

CHAPTER 4: DIABETES

Diabetes Prevalence in 2006

Definition	Responding “Yes” to the following question: “Have you ever been told by a doctor that you have diabetes?” Women told they had diabetes only during pregnancy are treated as an answer of “No.” Those with pre-diabetes and borderline diabetes also are treated as an answer of “No.”
Prevalence	WV: 12.1% (95% CI: 11.0-13.2) in 2006. US: 8.0% (95% CI: 7.8-8.2) in 2006. West Virginia ranked 1 st highest among 50 US States and DC in 2006.
Time Trends	Diabetes prevalence among West Virginia adults doubled during the past 13 years. More recently, awareness of having diabetes increased steeply and significantly between 2000 (7.6%) and 2006 (12.1%).
Gender	Men: 12.8% (95% CI: 11.0-14.6) in 2006. Women: 11.5% (95% CI: 10.1-12.9) in 2006. There were no significant differences in how frequently men and women reported a diagnosis of diabetes in 2006.
Age	The oldest adults (65 and older) had the highest diabetes prevalence among all age groups in West Virginia, 23.5% in 2006. Adults aged 18-54 were significantly less likely to be diabetic.
Education	Adults with less than a high school education carried the greatest risk of diabetes, with a prevalence of 20.3% in 2006. The risk for college graduates was significantly lower at 6.6% in 2006. Each increase in education was associated with a lower risk of diabetes, although the differences were not significant between every group.
Household Income	At the lowest income levels, less than \$15,000 annually, more than 20 people in every 100 were diabetic. In contrast, adults living in households with annual incomes of \$35,000 and above generally experienced significantly lower risk levels of fewer than 10 people in every 100.

WV HEALTHY PEOPLE 2010 OBJECTIVES

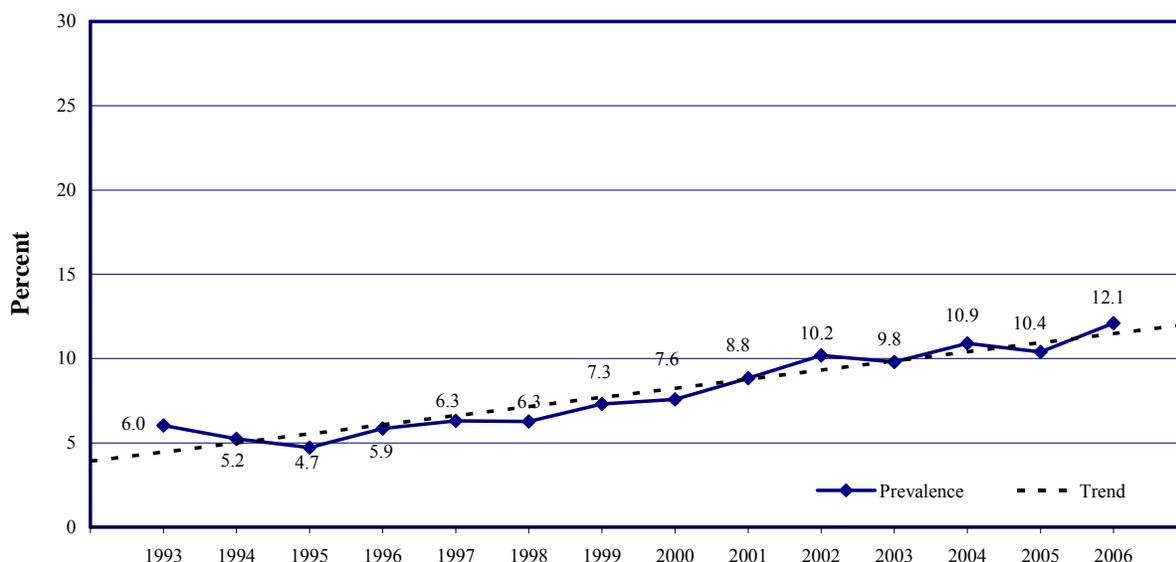
Objective 5.6	Increase to 85% the proportion of persons with diabetes who have a glycosylated hemoglobin measurement at least once a year. (Baseline: 80.1% in 2000; Current: 86.1% in 2006)
Objective 5.7	Increase to 73% the proportion of persons with diabetes who have an annual dilated eye exam. (Baseline: 65.5% in 1998; Current: 66.4% in 2006)
Objective 5.8	Increase to 55% the proportion of persons with diabetes who perform self blood-glucose monitoring (SBGM) at least daily. (Baseline: 50.3% in 1998; Current: 66.5% in 2006)

