

BURDEN OF DIABETES IN IOWA

1991-2009

BRFSS Tables Supplement

Diabetes prevalence and risk factors for diabetes
among adult Iowans

Prepared for the Iowa Diabetes Prevention and Control Program
Bureau of Chronic Disease Prevention and Health Promotion
Iowa Department of Public Health
Lucas State Office Building
321 - E12th Street
Des Moines, Iowa 50319
Web site: <http://www.idph.state.ia.us/diabetis/default.asp>

The mission of the Iowa Diabetes Prevention and Control Program is to reduce the prevalence of type 2 diabetes and to lessen the health consequences and the personal and social economic burden of diabetes among those Iowans diabetes.

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How to obtain copies of this document and the full diabetes burden report:

The tables in this document and the full diabetes burden report, and a slide show based on this report are all available online for printing and downloading. Visit the Web site of the Iowa Diabetes Prevention and Control Program, Bureau of Chronic Disease Prevention and Management, Iowa Department of Public Health: <http://www.idph.state.ia.us/hpcdp/diabetes.asp>.

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BRFSS TABLES SUPPLEMENT:

TO THE *BURDEN OF DIABETES IN IOWA: 1991-2009* REPORT

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Supplemental BRFSS Tables

Notes on how rates in this document were calculated:

Cases of gestational diabetes are excluded from all rates unless specifically noted as being included. All rates were calculated as the percentage of the adult population age 18 years and older (rate per 100 adults) and rounded to the nearest tenth of a percent, except within the body of charts, where rates are rounded to the nearest whole percent.

Crude rates:

Crude rates were calculated by dividing the estimated number of cases of diabetes in the Iowa adult population by the total number non-institutionalized Iowa adults ages 18 years of age and older.

Age-Adjusted rates:

When crude (non age-adjusted) rates are calculated for different points in time or different population subgroups and are compared to one another, often much of the difference seen is due to the populations being compared having different age distributions (e.g., one population having relatively more elderly or more young people).

Age-adjusting rates removes differences between crude rates that may be attributable to different age distributions in the compared populations. Age-adjusted rates were calculated in the tables presented here by multiplying age-specific diabetes prevalence rates (rates for those 18-44 years, 45-64 years, 65+ years of age) by the proportion of the US population that was in that age group in 2000 and then summing these 'weighted' age-specific rates to obtain the age-adjusted rate.

Table 1.1

Overall adult diabetes and pre-diabetes prevalence trends, Iowa, 1991-2008

	% with adults diabetes/prediabetes						% change 1991-93 vs. 2006-08	% change 1997-99 vs. 2006-08	% change 2003-05 vs. 2006-08	estimated number with diabetes/pre-diabetes (average annual number)			BRFSS sample size- 3 year total		
	1991- 93	1994- 96	1997- 99	2000- 02	2003- 05	2006- 08				1991-93	1997-99	2006-08	1991- 93	1997- 99	2006- 08
Crude rate of diagnosed*															
Diabetes	3.8	4.1	5.0	6.1	6.7	7.0	+84%	+40%	+4%	78,275	107,034	161,734	5,030	10,863	16,868
Pre-diabetes**						4.7						101,300			5,424
Diabetes and prediabetes						11.7						263,034			5,424
Crude rate of undiagnosed***															
Diabetes						5.1						118,000			
Pre-diabetes						25.0						570,000			
Diabetes and prediabetes						30.1						689,000			
Crude rate of diagnosed and undiagnosed diabetes or pre-diabetes															
						41.7						950,000			
Age-adjusted rate of diagnosed diabetes****															
	3.7	3.9	4.7	5.7	6.1	6.4	+73%	+36%	+5%				5,030	10,863	16,868
percent of women that ever have had gestational diabetes but never have had type 1 or 2 diabetes															
Gestational diabetes**** (women only, crude rate)	--	0.8	1.3	1.1	1.2	1.5	--	15.4%	25%	--	14,184	18,142	6,513	10,271	

Estimated three-year average annual percent (rate per 100 adults) and number of all adults who have ever been diagnosed with diabetes, pre-diabetes or gestational diabetes, or are estimated to have undiagnosed diabetes or prediabetes, crude and age-adjusted rates, Iowa, 1991-2008.
Sources: Diagnosed diabetes/prediabetes: Iowa BRFSS, Center for Health Statistics, IA Dept. of Public Health. Undiagnosed diabetes/prediabetes: National Health and Nutrition Examination Survey (NHANES), 2005-06.

- * Crude rates are calculated as the total estimated number of adults with diabetes/number of all adults in the Iowa population*100.
- ** A new method for collecting diagnosed pre-diabetes cases began in 2008--in 2008, a separate question covering diagnosed pre-diabetes was asked in the Iowa BRFSSs for the first time. The previous method of collecting prediabetes involved one answer option to the question 'Have you ever been told by a physician or other health care provider that you have diabetes?' being 'no, but I have been diagnosed with pre-diabetes'.
- *** Undiagnosed diabetes and prediabetes rates are based on national estimates from NHANES, 2005-06.
- **** Age-adjusted rates are calculated by weighting age-specific rates for those age 18-44 years, 45-64 year and 65 and older to the proportion of the US population that was in each of these age groups in 2000.. Age-adjusting rates eliminates differences seen in the crude (non age-adjusted) rates of two populations that are solely attributable to one population being older or younger than the other.
- ***** Gestational diabetes is diabetes in women that develops during pregnancy and normally ends or goes into remission soon after the end of the pregnancy. All other rows of rates in this tables exclude counts of gestational diabetes.

Table 2.1
By sex, adult diabetes prevalence trends, Iowa

Diabetes	percent of adults with diabetes						% change 1991-93 vs. 2006-08	% change 1997-99 vs. 2006-08	% change 2003-05 vs. 2006-08	number with diabetes			% of cases 2006-08	BRFSS sample size- 3 year total				
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08				1991-93	1997-99	2006-08		1991- 1993	1997- 1999	2006- 2008		
All adults																		
crude rate	3.8	4.1	5.0	6.1	6.7	7.0	+84%	+40%	+4%	78,275	107,034	161,734	100%	5,030	10,863	16,868		
adjusted rate	3.7	3.9	4.7	5.7	6.1	6.4	+73%	+36%	+5%									
Sex																		
crude rate																		
female	4.1	4.6	5.0	6.1	6.2	6.7	+62%	+34%	+8%	44,595	55,399	79,693	49%	2,820	6,513	10,271		
male	3.4	3.6	5.1	6.1	7.4	7.4	+116%	+46%	-0%	33,680	48,557	82,041	51%	2,210	4,350	6,597		
													100%					
age-adjusted rate																		
female	3.8	4.1	4.4	5.5	5.4	5.9	+55%	+34%	+9%									
male	3.6	3.6	5.0	6.0	7.0	7.1	+97%	+42%	+1%									

Overall and by sex, estimated three-year average annual number and percent of non-institutionalized adults age 18 and older who self-reported ever having been diagnosed diabetes, Iowa, 1991-2008. (Percent = the diabetes prevalence rate per 100 adults). All rates are rounded to nearest tenth of a percent and exclude gestational diabetes. Crude rates are calculated as the total estimated number of adults with diabetes/number of all adults in the Iowa population*100. Adjusted rates are calculated by weighting age specific rates (rates for those 18-44 years, 45-64 years, 65+ years of age) to the proportion of the 2000 US population that was in each of these age groups and then summing those weighted age-specific rates. Adjusted rates eliminate differences seen in the crude rates of two populations (e.g., between rates males and females) that may be due solely to one population being older or younger than another.

