

# Status of Health and Health Services in Lewis and Clark County

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## An Initial Data Review

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# PEOPLE

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## Key Demographics

- Lewis and Clark County covers an area of 3,461 square miles.
- Lewis and Clark County's population was 55,716 people in 2000.<sup>1</sup> A current estimate of the population is 60,925.<sup>2</sup> The county has seen a 9.3% increase in population since 2000.
- The population density is 18 persons per square mile, which designates Lewis and Clark County as a rural county. Areas designated as rural can have population densities as high as 999 per square mile or as low as 1 person per square mile.<sup>3</sup> The broadest definition of a frontier area is less than 7 people per square mile,<sup>4</sup> meaning that Lewis and Clark County is close to frontier status.
- Lewis and Clark County is the 6<sup>th</sup> most populous county in Montana.<sup>5</sup>
- Population by towns:  
**Helena:** 28,726. Helena is the 6<sup>th</sup> largest city in Montana.  
**East Helena:** 2,087. East Helena has seen a 27% increase in population growth from 2000 to 2007.  
**Augusta:** 284  
**Lincoln:** 1,100  
**Wolf Creek:** 735<sup>6</sup>

## Population by ethnicity (2008)

| White | American Indian | Hispanic | Asian | African American |
|-------|-----------------|----------|-------|------------------|
| 95.2% | 2.1%            | 2.1%     | 0.6%  | 0.4%             |

*U.S. Census, Population Estimates 2009 Update*

## Projections of aging population

|                      | 2000   | 2006   | 2010   | 2015   | 2020   | 2025   | 2030   |
|----------------------|--------|--------|--------|--------|--------|--------|--------|
| Population 65 years+ | 6,533  | 7,379  | 9,160  | 12,300 | 15,560 | 18,600 | 21,410 |
| Total Population     | 55,716 | 59,302 | 63,640 | 68,950 | 74,220 | 79,670 | 85,370 |
| Population over 65   | 11.7%  | 12.4%  | 14.4%  | 17.8%  | 21%    | 23.3%  | 25%    |

*Based on 2006 Census Estimates<sup>7</sup>*

<sup>1</sup>Lewis and Clark City-County Health Department (2007) *Leading public health indicators*. Helena, MT: Author

<sup>2</sup>U.S. Census Bureau (2008) *Census population estimate* [Data file]. Retrieved from <http://quickfacts.census.gov/qfd/states/30/30049.html>

<sup>3</sup>Womach, J. (2005) Agriculture: A Glossary of Terms, Programs, and Laws, 2005 Edition. *CRS Report for Congress*. Retrieved from <http://ncseonline.org/nle/crsreports/05jun/97-905.pdf>

<sup>4</sup>Olson, D.P. (2005). *South Dakota's frontier counties: differing definitions*. SD: Office of Rural Health. Retrieved from <http://sdrurallife.sdstate.edu/Rural%20Research/County%20Classification/Frontier%20Counties%201.pdf>

<sup>5</sup>Lewis and Clark City-County Health Department (2009) *Leading public health indicators*. Helena, MT: Author

<sup>6</sup>Montana's Official State Website (n.d.) Census and Economic Information Center. Retrieved from <http://www.ceic.mt.gov/Census2000.asp>

- An aging population is associated with a greater need for health services. This greater need should influence the recruitment of health care professionals, the types of services provided, and the type of training provided to health care professionals. By 2030 the nation’s health care spending is projected to increase by 25% due to these demographic shifts.<sup>8</sup> It should be noted that many health care workers will be retiring at the same time that demand is increasing.<sup>9</sup>
- Among older adults, chronic diseases can lead to limitations in daily life. Eighty percent of older Americans are living with at least one chronic condition.<sup>8</sup>
- In 2000, 40.1% of persons aged over 65 in Lewis and Clark County had a disability. This is similar to the national rate of 41.7%.<sup>10</sup>

## Income, Employment and Education

### Income

#### *Average annual wages (2006)*

| Lewis and Clark County | Montana  | United States |
|------------------------|----------|---------------|
| <b>\$33,661</b>        | \$30,607 | \$42,535      |

*Bureau of economic analysis, 2006*

#### *Household income*

- Median household income (L&C) \$37,360 (\$33,024 in Montana)<sup>11</sup>
- Percent of households receiving social security 25.2%
- Average social security payment \$11,073<sup>10</sup>

### Employment

#### *Unemployment rate (March 2009)*

| Lewis and Clark County | Montana | United States              |
|------------------------|---------|----------------------------|
| 4.7%                   | 6.1%    | 8.5% (seasonally adjusted) |

*MT Dept of labor and industry*

<sup>7</sup>NPA Data Service, Inc (2006). Montana county population estimates. *Regional Economic Projection Series*. [Data file]. Washington, DC: Author

<sup>8</sup>The Centers for Disease Control and Prevention and The Merck Company Foundation (2007). *The state of aging and health in America*. Whitehouse Station, NJ: The Merck Company Foundation. Available at [http://www.cdc.gov/aging/pdf/saha\\_2007.pdf](http://www.cdc.gov/aging/pdf/saha_2007.pdf)

<sup>9</sup>McGinnis, S., Salsbert, E., Wing, P., Dill, M., Stapf, C., Rowell, M.B. (2005). The Impact of the Aging Population on the Health Workforce in the United States. *AcademyHealth*. Boston, MA

<sup>10</sup>U.S. Census Bureau (2000). *American Fact Finder* [Data file]. Retrieved from [http://factfinder.census.gov/servlet/QTTable?\\_bm=y&-qr\\_name=DEC\\_2000\\_SF3\\_U\\_DP2&-ds\\_name=DEC\\_2000\\_SF3\\_U&-lang=en&-\\_sse=on&-geo\\_id=05000US30049](http://factfinder.census.gov/servlet/QTTable?_bm=y&-qr_name=DEC_2000_SF3_U_DP2&-ds_name=DEC_2000_SF3_U&-lang=en&-_sse=on&-geo_id=05000US30049)

<sup>11</sup>Montana Department of Health and Human Services (2004). *Lewis and Clark County Health Profile, 2004*. Helena, MT: Author

The three industries that employ the highest number of Lewis and Clark County residents are:

1. Total government with an average of 10,117 people employed annually. Lewis and Clark County is considered a “government dependent” county because it relies on the government to supply most of its jobs.<sup>12</sup> The average annual wage for this industry is \$45,766.
2. Retail trade with an average of 4,019 people employed annually at an average annual wage of \$23,332.
3. Healthcare and social assistance with an average of 3,731 people employed annually at an average annual \$32,044.

Despite Lewis and Clark County’s rural status, agriculture, forestry, fishing and hunting are collectively ranked as the 17<sup>th</sup> largest employer with an average of 162 people employed annually. However, because Lewis and Clark County is designated as a rural county, it is important to consider the agricultural statistics of the community.

- Lewis and Clark County has 971,240 acres of land in 675 farms.
- The majority of these farms are over 1,000 acres and produce less than \$100,000 worth of products.
- Most farms in Lewis and Clark County are owned by an individual, family or partnership, and the average age of farm or ranch operators is 57.4.<sup>13</sup>

## Educational attainment

The positive link between education and health is long established. Research shows that education may be the best socio-economic status predictor of good health.<sup>14 15</sup>

|   |        |       |
|---|--------|-------|
| Population 25 years +                                 | 36,690 | 100%  |
| Less than 9 <sup>th</sup> grade                       | 802    | 2.2%  |
| 9 <sup>th</sup> to 12 <sup>th</sup> grade, no diploma | 2,369  | 6.5%  |
| High school grad (some equivalency)                   | 10,742 | 29.3% |
| Some college, no degree                               | 9,316  | 25.4% |
| Associate degree                                      | 1,874  | 5.1%  |
| Bachelor’s degree                                     | 7,799  | 21.3% |
| Graduate or professional degree                       | 3,788  | 10.3% |

*Based on 2000 census data*

## Graduation rates

Health problems associated with dropping out of high school are substance abuse, pregnancy, psychological, emotional and behavioral problems. In the U.S. 30% to 40% of women who drop out of high school are mothers.<sup>16</sup>

<sup>12</sup>National Center for Frontier Communities (2005).[Map] *Economic dependence 2004 ERS County topology*. Frontier Education Center.

