



The Burden of Diabetes in Ohio

Ohio **Diabetes** Prevention
and Control Program

Division of Prevention
Ohio Department of Health

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The Public Health Burden of Diabetes Mellitus in Ohio

Diabetes mellitus is a serious chronic disease that affects millions of persons worldwide. Approximately 17 million people in the United States, or 6.2 percent of the population, have diabetes. While an estimated 11.1 million have been diagnosed, nearly 5.9 million people (or one-third) are unaware that they have the disease⁽¹⁾. Diabetes can cause devastating complications including heart disease, blindness, kidney failure and gangrene in the leg and foot leading to amputation⁽²⁻⁹⁾.

Public health surveillance of diabetes and its complications is paramount to identifying the disease and recognizing at-risk groups. This report used five existing data sources, each characterizing a different Ohio diabetes sub-population. Each sub-population is presented in a separate section in the report. The first section presents data from the Behavioral Risk Factor Surveillance System* (BRFSS)⁽¹⁰⁾. The BRFSS collects state-wide health data on all Ohioans 18 years of age and older. The second section presents Medicaid data, which has information on low-income Ohioans of all ages⁽¹¹⁾. The third section, hospital discharge data, provides information on persons who were admitted and discharged from the hospital⁽¹²⁾. The fourth, the Medicare database, provides information on people 65 years of age and older old primarily, whatever their income; and on younger disabled people and dialysis patients⁽¹³⁾. The fifth and last database section provides information on mortality data associated with diabetes (Vital statistics)⁽¹⁴⁾.

In each section, the data presented were limited to specific demographic sub-groups where stable analyses and estimates could be achieved. Where feasible, we examined trends in diabetes and its complications by age, gender and race. In some instances estimates were based on the national median or more than one year of data. A more detailed description of the five databases and analysis is listed in Appendix A.

Where possible, to ensure that diabetes in Ohio was described and assessed similarly to other states, diabetes measurement guidelines and objectives of national organizations were used (Appendix A). Tables and figures provide information by county and the entire state on diabetes prevalence, risk factors, hospital discharges, co-morbid conditions, complications, type and use of health service categories, expenditures and mortality.

Ohio's Diabetes Prevention and Control Program will use the information in this report in several ways: 1) to document the magnitude of the diabetes as a public health problem; 2) to monitor disease trends over time; 3) to detect changes in health care practices; 4) to evaluate control strategies; 5) to educate the public, the health community and policy makers about disease prevention; 6) to facilitate planning and better direct programmatic activities. It is hoped that this report will also be used by county and local program managers to define the extent, urgency and severity of diabetes in their communities and plan programs accordingly.

*The BRFSS provides a comprehensive description of Ohioans. The only criteria to be included in the BRFSS is to be ≥18 years of age. Adults who are Medicaid and Medicare recipients or have other insurance and no insurance would be included in the BRFSS database. For statistical purposes they were not removed from analysis even though they were described elsewhere in the report.

Key Findings

Ohio and United States Behavioral Risk Factor Surveillance System

- Between 1995–2001, the prevalence of diabetes increased in Ohio and throughout the United States (*Figure 2.01, Table 2.1*).
- The prevalence of diabetes increases with age; those over the age of 65 years had the highest rate (*Figures 2.06, Table 2.4*).
- Between 1995–2001, being obese or overweight was more common among Ohio adults with diabetes compared to Ohioans without diabetes (*Figure 2.10, Table 2.8*).
- In Ohio, between 1995–2001, the percent of persons with diabetes who in the past year had seen a physician; (*Figure 2.15, Table 2.13*); had a dilated eye examination (*Figure 2.16, Table 2.13*); and had their feet checked (*Figure 2.17, Table 2.13*) fluctuated and did not increase appreciably from year to year.
- In Ohio in 2000, persons with diabetes had a higher percent of other chronic medical conditions (high blood pressure, high cholesterol, coronary heart disease, stroke or myocardial infarction) compared to adults without diabetes (*Figure 2.20, Table 2.14*).

Ohio Medicaid Program

- The prevalence of diabetes increased with age until age 65 years and older (*Figure 3.02, Table 3.1*).
- Prevalence of diabetes was higher for females than for males; this was true across all races (*Table 3.1*).
- Black and other females 45–64 years old had the highest diabetes prevalence rates of all racial-gender-age groups (*Figure 3.02, Table 3.1*).
- In Fiscal Year (FY) 2000, Ohio's Medicaid Program expenditures were more than \$7 billion. More than 8 percent (\$612 million) was spent on health care for recipients (Fee-for service) diagnosed with diabetes.

Ohio Hospital Discharge Data

- The number of hospital discharges related to diabetes increased with the patient's age (*Figure 4.02, Table 4.2*).
- Between 1999–2001, persons aged 65 and older accounted for 59 percent of the total number of discharges for diabetes (*Table 4.2*).
- Ischemic heart disease (12 percent) was the principle reason (primary diagnosis) people with diabetes were admitted to the hospital. Other forms of heart disease (11 percent) were the second-leading cause (*Table 4.3*).
- There were 53,105 hospital discharges with a diagnosis of diabetes and pneumonia or influenza. The average length of stay in the hospital for treatment of these illnesses was more than one week (*Table 4.6*).
- Between 1999 to 2001, the hospital discharge rate for any mention of type 1 diabetes decreased by 15 percent. In contrast, the discharge rate for any mention of type 2 diabetes increased by 32 percent (*Figure 4.03, Table 4.8*).

Ohio Medicare

- In 2001, Medicare covered 1.1 million Ohioans ages 18–75 years old. Of these, 9 percent (102,954) were persons diagnosed with diabetes (*Table 5.1*).
- Black women and men age 66–75 years old had the highest prevalence of all racial gender-age groups (*Table 5.1, Figure 5.01*).

Mortality

- In 1999, diabetes was the fifth leading cause of death for Ohioans (*Table 6.1*).
- Blacks died more often from diabetes than whites (*Table 6.2, Figure 6.01*).
- In 1999, the overall age-adjusted diabetes mortality for Ohio was 32 per 100,000, (*Table 6.2*) compared to the national rate of 25 per 100,000 persons.