Source: Iowa BRFSS, IA Dept. of Public Health

Table 2.2

By age and sex, adult diabetes prevalence trends, Iowa

	percent with diabetes						% change 1991-93 vs. 2006-08	% change 1997-99 vs. 2006-08	% change 2003-05 vs- 2006-08	number with diabetes			% of cases 2006-08	BRFSS sample size- 3 year total		
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08				1991-93	1997-99	2006-08		1991- 1993	1997- 1999	2006- 2008
Age																
18-24 years	0.2	0.9	0.5	0.9	0.8	0.3	+27%	-47%	-67%	565	1,313	715	<1%	635	890	601
25-34	1.2	1.7	0.8	1.3	1.4	1.4	+11%	+75%	-4%	5,433	2,907	5,603	3%	960	1,811	1,800
35-44	1.6	1.0	2.8	3.2	2.5	3.0	+86%	+6%	+20%	6,357	11,928	11,995	7%	1,054	2,264	2,784
45-54	3.8	4.3	4.5	4.4	6.0	6.5	+70%	+45%	+7%	10,367	15,820	28,383	18%	628	1,879	3,457
55-64	6.1	5.6	9.5	10.7	12.0	12.3	+100%	+30%	+2%	14,951	23,759	39,786	25%	619	1,378	3,147
65+	9.4	10.3	11.3	15.1	15.9	16.8	+79%	+49%	+6%	39,974	51,265	74,129	46%	1,185	2,622	4,944
													100%			
18-34	0.8	1.4	0.7	1.1	1.1	0.9	+9%	+40%	-20%	6,068	4,221	6,319	4%	1,526	2,701	2,401
35-54	2.5	2.4	3.6	3.8	4.3	4.8	+92%	+35%	+13%	16,724	4,143	40,378	25%	1,682	4,143	6,241
													100%			
18-44	1.1	1.2	1.5	1.9	1.7	1.7	+51%	+11%	+1%	12,425	16,149	18,313	11%	2,579	4,965	5,185
45-64	4.9	4.8	6.5	7.0	8.5	9.0	+83%	+37%	+5%	25,318	39,578	68,169	42%	1,187	3,040	5,981
													100%			
65-74	9.1	11.7	10.8	15.3	15.7	16.7	+84%	+55%	+6%	22,654	27,477	34,966	22%	632	1,326	2,432
75+	9.8	9.1	12.0	14.9	16.0	16.9	+73%	+41%	+6%	17,322	23,789	39,164	24%	553	1,296	2,512
Age/sex																
Female																
18-44	1.5	1.4	1.6	2.2	1.5	1.6	+47%	+6%	+9%	8,273	8,245	8,786	11%	1,352	2,828	3,045
45-64	4.9	5.8	5.7	6.7	7.7	8.0	+36%	+40%	+4%	13,016	17,691	30,598	39%	682	1,876	3,879
65+	8.9	9.9	10.8	13.4	13.6	15.4	+52%	+42%	+13%	22,750	29,422	39,858	50%	770	1,794	3,251
													100%			
Male																
18-44	0.7	1.1	1.5	1.6	1.8	1.7	+119%	+16%	-5%	4,152	7,904	9,528	12%	1,227	2,137	2,140
45-64	4.9	3.8	7.4	7.3	9.4	9.9	+50%	+34%	+6%	12,302	21,888	37,571	46%	565	1,381	2,725
65+	10.1	11.0	12.0	17.6	19.2	18.7	+74%	+56%	-2%	17,227	21,843	34,271	42%	415	828	1,693
													100%			
All adults-diabetes prevalence																
crude rate	3.8	4.1	5.0	6.1	6.7	7.0	+84%	+40%	+4%	78,275	107,034	161,734	100%	5,030	10,863	16,868
adjusted rate	3.7	3.9	4.7	5.7	6.1	6.4	+67%	+42%	+1%							

By age and sex, estimated average annual number and percent of noninstitutionalized adults who self-report ever having been diagnosed with diabetes, exclusive of gestational diabetes, Iowa, 1991-2008. (Percent= diabetes prevalence rate per 100 adults). Age-specific rates shown are crude, not age-adjusted rates.

Source: Iowa BRFSS, IA Dept. of Public Health

Table 2.3

By race, adult diabetes prevalence trends, Iowa

	percent with diabetes						% change 1991-93 vs. 2006-08	% change 1997-99 vs. 2006-08	% change 2003-05 vs- 2006-08	number with diabetes		
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08				1991-93	1997-99	2006-08
Crude rate												
Black, Non-Hispanic	3.5	8.1	11.9	9.8	12.0	9.5	+171%	-20%	-21%	811	3,028	3,571
White, Non-Hispanic	3.8	4.2	5.0	6.0	6.7	7.1	+87%	+43%	+5%	76,825	100,438	151,524
Hispanic	2.3	1.2	4.9	8.0	3.5	4.6	+100%	-6%	+31%	639	2,113	3,482
Other	--	1.3	3.5	4.5	3.1	4.2	--	+21%	+35%	--	1,197	1,982
All races/ethnicities	3.8	4.1	5.0	6.1	6.7	7.0	+84%	+40%	+4%	78,275	107,034	161,734
Age-adjusted rate												
Black, Non-Hispanic	5.7	12.2	15.6	10.1	15.3	13.1	+130%	-16%	-14%			
White, Non-Hispanic	3.7	3.9	4.5	5.5	6.1	6.3	+70%	+40%	+3%			
Hispanic	2.7	1.4	7.2	8.7	6.8	7.8	+189%	+8%	+15%			
Other	--	--	7.3	7.0	4.2	5.7	--	-22%	+36%			
All races/ethnicities	3.7	3.9	4.7	5.7	6.1	6.4	+73%	+36%	+5%			

By race/ethnicity, trends in estimated three-year average annual percent and number of noninstitutionalized adults age 18 years and older who were ever diagnosed with diabetes, exclusive of gestational diabetes, Iowa, 1991-2008. (Percent = prevalence rate per 100 adults). A dash('--') indicates a rate or count was not able to be reliably calculated due to small sample size (<50) for the race or race/age/grouping referenced.

