



Cardiovascular Disease Related Risk Factors Among Adults Enrolled in Medicaid

INTRODUCTION

Medicaid recipients are at high risk for cardiovascular disease (CVD). Over half of individuals with a household income of \$10,000 or less reported having two or more cardiovascular risk factors (1). Notably, tobacco use was found to be particularly high among Montana adults covered by Medicaid*. Thus, reducing cardiovascular risk factors in the Medicaid population is particularly important. A detailed assessment of the health status of the Medicaid population was previously unknown; therefore, this report presents data regarding CVD risk factors within Montana's Medicaid population.

The Montana Department of Public Health and Human Services (DPHHS) conducted three cross-sectional surveys (2010-2012) of Medicaid beneficiaries (aged 18-64 years) in Montana to assess CVD-related risk factors*. Surveys were conducted in December 2010, July 2011, and April 2012. This report describes the prevalence of CVD-related risk factors overall and by age and gender.

METHODS

Study population

Medicaid provides health care coverage for adults meeting specific low income and resource criteria, as well as those who are pregnant, diagnosed with breast or cervical cancer, or are blind or have another qualifying disability. The Montana DPHHS Medicaid Program identified recipients currently enrolled in Medicaid aged 18 to 64 years.

Survey sample

From December 2010 to April 2012, Montana DPHHS conducted three cross sectional telephone surveys of a random sample n=2200, 2200, and 6400) of Medicaid enrolled adults aged 18 to 64 through a contract with the University of Wyoming, Wyoming Survey and Analysis Center (WYSAC).

*Montana Department of Public Health and Human Services. Montana Chronic Disease and Health Medicaid Surveys. December 2010, July 2011, and April 2012.

Table 1. Select characteristics of survey respondents compared to all adults enrolled in Medicaid, Montana, 2010-2012.

	Survey respondents	Medicaid population
	N = 2,842	N = 36,899
Gender	% (n)	% (n)
Female	66 (1,861)	62 (22,721)
Male	35 (981)	38 (14,178)
Age category (years)		
18-24	17 (477)	23 (8,678)
25-34	21 (584)	24 (8,737)
35-44	17 (464)	17 (6,099)
45-54	23 (646)	20 (7,373)
55-64	22 (626)	16 (6,012)
Race		
White	79 (2,230)	79 (29,101)
American Indian	17 (473)	19 (7,082)
Other	4 (122)	1 (443)

Montana Cardiovascular Health Program and Montana Tobacco Use Prevention Program

1400 E Broadway
Helena, Montana 59260-2951
(406) 444-5508

<http://www.dphhs.mt.gov/publichealth/asthma/index.shtml>



Of these 10,800 Medicaid enrollees, 1,204 (11%) had no phone number on file, nine individuals contacted DPHHS and indicated they did not want to participate in the survey, and 4,267 (40%) were determined to have telephone numbers either disconnected, no longer current, or enrollees were otherwise not eligible for the survey. Of the remaining Medicaid enrollees (n=5,320), 2,842 completed the survey resulting in a response rate of 53.4%.

Medicaid Chronic Disease and Health Survey

Survey questions were adapted from the National Adult Tobacco Survey (2) and from the Behavioral Risk Factor Surveillance System (BRFSS) (3), both of which were developed by the Centers for Disease Control and Prevention. Trained interviewers and a computer assisted telephone interview system were utilized to complete the survey. The surveys assessed demographic characteristics, current tobacco use (cigarettes and smokeless tobacco) and cessation behavior. In addition, the surveys assessed a number of chronic disease risk factors and conditions, including: physical activity, heart disease, blood pressure (control and monitoring), cholesterol, diabetes, stroke, cancer, asthma, and arthritis. Female respondents who were told by a physician or other healthcare professional they had high blood pressure or diabetes when pregnant were not considered to have high blood pressure or diabetes, respectively. Among respondents who reported having had their blood cholesterol checked, only those who were told by a physician or other healthcare professional that they had high cholesterol were considered to have high cholesterol. Self-reported height and weight were used to calculate body mass index (BMI, kg/m²). BMI values of 25.0-29.9 were categorized as overweight and BMI values of 30.0 or more were categorized as obese. Respondents who reported smoking more than 100 cigarettes in their lifetime and who reported that they now smoke cigarettes every day or some days were considered to have a current smoking status.