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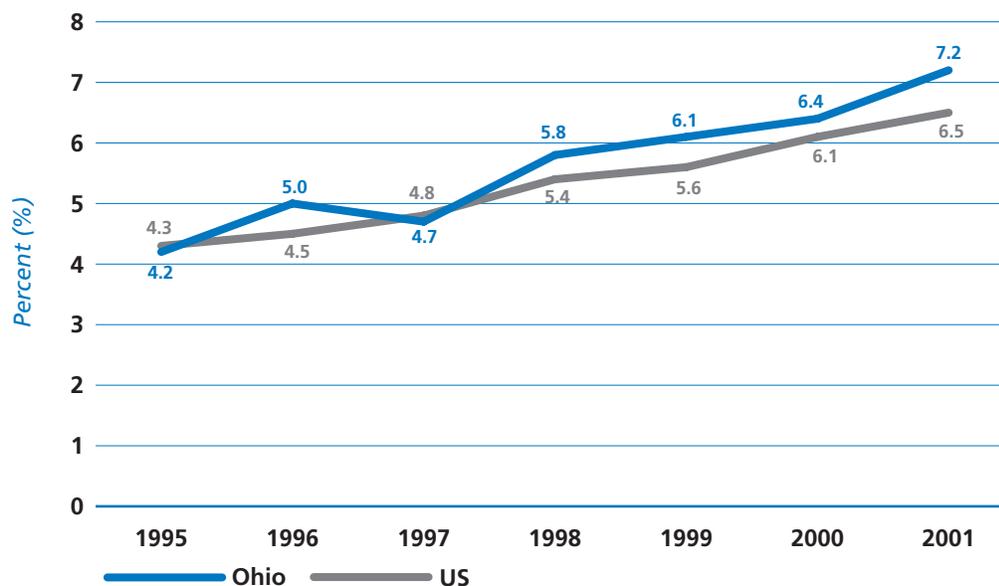
Ohio and United States Behavioral Risk Factor Surveillance System

Prevalence

Diabetes is becoming more widespread. Between 1995-2001, the number of reported cases of diabetes increased in Ohio and throughout the United States (U.S.) (Figure 2.01, Table 2.1).

Figure 2.01

Estimated Prevalence of Diabetes by Year, Ohio and the United States*
1995–2001.^{[1][2][3]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS-Prevention, Ohio Department of Health. Behavioral Risk Factor Surveillance System Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention

[1] The percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] "Don't know/Not sure" and "Refused" were excluded from the denominator.

[3] For adults (18 years and older).

*Estimated US Prevalence based on BRFSS National Median, 1995–2001.

Table 2.1
Estimated Prevalence of Diabetes by Gender and Year, Ohio and the United States* 1995–2001.^{[1][2][3]}

Year	Males				Females				All			
	Ohio			US	Ohio			US	Ohio			US
	%	SE	C.I.	%	%	SE	C.I.	%	%	SE	C.I.	%
1995	4.6	1.2	2.3–6.9	4.1	3.8	0.7	2.4–5.1	4.7	4.2	0.7	2.9–5.5	4.3
1996	3.9	0.8	2.4–5.3	4.2	6.0	0.8	4.4–7.6	4.7	5.0	0.6	3.9–6.1	4.5
1997	3.9	0.6	2.7–5.1	4.9	5.5	0.6	4.3–6.7	4.9	4.7	0.5	3.9–5.6	4.8
1998	6.4	1.0	4.5–8.3	5.2	5.3	0.7	3.9–6.6	5.3	5.8	0.6	4.6–6.9	5.4
1999	5.0	0.9	3.2–6.7	5.9	7.1	0.9	5.3–8.8	5.5	6.1	0.6	4.8–7.3	5.6
2000	6.4	1.0	4.4–8.4	6.1	6.3	0.8	4.7–7.9	5.9	6.4	0.6	5.2–7.6	6.1
2001	7.5	0.8	5.9–9.1	6.6	6.9	0.6	5.7–8.1	6.5	7.2	0.5	6.2–8.2	6.5

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health. Behavioral Risk Factor Surveillance System Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

[1] The percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] For adults (18 years and older).

*Estimated US Prevalence based on BRFSS National Median, 1995–2001.

Gender

Between 1995–2001, there were no significant differences in diabetes prevalence rates among U.S. and Ohio men and women (*Table 2.1*).

Race

Although not statistically significant, diagnosed diabetes was more common in blacks than in whites between 1996–2001 (*Table 2.2*). In 2000, Hispanics had an estimated prevalence that tended to be higher (nearly 11 percent) than the rate for blacks or whites (*Table 2.3*).

Table 2.2
Estimated Prevalence of Diabetes by Race and Year, Ohio and the United States* 1995–2001.^{[1][2][3][4]}

Year	White				Black				All			
	Ohio			US	Ohio			US	Ohio			US
	%	SE	C.I.	%	%	SE	C.I.	%	%	SE	C.I.	%
1995	4.6	0.8	3.1–6.1	4.2	1.6	1.1	0.0–3.7	6.5	4.2	0.7	2.9–5.5	4.3
1996	4.8	0.6	3.6–5.9	4.2	5.8	1.8	2.4–9.3	7.0	5.0	0.6	3.9–6.1	4.5
1997	4.5	0.5	3.5–5.5	4.4	6.7	1.4	4.0–9.4	7.0	4.7	0.5	3.9–5.6	4.8
1998	5.3	0.6	4.1–6.4	4.8	9.2	2.5	4.2–14.1	8.3	5.8	0.6	4.6–6.9	5.4
1999	5.5	0.7	4.3–6.8	5.1	12.7	3.0	6.8–18.5	8.3	6.1	0.6	4.8–7.3	5.6
2000	6.1	0.6	4.9–7.3	5.7	9.0	2.4	4.3–13.6	9.7	6.4	0.6	5.2–7.5	6.1
2001	7.0	0.6	5.9–8.1	5.9	8.4	1.7	5.0–11.9	9.2	7.2	0.5	6.2–8.2	6.5

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health. Behavioral Risk Factor Surveillance System. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] “All” includes all races.

[4] For adults (18 years and older).

*Estimated US Prevalence based on BRFSS National Median, 1995–2001.

Table 2.3
Estimated Prevalence of Diabetes by Race, Ohio 2000.^{[1][2][3][4]}

Race/Ethnicity	%	SE	C.I.
White	6.1	0.6	4.9–7.3
Black	9.0	2.4	4.3–13.6
Hispanic	10.8	7.3	0.0–25.1
All	6.4	0.6	5.2–7.5

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] “All” includes other races.

[4] For adults (18 years and older).

Age Group

The prevalence of diabetes increases with increasing age (*Figure 2.02, Table 2.4*).

The 1995–2001 prevalence rates for Ohioans with diabetes aged 18–34 years tended to be higher (although not statistically) compared to U.S. adults with diabetes in the same age group (*Figure 2.03, Table 2.4*).

Between 1995–1997 diabetes prevalence rates were similar for Ohio and U.S. adults aged 35–49 years. However, beginning in 1998, there was an increase in the prevalence of diabetes in Ohioans compared to U.S. persons with diabetes within this same age group (*Figure 2.04, Table 2.4*).