<sup>13</sup>Montana Department of Labor and Industry and Montana Department of Commerce (2009). *Demographic and economic information for Lewis and Clark County*. Helena, MT: Authors.

[http://www.ourfactsyourfuture.org/admin/uploadedPublications/3481\\_CF09\\_Lewis.pdf](http://www.ourfactsyourfuture.org/admin/uploadedPublications/3481_CF09_Lewis.pdf)

<sup>14</sup> Ross, C.E., & Mirowsky, J. (1999). Refining the association between education and health: The effects of quantity, credential and selectivity. *Demography*. 36 (4): 445-460. Retrieved from <http://www.jstor.org/stable/2648083>

<sup>15</sup> Winkleby, M.A., Jatulis, D.E., Frank, E. & Fortmann S.P. (1992). Socioeconomic status and health: how education, income, and occupation contribute to risk factors for cardiovascular disease. *American Journal of Public Health*. 82(6): 816-820

| Lewis and Clark County Graduation Rates (2007) | AYP Graduation Rate* |
|--|----------------------|
| Helena High School                             | 82%                  |
| Capital High School                            | 85%                  |
| Augusta High School                            | 90%                  |
| Lincoln High School                            | 91%                  |
| Total for Montana Public Schools               | 85%                  |

\*AYP: Adequate Yearly Progress Rates – percent of students who graduate with a regular diploma in a standard number of years (does not include GED or other non-state standardized diploma.)

Office of Public Instruction

- National comparison: The U.S. Department of Education puts the national graduation rate at 73%, but independent reports show the rate may be as low as 69%.<sup>17</sup>

## Poverty, Housing, Food, and Transportation

### Poverty

Poverty is correlated with greater health needs and poorer health outcomes. Poverty is prevalent in Lewis & Clark County, yet at levels below national and state averages.

#### Percent of people in L&C County living near FPL<sup>18</sup>

|     | 50% of FPL | 100% of FPL | 150% of FPL | 200% of FPL |
|-----|------------|-------------|-------------|-------------|
| L&C | 5%         | 10.9%       | 19%         | 29%         |
| MT  | 6%         | 14.6%       | 26%         | 37%         |

Lewis and Clark County health profile, 2004

- An average of 28.3% of Lewis & Clark County's population lived below 200% FPL between 2006 and 2008,<sup>19</sup> compared to 33.3% of Montana's population as a whole.<sup>20</sup>

#### Percent of people in L&C County below the FPL (by age)

|     | All ages | <18 | 18+ | 65+ |
|-----|----------|-----|-----|-----|
| L&C | 10.9%    | 14% | 10% | 7%  |
| MT  | 14.6%    | 19% | 13% | 9%  |

Lewis and Clark County health profile, 2004

<sup>16</sup>Centers for Disease Control and Prevention (2009). *Adolescent reproductive health: About teen pregnancy*. Retrieved from <http://www.cdc.gov/reproductivehealth/AdolescentReproHealth/AboutTP.htm>

<sup>17</sup>Alliance for Excellent Education (2009). *Nation's High Schools*. Washington, DC: Author

<sup>18</sup>Federal Poverty Level based on annual income (2009): For 1 person: \$9,827; for a family of 4: \$19,307; for a family of 8: \$32,641 (Poverty thresholds are adjusted for income on a yearly basis, therefore 2009's FPL is higher than the 2004 rates).

<sup>19</sup>U.S. Census Bureau (2008). *Ratio of Income to 1999 Poverty Level, Lewis and Clark County, MT* Published in *American Community Survey (2006-2008) 3 year estimates*. <http://factfinder.census.gov/>

<sup>20</sup>U.S. Census Bureau (2007). *Current Population Survey, 2007 Annual Social and Economic Supplement*. [http://pubdb3.census.gov/macro/032007/pov/new46\\_185200\\_01.htm](http://pubdb3.census.gov/macro/032007/pov/new46_185200_01.htm)

- In 2002, 1.53% of people in Lewis and Clark County qualified for Temporary Assistance for Needy Families (TANF), yet with eligibility rules tightening, only 0.82% received assistance in fiscal year 2010.<sup>21</sup>

## Housing

There is an established correlation between poor housing conditions and health problems. Adequate housing is a precondition of good health.

- Home ownership rates in 2000 were 70%.<sup>22</sup>
- The median home value in L&C County was \$180,000 in 2006, up from \$112,200 in 2000. According to a white paper published by the Montana Department of Commerce in 2006, people in L&C County earning the median wage (\$33,661) would not be able to afford to purchase a median priced home. A decrease in housing prices by 10% would close this affordability gap.
- Renters earning the median income in L&C County would spend over 30% of their income on rent and utilities in a median priced two-bedroom unit. The generally accepted standard definition of affordable housing is that housing costs do not exceed 30% of income.
- In 2005, 35.8% of households were “cost-burdened” (i.e. spent over 30% of their income on housing), compared to 33% nationally.
- Seniors are particularly badly affected, spending on average 50% of income to rent a one-bedroom apartment.<sup>23</sup>

## Housing quality

|   | Lewis and Clark County | Montana | U.S.                       |
|---|------------------------|---------|----------------------------|
| Crowded housing units                   | 2.5%                   | 3.1%    | 3.3% (rural); 6.4% (urban) |
| Household units lacking plumbing        | 0.7%                   | 0.8%    | 0.6%                       |
| Housing units lacking complete kitchen  | 1.1%                   | 1.1%    | 0.7%                       |
| Housing units lacking telephone service | 2.4%                   | 2.8%    | 2.4%                       |

*Housing Assistance Council, 2000<sup>24</sup>*

## Food

*“... [I]ndividually focused interventions attempting to reduce obesity have had limited success, and ... the widespread and increasing prevalence of obesity is inadequately explained by individual-level psychological and social factors associated with diet or physical activity. This ... is part of a broader critique of the over-*

<sup>21</sup> Department of Public Health and Human Services (2010) *TANF Statistics*. Retrieved from <http://www.dphhs.mt.gov/statisticalinformation/tanfstats/sfy2010/SFY2010report.pdf>

<sup>22</sup> U.S. Census Bureau (2008). *State and county quickfacts*. [Data file]. Retrieved from <http://quickfacts.census.gov/qfd/states/30/30049.html>

<sup>23</sup> Housing Coordinating Team (2008). *Housing in Montana: The white paper*. Helena: Montana Department of Commerce. Retrieved from [http://housing.mt.gov/Includes/HCT/Final\\_White\\_Paper.pdf](http://housing.mt.gov/Includes/HCT/Final_White_Paper.pdf)

<sup>24</sup> Housing Assistance Council (2000). *Rural housing data portal*. Retrieved from <http://216.92.48.246/dataportal/>

*emphasis on the role of individual health behaviors, which has tended to ignore the influence of the complex social and physical contexts in which individual behavioral decisions are made.”<sup>25</sup>*

Healthy food is expensive for many poor people, and studies show it may also be less available in areas that are inhabited by poorer people. Often, energy-dense fast-foods are more available in these areas.<sup>25</sup> The availability of affordable healthy food is critical to a healthy population, and urban planners should strive to enable access to these foods to everyone.

In Helena, WEEL (Working for Equality and Economic Liberation) is a non-profit organization that is active in promoting food self-sufficiency by developing community gardens and providing education about gardening and preserving produce. Helena Food Share is a non-profit, non-sectarian agency that provides groceries at no cost to people in need, with some programs targeting specific populations such as seniors and children.

In addition, federal programs such as SNAP (Supplemental Nutrition Assistance Program – previously known as foodstamps), WIC (Women, Infants and Children) and CACFP (The Child and Adult Care Food Program) provide assistance to low income people for access to food. SNAP provides monetary assistance for food as well as nutritional education, and requires participants to apply for benefits based on strict eligibility requirements. Adults without dependent children are only eligible for SNAP for 3 months every 3 years. CACFP and WIC are administered by the USDA’s Food and Nutrition Service. CACFP provides affordable day care and meals to children and eligible adults, as well as food for children in emergency shelters and some afterschool care programs. WIC provides federal grants to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.