Behavioral Risk Factor Surveillance System (BRFSS)

The statewide BRFSS survey is a random digit-dialed telephone survey of non-institutionalized US adults, aged 18 years and older. BRFSS data provide a representative sample of Montana's adult population, and allow statistical inferences to be made. Data from the 2011 BRFSS survey among adults aged 18-64 years were used for comparison to the Medicaid population to determine prevalence estimates of the five cardiovascular risk factors identified in this report.

Statistical analyses

Data analyses were conducted using SAS v9.2 (Cary, North Carolina). Chi-square tests were used to compare the demographic characteristics of the Medicaid survey respondents to the population of adults enrolled in the Medicaid program.

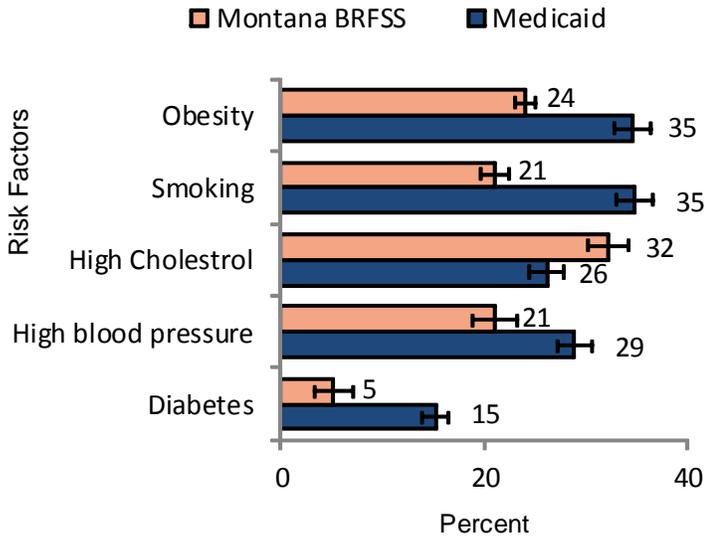
RESULTS

Compared to the total Medicaid population, aged 18-64 years, Medicaid survey respondents were slightly older (average age of respondents was 41 years vs. 38 years, $p \geq 0.05$) and included more female respondents (66% vs. 62%, $p \geq 0.05$) (Table 1). There was no significant difference in race distribution among Medicaid survey respondents and the overall Montana Medicaid population.

Almost one-third of Medicaid survey respondents reported CVD risk factors of obesity, smoking and high blood pressure (Figure 1). These same CVD risk factors were reported by less than 25% of BRFSS survey respondents of the same age. The prevalence of diabetes among Medicaid respondents was three times higher (15% vs. 5%, respectively) than among BRFSS respondents of the same age.

Among the older (aged 45-64 years) Medicaid survey respondents, four out of the five CVD risk factors were significantly more common compared to younger adults (18-44 years of age): diabetes, high blood pres-

Figure 1. Prevalence of cardiovascular disease risk factors among Montana Medicaid survey respondents and Montana BRFSS respondents (aged 18-64 years), 2011.



sure, high cholesterol, and overweight/ obese (Figure 2). Additionally, men were more likely to report having high blood pressure and high cholesterol than women. There was no significant difference in smoking between men and women or between younger and older Medicaid respondents.

Older Medicaid survey respondents reported higher numbers of risk factors than younger respondents; 22% of older respondents reported 3 risk factors and 17% reported 4 or more, compared to 7% and 4%, respectively, for younger respondents. The number of reported risk factors was similar between men and women, with approximately half of both sexes reporting two or more (Figure 3).