Table 4.1 Diabetes prevalence by demographic characteristics: WVBRFSS, 2006

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,491	12.8	11.0-14.6	2,297	11.5	10.1-12.9	3,788	12.1	11.0-13.2
Age									
18-24	66	* 3.5	0.0-8.2	78	* 1.7	0.0-5.1	144	* 2.6	0.0-5.6
25-34	150	* 2.3	0.0-4.5	265	* 3.5	1.1-5.9	415	2.9	1.2-4.5
35-44	232	7.0	3.3-10.7	369	4.8	2.0-7.6	601	5.9	3.6-8.2
45-54	331	12.8	8.8-16.8	430	11.4	8.1-14.6	761	12.1	9.5-14.6
55-64	369	25.3	20.4-30.3	464	15.7	12.2-19.2	833	20.4	17.4-23.5
65+	339	23.4	18.6-28.2	678	23.6	20.0-27.2	1,017	23.5	20.6-26.4
Education									
Less than H.S.	258	17.7	12.7-22.8	362	23.0	18.5-27.6	620	20.3	16.9-23.7
H.S. or G.E.D.	591	13.1	10.3-15.9	897	12.1	9.6-14.6	1,488	12.6	10.7-14.5
Some Post-H.S.	282	12.7	8.4-16.9	542	8.9	6.4-11.4	824	10.5	8.2-12.8
College Graduate	356	7.8	4.8-10.8	493	5.4	3.4-7.4	849	6.6	4.8-8.4
Income									
Less than \$15,000	168	24.8	17.6-32.0	413	18.4	14.4-22.4	581	20.6	17.0-24.2
\$15,000- 24,999	267	16.3	11.6-21.0	462	15.9	11.9-19.9	729	16.1	13.0-19.1
\$25,000- 34,999	215	13.5	8.9-18.0	281	11.2	7.2-15.2	496	12.4	9.3-15.4
\$35,000- 49,999	237	8.6	5.0-12.2	286	5.8	3.1-8.4	523	7.3	5.0-9.6
\$50,000- 74,999	225	9.3	5.3-13.3	273	7.9	4.5-11.3	498	8.6	6.0-11.3
\$75,000+	247	9.3	4.9-13.8	262	* 3.7	1.2-6.3	509	6.9	4.1-9.6

* Use caution when interpreting and reporting this specific estimate. See the detailed discussion of estimates in the Methodology section.

