CHAPTER 3: DIABETES AWARENESS

Definition: Have ever been told by a doctor that they have diabetes. ***Women told they had diabetes only during pregnancy are treated as an answer of "no".***

State Prevalence

9.8% (95% CI: 8.7-10.9); 4th highest among 54 BRFSS participants.
National prevalence: 7.5% (95% CI: 7.3-7.7).

Time Trends

The prevalence of diabetes awareness steadily increased between 1995 and 2002. In 2003, it slightly decreased from the 2002 prevalence of 10.2%. West Virginia has ranked among the top five states nationwide for this risk factor every year since 1999.

Gender

Men 8.7% (95% CI: 7.2-10.3); **Women 10.8%** (95% CI: 9.3-12.3).
Although the gender gap widened between 2002 and 2003, there was no significant gender difference in the prevalence of diabetes.

Age

The prevalence of diabetes increased sharply with age, especially after age 54. In fact, adults aged 65 and older were more than twice as likely to have diabetes as those aged 45 to 54 (19.3% versus 9.1%). The rate of diabetes was significantly higher among adults aged 55 and older than among those in the four lower age groupings.

Education

There was a significant inverse relationship between diabetes awareness and educational attainment. Nearly 16% of adults without a high school diploma/GED were diabetic, compared with approximately 6% of college graduates. Women without a high school diploma/GED had a significantly higher rate of diabetes than their male counterparts (20.4% versus 11.1%).

Household Income

Diabetes awareness generally decreased as household income increased. The prevalence was highest among adults in the poorest households (14.3%). Adults with the highest level of income were significantly less likely to have diabetes than those with an income less than $35,000.

Quick Stats

- Between 1995 and 2003, the percentage of diabetic adults that check their blood sugar at least once daily significantly increased from 26.3% to 61.7%.
- Diabetic adults were significantly more likely to report a fair or poor health status than non-diabetic adults and were significantly less likely to be uninsured (see Figure 3.3).

West Virginia 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: 87.4% in 2003)

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: 66.2% in 2003)

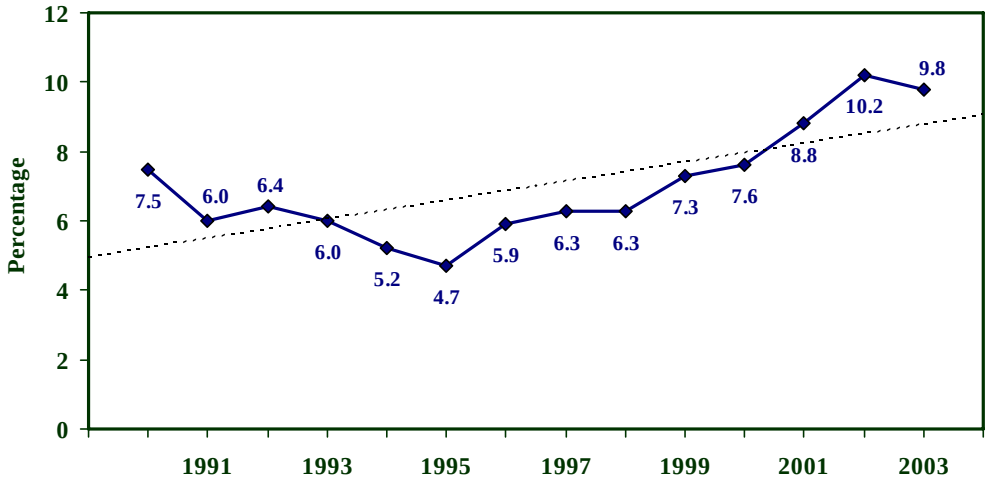
Objective 5.8 Increase to 55% the proportion of persons with diabetes who perform self blood-glucose monitoring (SBGM) at least daily. (Baseline: 50.3% in 1998; Current: 61.7% in 2003)

Objective 5.9 Increase to 52% the proportion of persons with diabetes who have received diabetes education in the past year from someone other than their physician, such as a registered dietician or certified diabetes educator. (Baseline: 29.5% in 1997; Current: 40.2% in 2003)