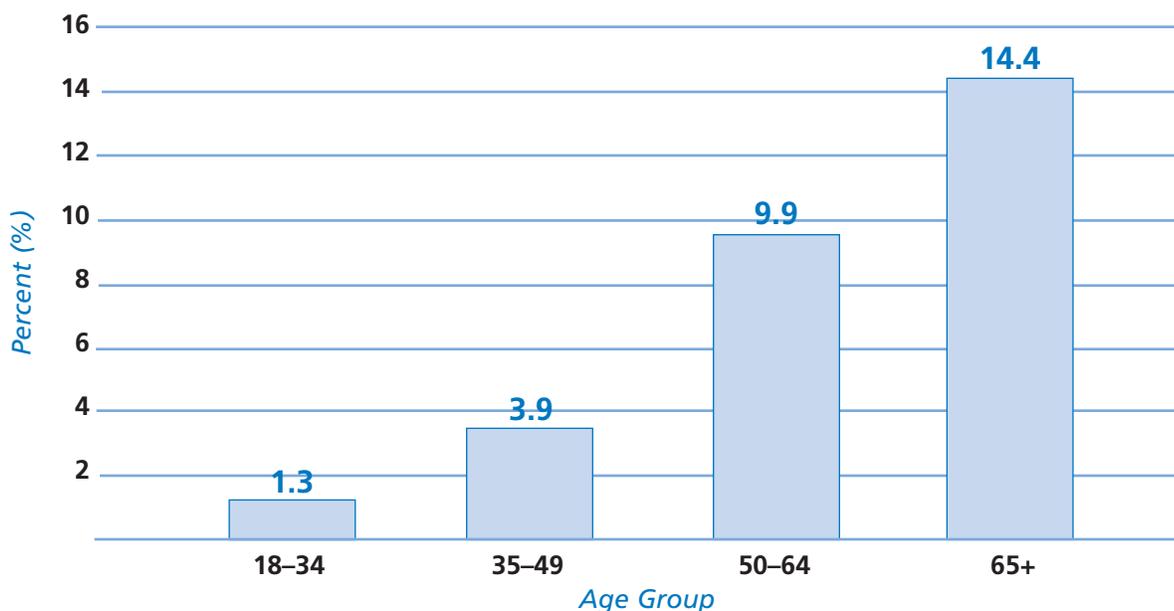
The U.S. and Ohio prevalence rates for adults 50–64 years of age also increased between 1995–2001 (*Figure 2.05, Table 2.4*).

Diabetes mellitus was most common among those over the age of 65 (*Figures 2.02, Table 2.4*). In 1995, the prevalence rates for those 65 years of age and older in Ohio and U.S. were 9.4 percent and 11 percent respectively. By 2001, the Ohio diabetes prevalence rate had increased notably, equaling that of the nation (14.9 percent) (*Figure 2.06, Table 2.4*).

Ohio’s population in 1995 was 11.2 million. In 2025 that number is estimated to increase slightly to 11.7 million. The proportion of Ohio’s population classified as elderly was 13.4 percent in 1995 and is expected to rise to 19.6 percent by 2025 (18). Due to the anticipated increase in the percent of elderly Ohioans, an increase in the percent of aged persons with diabetes is also expected.

Figure 2.02

Estimated Prevalence of Diabetes by Age Group, Ohio 2000.^{[1][2][3]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The percentage was adjusted to: 1) probability of selection, i.e., the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e., age, sex, and race.

[2] "Don't know/Not sure" and "Refused" were excluded from the denominator.

[3] For adults (18 years and older).

Table 2.4

Estimated Prevalence of Diabetes by Age Group and Year, Ohio and the United States* 1995–2001.^{[1][2][3]}

Year	Age Group															
	18–34				35–49				50–64				65(+)			
	Ohio			US	Ohio			US	Ohio			US	Ohio			US
	%	SE	C.I.	%	%	SE	C.I.	%	%	SE	C.I.	%	%	SE	C.I.	%
1995	0.9	0.5	0.0–1.9	0.8	3.3	1.3	0.8–5.8	2.8	6.3	2.0	2.4–10.2	7.3	9.4	2.0	5.6–13.2	11.1
1996	1.5	0.7	0.1–2.9	0.9	2.3	0.7	0.9–3.7	2.5	9.0	1.9	5.4–12.6	7.4	11.3	1.9	7.7–14.9	11.2
1997	1.0	0.4	0.1–1.9	0.8	2.6	0.6	1.4–3.8	2.7	7.9	1.4	5.2–10.5	8.1	11.1	1.4	8.4–13.9	11.6
1998	1.3	0.7	0.0–2.7	1.0	4.4	1.0	2.5–6.4	2.8	7.7	1.4	4.9–10.5	8.8	12.7	1.7	9.4–16.1	12.5
1999	1.2	0.6	0.0–2.4	1.1	4.5	1.1	2.4–6.7	3.0	9.1	1.5	6.1–12.1	9.3	13.2	2.0	9.2–17.2	13.5
2000	1.3	0.5	0.3–2.4	1.0	3.9	0.8	2.4–5.5	3.7	9.9	1.7	6.6–13.3	10.7	14.4	2.0	10.4–18.3	14.0
2001	1.4	0.5	0.6–2.4	1.2	4.5	0.7	3.1–6.0	4.0	12.7	1.5	9.8–15.5	11.0	14.9	1.6	11.7–18.1	14.9

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section BHSIOS- Prevention, Ohio Department of Health. Behavioral Risk Factor Surveillance System. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] "Don't know/Not sure" and "Refused" were excluded from the denominator.

[3] For adults (18 years and older).

*Estimated US Prevalence based on BRFSS National Median, 1995–2001.

Figure 2.03

Estimated Prevalence of Diabetes for Persons 18–34 Years Old, by Year, Ohio and the United States* 1995–2001.^{[1][2]}