- Around 9% of Lewis & Clark County residents are reliant on the Supplemental Nutrition Assistance Program (food stamps) to buy their groceries (fiscal year 2010).<sup>26</sup> In 2002, the rate of food stamp usage in Lewis & Clark County was 6.72%<sup>27</sup>

## **Built Environment and Transportation**

The built environment and transportation infrastructure are underlying determinants of health and also facilitate or impede access to health services.

Because of the rural nature of Lewis and Clark County, amenities are spaced far apart, and people are reliant on their cars to get from place to place. Not only does this play a role in sedentary lifestyles and rising obesity, it also limits people’s ability to access medical care, and results in greater disadvantages for those without access to a personal vehicle. The high cost of gas and limited access to transportation contributes to difficulties in accessing health providers as well as stores that sell nutritious food. According to the Centers for Disease Control, 10% of

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<sup>25</sup> Cummins, S. & MacIntyre, S. (2006). Food environments and obesity – neighborhood or nation? *International Journal of Epidemiology*. 35(1):100-104; doi:10.1093/ije/dyi276

<sup>26</sup> Department of Public Health and Human Services (2010) *TANF Statistics*. Retrieved from <http://www.dphhs.mt.gov/statisticalinformation/tanfstats/sfy2010/SFY2010report.pdf>

<sup>27</sup> Department of Public Health and Human Services (2002) *TANF Statistics*[Data file]. Retrieved from <http://www.dphhs.mt.gov/statisticalinformation/tanfstats/sfy2002/sfy2002report.pdf>

low-income women in the U.S. between the ages of 45 to 64 reported that they delayed obtaining medical care due to lack of transportation.<sup>28</sup>

### **Public transport**

Public transport in Helena consists of bus and trolley services with limited routes and operational hours. Most services stop at around 6pm. Pre-ordered curb-to-curb buses are available for people with special needs or those not located near a bus stop. Two taxis are also operating in Helena.

Outside Helena, residents must rely on personal transport for access to amenities.

### **Parks and recreation centers in Helena**

Parks and open public space are a valuable community resource. Access to safe outside areas allows residents space to socialize and exercise, and research shows that using parks and recreation services has a positive relationship to personal health. The majority of park users are active during their visits, and active park users are shown to be healthier according to a number of indicators, including body mass index (BMI), systolic and diastolic blood pressure, depression score, and perception of general health.<sup>29</sup>

The Helena Parks and Recreation system has over 2140 acres of developed and undeveloped parkland that include bike and pedestrian trails, an Olympic-sized outdoor swimming pool, public tennis and golf facilities, a skateboard park and skating rinks.

### **Example: Shelby**

The Montana town of Shelby, Toole County, is making policy changes to help reduce the incidence of obesity. Using a small grant, focus groups and formative research were undertaken and showed that healthy food was seldom available in local stores and restaurants, and that people wanted more healthy food options. In response, the town is incentivizing the sale of healthful foods in stores and restaurants, has developed a walkway that links residential, shopping and working districts, and promotes the use of a new fitness center through employer incentives. Promotion for the campaign is achieved with bartered newspaper space and radio time.<sup>30</sup>

## **Environment**

### **Natural Environment**

#### **Water**

- Drinking water in Lewis and Clark County comes from wells and groundwater. More than 50% of County residents drink groundwater, which is tested regularly for bacteria, nitrate and other constituents.

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<sup>28</sup> Centers for Disease Control and Prevention (2008). *Chronic Disease Indicators – State Profile* [Data File]. Retrieved from <http://www.cdc.gov/nccdphp/states/pdf/montana.pdf>

<sup>29</sup> Ho, C-H, Payne, L., Orsega-Smith, E., Godbey, G. (2003). Parks, recreation and public health: parks and recreation improve the physical and mental health of our nation - Research update. *Parks and Recreation*: April, 2003. Retrieved from [http://findarticles.com/p/articles/mi\\_m1145/?tag=content;col1](http://findarticles.com/p/articles/mi_m1145/?tag=content;col1)

<sup>30</sup> Baehr, N. (2008). On the frontier against against obesity. *Northwest Public Health*. 25(1), 18-20. Retrieved from [http://www.nwpublichealth.org/docs/nph/s2008/NPH\\_s2008\\_lores.pdf](http://www.nwpublichealth.org/docs/nph/s2008/NPH_s2008_lores.pdf)

- Private wells are tested for nitrates, chlorides, bacteria and other constituents of interest, including metals. 80% of wells tested in 2005 contained pharmaceuticals and personal care products in low concentrations.<sup>31</sup>

### *Air and pollution*

- The County has a “Clean Air Ordinance” that prohibits the use of wood-burning devices on a “poor” air day. The air department monitors the air quality from Nov.1 to March 1 every year, and assigns air quality with grades of “good”, “watch” and “poor”.
- In 2006, there were no “poor” days, 2 “watch” days and 5 complaints about the air quality.
- L&C County releases 10,861 pounds of toxic chemicals annually, compared to a peer county average of 459,363 pounds annually (from 22 peer counties).<sup>32</sup>

### **Superfund Sites**

There are two Superfund sites in Lewis and Clark County. In East Helena, the site includes a lead smelter that has recently been demolished, as well as the surrounding area, which includes residential and agricultural land.<sup>33</sup> In Upper Tenmile Creek, the Superfund site consists of a disused mining area that sits upstream of the Helena Water Treatment Plant and includes tributaries that supply water to the plant's five intake pipelines. Many of these mine features are above the five City of Helena drinking water intakes which supply over 70 percent of the city's water.<sup>34</sup>

Contaminants of concern at both sites include lead in soil and arsenic in water, along with other heavy metals which are extremely toxic to humans. Lead causes a large number of medical problems, with the most concerning being neurological and developmental.<sup>35</sup> Arsenic ingestion has been linked to cancer.<sup>36</sup>

Both sites have undergone abatement programs. In East Helena, blood lead levels are now below the threshold of concern (10mcg per deciliter), but groundwater remains contaminated with arsenic above drinking water standards.<sup>37</sup> In Upper Tenmile Creek, a five year review of the cleanup process showed that abatement would be successful once the process was complete.<sup>38</sup>

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<sup>31</sup> Mohr, J. (2006, June 10). Tests find 22 contaminants in Helena Valley wells. *Helena Independent Record*. Retrieved from [http://www.helenair.com/news/local/article\\_2c00002f-3113-5a2b-a76c-816a9198f9c8.html](http://www.helenair.com/news/local/article_2c00002f-3113-5a2b-a76c-816a9198f9c8.html)

<sup>32</sup> U.S. Department of Health and Human Services (n.d.) *Community Health Status Indicators* [Data file]. Retrieved from <http://www.communityhealth.hhs.gov/HomePage.aspx>

<sup>33</sup> Environmental Protection Agency (2007). *EPA announces plan for a final cleanup of East Helena's Residential Soils and Undeveloped Lands*. Helena, MT: Author. Retrieved from <http://www.epa.gov/region8/superfund/mt/easthelena/EastHelenaProposedPlanFactSheet.pdf>

<sup>34</sup> Environmental Protection Agency (2009). *Upper Tenmile Creek Mining Area*. Retrieved from [http://www.epa.gov/region8/superfund/mt/upper\\_ten/index.html](http://www.epa.gov/region8/superfund/mt/upper_ten/index.html)

<sup>35</sup> Karri, S.K., Saper, R.B., Kales, S.N., (2008). Lead encephalopathy due to traditional medicines. *Current Drug Safety* 3(1), 54–9.

