt observational survey to determine safety belt use for Utah. Overall, safety belt use in Utah for 2010 was 89.0%, the highest recorded usage to date.

During the 2009 legislative session, HB290 was passed prohibiting texting and use of electronic mail while driving.

Legislation has been passed to help decrease the number of drunk driving crashes. Law enforcement agencies throughout the state enforce traffic safety laws. Transportation agencies also assist with safe driving through the design and construction of safer roadways.

**Healthy People 2010 Objective 15.15a:**
Deaths from motor vehicle crashes (age adjusted per 100,000 standard population)

**U.S. Target for 2010:** 8.0/100,000 population

**State Target for 2010:** 12/100,000 population

**Date Indicator Content Last Updated:** 10/28/10
PHOM Indicator Profile Report of Drug Overdose and Poisoning Incidents
You are Here: IBIS-PH > Indicator Reports > PHOM > current page

Why Is This Important?
In 2002 the age-adjusted rate of poisoning deaths (15.2 per 100,000 population) surpassed the rate of motor vehicle crash (MVC) deaths (13.4 per 100,000 population) in Utah. Until this time, motor vehicle crashes have been responsible for more lives lost than any other cause of injury. As of 2009, the age-adjusted death rate from poisonings (21.0 per 100,000 population) was almost three times as high as it was from MVC deaths (8.7 per 100,000 population). Drugs, and in particular prescription pain medications, are responsible for many of the poisoning deaths in Utah.

Moreover, for Utahns ages 15-64, poisoning was the overall leading cause of death.

Poisoning Death by Year, Utah and U.S., 1999-2009

Data Sources
Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; National Center for Injury Prevention and Control's Web-based Injury Statistics Query and Reporting System (WISQARS);

Data Notes
Utah drug deaths are a subset of Utah poisoning deaths. The vast majority of Utah poisoning deaths are due to drug/medication consumption. Utah’s poisoning death rate (21.4 per 100,000 population in 2007) exceeds the U.S. poisoning death rate (13.2 per 100,000 population in 2007). Data are age-adjusted (2000 U.S. standard population).

How Are We Doing?
Utah has seen a 97.4% increase in age-adjusted poisoning death rates from 2001 to 2007, an average increase of over 16% per year. There has been a decline of 1.7% in age-adjusted poisoning death rates from 2007 to 2009. Prescription pain medications underlie many Utah
poisoning deaths. In 2009, 35.9% of Utah poisoning deaths were of undetermined intent, 16.9% were suicides, and 47.1% were unintentional.

From 2005 to 2009, poisoning deaths are highest among Utahns between the ages of 45-54, with an overall rate of 42.9 per 100,000 population. In addition, males have a significantly higher age-adjusted poisoning death rate compared to females (23.0 and 17.2 per 100,000 population, respectively).

Children infrequently require hospitalization for the ingestion of poison, but 1 to 4 year-olds have significantly higher poisoning emergency department (ED) visits rates than any other age group in 2008. For adults (ages 18 and over) as age increases, ED visits decline.

Age-adjusted hospitalization rates due to poisoning have increased steadily from 1998 (4.5 admissions per 10,000 population) to 2008 (8.8 admissions per 10,000 population). Median hospitalization charges for admissions due to poisonings increased 46.7% in the past five years from $6,023.33 in 2004 to $8,834.16 in 2008).

Age-adjusted ED treat-and-release visit rates due to poisoning have not changed significantly from 1999 to 2008, however, median treat-and-release charges have increased 197% (from $456.00 in 1999 to $1,353.00 in 2008).

What Is Being Done?
In July 2007, the Utah State Legislature passed House Bill 137 appropriating funding to the Utah Department of Health (UDOH) to establish a program to reduce deaths and other harm from prescription opiates. Since 2007 the Utah Department of Health 1) launched a media campaign, Use Only As Directed, to educate the public about how to use prescription pain medication safely (visit Useonlyasdirected.org for more information), 2) launched a statewide Provider Education intervention where physicians have the opportunity to receive CMEs for participation in small and large group presentations, and 3) is currently collaborating with other stakeholders through an Advisory Committee and Work Groups. For information on any of these topics email: useonlyasdirected@utah.gov.