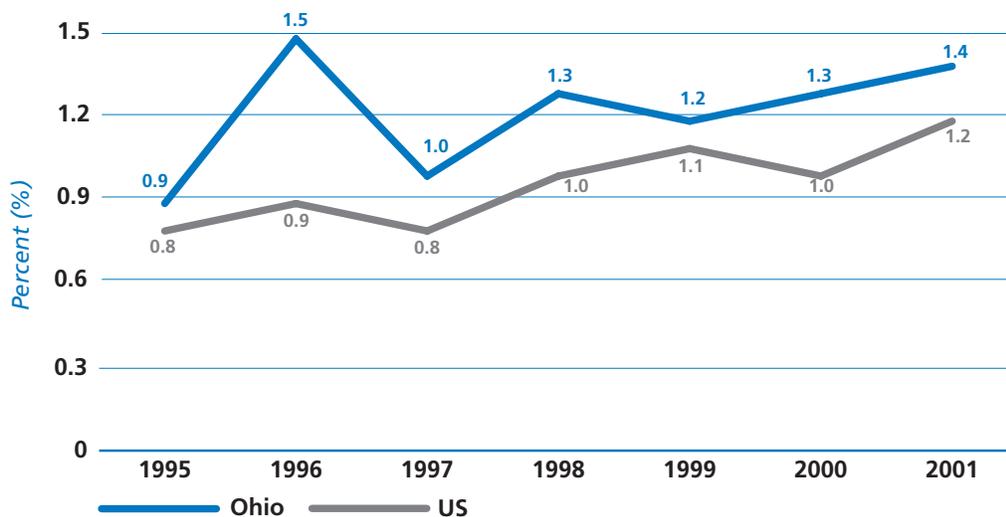
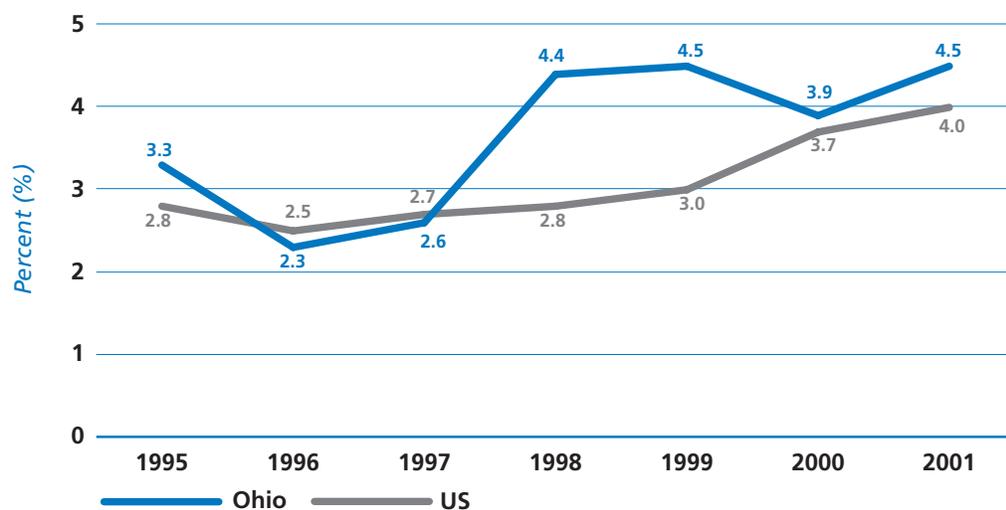


Figure 2.04

Estimated Prevalence of Diabetes for Persons 35–49 Years Old, by Year, Ohio and the United States* 1995–2001.^{[1][2]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health, Behavioral Risk Factor Surveillance System Atlanta, Georgia; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

[1] The percentage was adjusted to: 1) probability of selection, i.e., the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e., age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

*Estimated US Prevalence based on BRFSS National Median, 1995-2001.

Figure 2.05

Estimated Prevalence of Diabetes for Persons 50–64 Years Old, by Year, Ohio and the United States* 1995–2001.^{[1][2]}

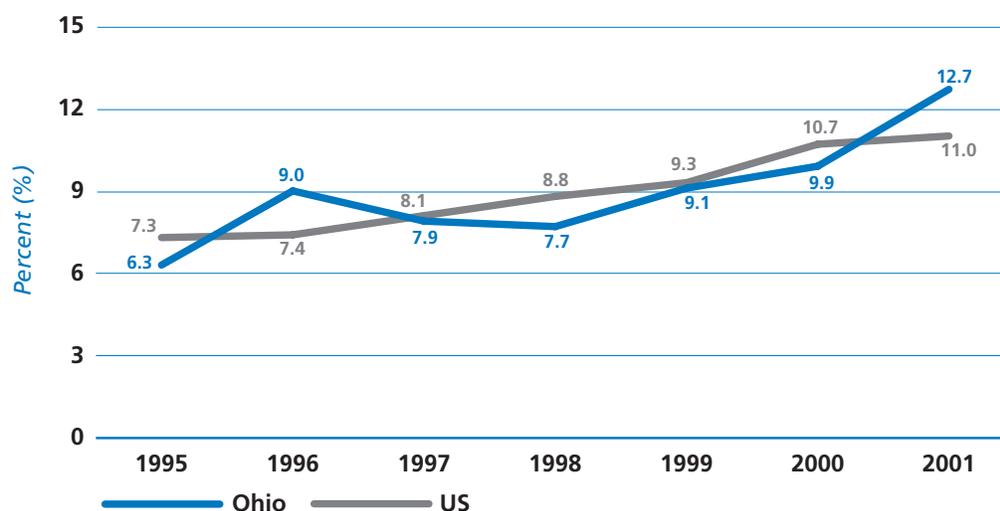
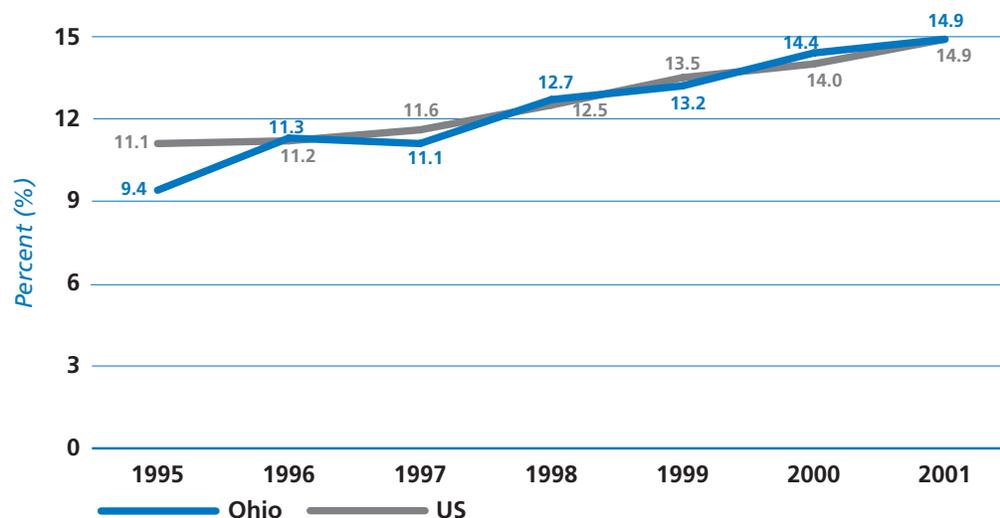


Figure 2.06

Estimated Prevalence of Diabetes for Persons 65 Years and Older, by Year, Ohio and the United States* 1995–2001.^{[1][2]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health, Behavioral Risk Factor Surveillance System Atlanta, Georgia; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

[1] The percentage was adjusted to: 1) probability of selection, i.e., the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e., age, sex, and race.

[2] "Don't know/Not sure" and "Refused" were excluded from the denominator.