Source: Iowa BRFSS, IA Dept. of Public Health

Table 2.4

By race and race/sex, adult diabetes prevalence trends, Iowa

	percent with diabetes (crude rate)						% change 1991-93 vs. 2006-08	% change 1997-99 vs. 2006-08	% change 2003-05 vs. 2006-08	number with diabetes			% of cases 2006-08	BRFSS sample size- 3 year total		
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08				1991-93	1997-99	2006-08		1991- 1993	1997- 1999	2006- 2008
	Crude rate: 3 year average															
Women																
Black, Non-Hispanic	--	--	11.8	8.2	15.7	12.8	--	+9%	-18%	--	1,673	2,226	3%	39	84	146
White, Non-Hispanic	4.2	4.7	4.9	5.9	6.1	6.8	+61%	+40%	+12%	44,164	51,881	75,311	95%	2,728	6,246	9,700
Hispanic	--	--	5.1	11.0	4.8	3.4	--	-33%	-29%	1,075	1,524	1,168	1%	36	112	219
Other	--	--	5.1	6.8	4.7	3.0	--	-41%	-37%	--	671	688	1%	15	64	166
100%																
Men																
Black, Non-Hispanic	--	--	12.0	11.7	7.8	6.6	--	-45%	-15%	--	1,355	1,345	2%	25	51	96
White, Non-Hispanic	3.4	3.6	5.1	6.1	7.4	7.4	+78%	+46%	-0%	32,661	48,557	76,213	94%	2,133	4,127	6,174
Hispanic	--	--	4.7	4.9	2.3	5.6	--	+19%	+142%	--	1,038	2,314	3%	31	84	166
Other	--	--	2.5	2.6	2.0	5.4	--	+114%	+166%	--	526	1,293	2%	20	77	146
100%																
Crude rate: 10 year average																
women																
Black, Non-Hispanic	7.6		12.3				+38%			873	1,875		3%	177	371	
White, Non-Hispanic	4.6		6.5				+29%			43,551	66,521		94%	13,151	26,670	
Hispanic	3.1		6.0				+48%			505	1,648		2%	221	573	
Other	3.1		4.5				+31%			255	882		1%	113	396	
100%																
men																
Black, Non-Hispanic	10.2		8.6				-19%			950	1,264		2%	113	226	
White, Non-Hispanic	4.2		6.9				+40%			35,699	68,940		95%	9,331	17,269	
Hispanic	3.6		4.5				+20%			579	1,368		2%	221	407	
Other	1.3		3.3				+61%			158	800		1%	132	355	
100%																

	percent with diabetes (age-adjusted rate)	
	1990-1999	1999-2008
Age-adjusted rate: 10 year average		
women		
Black, Non-Hispanic	--	13.1
White, Non-Hispanic	--	5.3
Hispanic	--	7.8
Other	--	6.7
men		
Black, Non-Hispanic	--	13.4
White, Non-Hispanic	--	6.7
Hispanic	--	7.9
Other	--	4.7

By race and sex, trends in estimated average annual number and percent of noninstitutionalized adults 18 years of age and older who self-report ever having been diagnosed with diabetes (diabetes prevalence), exclusive of gestational diabetes, Iowa, 1991-2008. Percent=crude and age-adjusted diabetes prevalence rate per 100 adults.
 A dash ('--') indicates a rate or count was not able to be reliably calculated due to small sample size (<50) for the race or race/age/grouping referenced. For adjusted rates, a '--' means that for one or more age-specific rate needed to compute the adjusted rate, the sample size was too small to reliably compute the age-specific rate.

Source: Iowa BRFSS, IA Dept. of Public Health

Table 3.1

By socioeconomic status, adult diabetes prevalence trends, Iowa

	percent with diabetes (crude rate):						% change 1991-93 vs. 2006-08	% change 1997-99 vs. 2006-08	% change 2003-05 vs. 2006-08	number with diabetes			% of cases 2006-08	BRFSS sample size- 3 year total		
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08				1991-93	1997-99	2006-08		1991- 1993	1997- 1999	2006- 2008
Education																
less than high school	7.8	9.7	11.1	11.8	10.6	9.8	+25%	-12%	-8%	14,411	23,343	16,880	10%	442	1,067	1,147
high school/G.E.D.	4.4	5.0	5.5	7.2	8.0	8.7	+98%	+58%	+8%	24,410	45,000	68,967	43%	1,292	4,149	6,032
some college/ technical school	3.4	3.3	3.9	5.5	5.6	6.6	+93%	+69%	+19%	12,261	23,994	43,679	27%	839	3,123	4,601
college degree or higher	1.6	2.5	3.0	3.4	4.9	4.8	+204%	+60%	-2%	4,207	14,386	31,920	20% 100%	652	2,512	5,036
Income																
less than \$20,000	6.5	6.9	9.2	12.2	11.5	13.1	+101%	+42%	+14%	38,617	20,973	33,899	21%	1,610	1,418	2,280
\$20,000 - <\$35,000	3.0	4.4	6.5	6.9	8.2	8.0	+166%	+23%	-3%	19,210	34,218	38,766	24%	1,526	3,124	3,186
\$35,000 - <\$50,000	2.2	3.0	3.2	4.4	5.3	6.1	+179%	+92%	+16%	8,504	13,327	22,885	14%	876	2,040	2,671
\$50,000 - <\$75,000	..	2.1	2.7	3.5	4.4	4.6	--	+70%	+5%	--	9,435	20,192	12%	--	1,606	2,928
\$75,000+	..	1.9	1.5	2.3	4.4	3.9	--	+166%	-11%	--	16,866	45,993	28% 100%	--	1,928	5,803
\$20,000 - <\$50,000	2.7	3.9	5.2	5.8	6.9	8.0	+199%	+55%	+15%	27,714	34,165	61,650		2,402	3,124	5,857
\$50,000+	0.5	2.0	2.5	3.0	4.4	4.2	+710%	+69%	-4%	1,213	9,798	41,183		535	1,808	6,464
Insurance coverage																
yes	3.9	4.8	5.2	6.3	7.1	7.3	+89%	+41%	+4%	72,236	100,424	151,079	94%	4,582	9,935	15,598
no	3.2	2.3	3.3	4.7	3.7	4.5	+42%	+38%	+23%	6,040	6,321	10,425	6%	439	908	1,227
Age-adjusted rate																
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08										
Education																
less than high school	4.2	6.3	7.6	8.4	8.5	8.7										
high school/G.E.D.	4.2	4.5	4.8	5.9	6.4	6.7										
some college/ technical school	4.1	3.9	4.3	5.9	5.8	6.9										
college degree or higher	1.7	3.0	3.3	3.8	5.2	5.0										
Income																
less than \$20,000	..	5.5	7.5	9.9	9.4	10.9										
\$20,000 - <\$35,000	..	4.2	5.3	6.1	6.9	8.1										
\$35,000 - <\$50,000	..	3.8	3.5	4.5	5.5	5.8										
\$50,000 - <\$75,000	..	2.2	3.4	4.9	5.1	5.0										
\$75,000+	..	2.4	1.1	3.8	4.9	4.7										