The UDOH Violence and Injury Prevention Program (VIPP) is funded by the U.S. Centers for Disease Control and Prevention (CDC) to implement the Utah Violent Death Reporting System (UTVDRS). UTVDRS is a data collection and monitoring system that will help Utahns better understand the public health problem of violence by informing decision makers about the magnitude, trends, and characteristics of violent deaths such poisoning deaths of undetermined intent, homicide poisoning deaths, and suicide poisoning deaths, and to evaluate and continue to improve state-based violence and prevention policies and programs. Data are collected from the Office of the Medical Examiner, Vital Records, and law enforcement agencies and are linked together to help identify risk factors, understand circumstances, and better characterize perpetrators of violent deaths. UTVDRS is currently in its sixth year of data collection.

Date Indicator Content Last Updated: 10/28/10
Why Is This Important?
From 2005 to 2009, Utah’s age-adjusted suicide rate was 15.3 per 100,000 persons. This is an average of 379 suicides per year. Utah has one of the highest age-adjusted suicide rates in the U.S. It is the 2nd leading cause of death for Utahns ages 15 to 34 years old (1).

According to the 2009 Youth Risk Behavior Survey, during the past 12 months before the survey, 7.2% of Utah high school students attempted suicide one or more times and 3.2% of these students suffered an injury, poisoning, or an overdose that had to be treated by a doctor or nurse. Data from the 2005 to 2007 Utah Behavioral Risk Factor Surveillance System showed that males and females 85 years and older had the highest prevalence (8.0% and 12.4% respectively) of reported thoughts of hurting themselves or that they would be better off dead one or more times in the past two weeks (2).

In 2008, 2,937 Utahns were seen in emergency departments and 1,394 Utahns were hospitalized for self-inflicted injuries.

Sources:
1) CDC, Web-based Injury Statistics Query and Reporting System (WISQARS), 2007 data.

Suicide by Sex and Year, Utah and U.S., 2003-2009

Data Sources
Data Notes
Suicides are determined using ICD-10 codes X60-X84, Y87.0, U03. Data are age-adjusted to the U.S. 2000 standard population.

Risk Factors
Many conditions and stressors may be related to suicide including: previous suicide attempt(s), history of depression or other mental illness, alcohol or drug abuse, family history of suicide or violence, physical illness, local epidemics of suicide


How Are We Doing?
The 2009 Utah age-adjusted suicide rate was 17.0 per 100,000 population. In the last five years, males (24.4 per 100,000 population) had a significantly higher suicide rate than females (6.5 per 100,000 population).

According to 2005-2009 data from the Utah Violent Death Reporting System, non-Hispanic and Latino persons had a significantly higher age-adjusted suicide rate than Hispanic and Latino persons (15.9 and 8.1 per 100,000 population respectively). African-American/Black persons and Hispanic and Latino persons had significantly lower age-adjusted suicide rates than the state rate.

From 2005 to 2009, Central Utah, Southeastern, TriCounty, and Weber-Morgan Local Health Districts had significantly higher age-adjusted suicide rates than the state rate. Utah County Local Health District had a significantly lower age-adjusted suicide rate than the state rate.

Among Utah's small areas, Carbon/Emery Counties, Other Southwest District, Ben Lomond, Glendale, and TriCounty LHD had significantly higher age-adjusted suicide rates than the state rate. Provo/BYU, Foothill/U of U, Lehi/Cedar Valley, and East Orem had significantly lower age-adjusted suicide rates than the state rate.

In 2009, firearms were the most common method of suicide for males, while poisoning was the most common method for females (57.1% and 46.2% respectively).