<sup>36</sup> Environmental Protection Agency (2006). *Arsenic in drinking water*. Retrieved from <http://www.epa.gov/safewater/arsenic/index.html>

<sup>37</sup> Environmental Protection Agency (2009). *East Helena Superfund Program*. Retrieved from <http://www.epa.gov/region8/superfund/mt/easthelena/>

<sup>38</sup> Environmental Protection Agency (2007). *Upper Tenmile Creek mining area site – Superfund cleanup update*. Retrieved from [http://www.epa.gov/region8/superfund/mt/upper\\_ten/UpperTenmileFYRFlyer.pdf](http://www.epa.gov/region8/superfund/mt/upper_ten/UpperTenmileFYRFlyer.pdf)

# HEALTH STATUS

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## Life Expectancy and Causes of Death

### Life Expectancy at Birth, 2004

|                 | Lewis and Clark County | Montana | U.S. |
|-----------------|------------------------|---------|------|
| Men             | 74                     | 75      | 75.2 |
| Women           | 81                     | 81      | 80.4 |
| White           | 78                     | 79      | 78.3 |
| American Indian | 71.5                   | 62      |      |
| All             | 77                     | 78      | 77.8 |

*Lewis and Clark County Health Profile, 2004 & Centers for Disease Control and Prevention, 2008<sup>39</sup>*

### Self-reported health status

- 12.1% of adults reported fair or poor health between 2000 and 2006
- Adults report an average of 5.7 unhealthy days in the past month
- Both of these statistics are better than average in comparison to peer counties<sup>40</sup>

### Leading Causes of Death

|  | L&C 2007 | Montana 2007       | U.S.  |
|--|----------|--------------------|---|
| Cancer (all types)                                     | 205      | 199                | 180.7 (in 2006). Cancer is the second leading cause of death in the U.S. <sup>41</sup>  |
| Heart disease  | 188.3    | 194.2              | 222 (in 2005). Heart disease is the leading cause of death in the U.S. <sup>42</sup>  |
| Chronic lower respiratory disease (COPD and emphysema) | 60.0     | 63.1 <sup>43</sup> | 43.3 (in 2006). Chronic lower respiratory diseases are the fourth leading cause of death in the U.S., following cerebrovascular diseases (strokes). <sup>41</sup> |

*Per 100,000 population*

<sup>39</sup> National Center for Health Statistics (2009). *Health, United States, 2008. With Chartbook*. Hyattsville, MD: Author. Available at [http://www.cdc.gov/nchs/data/08.pdf](http://www.cdc.gov/nchs/data/hus/08.pdf)

<sup>40</sup> U.S. Department of Health and Human Services (n.d.) *Community Health Status Indicators* [Data file]. Retrieved from <http://www.communityhealth.hhs.gov/HomePage.aspx>

<sup>41</sup> American Cancer Society (2009). *Cancer statistics 2009*. Retrieved from <http://www.medicalnewstoday.com/articles/61090.php>

<sup>42</sup> Centers for Disease Control and Prevention: *Heart Disease Facts and Statistics*. Retrieved from <http://www.cdc.gov/heartDisease/statistics.htm>

<sup>43</sup> Montana Department of Health and Human Services(2007). *2007 Montana Vital Statistics*. Available from <http://www.dphhs.mt.gov/statisticalinformation/vitalstats/index.shtml>

### Causes of death in comparison

|                        | L&C County rate                   | Peer county range | U.S. rate | Alert |
|------------------------|-----------------------------------|-------------------|-----------|-------|
| Coronary heart disease | 109.9                             | 112.5 – 235.6     | 172.0     |       |
| Stroke                 | 64.3                              | 51.2 – 79.9       | 53.0      |       |
| Lung cancer            | 59.3                              | 43.2 – 79.3       | 54.1      |       |
| Breast cancer (female) | 32.3                              | 20.3 – 32.1       | 25.3      | *     |
| Unintentional injury   | 30.9                              | 17.0 – 30.1       | 37.3      | *     |
| Colon cancer           | 18.6                              | 16.6 – 24.8       | 19.1      |       |
| Suicide                | 17.9                              | 8.6 – 17.7        | 10.8      | *     |
| Motor vehicle injury   | 17.8                              | 11.3 – 24.8       | 14.8      |       |
| Homicide               | No report or fewer than 10 events | 1.2 – 6.7         | 6.0       |       |

*U.S. Department of Health and Human Services*

(Rates are age-adjusted to the year 2000 standard; per 100,000 population. 2,343 deaths occurred in the time period 1999-2003)

### Traumatic Injury Rates and Traffic Fatalities

- The traumatic injury death rate in 2002 was 55.5 per 100,000 population (152 deaths), compared to 63.7 per 100,000 pop in Montana.<sup>11</sup>

### 2007 Traffic Fatalities

|                                    | Lewis and Clark County | Montana                | USA                       |
|------------------------------------|------------------------|------------------------|---------------------------|
| Total traffic fatalities           | 11 (0.018% of deaths)  | 277 (0.028% of deaths) | 41,059 (0.013% of deaths) |
| Alcohol related traffic fatalities | 38%                    | 45%                    | 37%                       |

*National Center for Statistics and Analysis 2007 & www.nhtsa.gov*

- Lewis and Clark County ranked 6<sup>th</sup> highest in Montana for number of traffic fatalities in 2008.<sup>44</sup>
- Montana ranks among the worst in the nation in terms of numbers of high school students drinking and driving; the rate is 20% in Montana compared to 12% nationally.<sup>45</sup>
- In 2008, seat belt use nationwide was 83%, while an average of 79% of Montanans buckled up.<sup>46</sup> Using seatbelts and driving sober are effective strategies for reducing injuries, saving lives and reducing the need for health care.

<sup>44</sup>National Highway Traffic Safety Administration (2008). *Traffic Safety Facts for Montana 2004-2008*. [Data file]. Retrieved from [http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/30\\_MT/2008/30\\_MT\\_2008.htm](http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/30_MT/2008/30_MT_2008.htm)

<sup>45</sup> Montana Kids Count [www.kidscount.org](http://www.kidscount.org)

<sup>46</sup>National Highway Traffic Safety Administration (2008). *Seatbelt Use in 2008*. Washington, DC: Author. Retrieved from <http://www-nrd.nhtsa.dot.gov/Pubs/811036.PDF>

## Chronic Diseases

Chronic diseases are the leading cause of death in Lewis and Clark County, as in the rest of the United States. Chronic diseases occur primarily as a result of social and physical environments, genetic predispositions, behavioral risk factors (such as smoking and poor diet), the aging process, and lack of access to or uptake of preventive health care.

## Selected Risk Factors

| Risk factor           | Percentage of adults at risk         |
|-----------------------|--------------------------------------|
| Few fruits/vegetables | 78.6%                                |
| Hypertension          | 21.2% (BP consistently above 140/90) |
| Obesity               | 20.5% (BMI of >30)                   |
| No exercise           | 19.5%                                |
| Smoking               | 18.3%                                |
| Diabetes              | 5.7%                                 |

*Community Health Status Indicators*

These risk factors tend to correlate with poverty, poor built environment, lack of access to healthy food, stressful working conditions, poor access to or uptake of preventive health services, and poor health education and information.

## Tobacco Use

- Tobacco is the second most commonly used substance in the United States next to alcohol,<sup>47</sup> and is the number one preventable cause of death in the U.S., killing 1,500 Montanans each year - one out of five deaths.<sup>48</sup>
- 18.5% of Montana adults smoked in 2008, compared to 18.3% nationally.<sup>49</sup>
- Youth smoking prevalence in Montana declined from 27% in 2000 to 16% in 2008.<sup>50</sup>
- Over 32,000 Montanans have called the Montana Tobacco Quit Line since its inception in May 2004.
- In Lewis and Clark County, almost 20% of women smoked during their pregnancy. This follows statewide trends.<sup>51</sup>
- Montana males (both adults and youth) use spit tobaccos at rates almost twice the National average. Fourteen percent of Montana adult males use spit tobacco compared to 8% nationally. Fifteen percent of Montana high school boys, including 26% of senior boys, use spit tobacco. The 2006 national rate for smokeless tobacco use for high school males was around 13%.<sup>48</sup>

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<sup>47</sup>Substance Abuse and Mental Health Services Administration. (2007). *Results from the 2006 National Survey on Drug Use and Health: National Findings*. Department of Health and Human Services: Rockville, MD. Retrieved from <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6Results.pdf>

<sup>48</sup>Biazzo, L.L. (2009). *Adult tobacco use in Montana: Results of the 2008 Montana adult tobacco survey*. Helena, MT: Montana Department of Public Health and Human Services. Retrieved from <http://tobaccofree.mt.gov/publications/ats2008finalreport.pdf>

<sup>49</sup>The Centers for Disease Control and Prevention (2008). *Behavioral Risk Factor Surveillance System (BRFSS)* Available at <http://www.cdc.gov/brfss/index.htm>.