By socioeconomic status, trends in the estimated average annual number and percent of noninstitutionalized adults 18 years of age and older who self-report ever having been diagnosed with diabetes, exclusive of gestational diabetes, Iowa, 1991-2008. Percent=crude unage-adjusted and age-adjusted prevalence rate of diabetes per 100 adults in risk group.

Source: Iowa BRFSS, IA Dept. of Public Health

Table 4.1

Among adults with cardiovascular disease and CVD risk factors, trends in diabetes prevalence, Iowa

	percent with diabetes (crude rate)			% change	% change	number with diabetes			BRFSS sample size- 2 or 3 year total		
	1996-97	2000-02	2006-08	1996-97 vs. 2006-08	2000-02 vs. 2006-08	1996-97	2000-02	2006-08	1996- 1997	2000- 2002	2006- 2008
	Coronary heart disease ever										
yes	16.4	24.7	25.2	+54%	+2%	14,208	18,478	24,191	297	443	925
no	3.8	5.2	6.2	+63%	+18%	74,710	106,038	135,901	6,735	10,023	15,800
Heart attack ever											
yes	16.6	25.5	24.2	+46%	-5%	15,616	21,364	25,084	327	457	977
no	3.7	5.2	6.2	+67%	+18%	73,622	104,301	135,624	6,713	10,033	15,828
Stroke ever											
yes	21.1	25.9	23.8	+13%	-8%	10,818	10,977	15,384	84	263	643
no	3.9	5.6	6.5	+67%	+16%	78,582	114,816	154,400	6,865	10,299	16,181
High blood pressure (hypertension) ever											
yes	9.2	12.1	17.0	+77%	+35%	38,982	61,727	101,081	1,098	2,825	1,862
no	2	2.8	3.1	+38%	+19%	39,293	44,238	54,561	3,928	7,926	3,525
Cholesterol checked											
<2 yrs ago	4.9	7.2	9.6	107%	40%	62,606	85,383	145,498	3,198	6,201	3,855
2-5 yrs ago	3.7	2.7	1.9	-72%	-61%	3,511	4,811	1,842	247	972	418
>5 yrs ago or never	1.6	1.5	0.9	-44%	-43%	10,084	10,921	5,339	1,486	3,224	5,339
Cholesterol ever high											
yes	5.7	8.7	14.0	153%	65%	21,125	38,999	92,474	938	2,406	1,881
no	4.4	5.3	5.5	22%	2%	43,639	55,223	56,904	2,445	5,461	2,611

	percent with diabetes (adjusted rate)		
Coronary heart disease ever	<u>2006-08</u>		
yes	16.6		
no	5.9		
Hypertension ever	<u>2007</u>		
yes	12.3		
no	6.3		
Cholesterol ever high	<u>2007</u>		
yes	10.9		
no	4.9		

Among noninstitutionalized Iowa adults 18 years of age and older who self-report having cardiovascular disease or related risk factors, trends in the average annual number and percent that has ever been diagnosed with diabetes (diabetes prevalence), exclusive of gestational diabetes, 1991-2008. Percents=crude unage-adjusted rates and adjusted rates of diabetes per 100 adults with the cardiovascular disease or risk factor.

Source: Iowa BRFSS, IA Dept. of Public Health

Table 4.2

Among adults with poor mental and physical health, prevalence of diabetes, Iowa

	percent with diabetes (crude rate)					% change 1996-97 vs. 2006-08	% change 2000-02 vs. 2006-08	% change 2003-05 vs. 2006-08	number with diabetes			BRFSS sample size- 1 or 3 year total		
	2006								1994-96	1997-99	2006	1994- 1996	2006	2006- 2008
Mental health														
Ever diagnosed with anxiety, depression, other mental illness														
yes	8.2								31,390			971		
no	6.8								122,522			4,205		
Life satisfaction														
satisfied or very satisfied	6.4								143,251			15,498		
dissatisfied or very dissatisfied	11.4								9,759			674		
Number of days in past 30 days mental health not good														
	1994-96	1997-99	2000-02	2003-05	2006-08									
no days	4.6	5.7	6.4	6.9	7.1	+56%	+24%	+3%	65,585	79,625	115,286	6,497	12,096	
1-3 days	3.6	2.9	3.5	3.4	4.5	+27%	+53%	+33%	10,223	9,544	12,654	1,298	1,878	
4-10 days	3.5	2.9	4.1	5.8	6.5	+87%	+124%	+12%	6,731	6,349	12,539	930	1,331	
11 or more days	6.5	5.1	9.1	10.1	10.1	+54%	+99%	-1%	11,034	9,002	17,568	867	1,271	
Overall health status														
Excellent/very good/good	3.1	3.2	4.1	4.5	4.9	+58%	+53%	+9%	56,931	60,745	97,706	8,453	14,296	
Fair/poor	15.9	18.8	21.6	22.2	21.7	+36%	+15%	-2%	37,919	46,006	63,082	1,166	2,531	
percent with diabetes (adjusted rate)														
2006														
Mental health														
Ever diagnosed with anxiety, depression, other mental illness														
yes	8.0													
no	6.2													
2006-08														
Number of days in past 30 days mental health not good														
no days	6.0													
1-3 days	5.9													
4-10 days	7.5													
11+ days	10.6													
Overall health status														
Excellent/very good/good	4.8													
Fair/poor	16.1													

Among noninstitutionalized Iowa adults 18 years of age and older by self-reported poor mental health or general health status, trends in the average annual number and percent of adults that has ever been diagnosed with diabetes (diabetes prevalence), exclusive of gestational diabetes, 1994-008. Percents are crude unage-adjusted and age-adjusted rates of diabetes per 100 adults with risk factor.

Blank cells indicate data were unavailable for that period.