What Is Being Done?
The UDOH Violence and Injury Prevention Program (VIPP) is funded by the U.S. Centers for Disease Control and Prevention (CDC) to implement the Utah Violent Death Reporting System (UTVDRS). UTVDRS is a data collection and monitoring system that will help Utahns better understand the public health problem of violence by informing decision makers about the magnitude, trends, and characteristics of violent deaths such as suicide, and to evaluate and continue to improve state-based violence prevention policies and programs. Data are collected from the Office of the Medical Examiner, Vital Records, and law enforcement agencies and are linked together to help identify risk factors, understand circumstances, and better characterize perpetrators of violent deaths. UTVDRS is currently in its sixth year of data collection.

Healthy People 2010 Objective 18.1:
Suicide (age adjusted per 100,000 standard population) (ICD-10: *U03, X60-X64, Y87.0)
U.S. Target for 2010: 4.8/100,000 population

Date Indicator Content Last Updated: 10/27/10
**Why Is This Important?**

From 2005 to 2009, Utah's age-adjusted homicide rate was 2.0 per 100,000 persons. This is an average of 54 homicides per year. Although Utah has one of the lowest age-adjusted homicide rates in the U.S., it is the third leading cause of death for Utahns ages 1 to 9 and 15 to 24 years old (1).

Death by homicide takes an enormous toll on the mental and physical well being of family members, friends, neighbors, and co-workers of the victim. The trauma, grief, and bereavement experienced by these individuals have long-lasting impacts that affect many aspects of their lives.

Source: (1) CDC, Web-based Injury Statistics Query and Reporting System (WISQARS), 2007 data.

**Homicide by Sex and Year, Utah and U.S., 2003-2009**

![Homicide by Sex and Year, Utah and U.S., 2003-2009](chart)

**Data Sources**

U.S. Center for Disease Control and Prevention, on-line data - CDC WONDER; U.S. Census Bureau, Population Estimates Program; Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health; Population Estimates: Utah Governor’s Office of Planning and Budget;

**Data Notes**

Homicides are determined by using ICD-10 codes X85-Y09, Y87.1. Data are age-adjusted to the U.S. 2000 standard population.

**Risk Factors**

Risk factors for violent behavior include poverty, availability of drugs and weapons, lack of parental interaction and involvement, poor academic achievement, and school failure. High
rates of injury are associated with male gender, previous injuries, alcohol/drug use, conflict with parents, pattern of parental supervision, weapon-carrying, delinquency, and pubertal development.


How Are We Doing?
The 2009 Utah homicide rate was 1.9 per 100,000 population. In the last five years, males (2.6 per 100,000 population) had a significantly higher homicide rate than females (1.4 per 100,000 population). According to Utah Violent Death Reporting System data, African-American/Black, Asian, American Indian, and Hispanic and Latino persons had significantly higher homicide rates compared to White persons.

From 2000 to 2009, infants had significantly higher homicide rates among males and females (8.1 and 5.3 per 100,000 population, respectively) compared to other age groups. Persons 1-14 years old had the lowest homicide rates among males and females (0.9 and 0.7 per 100,000 population, respectively).

From 2005 to 2009, Salt Lake Valley Local Health District had a significantly higher homicide rate at 2.9 per 100,000 population compared to the rest of the state. Utah County Local Health Districts had a significantly lower homicide rate compared to the rest of the state in this same time period.

Firearms were used in 54.6% of Utah homicides from 2004 to 2008 and were the primary method used for both males and females (56.7% and 50.5% respectively).

What Is Being Done?
The UDOH Violence and Injury Prevention Program (VIPP) is funded by the U.S. Centers for Disease Control and Prevention (CDC) to implement the Utah Violent Death Reporting System (UTVDRS). UTVDRS is a data collection and monitoring system that will help Utahns better understand the public health problem of violence by informing decision makers about the magnitude, trends, and characteristics of violent deaths such as homicide, and to evaluate and continue to improve state-based violence prevention policies and programs. Data are collected from the Office of the Medical Examiner, Vital Records, and law enforcement agencies and are linked together to help identify risk factors, understand circumstances, and better characterize perpetrators of violent deaths. UTVDRS is currently in its sixth year of data collection.