*Estimated US Prevalence based on BRFSS National Median, 1995–2001.

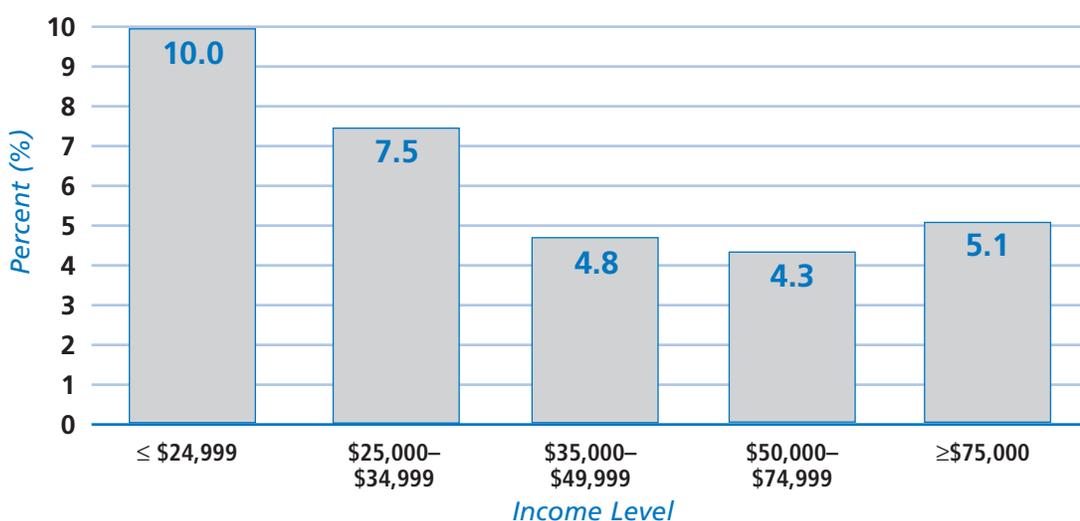
Social and Economic Characteristics

Income and Education

The prevalence of diabetes increases as a person’s income level decreases. In Ohio, in 2000, diabetes was more common in adults with a household income of less than \$25,000 compared to adults with diabetes whose annual household income was over \$75,000 (Figure 2.07, Table 2.5). The prevalence of diabetes decreases as a person’s education level increases. Those with less education appear to be more likely to develop diabetes (Figure 2.08, Table 2.6). Lower socio-economic status (i.e., lower income and less education) has been associated with diabetes.

Figure 2.07

Estimated Prevalence of Diabetes by Annual Household Income, Ohio 2000.^{[1][2][3]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] For adults (18 years and older).

Table 2.5

Estimated Prevalence of Diabetes by Annual Household Income, Ohio 2000.^{[1][2][3]}

Income Level	%	SE	C.I.
≤ \$24,999	10.0	1.6	6.9–13.0
\$25,000–\$34,999	7.5	1.7	4.2–10.8
\$35,000–\$49,999	4.8	1.4	2.1–7.6
\$50,000–\$74,999	4.3	1.2	2.0–6.7
≥ \$75,000	5.1	1.6	1.9–8.2

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

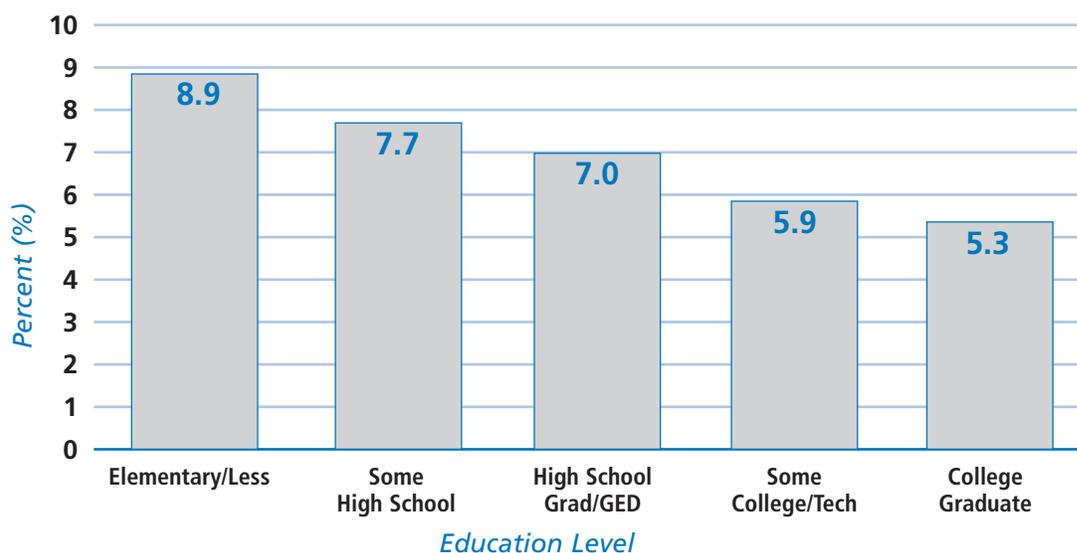
[1] The percentage was adjusted to: 1) probability of selection, i.e., the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e., age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] For adults (18 years and older).

Figure 2.08

Estimated Prevalence of Diabetes by Education, Ohio 2000.^{[1][2][3]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The percentage was adjusted to: 1) probability of selection, i.e., the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e., age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] For adults (18 years and older).

Table 2.6

Estimated Prevalence of Diabetes by Education, Ohio 2000.^{[1][2][3]}

Education Level	%	SE	C.I.
Elementary/Less	8.9	3.9	1.3–16.5
Some High School	7.7	1.9	3.9–11.4
High School Grad/GED	7.0	1.1	4.9–9.1
Some College or Tech School	5.9	1.2	3.6–8.3
College Grad	5.3	1.1	3.2–7.4

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] For adults (18 years and older).

