



PREVENTION OPPORTUNITIES UNDER THE BIG SKY

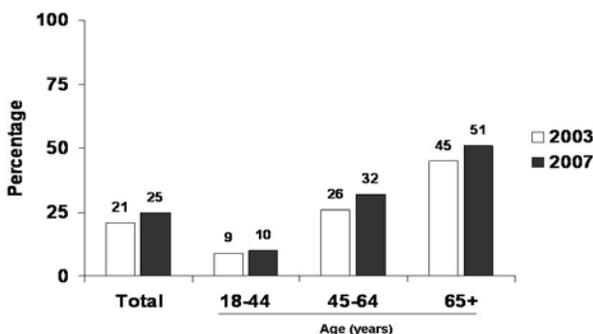
High and Rising - The Prevalence of Hypertension in Montanans

Hypertension is the most important cardiovascular disease risk factor worldwide, accounting for approximately half of coronary heart disease and two-thirds of stroke-related burden.¹ The National Health and Nutrition Examination Survey (NHANES) documented a significant increase in the prevalence of hypertension among U.S. adults from 24% in 1988-1994 to 29% in 1999 to 2004.² The prevalence of hypertension in the 2005-2006 NHANES remained at 29%.³ Between 1999 and 2004, 72% of adults in NHANES were aware of their hypertension, 61% of those were being treated, but only 35% had their hypertension controlled. This report utilizes data from the Montana Behavioral Risk Factor Surveillance System (BRFSS) survey to describe the prevalence of self-reported hypertension, and the use of medications to control hypertension among adult Montanans.

The BRFSS Survey The BRFSS is a state-based random digit dial telephone survey of a sample of non-institutionalized adult Montanans.⁴ In 2003, 4024 Montana adults were surveyed, and 5,995 were surveyed in 2007. Respondents were asked two questions related to high blood pressure: "Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?" and [if yes] "Are you currently taking any medication for your high blood pressure?"

Rising rate of hypertension Overall the prevalence of hypertension reported by Montana adults increased from 21% in 2003 to 25% in 2007 (Figure). The prevalence increased 6 percentage points among persons aged 45 to 64 years old, and among persons 65 years of age and older.

Figure 1. Percentage of adults with hypertension, overall and by age, Montana, 2003 and 2007.



Who is more likely to have hypertension? In 2007, the prevalence of hypertension was higher in persons 65 and older, persons with lower income, persons with health insurance, obese persons, and former smokers when compared to persons without these

characteristics (Table). The prevalence of hypertension was considerably higher in persons with diabetes (66%) or a history of cardiovascular disease (61%) when compared to persons without these conditions (22% and 22%, respectively). There were no differences in the prevalence of hypertension by sex or race.

Table. Prevalence of hypertension among adult Montanans, 2007.

Characteristics	Percent with hypertension
Total	25
Sex	
Men	26
Women	25
Annual household income	
<\$25,000	31
\$25,000-\$49,999	25
>\$50,00	21
Unknown	29
Race	
American Indian	21
White	25
Health insurance	
Yes	27
No	18
Body mass index	
Not overweight	16
Overweight	27
Obese	38
Smoking history	
Current	25
Former	34
Never	21

Medication use among persons with hypertension

In 2007, 76% of persons with hypertension were currently taking medication for their condition. Medication use to control hypertension was highest in persons 65 and older (93%), and persons 45 to 64 (76%), compared to persons 18 to 44 (40%).

Prevention Steps Hypertension is common in adults, and uncontrolled hypertension represents a very high cardiovascular risk especially in those with diabetes. Fortunately, there are actions that can be taken to prevent and control high blood pressure. The Table below summarizes recommendations based on the

JNC7 (Joint National Committee on prevention, treatment and control of hypertension) guidelines from the National Heart, Blood, and Lung Institute.⁵ All adults require ongoing assessment of blood pressure throughout their lives. Lifestyle modifications are often effective, but medications are often also required.

Recommendations to classify, prevent and control hypertension

Classification	SBP / DBP ^a mmHg	Lifestyle Modification ^b	Initial Drug Therapy ^c
Normal	<120 / < 80	Encourage	
Prehypertension	120-139 / 80-89	Yes	None unless compelling indication
Stage 1 Hypertension	140-159 / 90-99	Yes	Thiazide-type diuretics or in combination with ACEI, ARB, BB, and/or CCB ^d
Stage 2 Hypertension	≥160 / ≥100	Yes	Two-drug combination, usually thiazide-type diuretic and ACEI, ARB, BB, or CCB ^d

^a Systolic Blood Pressure (SBP) Goal is <140 / Diastolic Blood Pressure (DBP) Goal is <90; for patients with diabetes or chronic kidney disease goal is SBP<130 / DBP<80

^b Weight reduction (BMI<25 where BMI=kg/m²), DASH diet, reduce dietary sodium intake, daily aerobic activity, tobacco avoidance, moderation of alcohol consumption

^c Monitor BP and adjust therapy until goal is reached in alliance with lifestyle modification. Use ARB if ACEI is not tolerated.

^d ACEI = angiotensin converting enzyme inhibitor; ARB = angiotensin receptor blocker; BB = beta-blocker; CCB = calcium channel blocker

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