DISCUSSION

Montana Medicaid recipients have many cardiovascular disease risk factors, with almost 30%

Figure 2. Prevalence of cardiovascular disease risk factors among Montana Medicaid survey respondents (aged 18-64 years), by sex and age group, 2011.

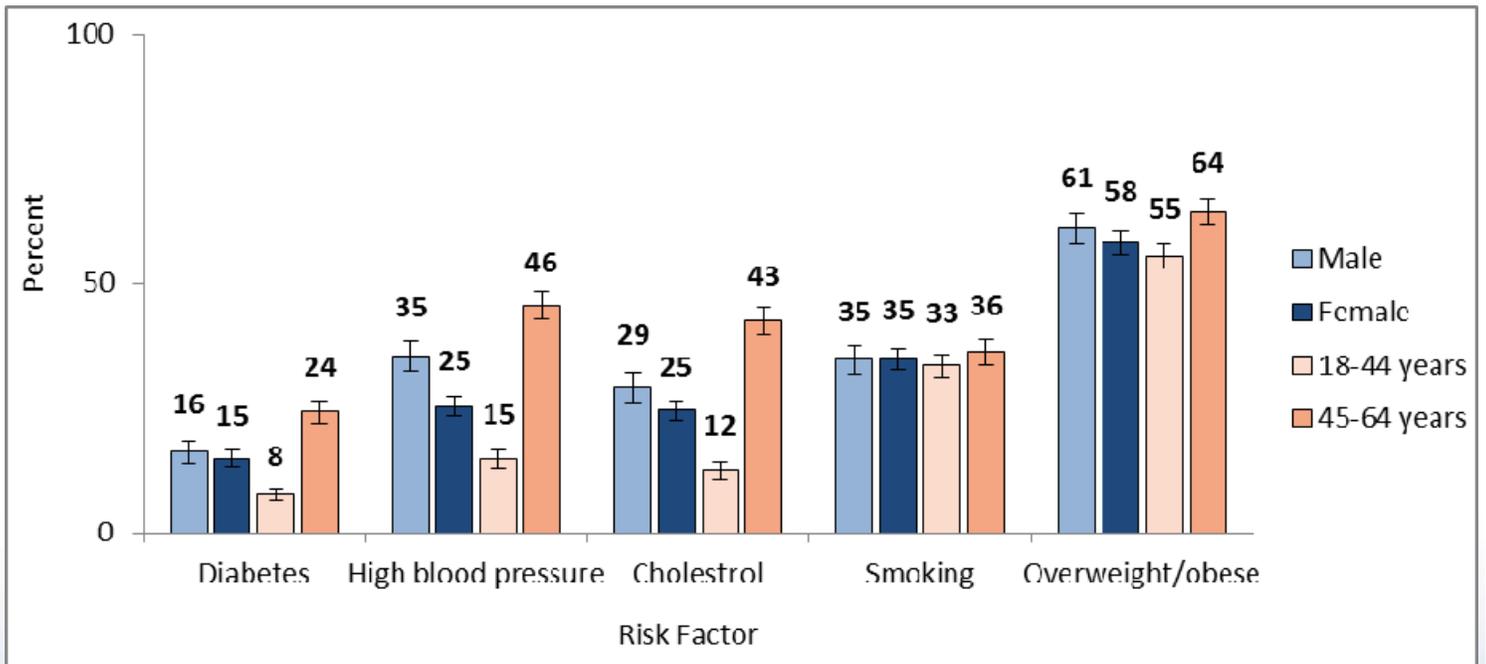
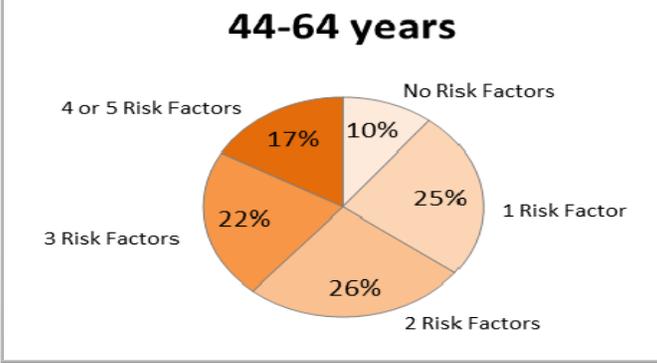
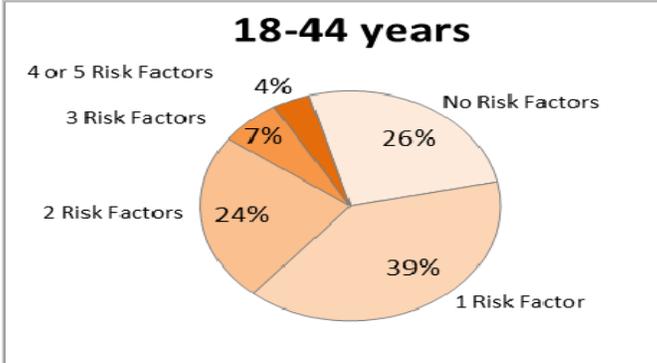
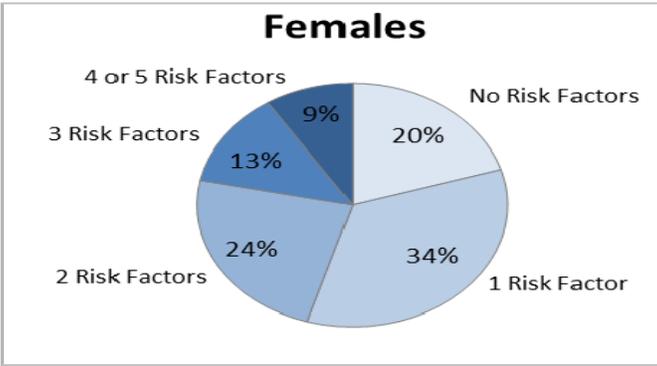
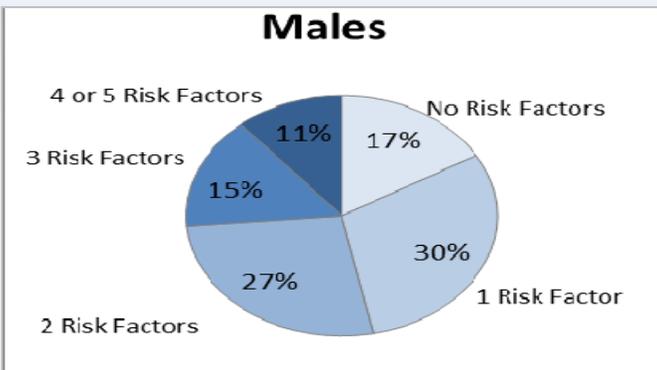