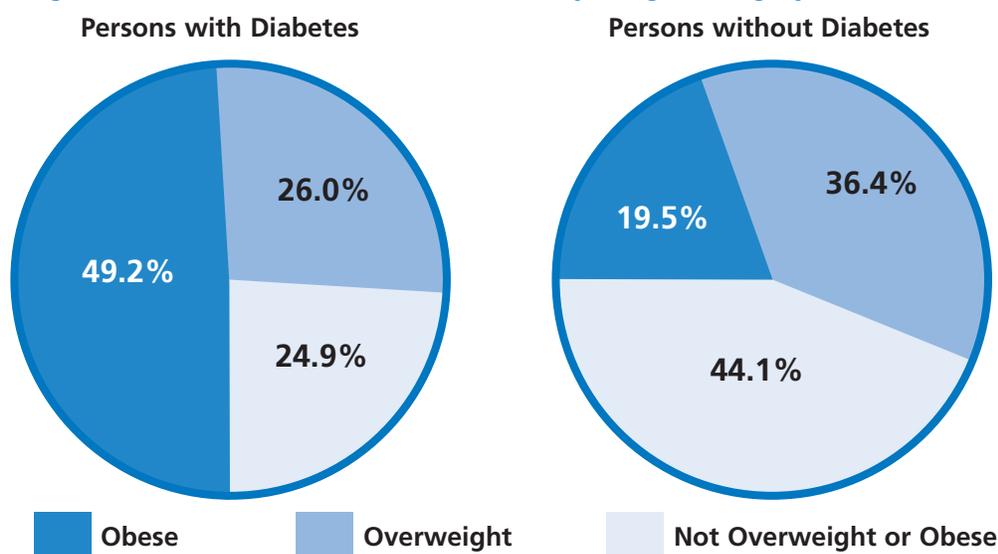
Risk Factors

Weight

Adults who are overweight or obese are at increased risk for diabetes. In 2000, 75 percent of Ohio adults with diabetes were overweight or obese compared to 56 percent of adults without diabetes (*Figure 2.09, Table 2.7*). Between 1995–2001, being obese or overweight was more common among Ohio adults with diabetes compared to Ohioans without diabetes (*Figure 2.10, Table 2.8*).

Figure 2.09

Percentage of Adults with and without Diabetes by Weight Category, Ohio 2000.^{[1][2][3][4][5]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] "Don't Know" and "Refused" were excluded from the denominator.

[3] The following categories are defined as: Not Overweight or Obese BMI <25, Overweight 25≤BMI≤29.9, Obese BMI ≥30.

[4] For adults (18 years and older).

[5] Totals may not equal 100% due to rounding.

Table 2.7

Percentage of Adults with and without Diabetes by Weight Category, Ohio 2000.^{[1][2][3][4][5]}

Weight Categories	Diabetes			No Diabetes		
	%	SE	C.I.	%	SE	C.I.
Not Overweight	24.9	4.5	16.1–33.7	44.1	1.3	41.4–46.7
Overweight	26.0	4.1	17.9–34.0	36.4	1.3	33.8–39.0
Obese	49.2	5.1	39.2–59.1	19.5	1.0	17.5–21.5

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] "Don't know/Not sure" and "Refused" were excluded from the denominator.

[3] The Following categories are defined as: Not Overweight or Obese BMI <25, Overweight 25≤BMI≤29.9, Obese BMI ≥30.

[4] For adults (18 years and older).

[5] Totals may not equal 100% due to rounding.

Figure 2.10
Percentage of Adults Who Are Overweight or Obese
by Diabetes Status and Year, Ohio 1995–2001.^{[1][2][3][4]}

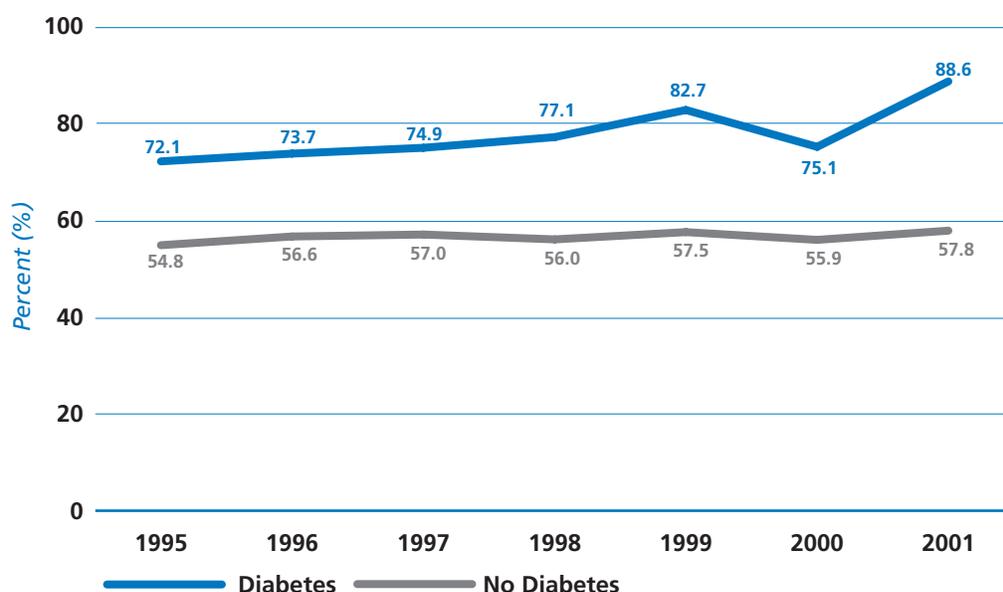


Table 2.8
Percentage of Adults Who are Overweight or Obese
by Diabetes Status and Year, Ohio 1995–2001.^{[1][2][3][4]}

Year	Diabetes			No Diabetes		
	%	SE	C.I.	%	SE	C.I.
1995	72.1	7.7	56.9–87.2	54.8	1.6	51.7–57.9
1996	73.7	5.1	63.7–83.7	56.6	1.5	53.7–59.4
1997	74.9	4.2	66.7–83.0	57.0	1.2	54.6–59.4
1998	77.1	4.6	68.1–86.2	56.0	1.3	53.4–58.6
1999	82.7	4.4	74.0–91.3	57.5	1.6	54.5–60.5
2000	75.1	4.5	66.3–83.9	55.9	1.3	53.3–58.6
2001	88.6	2.2	84.3–93.0	57.8	1.1	55.6–60.0

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

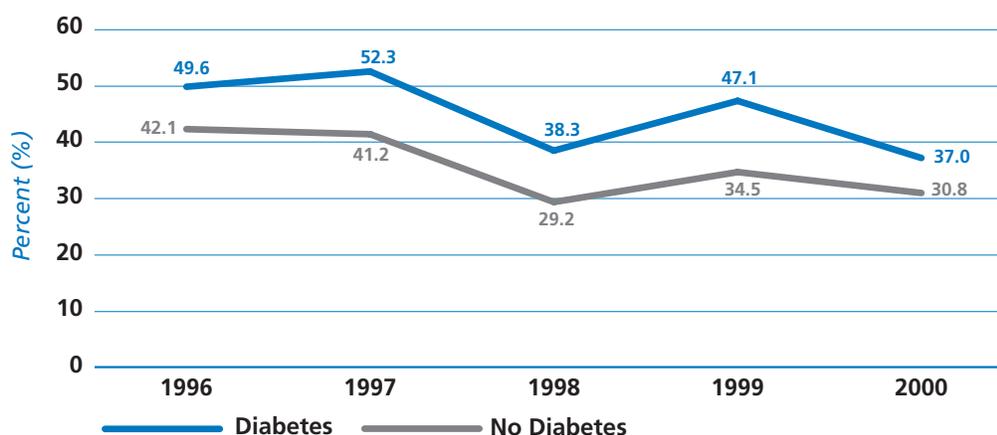
[3] Overweight or obese was defined as BMI ≥ 25.