Source: Iowa BRFSS, IA Dept. of Public Health

Table 4.3

Among Iowa adults with lack of preventive care, prevalence of diabetes

	percent with diabetes (crude rate)						% change 1991-93 vs. 2006-08	% change 1996-97 vs. 2006-08	% change 2003-05 vs- 2006-08	number with diabetes		
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08				1991-93	1997-99	2006-08
	Have health insurance											
yes	3.9	4.8	5.2	6.3	7.1	7.3	+89%	+41%	+4%	72,236	100,414	151,079
no	3.2	2.3	3.3	4.7	3.7	4.5	+42%	+38%	+23%	6,040	6,321	10,425
Routine checkup received in past two years					2005				2005 vs- 2006-08			
yes	4.4	5.5	5.9	6.9	7.9	8.1	+84%	+38%	+3%	76,390	99,413	151,018
no	0.6	1.3	1.5	1.4	1.4	2.2	+244%	+48%	+56%	1,885	5,909	8,374
Flushot or fluspray received in past 12 months		1993,95	1997,99		2003,05		1993,'95 vs. 2006-08	1997,'99 vs. 2006-08	2003-05 vs- 2006-08	1993,95	1997,99	
yes	..	9.4	8.5	11.1	12.4	11.4	+22%	+33%	-8%	45,754	61,543	111,554
no	..	2.8	2.9	3.3	3.3	3.7	+34%	+29%	+12%	43,664	39,576	48,485
Pneumonia vaccine ever										1993,95	1997,99	
yes	..	10.2	11.3	15.1	17.7	18.0	+76%	+60%	+2%	28,660	44,969	96,053
no	..	3.3	3.3	3.4	3.2	3.8	+13%	+13%	+16%	58,027	53,572	58,942

	percent with diabetes (adjusted rate)					
	2006-08					
Have health insurance						
yes						6.4
no						6.0
Routine checkup received in past two years						
yes						7.1
no						2.9
Flushot or fluspray received in past 12 months						
yes						8.4
no						4.5
Pneumonia vaccine ever						
yes						13.2
no						4.2

Among noninstitutionalized Iowa adults 18 years of age and older, by self-reported access to preventive care or access, trends in the average annual number and percent that has ever been diagnosed with diabetes, exclusive of gestational diabetes, (diabetes prevalence), 1991-2008. Percents are crude unage-adjusted and age-adjusted rates of diabetes per 100 adults with risk factor. A question on routine checkups was not included in the 2003 and 2004 BRFS. Dash indicates data were not available for the period shown. Source: Iowa BRFS, Center for Health Statistics, IA Dept. of Public Health

Table 5.1

Among overweight and obese adults, adult diabetes prevalence trends, Iowa

	percent with diabetes (crude rate)						% change 1991-93 vs. 2006-08	% change 1997-99 vs. 2006-08	% change 2003-05 vs- 2006-	number with diabetes			BRFSS sample size- 3 year total	
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08				1991-93	1997-99	2006-08	1991- 1993	2006- 2008
	Body weight (BMI)													
normal	2.1	2.2	2.5	2.5	2.6	3.2	+52%	+28%	+24%	26,104	20,852	25,139	2,467	5,560
overweight only	4.1	4.7	4.9	5.7	5.7	5.6	+37%	+15%	-1%	28,177	45,062	45,893	1,668	5,974
obese	7.4	10.2	11.2	13.1	14.3	13.9	+88%	+24%	-3%	21,944	60,714	81,201	721	4,383

	percent with diabetes (age-adjusted rate)						% change 1991-93 vs. 2006-08	% change 1997-99 vs. 2006-08	% change 2003-05 vs- 2006-
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08			
	Body weight (BMI)								
normal	2.5	2.3	2.2	2.6	2.6	3.2	+26%	+45%	+21%
overweight only	3.5	3.9	4.3	4.9	4.8	4.7	+34%	+9%	-2%
obese	6.9	9	9.8	11.8	12.7	12.7	+84%	+30%	+0%

Among normal weight, overweight and obese adults, trends in the estimated three-year average annual number and percent of those who self-report ever having been diagnosed with diabetes (diabetes prevalence), exclusive of gestational diabetes, Iowa, 1991-2008.

Percents=crude unage-adjusted and age-adjusted rates of diabetes per 100 adults.

Body mass index (BMI)=body weight in kilograms/(height in meters)² : BMI <25= normal weight; BMI 25-29.9=overweight; BMI >=30 = obese.

Among diabetic and nondiabetic adults, trends in percent who are normal weight, overweight and obese, Iowa

	percent distribution of diabetics/ nondiabetics (crude percent)			% change 1994-98 vs. 2004-08	% change 1999-03 vs- 2004-08	number with diabetes			BRFSS sample size- 5 year total	
	1994-98	1999-03	2004-08			1994-98	1999-03	2004-08	1994-98	2004-08
	Adults <i>with</i> diabetes									
normal	21.3	15.9	16.0	-25%	+1%	20,359	20,170	23,640	182	350
overweight only	37.1	35.4	30.6	-18%	-14%	35,428	44,834	61,471	209	687
obese	41.5	48.6	53.4	+29%	+10%	23,624	45,303	78,962	338	1,179
	100%	100%	100%						819	2,216
Adults <i>without</i> diabetes						number without diabetes				
Normal	46.4	41.4	38.5	-17%	-7%	913,375	812,452	782,655	7,326	8,823
Overweight only	36.3	37.9	37.7	+4%	-1%	717,851	744,132	767,728	5,627	8,876
Obese	17.1	20.8	23.8	+39%	+14%	336,771	484,405	407,860	2,751	5,667
	100%	100%	100%						15,704	23,366

	percent distribution of diabetics/ nondiabetics (age-adjusted percent)			% change 1994-98 vs. 2004-08	% change 1999-03 vs- 2004-08
	1994-98	1999-03	2004-08		
	Adults <i>with</i> diabetes				
normal	25.4	15.2	17.0	-33%	+12%
overweight only	34.2	33.0	24.4	-29%	-26%
obese	40.4	51.7	58.6	+45%	+13%
	100%	100%	100%		
Adults <i>without</i> diabetes					
normal	46.2	41.4	38.7	-16%	-7%
overweight only	36.5	37.8	37.5	+3%	-1%
obese	17.2	20.8	23.7	+38%	+14%
	100%	100%	100%		

Among nondiabetic adults and diabetic adults (persons 18 years of age and older who self-report ever having been diagnosed with diabetes (exclusive of gestational diabetes)), percent that are normal weight, overweight and obesity, Iowa, 1994-2008. Percents = age-adjusted rate of normal, overweight and obese adults per 100 diabetic/nondiabetic adults.