Figure 4.1 Diabetes prevalence by year: WVBRFSS, 1993-2006

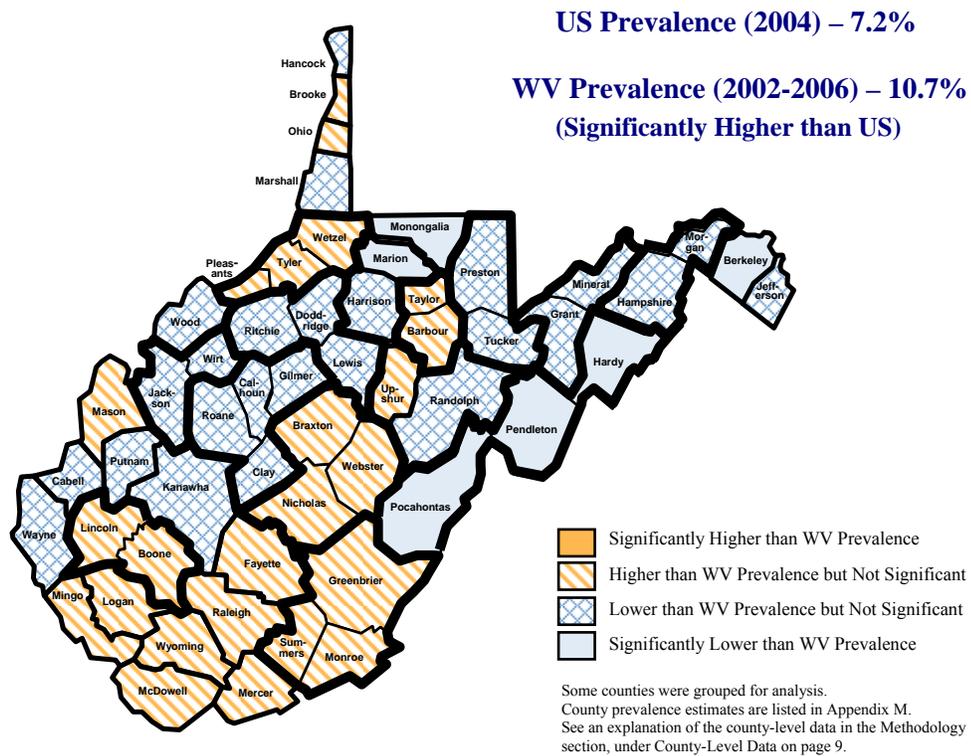


Source: West Virginia Behavioral Risk Factor Surveillance System (WVBRFSS), West Virginia Health Statistics Center, January 2008.

Population: Non-institutionalized adults age 18 and older residing in West Virginia.

Definition: Responding "Yes" to the following question: "Have you ever been told by a doctor that you have diabetes?" Women told they had diabetes only during pregnancy are treated as an answer of "No." Those with pre-diabetes and borderline diabetes also are treated as an answer of "No."

Figure 4.2 Diabetes prevalence by county: WVBRFSS, 2002-2006



Key Control Issues among Adults with Diabetes in 2006

Definitions **No A1c test** - Responding “None” or “Never heard of ‘A one C’ test” to the following question: “A test for ‘A one C’ measures the average level of blood sugar over the past three months. About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for hemoglobin ‘A one C’?”

No Eye exam - Responding with “More than 12 months ago” to the following question: “When was the last time you had an eye exam in which the pupils were dilated? This would have made you temporarily sensitive to bright light.”

No Foot exam - Responding “None” to the following question: “About how many times in the past 12 months has a health professional checked your feet for any sores or irritations?”

Prevalence **No A1c test**
WV: 13.9% (95% CI: 10.2-17.6) in 2006.

No eye exam
WV: 33.6% (95% CI: 28.8-38.3) in 2006.

No foot exam
WV: 29.0% (95% CI: 24.5-33.5) in 2006.

Time Trends Between 2005 and 2006, there were slight increases in the prevalence of the first two of these risk factors. The prevalence of “No foot exam” decreased slightly.

Table 4.2 No A1c test among adults with diabetes by demographic characteristics: WVBRFSS, 2006

Characteristic	2006		
	# Resp.	%	95% CI
TOTAL	467	13.9	10.2-17.6
Males	207	12.5	7.5-17.5
Females	260	15.4	9.9-20.9
Age			
18-44	43	*22.2	7.2-37.3
45-54	83	* 5.6	0.7-10.5
55-64	152	9.1	4.1-14.2
65+	186	18.5	12.2-24.7
Education			
Less than H.S.	119	17.2	10.0-24.4
H.S. or G.E.D.	186	17.3	10.4-24.3
Some Post-H.S.	99	* 5.3	0.6-10.1
College Graduate	60	* 8.9	1.7-16.2
Income			
Less than \$15,000	112	11.1	4.9-17.2
\$15,000- 24,999	110	14.3	7.2-21.4
\$25,000- 34,999	60	* 11.4	2.7-20.1
\$35,000-49,999	45	* 10.5	0.5-20.5
\$50,000+	76	* 12.9	3.7-22.1

* Use caution when interpreting and reporting this specific estimate.
See the detailed discussion of estimates in the Methodology section.