[4] For adults (18 years and older).

Physical activity

Lack of physical activity is a risk factor for diabetes. Between 1996–2000, the percent of Ohio adults with diabetes who reported no physical activity was higher compared to persons without diabetes (Figure 2.11, Table 2.9). In 2000, 23 percent of adults with diabetes compared to 29 percent of adults without diabetes reported doing irregular exercise. The percent of adults with (40 percent) and without (41 percent) diabetes who had regular physical activity were nearly equal (Figure 2.12, Table 2.10).

Figure 2.11
Percentage of Adults Who Report No Leisure Time Physical Activity by Diabetes Status and Year, Ohio 1996–2000.^{[1][2][3]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS—Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] "Don't Know" and "Refused" were excluded from the denominator.

[3] For adults (18 years and older).

Table 2.9
Percentage of Adults who Report No Leisure Time Physical Activity by Diabetes Status and Year, Ohio 1996–2000.^{[1][2][3]}

Year	Diabetes			No Diabetes		
	%	SE	C.I.	%	SE	C.I.
1996	49.6	5.9	38.2–61.1	42.1	1.5	39.2–45.0
1997	52.3	4.9	42.7–61.8	41.2	1.3	38.7–43.7
1998	38.3	4.9	28.6–47.9	29.2	1.2	26.8–31.5
1999	47.1	5.4	36.6–57.6	34.5	1.5	31.5–37.4
2000	37.0	4.7	27.8–46.2	30.8	1.2	28.4–33.2

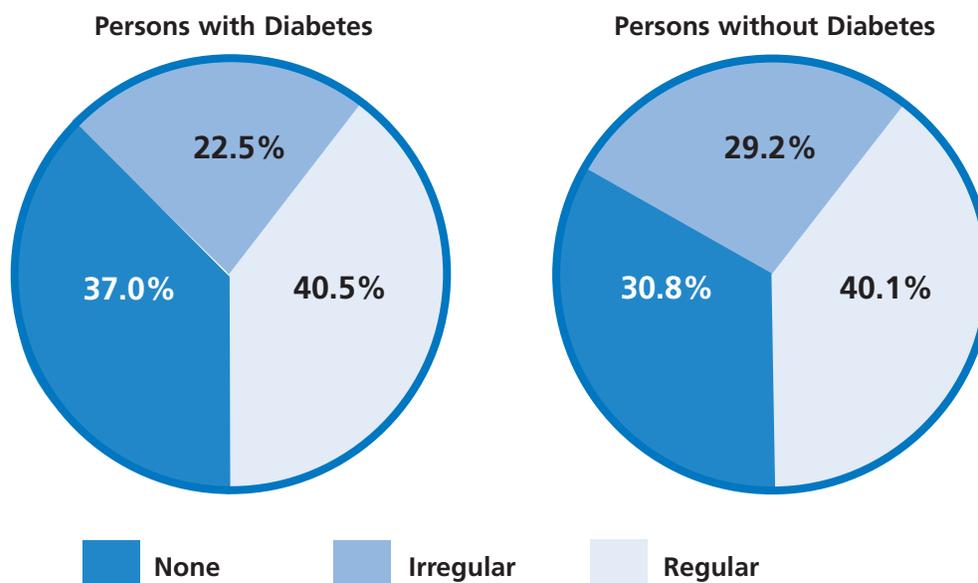
Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex and race.

[2] "Don't know/Not sure" and "Refused" were excluded from the denominator.

[3] For adults (18 years and older).

Figure 2.12
Percentage of Adults with and without Diabetes by Physical Activity Status, Ohio 2000.^{[1][2][3][4][5]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS—Prevention, Ohio Department of Health.

- [1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.
- [2] "Don't Know" and "Refused" were excluded from the denominator.
- [3] The following categories are defined as: None = Reported no physical activity. Irregular = Any physical activity or pair of activities done for less than 20 minutes or less than three times per week. Regular = Any physical activity or pair of activities done for 20 or more minutes, three or more times per week.
- [4] For adults (18 years and older).
- [5] Totals may not equal 100% due to rounding.

Table 2.10
Percentage of Adults with and without Diabetes by Physical Activity Status, Ohio 2000.^{[1][2][3][4][5]}

Physical Activity Status	Diabetes			No Diabetes		
	%	SE	C.I.	%	SE	C.I.
None	37.0	4.7	27.8–46.2	30.8	1.2	28.4–33.2
Irregular	22.5	4.0	14.8–30.3	29.2	1.2	26.9–31.5
Regular	40.5	4.9	30.8–50.1	40.1	1.3	37.5–42.6

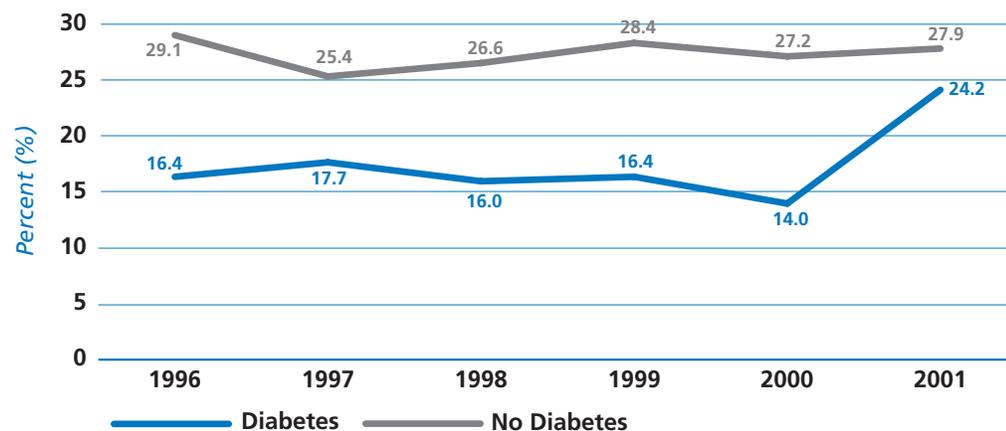
Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

- [1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.
- [2] "Don't know/Not sure" and "Refused" were excluded from the denominator.
- [3] The following categories are defined as: None = Reported no physical activity. Irregular = Any physical activity or pair of activities done for less than 20 minutes or less than three times per week. Regular = Any physical activity or pair of activities done for 20 or more minutes, three or more times per week.
- [4] For adults (18 years and older).
- [5] Totals may not equal 100% due to rounding.