Source: Iowa BRFSS, IA Dept. of Public Health

Table 5.2
Among adults who eat five or more servings fruit/vegetables per day, trends in diabetes prevalence, Iowa

	percent with diabetes (crude rate)		% change 2001,03 vs- 2005,07	number with diabetes		% of cases 2005,07	BRFSS sample size-	
	2001,03	2005,07		2001,03	2005,07		2001, 2003	2005,- 2007
	Fruits and vegetables							
eat 5 a day	7.8	8.0	+2%	97,825	114,902	77%	6,804	7,999
do not eat 5 a day	5.7	6.4	+13%	32,833	34,994	23%	1,715	2,219
						100%		

	percent with diabetes (age-adjusted rate)		% change 2001,03 vs- 2005,07
	2001,03	2005,07	
	Fruits and vegetables		
eat 5 a day	6.2	6.7	+8%
do not eat 5 a day	5.5	6.2	+12%

Among noninstitutionalized adults age 18 years and older who report eating five or more servings of fruit and vegetables per day, trends in the average annual prevalence rate/number of adults who self-report ever having been diagnosed with diabetes, exclusive of gestational diabetes, Iowa, 2001, 2003, 2005, 2007. Percents=crude unage-adjusted and age-adjusted rates of diabetes per 100 adults the risk factor.

Source: Iowa BRFSS, IA Dept. of Public Health

Table 5.3
Among adults who do not exercise or who have activity limitations
trends in adult diabetes prevalence, Iowa

	percent with diabetes (crude rate)				% change 1998 vs. 2006-08	% change 2000-02 vs. 2006-08	% change 2003-05 vs. 2006-08	number with diabetes			BRFSS sample size <u>1,2 or 3 year total</u>			
	1998	2000-02	2003-05	2006-08				1998	2003-05	2006-08	1998	2005	2006-2008	
Any activity limitations														
yes	8.9	14	15.1	15.1	+70%	+8%	+0%	36,147	53,818	59,179	764	2,766	3,531	
no	4.2	4.2	4.6	5.3	+26%	+26%	+15%	68,939	92,209	100,229	2,766	12,056	13,206	
Physically active at all or exercised any in past 30 days														
	1991-92	1997-98				1991-92 vs. 2006-08			1991-92	1997-98				
yes	3.4	4.4	5.0	5.1	5.7	+69%	+13%	+11%	46,270	81,670	100,330	2,146	7,981	12,562
no	5.4	6.1	9.4	9.9	11.5	+114%	+22%	+17%	36,663	51,202	61,405	1,085	2,912	4,287
Physically active or exercised at recommended levels in past 30 days														
	2001	2003	2005	2007	2001 vs 2007	2003 vs 2007	2005 vs 2007	2001	2005	2007	2001	2005	2007	
yes	4.5	4.9	5.1	4.7	+4%	-4%	-8%	38,668	49,810	48,793	1,367	2,094	2,221	
no	6.0	8	8.3	8.4	+40%	+5%	+1%	66,634	95,973	92,587	1,885	2,644	2,795	
percent with diabetes (age-adjusted rate)														
2006-08														
Any activity limitations														
yes	10.8													
no	5.3													
Physically active at all or exercised any in past 30 days														
yes	5.6													
no	9.0													
Physically active or exercised at recommended levels in past 30 days														
yes	4.9													
no	7.0													

Among noninstitutionalized Iowa adults 18 years of age and older who self-report being physically active, inactive, or have activity limitations, trends in the average annual number and percent who self-report ever having been diagnosed with diabetes (diabetes prevalence), exclusive of gestational diabetes, 1991-2008. Percents=crude unage-adjusted and age-adjusted rates of diabetes per 100 adults.

Recommended amount of physical activity= moderate physical activity 30 minutes or more at least five days a week or vigorous physical activity for 20 minutes three or more days a week. Activity limitation = limited in any activities because of impairment or health problem

Source: Iowa BRFSS, IA Dept. of Public Health

Table 5.4

Among adults who smoke, trends in diabetes prevalence, Iowa

	percent with diabetes (crude rate)					% change 1996 vs. 2006-08	% change 1997-99 vs. 2006-08	% change 2003-05 vs. 2006-08	number with diabetes			BRFSS sample size- 1 or 3 year total		
	<u>1996</u>	<u>1997-99</u>	<u>2000-02</u>	<u>2003-05</u>	<u>2006-08</u>				<u>1996</u>	<u>1997-99</u>	<u>2006-08</u>	<u>1996</u>	<u>1997- 1999</u>	<u>2006- 2008</u>
Current cigarette smoker														
Yes	4.0	2.8	4.2	4.4	4.8	+5%	+72%	+9%	19,779	13,865	22,113	849	2,461	3,001
No	4.2	5.7	6.7	7.2	7.6	+57%	+32%	+5%	68,442	93,080	139,088	2,747	8,388	13,822
	percent with diabetes (adjusted rate)													
Current cigarette smoker														
Yes					5.5									
No					6.0									

Among noninstitutionalized Iowa adults 18 years of age and older who self-report smoking tobacco, trends in the average annual number and percent that was ever diagnosed with diabetes (diabetes prevalence), exclusive of gestational diabetes, 1996-2008. Percents=crude unage-adjusted and age-adjusted rates of diabetes per 100 adults who smoke.

Source: Iowa BRFSS, Center for Health Statistics, IA Dept. of Public Health

Table 6.1

Among adults with diabetes, trends in preventive health care services received and self-care practices, Iowa