VIPP also coordinates the Domestic Violence Fatality Review Committee (DVFRC) and the Child Fatality Review Committee (CFRC), whose members come from various statewide agencies and disciplines. Based upon the data collected, both committees make recommendations to prevent these deaths.

Healthy People 2010 Objective 15.32:
Homicides (age adjusted per 100,000 standard population) (ICD-10: *U01-*U02, X85-Y09, Y87.1)
U.S. Target for 2010: 2.8/100,000 population
State Target for 2010: 2/100,000 population

Date Indicator Content Last Updated: 10/26/10
PHOM Indicator Profile Report of Health Status: Physical Health Past 30 Days

You are Here: IBIS-PH > Indicator Reports > PHOM > current page

Why Is This Important?
General physical health status is the culmination of all the things that affect a person's health. A person may have had poor health because of an injury, an acute infection such as a cold or flu, or a chronic health problem. This measure can be used to identify health disparities, track population trends, plan public health programs, and measure progress at the state level toward the two major goals of Healthy People 2010: Improving the Quality and Years of Healthy Life and Eliminating Health Disparities.

Percentage of Adults Aged 18 and Older Who Reported Seven or More Days When Their Physical Health Was Not Good in the Past 30 Days, Utah and U.S., 1993-2009

Data Sources
Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS);

Data Notes
Age adjusted to U.S. 2000 standard population. This question was asked in all states from 1993-2001 and 2003-2006. In 2002, only Utah and 22 other states asked the question. U.S. data are the average for all states and the District of Columbia; they do not include the U.S. territories.

Risk Factors
Poor health status is related to many of the risk factors for disease and injury such as overweight/obesity, physical inactivity, smoking, and lack of immunization.
How Are We Doing?
In 2009, an estimated 14.4% (crude rate) of Utah adults reported seven or more days in the past 30 days when their physical health was not good. This percentage has remained fairly constant since 1993. The rate of Utahns reporting poor physical health during seven or more days within the past 30 days has fluctuated over the years between a low of 12.4% in 2002 to a high of 15.9% in 1997. We used crude rates here to estimate the absolute magnitude of this measure in Utah over the years.

What Is Being Done?
Until the last few years efforts to control chronic diseases have focused on preventing premature mortality. Reducing morbidity and improving disease self-management skills are now receiving considerably more attention from chronic disease prevention and control programs. The goal is to decrease the percentage of adults, including those who may have a chronic condition, who experience poor physical health days.

Date Indicator Content Last Updated: 09/22/10
Why Is This Important?
Mental health is one of the ten Healthy People 2010 Leading Health Indicators. Mental health refers to an individual’s ability to negotiate the daily challenges and social interactions of life without experiencing undue emotional or behavioral incapacity. Mental health and mental disorders can be influenced by numerous conditions including biologic and genetic vulnerabilities, acute or chronic physical dysfunction, and environmental conditions and stresses. Approximately 20% of the U.S. population is affected by mental illness in any given year. The BRFSS mental health question is an attempt to obtain a global measure of recent mental and emotional distress.

Percentage of Adults Who Reported Seven or More Days When Their Mental Health Was Not Good in the Past 30 Days, Utah and U.S., 1993-2009

Data Sources
Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS);

Data Notes
Age-adjusted to the U.S. 2000 standard population. U.S. data are the average for all states and the District of Columbia but do not include the U.S. territories. In 2002 the U.S. data includes only 22 states that asked the question.

How Are We Doing?
In 2009, approximately 15% (crude rate) of Utah adults reported seven or more days when their mental health was not good in the past 30 days. This percentage was higher for adults with lower education and income levels, and lower for older adults.
In order to be able to analyze the BRFSS data by Utah’s racial and ethnic populations, we combined years 2005-2009. According to this analysis using age-adjusted rates, Utah’s Pacific Islander (18.9%) and American Indian/Alaska Native (21.7%) populations reported the highest percentages of seven or more days when their mental health was not good in the past 30 days. And Utah Asian adults reported the lowest percentage at 6.8%.