Table 4.3 No eye exam prevalence among adults with diabetes by demographic characteristics: WVBRFSS, 2006

Characteristic	2006		
	# Resp.	%	95% CI
TOTAL	528	33.6	28.8-38.3
Males	226	31.1	24.3-38.0
Females	302	36.0	29.6-42.5
Age			
18-44	45	* 46.6	29.2-64.0
45-54	86	* 42.2	30.8-53.6
55-64	163	33.9	25.7-42.0
65+	231	24.2	17.9-30.5
Education			
Less than H.S.	149	32.4	23.7-41.1
H.S. or G.E.D.	211	35.7	28.0-43.5
Some Post-H.S.	101	39.8	28.7-50.9
College Graduate	63	* 15.6	5.7-25.5
Income			
Less than \$15,000	130	36.4	26.9-45.9
\$15,000- 24,999	125	30.4	20.7-40.2
\$25,000- 34,999	69	27.6	16.2-39.0
\$35,000-49,999	46	* 33.6	18.5-48.7
\$50,000+	78	* 33.4	21.3-45.5

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Table 4.4 No foot exam prevalence among adults with diabetes by demographic characteristics: WVBRFSS, 2006

Characteristic	2006		
	# Resp.	%	95% CI
TOTAL	519	29.0	24.5-33.5
Males	223	24.9	18.4-31.4
Females	296	33.2	27.0-39.4
Age			
18-44	47	* 33.0	16.9-49.1
45-54	84	* 31.2	20.3-42.2
55-64	165	24.7	17.6-31.8
65+	220	28.6	22.1-35.1
Education			
Less than H.S.	142	25.7	17.6-33.8
H.S. or G.E.D.	207	30.9	23.6-38.2
Some Post-H.S.	103	26.6	16.9-36.3
College Graduate	63	* 32.7	18.7-46.7
Income			
Less than \$15,000	133	26.5	18.0-35.1
\$15,000- 24,999	119	23.4	15.2-31.6
\$25,000- 34,999	69	33.2	20.6-45.7
\$35,000-49,999	45	* 30.9	16.1-45.7
\$50,000+	78	* 31.4	20.0-42.8

Note. Excludes amputees.

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Additional Diabetes Issues in 2006

Table 4.5 Other health care issues among adults with diabetes: WVBRFSS, 2006

Diabetic respondents who...	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Now take insulin	232	25.2	18.4-32.1	307	21.8	16.7-26.8	539	23.5	19.2-27.8
Now take diabetes pills	231	73.2	66.1-80.3	306	69.0	62.9-75.2	537	71.1	66.4-75.8
Never check blood glucose at home or check it less than once daily	224	35.8	28.7-42.8	295	31.2	25.1-37.3	519	33.5	28.8-38.2
Never self-check feet for sores or check them less than once daily	224	21.9	15.8-28.0	293	20.3	14.7-26.0	517	21.1	17.0-25.3
Have ever had a foot sore that took more than four weeks to heal	230	9.8	5.8-13.8	303	13.1	8.8-17.4	533	11.4	8.5-14.4
Did NOT visit a doctor, nurse, or other health professional even once in the past 12 months for their diabetes	230	3.6	1.2-6.1	300	6.6	2.8-10.4	530	5.1	2.8-7.3
Were told by a doctor that they have diabetic retinopathy	228	16.5	11.4-21.7	303	21.3	16.1-26.6	531	18.9	15.2-22.6
Have NEVER taken a class in self-management of diabetes	231	56.9	49.7-64.1	307	50.5	44.1-57.0	538	53.8	48.9-58.6

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