<sup>50</sup>Ballew, C. (2007). *Trends in youth tobacco use and attitudes 2000-2006*. Helena, MT: Montana Department of Public Health and Human Services. Retrieved from <http://tobaccofree.mt.gov/publications/youthtrends20002006.pdf>

<sup>51</sup>Lewis and Clark City-County Health Department (n.d). *Tobacco Use Prevention Program Data*.

## Alcohol Use

- According to the Centers for Disease Control, 5% of Montana adults are heavy drinkers (more than two drinks per day for men, and more than one drink a day for women).<sup>49</sup>
- The prevalence for binge drinking for Montana adults for the first half of the decade was 18%.<sup>52</sup>
- According to the SAMHSA National Survey on Drug Use & Health 2005 & 2006, Montana had the nation's highest binge drinking rates among youths 12 to 25. This behavior continues through the 20s and early 30s, tapering off after age 35.<sup>47</sup>
- In 2006, Montana had the highest rate in the nation of needing but not receiving treatment for an alcohol problem among people 12 years of age and older.<sup>47</sup>

## Drug Use

- The CDC showed a 63% increase from 1999 to 2004 in drug overdoses across the country, with the largest rates of increase occurring in states with mostly rural populations. The top ten states showing the highest increases in drug fatalities included Montana at 195%.<sup>53</sup>
- An estimated 10% of 12 to 17 year olds in Montana abused prescription pain relievers.<sup>54</sup>
- In 2007, the state recorded approximately 141 deaths directly related to the abuse of prescription pain relievers.<sup>55</sup>
- It is estimated that Methamphetamines killed eight people in Montana during 2007.<sup>55</sup>
- The two most prevalent substance abuse activities among Lewis and Clark County youth are drinking alcohol and smoking marijuana.<sup>48</sup>
- In 2006, an estimated 18% of Lewis and Clark County Students (8, 10 & 12 Grades) have been high or drunk at school in the past year compared to a rate of 20% in Montana.<sup>48</sup>

## Obesity

Rising obesity is one of America's most critical health problems. It is a causative factor for many significant diseases, such as heart disease, cancer, diabetes and depression. It also contributes to health problems such as back pain, shortness of breath and incontinence. Obesity is caused by a combination of genetic, environmental, socio-economic and behavioral factors.

- Montana ranks as the 45th most obese state in America according to the 2008 Trust for America's Health Report, with 37% of Montana adults reporting a height and weight that categorized them as overweight.<sup>56</sup>
- The state's obesity rate is nearly 23%. The national rate is 26%.<sup>57</sup>
- In 2007, approximately 10% of Montana high school students were obese.<sup>57</sup>

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<sup>52</sup>The Centers for Disease Control and Prevention (2008). *Behavioral Risk Factor Surveillance System (BRFSS)* Available at <http://www.cdc.gov/brfss/index.htm>.

<sup>53</sup>The Centers for Disease Control and Prevention (2007). Unintentional poisoning deaths: United States, 1999-2004. *Morbidity and Mortality Weekly Report*. 56(05), pp. 93-96.

<sup>54</sup>Substance Abuse and Mental Health Services Administration. (2007). *Results from the 2006 National Survey on Drug Use and Health: National Findings*. Department of Health and Human Services: Rockville, MD. Retrieved from <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6Results.pdf>

<sup>55</sup>Montana State Crime Lab

<sup>56</sup>Montana Department of Health and Human Services (2008). *Montana Factors Behavioral Risk Factor Surveillance System (BRFSS)*

<sup>57</sup>Trust for America's Health (TFAH) (2008). *F as in fat: How obesity policies are failing in America*. Retrieved from <http://healthyamericans.org/reports/obesity2008/>

- In 2006, 19% of Montana adults indicated that they were not physically active in their leisure time, compared to 23% nationally.<sup>52</sup>
- In 2003, medical costs of obesity in Montana were \$191 per capita, compared to a national rate of \$258.<sup>57</sup>

## Chronic Disease Prevention

A strong primary health care system is central to improving the health of everyone in Lewis and Clark County and to reducing health inequalities between different groups. Many health problems can be mitigated if diagnosed and treated early. Treatment for patients who are diagnosed at more advanced disease stages is more invasive and more costly than preventative or primary care because it leads to the need for emergency care and preventable hospitalizations.

The section below focuses on diseases and health problems that are prevalent in Lewis and Clark County. This is not because the diseases are more prevalent in Lewis and Clark County than elsewhere in the U.S. Rather, it is because they are associated with a high need for health care, and in some cases they could be prevented or their incidence minimized by use of good preventative care. Optimal access to preventative and primary care produces better health outcomes than treating advanced disease or acute episodes of illness.

### Cancer

Cancer is caused by abnormalities in the genetic material of cells. These abnormalities may be caused by many factors including exposure to chemicals such as cigarette smoke or asbestos, radiation or infectious agents. Cancer can be hereditary.

- Breast cancer incidence is higher in Lewis and Clark County than nationally.

### Diabetes

Type 2 diabetes in children is a growing problem throughout the U.S. The disease was traditionally associated with insulin resistance in older adults, but has become more prevalent in children. Although heredity plays a role in whether or not a child will develop diabetes, environmental triggers, such as obesity and living a sedentary lifestyle, are major causative factors for the disease.

- An estimated 6% of Lewis and Clark County adults had diabetes in 2005, compared to 5% in Montana and 8% nationally.<sup>58</sup>
- The rate of diabetes is two to three times higher in Montana's American Indian communities.

### Heart Disease and Stroke

Causative factors for cardiovascular disease include high blood pressure and high blood cholesterol levels.

- Approximately 6% of all deaths in Montana were attributed to stroke in 2005.<sup>59</sup>
- 33% of adults in Montana have high blood cholesterol levels, compared with 36% nationally.

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<sup>58</sup>Centers for Disease Control and Prevention (2005). *National diabetes surveillance data: 2005 county level estimates of diagnosed diabetes*. Retrieved from [http://apps.nccd.cdc.gov/DDT\\_STRS2/CountyPrevalenceData.aspx](http://apps.nccd.cdc.gov/DDT_STRS2/CountyPrevalenceData.aspx)

<sup>59</sup>Montana Department of Public Health and Human Services (2007). *The burden of heart disease and stroke in the Big Sky State – Montana 2007*. MT: Author. Retrieved from [http://www.dphhs.mt.gov/PHSD/cardiovascular/pdf/146192LR\\_000.pdf](http://www.dphhs.mt.gov/PHSD/cardiovascular/pdf/146192LR_000.pdf)

- In 2005, 24% of adults in Montana reported a history of high blood pressure.<sup>60</sup>

## Asthma

Asthma is a chronic lung disease characterized by recurrent episodes of difficulty breathing. People may have a genetic tendency to asthma, but their environment plays an important role in whether or not they develop the disease.