**Date Indicator Content Last Updated: 09/16/10**
Why Is This Important?
Coronary heart disease (CHD) is a condition in which blood flow to the heart is reduced. When the coronary arteries become narrowed or clogged, an inadequate amount of blood oxygen reaches the heart tissue. The part of the heart not receiving oxygen begins to die, and some of the heart muscle may be permanently damaged. Prevention of CHD is key to reducing mortality from heart disease.

Coronary Heart Disease Deaths, Utah and U.S., 1980-2009

Data Sources

Data Notes

Risk Factors
Individuals who smoke cigarettes, have high blood pressure, elevated cholesterol, diabetes, poor nutrition, a family history of heart disease, or who are overweight, obese, or physically inactive are at greater risk of developing coronary heart disease.
How Are We Doing?
The U.S. death rate from coronary heart disease has declined significantly over the past 30 years. Utah has experienced a similar decline. The 2009 Utah rate was 52.5 deaths per 100,000 people.

What Is Being Done?
- The Alliance for Cardiovascular Health in Utah has implemented a 5-year plan (2007 to 2012) to prevent or delay onset of heart disease and stroke, and promote heart health. The new plan is available upon request from the Heart Disease and Stroke Prevention Program at the Utah Department of Health.

- Patient education resources and self-management programs are available to providers to assist their patients in reducing their risks for coronary heart disease.

- High blood pressure self-management tools are available to health care facilities to enhance patient control of high blood pressure.

- Community health centers are provided resources to support participation in the U.S. Department of Health and Human Services, Health Disparities Collaborative for Cardiovascular Disease.

- The Utah Heart Disease and Stroke Prevention Program and six of Utah’s health plans are collaborating to improve members' blood pressure control.

Healthy People 2010 Objective 12.1:
Coronary heart disease (CHD) deaths (age adjusted per 100,000 standard population) (ICD-10: I11, I20-I25)

U.S. Target for 2010: 162/100,000 population
State Target for 2010: 109.4/100,000 population

Date Indicator Content Last Updated: 10/26/10
Why Is This Important?
Stroke, the death of brain tissue usually resulting from artery blockage, is the third leading cause of death in Utah, behind heart disease and cancer. About 700,000 new or first-time strokes occur each year. Stroke is a leading cause of long-term disability. Although strokes occur in all age groups, those 65 and older are most likely to experience stroke.


Data Sources

Data Notes

Risk Factors
Risk factors for stroke include high blood pressure (the most important risk factor), increasing age, family history of stroke, personal history of stroke, cigarette smoking, diabetes, heart disease, carotid artery disease, transient ischemic attacks, and a high red blood cell count. Elevated cholesterol level, obesity, and lack of physical activity, all risk factors for heart
disease, also increase the risk of stroke. Many of these risk factors can be modified successfully by adopting lifestyle changes.

**How Are We Doing?**
Death rates for stroke have generally declined in recent decades. The U.S. met its Healthy People 2010 target in 2004, when the national stroke death rate declined below 50 deaths per 100,000 population. Utah met its state target of 46.6 deaths per 100,000 population in 2006. The state stroke death rate has remained below this target in following years.

This trend could relate to improvements in acute stroke care and in the result of improved detection and treatment of hypertension.(1)

**What Is Being Done?**
- HDSPP implemented a public awareness campaign in Spring 2005 increase Utahns' knowledge of signs of stroke and that stroke is a 911 medical emergency. The public awareness campaign includes information in English and Spanish.

- The Utah Heart Disease and Stroke Prevention Program encourages Utah hospitals to participate in the American Heart Association 'Get with the Guidelines for Stroke' Program to enhance quality of care for stroke patients.

- High blood pressure self-management tools are available to health care facilities to enhance patient control of high blood pressure.

- Community health centers are provided resources to support participation in the U.S. Department of Health and Human Services, Health Disparities Collaborative for Cardiovascular Disease.

- HDSPP participates on the Utah Health Plan Partnership, a group of health plans working to improve quality of care for plan members with diabetes, many of whom are at risk for cardiovascular disease.