Figure 3. Number of cardiovascular disease risk factors among Montana Medicaid participants (aged 18-64 years), by sex and age group, 2011.



reporting high blood pressure, smoking, and being obese. In addition, approximately 80% of Medicaid survey respondents in Montana reported at least one cardiovascular risk factor, and almost one-quarter reported three or more risk factors (Data not shown). Thus, there is a major opportunity in Montana to improve health and decrease health care costs with smoking cessation, diabetes prevention and high blood pressure control. Because smoking acts synergistically with other risk factors to increase cardiovascular disease and sudden death, smoking cessation is critically important for patients with other cardiovascular risk factors.

There are several limitations to our findings. First, the Medicaid survey sample size was large yet the response rate was only 53.4%. Therefore the results obtained from this sample may not be representative of Montana’s Medicaid population as a whole. Second, results are based on self-reported responses and were not verified with reference to medical records. Individuals have a tendency to give socially acceptable answers when self-reporting. Third, the Medicaid survey was a telephonic survey and excluded Medicaid recipients who did not provide a telephone number to the State Medicaid Program or whose phone numbers were no longer working at the time of the survey. Fourth, the sample for each of the three surveys was done with replacement with respect to prior surveys. It is possible that a Medicaid recipient could have been included in more than one survey.

Although this report focuses on individuals with cardiovascular risk factors, the benefits of tobacco cessation are not limited to this group. Smoking is the most preventable cause of cardiovascular disease (4). Many other diseases, including lung cancer and asthma, are also related to smoking, and tobacco use remains the leading cause of preventable death and disease in Montana (5). State Medicaid coverage for tobacco-dependence treatments has increased in recent years, but not all healthcare providers or Medicaid recipients are aware of the coverage (6). Medicaid smokers should be asked, advised, and assisted in smoking cessation. Montana is one of only sev-

en states that provide comprehensive cessation coverage for Medicaid recipients. The Montana Medicaid program has recently expanded the types of licensed healthcare providers who can deliver tobacco cessation counseling to Medicaid clients and receive reimbursement to physicians, mid-level practitioners, dentists, dental hygienists, psychologists, licensed Clinical Social Workers, licensed professional counselors and chemical dependency providers (licensed Addiction Counselors). Both counseling and medications are currently covered by the Medicaid Program to allow Montana's clinicians to promote smoking cessation for all Medicaid participants who currently smoke (Table 2). Patients who want to quit smoking should also be referred to Montana's Tobacco Quit Line (1-800-QUIT-NOW), a free telephone-based service that offers tobacco users a personalized quit plan, cessation coaching and free or reduced cost cessation medications. Telephone quit lines are an effective, evidence-based practice that have been shown to successfully help people quit smoking*.

The high prevalence of diabetes in the Medicaid population indicates the need for measures to prevent diabetes in this population. A unique opportunity for Montana Medicaid patients comes from a partnership between the State of Montana Medicaid Managed Care Bureau, the Chronic Disease Prevention and Health Promotion Bureau at the state health department, and 13 healthcare facilities across the state to design, implement, and evaluate an intensive lifestyle intervention program for adults enrolled in Medicaid. Using a group lifestyle intervention based on the National Institutes of Health (NIH) Diabetes Prevention Program, the program promotes the essential behaviors to reduce cardiovascular risk factors through weight loss and increased physical activity. More information can be found at <http://www.mtprevention.org/>.

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References

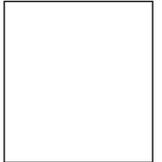
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- ⁵ Centers for Disease Control and Prevention. Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC). Available at: <http://apps.nccd.cdc.gov/sammecc/index.asp>.
- ⁶ McMenamin SB, Halpin HA, Ingram M. State Medicaid Coverage for tobacco-dependence-treatments- United States 2009. MMWR 2010;59:1340-1343.

Diabetes Prevention Program

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For more information about Medicaid coverage of cessation medications or counseling contact Jennifer Ullman at (406) 444-3866 or jullman@mt.gov.

<p>Cost sharing for tobacco cessation products is 5% of the Medicaid allowed reimbursement, with a minimum of \$1 and a maximum of \$5 per prescription. The maximum cost sharing payment per patient shall not exceed \$25 per month.</p>	
<p>Nicotine gum is only authorized when clients cannot use patches or approved smoking cessation products due to an allergy, intolerance to the patch adhesive or other contraindications.</p>	<p>There is no limit on number of counseling sessions that can be reimbursed.</p>
<p>Four-month trials are allowed for combined therapy using nicotine patches and generic bupropion.</p>	<p>More than three minutes of cessation counseling is reimbursed as a separate service at two levels, intermediate (>3 to 10 minutes) and intensive (>10 minutes).</p>
<p>Medicaid pays for two tobacco cessation trials a year of either generic bupropion, Chantix®, or nicotine patches.</p>	<p>Up to three minutes of cessation counseling is reimbursed as part of a standard evaluation and management office visit.</p>
<p>Cessation Medication</p>	<p>Cessation Counseling</p>



Chronic Disease Prevention and Health Promotion

BUREAU

1400 E Broadway
Helena, MT 59620-2951

For more information contact:
Crystelle Fogle
Cardiovascular Health Program
Manager
(406) 947-2344
cfogle@mt.gov