Table 3.1: Prevalence of diabetes awareness: WVBRFSS, 2003

Characteristic	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	1,322	**8.7**	(7.2-10.3)	2,024	**10.8**	(9.3-12.3)	3,346	**9.8**	(8.7-10.9)
Age									
18-24	92	**0.0**	--	111	**2.8**	(0.0-8.3)	203	**1.4**	(0.0-4.0)
25-34	187	**1.1**	(0.0-2.5)	268	**4.5**	(1.7-7.3)	455	**2.8**	(1.2-4.4)
35-44	235	**4.7**	(1.7-7.6)	322	**6.0**	(3.2-8.8)	557	**5.4**	(3.3-7.4)
45-54	284	**8.4**	(5.1-11.7)	388	**9.9**	(6.7-13.0)	672	**9.1**	(6.8-11.4)
55-64	250	**14.5**	(10.0-19.0)	396	**20.6**	(16.0-25.1)	646	**17.6**	(14.4-20.8)
65+	273	**22.4**	(17.0-27.7)	528	**17.2**	(13.8-20.6)	801	**19.3**	(16.3-22.3)
Education									
Less than H.S.	244	**11.1**	(7.0-15.1)	390	**20.4**	(16.2-24.7)	634	**15.9**	(12.9-18.9)
H.S. or G.E.D.	529	**8.6**	(6.3-11.0)	791	**10.1**	(8.0-12.3)	1,320	**9.4**	(7.8-11.0)
Some Post-H.S.	265	**7.7**	(4.6-10.8)	476	**9.0**	(5.7-12.4)	741	**8.5**	(6.1-10.8)
College Graduate	281	**8.0**	(4.7-11.2)	366	**4.1**	(2.1-6.2)	647	**6.1**	(4.2-8.0)
Income									
Less than $15,000	170	**12.9**	(8.0-17.7)	355	**15.4**	(11.5-19.3)	525	**14.3**	(11.3-17.4)
$15,000- 24,999	263	**11.3**	(7.4-15.2)	461	**14.1**	(10.8-17.5)	724	**12.9**	(10.4-15.4)
$25,000- 34,999	194	**10.1**	(5.5-14.8)	269	**10.2**	(6.3-14.0)	463	**10.1**	(7.1-13.1)
$35,000- 49,999	211	**6.5**	(3.0-10.0)	266	**4.1**	(1.7-6.6)	477	**5.4**	(3.2-7.6)
$50,000- 74,999	168	**6.9**	(3.2-10.6)	225	**6.0**	(3.0-9.1)	393	**6.5**	(4.1-8.8)
$75,000+	183	**5.2**	(2.3-8.1)	146	**2.2**	(0.2-4.3)	329	**4.2**	(2.2-6.2)