**Healthy People 2010 Objective 12.7:**
Stroke deaths (age adjusted per 100,000 standard population) (ICD-10: I60-I69)

**U.S. Target for 2010:** 50/100,000 population
**State Target for 2010:** 46.6/100,000 population

**Date Indicator Content Last Updated: 10/26/10**
Why Is This Important?
Cancer is the second leading cause of death in the U.S. and in Utah. The financial costs of cancer are substantial, with an overall annual cost estimated at $228.1 billion in 2009. Treatment for lung, prostate, and breast cancers accounts for more than half of the direct medical costs.

Cancer generally develops over several years and has many causes. Several factors both inside and outside the body contribute to the development of cancer. Some of these factors include genetics, tobacco, diet, weight, physical inactivity, and excessive sunlight exposure. Other factors include exposure to ionizing radiation and environmental chemicals that may be present in the workplace, food, air, or water such as asbestos, benzene, and arsenic.

Cancer Death Rate, Utah and U.S., 1980-2009

Data Sources

Data Notes
ICD-9 codes 140-208, ICD-10 codes C00-C97. Age-adjusted to U.S. 2000 population. The International Classification of Diseases has been revised approximately every ten years since 1900. The latest revision, ICD-10, was implemented in 1999 replacing ICD-9, the standard since 1979. ICD-10 differs from ICD-9 in several respects. ICD-10 is far more detailed with about 8,000 categories compared with 5,000 in ICD-9. Some of the coding rules and rules for selecting the underlying cause of death have also been changed. These changes create discontinuities in cause-of-death statistics and are critical to the interpretation of mortality trends. Comparability ratios have been created for many cause-of-death classifications in
order to reduce the impact of these changes but caution should be used when interpreting trends across the Ninth and Tenth ICD revisions.

Risk Factors
Increasing age is a risk factor for developing cancer. In 2007, more than 72% of all cancers in Utah were diagnosed in persons aged 55 years or older. Other risk factors for cancer include a person’s gender and family medical history. Cancer may also be linked to environmental exposures and lifestyle choices such as use of tobacco and alcohol, diet, and sun exposure. In fact, tobacco is associated with 87% of all cases of cancer of the lung, trachea, and bronchus, and lung cancer will be responsible for nearly 30% of all cancer deaths in 2009.(1)

How Are We Doing?
Utah's age-adjusted cancer mortality rate has been steadily decreasing, from a high of 162.7 deaths per 100,000 population in 1991 to a low of 119.2 per 100,000 population in 2009. From 2005 to 2009 significant differences in mortality rates existed between the pre-determined 61 small areas. Among the 61 small areas the cancer mortality rate ranged from a high of 227.8 per 100,000 population in West Jordan North to a low of 111.8 per 100,000 population in Foothill/U of U.

What Is Being Done?
The Utah Department of Health initiated the Utah Cancer Action Network (UCAN), a statewide partnership whose goal is to reduce the burden of cancer. The mission of the UCAN is to lower cancer incidence and mortality in Utah through collaborative efforts directed toward cancer prevention and control. As a result of this planning process, objectives and strategies have been developed by community partners regarding the early detection of cervical, lung, prostate, skin, breast, ovarian, and colorectal cancers as well as the promotion of physical activity, healthy eating habits, and smoking cessation. UCAN has five work groups and eight committees that are working on implementing the strategies from the 2006-2011 state cancer plan and writing the 2011-2015 state cancer plan.

Healthy People 2010 Objective 3.1:
Overall cancer deaths (age adjusted per 100,000 standard population) (ICD-10: C00-C97)
U.S. Target for 2010: 158.6/100,000 population
State Target for 2010: 144.1/100,000 population

Date Indicator Content Last Updated: 10/28/10
Why Is This Important?
Lung cancer is the leading cause of cancer-related death in Utah and the U.S. In 2010 approximately 157,300 U.S. deaths will be due to lung cancer. Because symptoms often do not appear until the disease is advanced, early detection of this cancer is difficult. Smoking accounts for 87% of lung cancer deaths. (1)

Cigarette smoking is the single most important risk factor for lung cancer. There are more than 80 carcinogens in cigarette smoke. Other risk factors include diet, family history, and genetic factors. Some environmental risk factors include exposure to arsenic, asbestos, diesel exhaust, uranium, radon, and some studies show that pollution is associated with lung cancer.