	percent of diabetics receiving care (crude rate)				% change 1997-99 vs. 2006-08	% change 2000-02 vs. 2006-08	% change 2003-05 vs. 2006-08	number with diabetes		
	1997-99	2000-02	2003-05	2006-08				1997-99	2003-05	2006-08
Self-care/management of diabetes										
Check own feet for sores:										
daily	--	70.7	69.1	63.4	--	-10%	-8%	89,880	99,398	109,462
at least weekly	--	15.0	15.4	14.9	--	-1%	-3%	19,038	22,095	23,521
at least monthly	--	3.2	3.6	3.5	--	+9%	-3%	4,064	5,120	5,563
at least yearly	--	1.2	1.0	1.8	--	+50%	+80%	1,522	1,370	2,825
never	--	9.9	11.0	10.4	--	+5%	-5%	12,589	15,818	16,418
Check own blood sugar levels										
at least daily	45.6	58.8	64.2	65.8	+44%	+12%	+2%	48,317	94,713	105,569
at least weekly	27.1	23.4	19.9	20.1	-26%	-14%	+1%	28,758	29,359	32,238
at least monthly	9.9	3.8	5.9	4.2	-58%	+11%	-29%	10,506	8,654	6,742
at least yearly	5.9	5.1	2.8	2.0	-66%	-61%	-29%	5,372	3,937	3,286
never	12.3	11.7	7.3	7.9	-36%	-32%	+8%	13,009	10,778	12,683
<u>1997-99</u>										
Took diabetes self-management course ever	--	60.0	61.1	61.9	--	+3%	+1%	78,927	90,992	100,012
Physician/provider care/management of diabetes										
Visited health care provider for their diabetes care in past 12 months:										
4 or more times (recommended)	48.7	47.4	49.8	45.0	-8%	-5%	-10%	51,081	72,860	71,077
1-3 times	38.1	44.5	41.8	44.4	+17%	-0%	+6%	39,963	61,120	70,086
no visit	13.2	8.1	8.5	10.5	-20%	+30%	+25%	13,826	12,367	16,612
Dilated eye exam received:										
within past 12 months (recommended)	72.1	79.5	81.1	77.1	+7%	-3%	-5%	73,501	115,722	120,752
1-2 years ago	12.8	10.2	9.4	11.4	-11%	+12%	+21%	13,088	13,480	17,910
>2 years ago	15.1	10.3	9.4	11.4	-24%	+11%	+21%	15,348	13,470	17,926
Foot exam by health care provider received in past 12 months:										
4 or more times (recommended)	27.3	24.5	28.8	28.7	+5%	+17%	-0%	24,268	41,543	45,173
1-3 times	38.4	43.7	43.4	45.2	+18%	+3%	+4%	34,065	62,650	70,991
never	34.3	31.9	27.8	26.1	-24%	-18%	-6%	30,447	40,185	40,993
A1c blood test performed in last year:										
4 or more times (recommended)	24.4	29.9	36.2	35.0	+44%	+17%	-3%	5,442	34,694	49,362
1-3 times	63.0	62.9	55.1	57.1	-9%	-9%	+4%	14,047	70,651	80,455
never	12.6	7.1	8.7	7.9	-38%	+10%	-10%	2,809	11,155	11,082
Prescriptions for diabetes										
take diabetes pills	--	65.8	66.8	69.0	--	+5%	+3%	87,147	99,814	73,838
take insulin	30.1	29.5	28.3	28.9	-4%	-2%	+2%	32,202	42,319	46,654
Physician Care: Physical Exam										
<u>2005</u>										
Visited health care provider for general physical exam in the past 2 years:	94.4	96.9	96.8	94.7	+0%	-2%	-2%	99,413	146,923	151,018

Among noninstitutionalized Iowa adults age 18 years and older who self-report ever having been diagnosed with diabetes (exclusive of gestational diabetes), trends in the average annual number and percent that receives health care/undertakes self-care for their diabetes, 1997-2008. The percents given are crude (unage-adjusted) rates--the number of adults with diabetes receiving care per 100 adults with diabetes.

Dash '-' indicates data not available for the period shown.

Source: Iowa BRFSS, Diabetes Module, IA Dept. of Public Health

Table 6.2
Among Iowa adults with diabetes
prevalence of diabetic eye disease and chronic foot sores

	percent of diabetic adults (crude rate)			% change	% change	number of diabetic adults		
	<u>2000-02</u>	<u>2003-05</u>	<u>2006-08</u>	2000-02. <u>2006-08</u>	2003-05 vs- <u>2006-08</u>	<u>2000-02</u>	<u>2003-05</u>	<u>2006-08</u>
Diagnosed diabetic retinopathy or diabetes-related eye disease ever	18.7	22.7	20.7	+11%	-9%	24,593	33,700	33,284
			<u>2006-07</u>	2000-02 vs- <u>2006-07</u>	2003-05 vs- <u>2006-07</u>			<u>2006-07</u>
Ever had foot sores that lasted > four weeks	8.8	10.1	9.3	+6%	-8%	11,679	15,074	14,970

Among noninstitutionalized Iowa adults 18 years of age and older who self-report ever having been diagnosed with diabetes, exclusive of gestational diabetes, trends in the average annual number and percent of adults with diabetic eye disease and foot sores, Iowa, 1991-2008. Percent=crude unage-adjusted rate per 100 adults with diabetes

Source: Iowa BRFSS, 1991-2008, Center for Health Statistics, IA Dept. of Public Health

Table 6.3
Among Iowa adults with diabetes, prevalence of poor mental health and
of good, poor overall health status

	percent of diabetic adults (crude rate)					% change 1994-96 vs. 2006-08	% change 2000-02 vs. 2006-08	% change 2003-05 vs- 2006-08	number of diabetic adults		
									1994-96	2000-02	2006
									2006	2006-08	2006
<u>Mental health</u>											
Ever diagnosed with anxiety, depression, other mental illness	20.4								31,390		
<u>Life satisfaction</u>											
satisfied or very satisfied	93.6								143,251		
dissatisfied or very dissatisfied	6.4								9,751		
<u>Number of days in past 30 days mental health was poor/ bad</u>											
	<u>1994-96</u>	<u>1997-99</u>	<u>2000-02</u>	<u>2003-05</u>	<u>2006-08</u>						
no days	68.8	64.2	68.2	69.3	70.4	-2%	-3%	-2%	65,585	94,592	115,286
1-3 days	13.1	14.8	13.1	12.6	12.0	+9%	+8%	+5%	10,223	10,166	12,654
4-10 days	9.4	10.6	9.7	9.0	8.5	+9%	+12%	+5%	6,731	8,188	12,539
11 or more days	7.9	8.4	7.2	7.4	7.4	+6%	-4%	+0%	11,034	14,442	17,568
<u>Overall health status</u>											
Excellent/very good/good	60.0	56.9	59.4	59.4	60.8	+1%	+7%	+2%	56,931	60,745	97,706

Among noninstitutionalized Iowa adults 18 years of age and older who self-report ever having been diagnosed with diabetes (exclusive of gestational diabetes), trends in the average annual number and percent with mental illness, life dissatisfaction and poor health, (prevalence of these health status measures among adults with diabetes), 1994-2008. Percent=crude unage-adjusted rate per 100 adults who have ever been diagnosed with diabetes.

A blank cell indicates data were not available for some or all of the period shown.

Source: Iowa BRFSS, Center for Health Statistics, IA Dept. of Public Health

Table 6.4

Among Iowa adults with diabetes, prevalence of overweight and obesity

	percent of diabetic adults by weight (crude rate)						% change			number of diabetic adults			
	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08	1991-93 vs. 2006-08	1996-97 vs. 2006-08	2003-05 vs- 2006-08	1991-93	1997-99	2003-05	2006-08
	Body mass index												
Normal weight	34.2	22.0	18.9	16.5	15.0	16.5	-52%	-12%	10%	26,104	19,625	21,270	25,139
Overweight	37.0	38.7	35.7	35.6	32.3	30.1	-18%	-16%	-7%	28,177	37,200	45,871	45,893
Obese	28.8	39.3	45.4	47.9	52.8	53.3	+85%	+17%	+1%	21,944	47,282	75,074	81,201

Among noninstitutionalized Iowa adults 18 years of age and older who self-report ever having been diagnosed with diabetes (other than gestational diabetes), trends in the average annual number and percent of adults that are normal weight, overweight or obese (prevalence of these weight status measures among adults with diabetes), 1991-2008. Percents are crude unage-adjusted prevalence rates per 100 adults with diabetes.