Figure 3.1: Prevalence of diabetes awareness by year: WVBRFSS, 1990-2003



------- Trend Line

Figure 3.2: Prevalence of diabetes awareness by county: WVBRFSS, 1999-2003

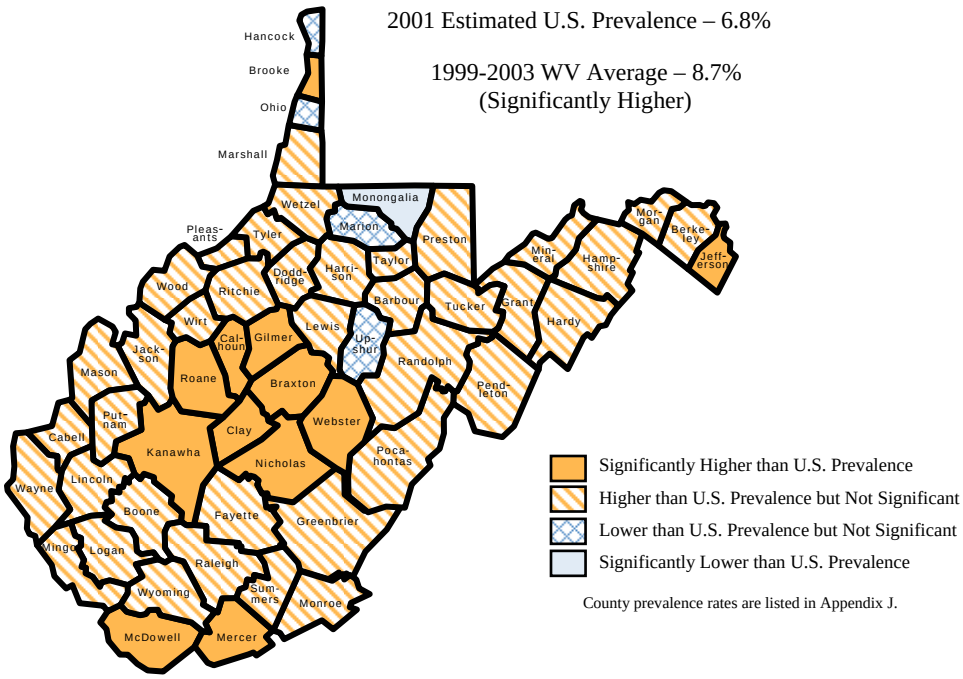


Table 3.2: Key health care issues among diabetic respondents: WVBRFSS, 2003

Characteristic	Did not have an HbA1c test even once in the last year or has never heard of it			Did not have a foot exam by a health professional even once in the past 12 months [a]			Did not have a dilated eye exam in the past one year		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
TOTAL	328	**12.6**	(8.4-16.7)	369	**35.4**	(29.9-40.9)	373	**33.8**	(28.4-39.3)
Sex									
Males	123	**14.1**	(6.9-21.3)	138	**33.8**	(25.0-42.6)	139	**33.3**	(24.6-42.0)
Females	205	**11.4**	(6.7-16.1)	231	**36.6**	(29.6-43.7)	234	**34.2**	(27.3-41.2)
Age									
18-44	38	**11.4**[b]	(1.7-21.2)	42	**48.3**[b]	(30.3-66.3)	38	**47.4**[b]	(28.4-66.4)
45-54	59	**8.3**	(0.0-17.6)	66	**31.6**	(19.5-43.8)	67	**43.9**	(30.8-57.0)
55-64	108	**9.6**	(3.2-16.0)	113	**32.4**	(22.9-41.9)	114	**36.0**	(26.3-45.8)
65+	122	**17.6**	(9.8-25.4)	147	**33.4**	(25.0-41.9)	153	**22.9**	(15.6-30.2)
Education									
Less than H.S.	92	**19.1**	(9.3-28.8)	107	**32.9**	(23.0-42.8)	109	**36.9**	(26.8-46.9)
H.S. or G.E.D.	129	**9.5**	(4.2-14.8)	149	**39.3**	(30.5-48.0)	146	**33.5**	(24.9-42.1)
Some Post-H.S.	65	**9.9**	(2.5-17.2)	69	**26.5**	(14.7-38.3)	73	**31.8**	(19.2-44.4)
College Graduate	41	**12.3**[b]	(0.0-25.1)	43	**44.5**[b]	(27.9-61.1)	44	**31.5**[b]	(16.3-46.6)
Income									
Less than $15,000	78	**15.9**	(7.6-24.1)	88	**37.0**	(25.6-48.4)	91	**31.4**	(21.1-41.7)
$15,000- 24,999	90	**19.5**	(10.0-29.0)	103	**37.3**	(26.8-47.9)	101	**34.4**	(23.7-45.0)
$25,000- 49,999	68	**8.1**	(0.0-16.3)	73	**31.8**	(20.2-43.4)	74	**31.2**	(19.6-42.9)
$50,000+	48	**3.6**[b]	(0.0-8.7)	49	**34.7**[b]	(20.1-49.3)	49	**41.2**[b]	(26.3-56.1)

a. Excludes amputees.
b. Use caution in interpreting percentages with N<50.

Table 3.3: Other health care issues among diabetic respondents: WVBRFSS, 2003

Diabetic respondents who…	Men			Women			Total		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Now take insulin	142	**21.1**	(13.7-28.5)	242	**28.9**	(21.6-36.2)	384	**25.6**	(20.3-30.9)
Now take diabetes pills	142	**67.1**	(58.5-75.8)	240	**68.3**	(60.9-75.6)	382	**67.8**	(62.1-73.4)
Did NOT visit a doctor, nurse, or other health professional even once in the past 12 months for their diabetes	138	**6.7**	(1.3-12.1)	236	**4.9**	(2.1-7.7)	374	**5.7**	(2.8-8.5)
Were told by a doctor that they have diabetic retinopathy	142	**17.5**	(10.5-24.5)	238	**20.4**	(14.8-25.9)	380	**19.1**	(14.8-23.5)
Have ever had a foot sore that took more than four weeks to heal	142	**12.7**	(6.5-18.8)	242	**15.6**	(10.5-20.7)	384	**14.3**	(10.4-18.2)
Have NEVER taken a class in self-management of diabetes	142	**54.9**	(45.9-63.9)	242	**63.4**	(55.9-70.8)	384	**59.8**	(54.1-65.5)
Never check blood glucose at home or check it less than once daily	137	**41.2**	(32.1-50.3)	237	**36.2**	(29.2-43.1)	374	**38.3**	(32.7-43.8)
Never self-check feet for sores or check them less than once daily	138	**29.8**	(21.4-38.3)	235	**19.6**	(13.9-25.3)	373	**24.0**	(19.1-28.9)

Figure 3.3: General health status and health care coverage by diabetic status: WVBRFSS 2003