Lung Cancer Deaths by Year, Utah and U.S., 1980-2009

Data Sources

Data Notes
Codes used to define lung cancer: ICD-9 162.2-162.9, ICD-10 C33-C34. ICD-10 definition also includes cancer of the trachea. However, there were no deaths in Utah from cancer of the trachea from 1995 to 1999, suggesting that this change has resulted in little or no artifactual difference in comparing death rates from the two time periods. Age-adjusted to U.S. 2000 standard population.
Risk Factors
Cigarette smoking is the most important risk factor for lung cancer. Other risk factors include occupational exposures such as radon and asbestos and indoor and outdoor pollution, including environmental tobacco smoke.

How Are We Doing?
Utah's age-adjusted lung cancer mortality rate significantly decreased from 23.5 per 100,000 population in 2005 to 19.8 per 100,000 population in 2009. From 2005-2009 the lung cancer mortality rate ranged from a high of 44.8 per 100,000 in West Valley East to a low of 5.9 per 100,000 population in Provo/BYU.

What Is Being Done?
Since nearly 90% of lung cancer deaths are attributed to smoking, public health programs to reduce lung cancer focus on tobacco prevention and control. Utah's statewide Tobacco Prevention and Control Program coordinates efforts to accomplish the following four goals: to prevent youth from starting to use tobacco, to help tobacco users quit, to eliminate exposure to secondhand smoke, and to reduce tobacco-related disparities.

Healthy People 2010 Objective 3.2:
Lung cancer deaths (age adjusted per 100,000 standard population) (ICD-10: C33-C34)
U.S. Target for 2010: 43.3/100,000 population
State Target for 2010: 24.8/100,000 population in 2010

Date Indicator Content Last Updated: 10/26/10
Why Is This Important?
Breast cancer is the most commonly occurring cancer in U.S. women (excluding basal and squamous cell skin cancers) and a leading cause of female cancer deaths in both Utah and the U.S. Nationally, deaths from lung cancer surpass deaths from breast cancer; however, breast cancer is the leading cause of cancer death among Utah women. Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage. Mammography is currently the best method for detecting cancer early. Clinical trials have demonstrated that routine screening with mammography can reduce breast cancer deaths by 20% to 30% in women aged 50 to 69 years (1-6), and by about 17% in women aged 40 to 49 years (7,8).

We do not yet know exactly what causes breast cancer, but we do know that certain risk factors are linked to the disease. Some of these risk factors include age, socio-economic status, exposure to ionizing radiation, family history, alcohol, and hormonal influence. Some studies indicate that environmental contaminants such as benzene and organic solvents can cause mammary tumors, but clear links have not been established.


Data Sources

Data Notes
Codes used to define female breast cancer: ICD-9 174, ICD-10 C50. Age-adjusted to U.S. 2000 standard population.
**Risk Factors**
The most important risk factor for breast cancer is increasing age. Other established risk factors include personal or family history of breast cancer, history of abnormal breast biopsy, genetic alterations, early age at onset of menses, late age at onset of menopause, never having children or having a first live birth at age 30 or older, and history of exposure to high dose radiation. Associations have also been suggested between breast cancer and oral contraceptives, long-term use of hormone replacement therapy, obesity (in post-menopausal women), alcohol, and a diet high in fat. Some studies suggest that exercise in youth might give life-long protection against breast cancer and that even moderate physical activity as an adult could lower breast cancer risk. More research is needed to confirm these findings.