Normal weight=body mass index (BMI) <=25; overweight=BMI 25-29; and obese=BMI>=30. Body mass index=weight in kilograms/(height in meters)².

Source: Iowa BRFSS, Center for Health Statistics, IA Dept. of Public Health

Table 6.5

Among Iowa adults with diabetes prevalence of activity limitations and physical activity

	percent of diabetic adults (crude rate)					% change	% change 1998 vs. 2006-08	% change 2003-05 vs- 2006-08	number of diabetic adults				
	1991-92	1998	2000-02	2003-05	2006-08				1998	2000-02	2003-05	2006-08	
Any activity limitation(s)		34.4	34.6	36.9	36.9		+7%	+0%	36,148	43,946	53,818	59,179	
<u>Exercise</u>						1991-92 vs- 2006-08	1997-98 vs- 2006-08	2003-05 vs- 2006-08	1991-92	1998	2000-02	2003-05	2006-08
Physically active at all or exercised any in past 30 days	55.8	66.9	61.5	66.1	62.0	+11%	-1%	-6%	46,270	45,380	81670	98,758	100,330
		<u>2001</u>	<u>2003</u>	<u>2005</u>	<u>2007</u>		2001 vs- 2007	2005 vs- 2007			<u>2001</u>		<u>2007</u>
Physically active or exercised at recommended levels in past 30 days		36.7	31.9	34.2	34.4		-6%	+1%			38,668		48,793

Among noninstitutionalized Iowa adults 18 years of age and older who self-report ever having been diagnosed with diabetes, exclusive of gestational diabetes, trends in the average annual number and percent that have activity limitations or are physically active, 1991-2008. Percent=crude unage-adjusted rate per 100 adults with diabetes.
 Recommended amount of physical activity= moderate physical activity 30 minutes or more at least five days a week or vigorous physical activity for 20 minutes three or more days a week.
 Activity limitation = limited in any activities because of any impairment or health problem.
 A blank cell indicates data were not available for the period shown.

Source: Iowa BRFSS, Center for Health Statistics, IA Dept. of Public Health

Table 6.6

Among Iowa adults with diabetes, prevalence of hypertension and high cholesterol

	Percent of diabetic adults (crude rate)						% change	% change	% change	number of diabetic adults			
	1991-93	1997-99	2001	2003	2005	2007	1991-93 vs. 2007	1997-99 vs. 2007	2005 vs- 2007	1991-93	1997-99	2005	2007
Current hypertension	49.8	58.3	67.3	62.8	62.1	64.9	+30%	+11%	+5%	38,927	61,727	94,571	101,081
Cholesterol													
Cholesterol last checked:													
in past 2 years	82.2	84.4	..	95.4	91.2	95.3	+16%	+13%	+4%	62,603	85,383	137,266	145,498
in past 2 -5 years	4.6	4.8	..	1.9	1.8	1.2	-74%	-75%	-33%	3,511	4,811	2,752	1,842
>5 years ago, never	13.2	10.8	..	2.8	6.3	3.5	-73%	-68%	-44%	10,084	10,921	9,474	5,339
Ever told had high cholesterol	36.6	41.4	52.5	54.1	58.4	61.9	+69%	+50%	+6%	21,125	38,999	85,107	92,474

Among noninstitutionalized Iowa adults 18 years of age and older who have ever been diagnosed with diabetes, exclusive of gestational diabetes, trends in the average annual number and percent of adults with hypertension (high blood pressure) and high cholesterol, and, by cholesterol monitoring status, 1991-2007.
Percent=crude unage-adjusted rate per 100 adults with ever-diagnosed diabetes.

Source: Iowa BRFSS, Center for Health Statistics, IA Dept. of Public Health

Table 6.7

Among Iowa adults with diabetes, prevalence of heart disease and stroke

	percent of diabetic adults (crude rate)			% change	% change	number of diabetic adults		
	1996-97	2000-02	2006-08	1996-97 vs. 2006-08	2000-02 vs. 2006-08	1996-97	2000-02	2006-08
Cardiovascular health								
Ever had heart attack	17.5	17.0	15.6	-11%	-8%	15,616	21,364	25,084
Ever had stroke	12.1	12.2	9.6	-21%	-21%	10,818	10,977	15,384

Among noninstitutionalized adults 18 years of age and older who self-report ever having been diagnosed with diabetes (exclusive of gestational diabetes), trends in the average annual number and percent of who have had a heart attack or stroke, 1996-2008. Percent=crude unage-adjusted rate per 100 adults with ever-diagnosed diabetes.

Source: Iowa BRFSS, Center for Health Statistics, IA Dept. of Public Health

Table 6.8

Among Iowa adults with diabetes, prevalence of smoking

	percent of diabetic adults (crude rate)						% change 1996-97 vs. 2006-08	% change 2003-05 vs- 2006-08	number of diabetic adults		
	<u>1991-93</u>	<u>1994-96</u>	<u>1996-97</u>	<u>1997-99</u>	<u>2000-02</u>	<u>2003-05</u>			<u>2006-08</u>	<u>1997-99</u>	<u>2006-08</u>
	Smokes cigarettes	--	--	--	13.0	15.6			14.0	13.7	+6%

Among noninstitutionalized Iowa adults 18 years of age and older who self-report ever having been diagnosed with diabetes (exclusive of gestational diabetes), trends in the average annual number and percent that smokes cigarettes, 1997-2008. The percents given are crude (unage-adjusted) smoking prevalence rates--estimates of the number of smokers per 100 adults ever diagnosed with diabetes. Smoking-related questions in the BRFSS changed after 1996, making earlier estimates of smoking prevalence incompatible with estimates after this time. '--' indicates comparable smoking prevalence estimates were not available.

Source: Iowa BRFSS, Center for Health Statistics, IA Dept. of Public Health

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Iowa Department of Public Health (IDPH) Director:
Tom, Newton

Diabetes Prevention and Control Program:
Laurene Hendricks, Program Manager, (LHendrick@idph.state.ia.us)
Jill Myers-Geadelmann, Bureau Chief, (JGeadelm@idph.state.ia.us)

Center for Health Statistics:
Jill France, Bureau Chief, (JFrance@idph.state.ia.us)

Report and Supplement written and prepared by:
Joann Muldoon, M.S., M.A, IDPH, epidemiologist for the Diabetes Prevention Program,
(JMuldoon@idph.state.ia.us)

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