- Over 75,000 individuals in Montana currently have asthma (7.75% of all Montanans)<sup>61</sup>, compared to 34.1 million nationally (11.2% of Americans)<sup>62</sup>.
- 8% of adults and 11% of high school students in Montana have asthma.<sup>61</sup>
- 20% of adult asthmatics in Montana are smokers and 64% are obese or overweight.<sup>63</sup>

## Maternal and Child Health

Healthy People 2010 Leading Health Indicators: Increase the proportion of pregnant women who begin prenatal care in the first trimester of pregnancy.<sup>64</sup>

- Lewis and Clark County experienced steady birth rates from 2001 through 2003, with increases in births during 2004 and 2006.<sup>65</sup>
- In 2008, the infant mortality rate per 1,000 live births in Montana was 6.1 (compared to 6.8 nationally). Infant mortality represents many factors surrounding birth, including but not limited to the health of the mother, prenatal care, quality of the health services delivered to the mother and child and post-natal care.<sup>66</sup>
- In 2006 an estimated 88% of pregnant women in Lewis and Clark County received prenatal childcare within the first trimester.<sup>67</sup> This compares to 83.9% of pregnant women in Montana (in 2003 – 2005) and 84.1% of pregnant women in the U.S (2003 – 2005).<sup>68</sup>
- The teen pregnancy rate for Lewis and Clark County was 32.2 (teen births per 1,000 teen females), compared to 36.2 in Montana.<sup>11</sup>
- In 2004, 8.7% of births were low birth weight babies (<5lbs, 8oz.) compared to 6.8% in Montana.<sup>11</sup> The prevalence of low birth weight infants was higher among women who smoked during their pregnancy compared to women who did not smoke.<sup>69</sup>

<sup>60</sup>American Heart Association (2008). *Heart disease and stroke statistics – 2008 update*. Dallas, TX: Author

<sup>61</sup>Montana Department of Public Health and Human Services (2008). *Montana asthma control program: The burden of asthma in Montana April-June 2008*. Helena, MT: Author

<sup>62</sup>American Academy of Asthma, Allergy and Immunology (2009) *Asthma statistics*. Retrieved from <http://www.aaaai.org/media/statistics/asthma-statistics.asp>

<sup>63</sup> Montana Department of Public Health and Human Services (2008). *Montana Public Health, January 2008*. Helena, MT: Author

<sup>64</sup>U.S. Department of Health and Human Services (2000). *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.healthypeople.gov/Document/pdf/uih/2010uih.pdf>

<sup>65</sup>Montana Vital Statistics (2008).

<sup>66</sup>Federal Interagency Forum on Child and Family Statistics (2009). *America's Children: Key National Indicators of Well-Being, 2009*. Washington, DC: U.S. Government Printing Office.

<sup>67</sup>Department of Public Health and Human Services (2008). *Montana public health – May 2008*. Helena, MT: Author

<sup>68</sup>National Center for Health Statistics Health (2009). *United States, 2008 With Chartbook*. Hyattsville, MD: U.S. Government Printing Office

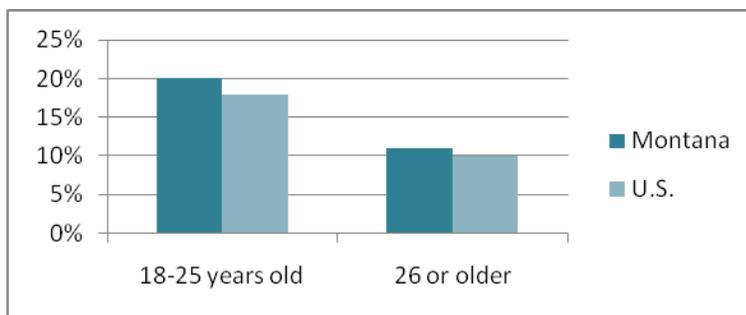
<sup>69</sup>Lewis and Clark City-County Health Department

- In Lewis and Clark County, 44% of pregnant teens under the age of 17 smoked during their pregnancy (2000-2005).<sup>69</sup>

## Mental Health

- In 2008, according to the United Health Foundation, Montana residents averaged 3.1 poor mental health days in the previous 30 days compared to 3.4 days nationally.<sup>70</sup>
- In first half of 2008, approximately 70% of all patients seeing a medical provider at the Cooperative Health Clinic were diagnosed with mental health disorders.<sup>69</sup>

### Serious psychological distress in the past year, by age group 2005-2006



*Substance Abuse and Mental Health Services Administration, 2006*

## Suicide

According to the National Institute of Mental Health, research has shown that suicide is a major preventable public health problem associated with mental health disorders, substance abuse, domestic violence, firearms in the home and low levels of the neurotransmitter serotonin in the brain.<sup>71</sup>

- Montana is ranked highest in the country for the number of completed suicides at 19 per 100,000 people (average over the past 6 years). The national rate is around 11 per 100,000.<sup>72</sup>
- There were 8 completed suicides in Lewis and Clark County in 2006. During 2000-2006 Lewis and Clark County averaged 18.2 suicides per 100,000 population.<sup>72</sup>
- According to the recent 2007 Youth Risk Behavior Survey (YRBS) which was given to county youth (grades 9-12), approximately 26% said they felt so sad or hopeless for two weeks or more in a row that they

<sup>70</sup> Poor Mental Health Days is the average number of days in the previous 30 days that a person could not perform work or household tasks due to mental illness.

<sup>71</sup> Moscicki E.K. (2001) Epidemiology of completed and attempted suicide: toward a framework for prevention. *Clinical Neuroscience Research* 1: 310-23.; Miller, M., Azrael, D., Hepburn, L., Hemenway, D., Lippmann, S.J. (2006) The association between changes in household firearm ownership and rates of suicide in the United States, 1981-2002. *Injury Prevention* 12: 178-182.; Arango, V., Huang, Y.Y., Underwood, M.D., Mann, J.J. (2003). Genetics of the serotonergic system in suicidal behavior. *Journal of Psychiatric Research* 37: 375-386.

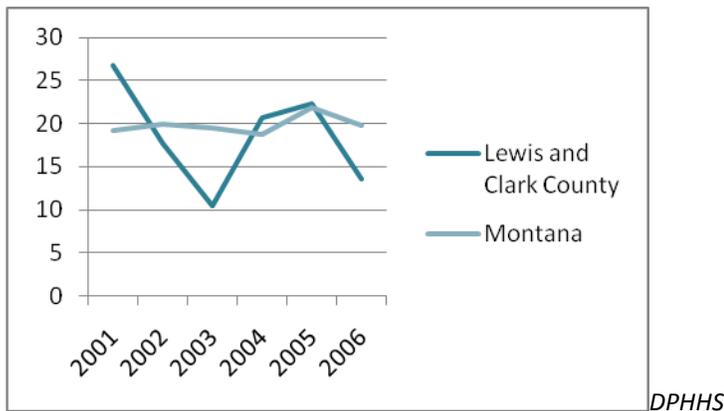
<sup>72</sup> Montana Department of Health and Human Services (2006). *Suicide data by county 2000-2006*. Helena, MT: Office of Vital Statistics.

stopped doing some usual activities. Close to 17% of county high school students said they had seriously considered attempting suicide during the past 12 months.<sup>73</sup>

Suicide is best prevented through early recognition and treatment of depression and other psychiatric illnesses. Primary care providers' knowledge and recognition of suicidal behavior is essential for preventing suicide.

The Health Department in collaboration with School District #1 completed a Teen Screen program in 2007-2008 in three county area high schools. Teen Screen offers students a free voluntary mental health check-up, which is specially designed to identify teens suffering from depression and other known risk factors.<sup>69</sup>

### *Suicide per 100,000 population*



### **Mental Health Care**

Healthy People 2010 Leading Health Indicator: Increase the proportion of adults with recognized depression who receive treatment.<sup>64</sup>

- In Lewis and Clark County, 35% of the Medicaid population received mental health services in 2005 (compared to 28% in Montana).<sup>74</sup>
- The Montana Children's Mental Health program reports a total of 443 youths served in residential treatment centers during fiscal year 2007. Medicaid services for severely emotionally disturbed youths averaged 9,338 served per year (from 2002-2007 fiscal year)<sup>75</sup>

#### Available Services

- The Center for Mental Health is a not-for-profit mental health care center based in Central Montana. The care center in Helena is a satellite facility of the Center for Mental Health and is the only crisis stabilization facility in Central Montana.
- The Center for Mental Health started the Crisis Response Team (CRT) in March that is on-call 24 hours every day. CRT works with St. Peter's Hospital and local law enforcement to evaluate patients for treatment and possible referral to a local facility such as Shodair Hospital. The Center provides facilities to treat both adults' and children's mental health as well as substance abuse services.
- There are no inpatient mental health services in Lewis and Clark County.<sup>1</sup>
- There is a virtual drop in center, Montana Warmline, staffed by peer advocates.<sup>76</sup>

<sup>73</sup>McCulloch, L. (2007). Youth risk behavior survey: Montana comparative report. Helena, MT: Office of Public Instruction

<sup>74</sup>Montana Department of Health and Human Services (2006). *Montana county health profiles 2006*. Helena: Author

<sup>75</sup>Montana Department of Health and Human Services (2008). *Data indicators, July 2008*. Helena: Author

## Communicable Diseases

Communicable diseases have the potential to affect all of the residents in the county.