**How Are We Doing?**
Utah's age-adjusted breast cancer mortality rate did not change appreciably from 1980 to 1998 (26.8 per 100,000 females and 27.0 per 100,000 females, respectively). The mortality rate decreased to 21.8 per 100,000 females in 1999, and in 2009 the rate was 19.6 per 100,000 females. Breast cancer mortality rates increased significantly with age. After dividing the health districts into small areas, the breast cancer mortality rate ranged from a high of 43.5 per 100,000 females in Pleasant Grove/Lindon to a low of 16.1 per 100,000 females in Provo South.

**What Is Being Done?**
The UDOH Utah Cancer Control Program (UCCP) distributes free mammography vouchers to women who receive a clinical breast exam at a UCCP sponsored clinic and meet age and income guidelines.

**Healthy People 2010 Objective 3.3:**
Female breast cancer deaths (age adjusted per 100,000 standard population) (ICD-10: C50)

- **U.S. Target for 2010:** 21.3/100,000 women
- **State Target for 2010:** 22.3/100,000 women in 2010

**Date Indicator Content Last Updated: 10/25/10**
Why Is This Important?
Colorectal cancer is the second leading cause of cancer-related deaths in the U.S. When national cancer-related deaths are estimated separately for males and females, colorectal cancer is the third leading cause of cancer death behind lung and breast cancer for females and behind lung and prostate cancer for males. Deaths from colorectal cancer can be substantially reduced when precancerous polyps are detected early and removed. When colorectal cancer is diagnosed early, 90% of patients survive at least five years(1).

Several scientific organizations recommend that routine screening for colorectal cancer begin at age 50 for adults at average risk. Persons at high risk may need to begin screening at a younger age. Routine screening can include either annual fecal occult blood test (FOBT), and/or flexible sigmoidoscopy every five years or colonoscopy every 10 years or double-contrast barium enema every 5 to 10 years. A randomized clinical trial has demonstrated that annual screening with FOBT can reduce colorectal cancer deaths by 33 percent in individuals over age 50(2). The National Cancer Institute advises each individual to discuss risk factors and screening options with his or her health care provider. Medicare and many insurance plans now help to pay for colorectal cancer screening.

Colorectal Cancer Deaths by Year, Utah and U.S., 1980-2009

Data Sources

Data Notes
**Risk Factors**
Risk factors for colorectal cancer include increasing age, inflammatory bowel disease, a family history of polyps or colorectal cancer, a personal history of polyps or colorectal cancer, and certain hereditary syndromes. Physical inactivity, a low fiber/high fat diet, obesity, excessive alcohol consumption, and tobacco use may all increase risk. A diet high in fruits and vegetables, hormone replacement therapy in post-menopausal women, and aspirin use may reduce colorectal cancer risk.

**How Are We Doing?**
Utah's age-adjusted colorectal cancer mortality rate ranged from a high of 20.1 per 100,000 population in 1980 to a low of 10.9 per 100,000 population in 2008. Colorectal cancer mortality rates increased with age, and women aged 65 to 84 had significantly lower mortality rates than Utah men in this age group. Among health districts, the age-adjusted colorectal cancer mortality rate ranged from a high of 16.6 per 100,000 population in Central Utah Health District to a low of 9.6 per 100,000 population in Southwest Health District. Southwest Health District had significantly lower colorectal cancer mortality rates than Central Utah and Weber-Morgan Health Districts. Looking at small areas, Cottonwood had the lowest colorectal cancer mortality rate (10.08 per 100,000 population) and Roy/Hooper had the highest (26.7 per 100,000 population).

**What Is Being Done?**
In June 2002, the UCCP received a grant from the CDC to launch a statewide education campaign. Since then, additional funds have been awarded annually and public education efforts have continued. Education efforts serve to increase awareness about colorectal cancer and promote screening and early detection for Utahns aged 50 and older.

**Healthy People 2010 Objective 3.5:**
Colorectal cancer deaths (age adjusted per 100,000 standard population) (ICD-10: C18-C21)

**U.S. Target for 2010:** 13.7/100,00 population

**State Target for 2010:** 15.0/100,00 population in 2010

**Date Indicator Content Last Updated:** 10/28/10
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