- Rates of communicable disease in Helena are generally lower than national rates, but chlamydia and influenza appear to be rising year-by-year in Lewis and Clark County.<sup>77</sup>

## Immunizations and Preventative Care Uptake

- Immunizations protect not only those who receive the shots, but also the people around them. The rate of immunization, or percentage of a given population that is vaccinated, is important to a community's health because a high rate of immunization means a high level of protection for the entire community. For the Lewis and Clark County population of 2-year-olds the rate is 79%. In 2008, 76.1% of children in the U.S. had received all recommended vaccines at 36 months of age. The goal of the *Healthy People 2010* initiative for effective vaccination coverage levels among young children is 90%.<sup>78</sup>
- Seventy-three percent of Montanans aged 65 and over had a flu shot in 2007 compared to 70% nationally.<sup>79</sup>

## Preventative service uptake

|                                | L&C County rate | Peer County rate |
|--------------------------------|-----------------|------------------|
| Pap smears (women 18+)         | 77.8%           | 75 – 88.7%       |
| Mammography (women 50+)        | 79.2%           | 69.1 – 83.1%     |
| Sigmoidoscopy (people 50+)     | 46.2%           | 38.8 – 53.1%     |
| Pneumonia vaccine (people 65+) | 74.5%           | 55.8 – 75.3%     |
| Influenza vaccine (people 65+) | 75.2%           | 52.9 – 78.5%     |

*U.S. Department of Health and Human Services: Community Health Status Indicators*

<sup>76</sup> <http://www.montanawarmline.org/>

<sup>77</sup> Lewis and Clark City-County Health Department (2008). *Public Health Progress Report*. Helena: Author

<sup>78</sup> Molla, M.T., Madans, J.H., Wagener, D.K. & Crimmins, E.M. (2003). *Summary measures of population health: Report of findings on methodologic and data issues*. National Center for Health Statistics. Hyattsville, MD

<sup>79</sup> Centers for Disease Control and Prevention (2007) *Montana: 2007 Profile*. Department of Health and Human Services

# ACCESS TO HEALTH SERVICES

In Lewis and Clark County, medical and social care services are concentrated in Helena, with very few services located in the more rural parts of the county.

## Health Care Facilities and Workforce

### *Public health resources: Number of full time equivalent*

|                        | Lewis and Clark County (per 100,000) | Montana (per 100,000) |
|------------------------|--------------------------------------|-----------------------|
| Public Health Nurses   | 8.35 (13.7)                          | 124.4 (12.8)          |
| Registered Sanitarians | 5.5 (9)                              | 84.5 (8.7)            |
| Registered Dieticians  | 0.6 (1)                              | 14 (1.4)              |
| Health Educators       | 7.2 (11.8)                           | 41.3 (4.3)            |
| Doctors (MDs and DOs)  | 65 (106.7)                           | 881 (90.7)            |
| Nurse Midwives         | 2 (3.3)                              | 34 (3.5)              |
| Nurse Practitioners    | 22 (36.1)                            | 314 (32.3)            |
| Physician's Assistants | 8 (13.1)                             | 264 (27.2)            |
| Dentists               | 39 (64)                              | 505 (52)              |
| Dental Hygienists      | 37 (60.7)                            | 437 (45)              |

*Lewis and Clark County Health Profile, 2004*

### *Health Care Facilities: Hospitals and Clinics*

|   |   |                     |
|---|---|---------------------|
| Local hospitals                                 | 1 local, 1 child psych, 1 veteran's affairs.<br>No critical access hospitals. | Total beds<br>145   |
| Basic life support services                     | Augusta, Canyon Creek, East Helena,<br>Helena, Wolf Creek                     | Total services<br>9 |
| Advanced life support services                  | East Helena, Helena   | 7                   |
| Rural health clinics                            | 0   |                     |
| Community health centers                        | 1 FQHC and one satellite  |                     |
| Indian health service/ tribal health facilities | 2   |                     |
| Nursing homes                                   | 4   | Total beds<br>311   |

*Lewis and Clark County Health Profile, 2004*

### *Primary Care Physicians*

In a 2006-2007 study conducted by Scripps Howard News Service, Lewis and Clark County had 58 general practitioners (or 97 per 100,000 people).<sup>80</sup> The entire county was designated a Health Professional Shortage

<sup>80</sup> General Practitioners include all medical doctors and osteopathic doctors involved in general, family, internal, pediatric or

Area<sup>81</sup>, with 21% of its population medically disenfranchised.<sup>82</sup> The table below compares Lewis and Clark County to peer counties in Montana, Minnesota and North Dakota. At the time of the survey, 49% of primary care doctors in the U.S. expected to cut back or stop practicing over the next 3 years.<sup>83</sup>

| County          | Total GPs | GPs per 100,000 population | How underserved (HPSA estimate) | Population 2005 | Number underserved | Number disenfranchised | Percent disenfranchised |
|-----------------|-----------|----------------------------|---------------------------------|-----------------|--------------------|------------------------|-------------------------|
| Cascade         | 82        | 103                        | Part county                     | 79,490          | 22,230             | 4,573                  | 6                       |
| Flathead        | 80        | 93                         | Part county                     | 83,079          | 23,139             | 4,760                  | 6                       |
| Gallatin        | 84        | 103                        | Whole county                    | 78,262          | 30,110             | 16,331                 | 21                      |
| Lewis and Clark | 58        | 97                         | Whole county                    | 58,387          | 58,449             | 12,024                 | 21                      |
| Blue Earth, MN  | 58        | 99                         | Whole county                    | 57,565          | 58,030             | 11,938                 | 21                      |
| Grand Forks, ND | 97        | 148                        | Whole county                    | 65,210          | 15,181             | 3,123                  | 5                       |

*Scripps Howard News Service's Physicians Study (2006-07 survey)*

## St Peter's Hospital

St Peter's is a non-profit hospital, and therefore is exempt from certain taxes. To maintain this tax-exempt status, St Peter's must provide community benefits, which can include such services as charity care for those unable to pay, medical training programs, education programs, medical research, and emergency services.

### *Total hospital spending on uncompensated care*

| St Peter's Hospital                | National average                  |
|------------------------------------|-----------------------------------|
| 4.49% of hospital revenue annually | 5.7% of hospital revenue annually |

Uncompensated care refers collectively to spending on charity, bad debts, and Medicaid costs that exceed reimbursement.

- In 2006 St Peter's spent \$1,455,258 on charity care (1.57%); St Peter's revenue for 2006 was \$92,691,592.40; and their surplus was \$11,602,335<sup>84</sup>

## The Cooperative Health Center

The county has a federally qualified health center, the Cooperative Health Center in Helena, which also operates a satellite clinic in Lincoln. In 2007, the Cooperative Health Center had 5,590 patients who made over 21,000 visits. Since opening in September 2007, Parker Medical Center in Lincoln has had 700 patients.

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obstetrical/gynecological medicine, or as subspecialists in any of those fields.

<sup>81</sup> Health Professional Shortage Areas (HPSAs) are designated by the federal Health Resources and Services Administration as having shortages of primary medical care, dental or mental health providers. The shortage area may cover the entire county, some geographic part of it, or a part of the population defined by low income.

<sup>82</sup> Medically disenfranchised refers to people who have no or inadequate access to a primary care physician due to a local shortage of such physicians. They are a subset of the medically underserved population of a county.

<sup>83</sup> Scripps Howard News Service (2008). Physicians study data. Retrieved from: <http://www.scrippsnews.com/doctorsearch>

<sup>84</sup> White, L.L. (2008). *Montana's Hospitals: Issues and facts related to the charitable purposes of our hospitals and the protection of Montana's consumers*. Montana Office of Consumer Protection. Retrieved from: <http://www.doj.mt.gov/consumer/consumer/hospital/hospitalreport200801.pdf>.

- The number of visits by uninsured patients at the Cooperative Health Center increased from 24% in 2001 to 60% in 2007.<sup>85</sup>

## Health Insurance

Healthy People 2010 Leading Health Indicators:

- Increase the proportion of persons with health insurance
- Increase the proportion of persons who have a specific source of ongoing care.<sup>86</sup>

Estimates of the proportion of Lewis and Clark County’s population lacking health insurance vary, as do estimates of the proportion of underinsured people (i.e. those who have large gaps in their insurance, or spend a large proportion of their income on health insurance). Information on the number of people obtaining insurance through their employer or on the individual market is also not readily available. Subsequent research should seek to fill these data gaps.

Estimates range from 14% uninsured people according to census data (2004), to 21% uninsured people estimated in the 2007 Health Indicators report for L&C County. Another method is to apply state data to the county population,<sup>87</sup> which yields the following estimates:

- 16% uninsured people
- 50% with employer sponsored insurance
- 12% Medicaid and CHIP
- 14% Medicare
- 8% with individual-market insurance

This estimate largely correlates with available county-level data for public insurance programs: in 2008, 11% of county residents were enrolled in Medicare and CHIP, and 16% in Medicare.<sup>88</sup>

## Medicaid Eligibility by Income in Montana

|  |                 |
|--|-----------------|
| Child – newborn  | No income limit |
| Child – under 6  | 133% of FPL     |
| Child 6 – 19   | 100% FPL        |
| Child – medically needy  | 33% FPL         |
| Family   | 33% FPL         |
| Family – transitional (in the second 6 months; no income limit for the first 6 months) | 185% FPL        |
| Pregnancy  | 150% FPL        |
| Qualified pregnant woman   | 33% FPL         |
| Breast & cervical cancer treatment   | 200% FPL        |

DPHHS

<sup>85</sup> Lewis and Clark City-County Health Department (2009) *Leading public health indicators*. Helena, MT: Author

<sup>86</sup> U.S. Department of Health and Human Services (2000). *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.healthypeople.gov/Document/pdf/uih/2010uih.pdf>

<sup>87</sup> State data available at <http://www.statehealthfacts.org/profileind.jsp?cmprgn=1&cat=3&rgn=28&ind=125&sub=39> and applied to the county population.

<sup>88</sup> .Montana Department of Health and Human Services (2009): *Montana County Health Profile: Lewis and Clark County*

### **CHIP Eligibility in Montana (2009)**

- Uninsured children up to age 19. Must have been uninsured for at least 1 month.
- Montana Residents
- US citizens or qualified aliens
- Not eligible for Medicaid. If a child qualifies for Medicaid, health insurance will be provided by Medicaid.
- Parents not employed by the State of Montana or the Montana University system

In Lewis & Clark County, 7% of the county population qualified for Medicaid, and 584 children were enrolled in CHIP in 2005.

### **Health Insurance for the Rural Populations in Comparison**

While little reliable data is available on access to insurance, and sources of insurance, at county level, national trends indicated the following:

- One-quarter of rural Hispanics, one-third of rural African-Americans and one-third of rural Native Americans live below the poverty line.
- Non-elderly people from the most rural areas are 50% more likely to be uninsured than those from metropolitan areas.<sup>89</sup>
- Approximately a third of farm and ranch workers purchase health insurance through individual markets compared to a national average of 8%.
- In a survey of over 2,000 non-corporate farm and ranch operators conducted by the Access Project in 2007, the majority of respondents had health insurance, yet one in four reported that healthcare expenses contributed to their financial problems, and one in five had outstanding debt that resulted from medical bills.
- Families who purchased insurance from an agent in the individual market spent \$5,204 more on healthcare than families with insurance obtained from government-sponsored programs, and \$4,359 more than those with insurance obtained through off-farm employment.<sup>90</sup>

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<sup>89</sup>National Economic and Social Rights Initiative (2008), *The human right to health care in rural communities*. Unpublished draft.

<sup>90</sup> Lottero, B., Pryor, C., Rukavina, M., Prottas, J., and Knudson, A. (2007). *Health insurance survey of farm and ranch operators*. MA: Access Project.

# DATA GAPS

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## Hospital Data

### *Mortality data*

- Number of deaths within the hospital, by age and insurance status
- Causes of death within the hospital, by age and insurance status

### *Utilization data*

- Hospitalization rate, by age and insurance status
- Rates of most commonly treated conditions, by age and insurance status
- Rates and sources of referral, by geographic location, age and insurance status
- Rates of discharge, by condition, age and insurance status
- Rates of re-admission, by condition, age and insurance status
- Medicare and Medicaid cost reports presented by the hospital to the Centers for Medicare and Medicaid Services

### *Emergency Department data*

- Rates of most commonly treated health conditions in the Emergency Department (ED), by age and insurance status
- Insurance status and health problems of patients who use the ED frequently (4 or more times a year) and heavily (10 or more times a year)
- Trauma rates
- Rates of admission to the hospital from ED and rates of discharges from ED, by age and insurance status
- Average length of time spent in the ED before admission or discharge, by age and insurance status

### *Quality and error data*

- Ratio of staff to patients
- Use of evidence-based standards in hospital policy and protocol
- Incidents or rates of nosocomial infection, falls, medication errors, surgical errors etc.
- Rates of near-misses
- Information on error tracking systems and responsive modification of protocols

### *Comparative analysis*

- Comparison of hospitalization and discharge data of St Peter's to other hospitals in peer counties, Montana and the U.S. , by patients' condition, age and insurance status

## Co-operative Health Center Data

- Most commonly treated health conditions in the CHC, by age and insurance status
- Rates of all health conditions treated at the CHC compared to peer counties, Montana and the U.S. to determine whether levels of disease in L&C County are analogous
- Rates of sources of insurance or payment for all patients
- Rates of referral to St Peter's, specialists and other facilities
- Rates of regular (medical home) patients compared to one-time or new patients
- Ratio of staff to patients
- Use of evidence-based standards in CHC policy and protocol
- Information on error tracking systems and protocol modification

## Health Insurance Data

### *Employer-sponsored insurance*

- Number, age, ethnicity, and gender of residents of Lewis and Clark County with employer-sponsored insurance
- Range of co-pays and deductibles for employer-sponsored insurance
- Percent of income spent on insurance and related costs
- Number, age, ethnicity, and gender of residents with public employee benefits

### *Privately purchased insurance*

- Number, age, ethnicity, income and gender of residents with privately-bought insurance
- Cost of plan with co-pays and deductibles
- Percent of income spent on insurance and related costs

### *Medicare*

- Number, age, ethnicity and gender of residents enrolled in Medicare
- Percent of Medicare recipients who purchase supplemental insurance
- Percent of Medicare recipients in the "donut hole"

### *Medicaid*

- Number, age, ethnicity and gender of residents who qualify for Medicaid
- Number, age, ethnicity and gender of children (and mothers) who qualify for CHIP
- Number, age, ethnicity and gender of people with income below 100% and below 200% FPL who are not eligible for Medicaid
- Number, age, ethnicity and gender of people who may be eligible for Medicaid or CHIP but are not enrolled

### *VA and IHS*

- Number, age, ethnicity and gender of residents using VA facilities
- Number, age, ethnicity and gender of residents using IHS funded facilities

### *Uninsured and underinsured*

- Number, age, ethnicity, income and gender of residents who have no form of insurance
- Number of residents whose out-of-pocket expenses exceed 8% of their income
- Number of residents who are exposed to risk of significant financial loss due to medical bills
- Number of residents with catastrophic coverage (and resultant barriers to access preventative or primary care)
- Number of residents with plans with lifetime coverage limits