Cigarette Smoking

Between 1996–2001, the percentage of adult Ohioans with diabetes who currently smoke was less compared to adults without diabetes (Figure 2.13, Table 2.11). More adults with diabetes (36 percent) were former smokers compared to adults without diabetes (22 percent). The percent of adults with and without diabetes who never smoked were nearly equal, 50 percent and 51 percent respectively (Figure 2.14, Table 2.12). Smoking can cause an increase in morbidity and mortality among persons with diabetes.

Figure 2.13
Percentage of Adults who Currently Smoke by Diabetes Status and Year, Ohio 1996–2001.^{[1][2][3][4]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS–Prevention, Ohio Department of Health.

- [1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.
- [2] “Don’t Know” and “Refused” were excluded from the denominator.
- [3] Current Smoker is defined as: Reported smoking at least 100 cigarettes in lifetime, and currently smokes at least some days,
- [4] For adults (18 years and older).

Table 2.11
Percentage of Adults who Currently Smoke by Diabetes Status and Year, Ohio 1996–2001.^{[1][2][3][4]}

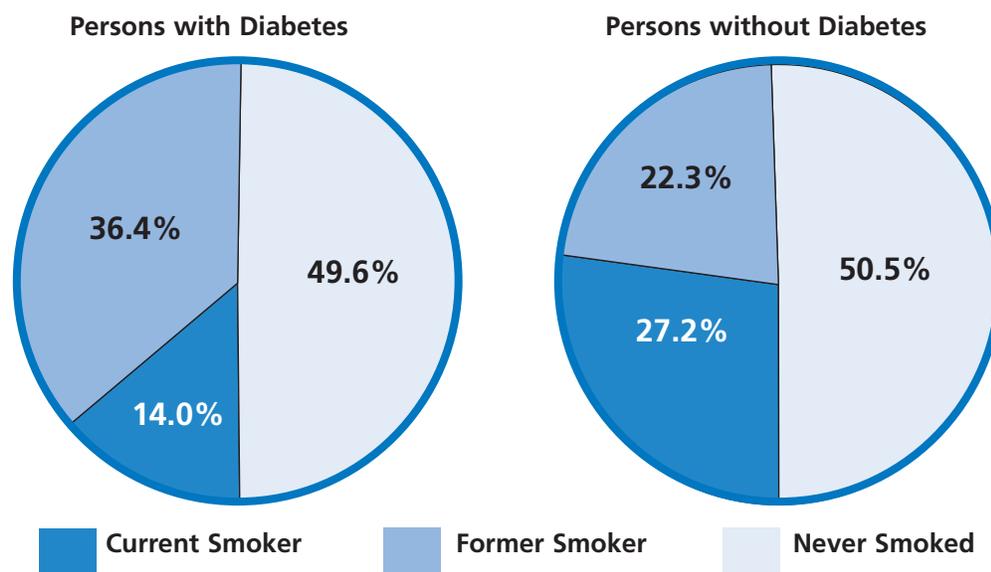
Year	Diabetes			No Diabetes		
	%	SE	C.I.	%	SE	C.I.
1996	16.4	4.5	7.6-25.2	29.1	1.4	26.3-31.9
1997	17.7	3.9	10.0-25.3	25.4	1.1	23.4-27.5
1998	16.0	4.0	8.2-23.8	26.6	1.2	24.3-29.0
1999	16.4	4.1	8.4-24.3	28.4	1.4	25.6-31.1
2000	14.0	3.0	8.0-19.9	27.2	1.2	24.8-29.5
2001	24.2	3.2	17.9-30.4	27.9	1.0	26.0-29.8

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS–Prevention, Ohio Department of Health.

- [1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.
- [2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.
- [3] Current Smoker is defined as: Reported smoking at least 100 cigarettes in lifetime, and currently smokes at least some days.
- [4] For adults (18 years and older).

Figure 2.14

Percentage of Adults with and without Diabetes by Smoking Status, Ohio 2000.^{[1][2][3][4]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] "Don't Know" and "Refused" were excluded from the denominator.

[3] The following categories are defined as Current Smoker = Reported smoking at least 100 cigarettes in lifetime, and currently smokes at least some days, Former Smoker = Reported smoking at least 100 cigarettes in lifetime, currently does not smoke any days. Never Smoked = Reported not have smoked at least 100 cigarettes in lifetime

[4] For adults (18 years and older).

Table 2.12

Percentage of Adults with and without Diabetes by Smoking Status, Ohio 2000.^{[1][2][3][4]}

Smoking Status	Diabetes			No Diabetes		
	%	SE	C.I.	%	SE	C.I.
Current Smoker	14.0	3.0	8.0–19.9	27.2	1.2	24.8–29.5
Former Smoker	36.4	4.9	26.8–46.0	22.3	1.1	20.2–24.4
Never Smoked	49.6	4.9	40.0–59.3	50.5	1.3	47.9–53.1

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] "Don't know/Not sure" and "Refused" were excluded from the denominator.

[3] The following categories are defined as: Current Smoker = Reported smoking at least 100 cigarettes in lifetime, and currently smokes at least some days, Former Smoker = Reported smoking at least 100 cigarettes in lifetime, currently does not smoke any days. Never Smoked = Reported not have smoked at least 100 cigarettes in lifetime.

[4] For adults (18 years and older).

Diabetes Management

In Ohio between 1995–2001, the percentage of persons with diabetes who in the past year had seen a physician; (Table 2.13, Figure 2.15); had a dilated eye examination (Figure 2.16, Table 2.13); and had their feet checked (Figure 2.17, Table 2.13) fluctuated and did not increase appreciably from year to year. The percentage of Ohioans with diabetes who received an influenza vaccine (flu shot) declined notably in 2001 compared to previous four years (Figure 2.18, Table 2.13). The percentage of persons with diabetes that ever received the pneumonia vaccine had increased from 38 percent in 1997 to more than 50 percent by 2000 (Figure 2.19, Table 2.13). For persons with diabetes, receiving the proper examinations and vaccinations is necessary to control and manage the disease.

Table 2.13
Percentage of Adults Who Received the Following Diabetes Management Practice by Year, Ohio 1995–2001.^{[1][2][3]}

Year	Seen Doctor*			Dilated Eye Exam*			Feet Checked*			Flu Shot*			Pneumonia Vaccine#		
	%	SE	C.I.	%	SE	C.I.	%	SE	C.I.	%	SE	C.I.	%	SE	C.I.
1995	81.3	7.7	66.3–96.3	57.0	8.4	40.6–73.5	56.2	8.9	38.8–73.5	43.7	8.1	27.8–59.6	28.4	7.3	14.2–42.6
1996	89.3	3.6	82.2–96.3	68.1	5.6	57.1–79.1	64.5	6.0	52.8–76.2	N/A			N/A		
1997	96.5	1.2	94.3–98.8	68.2	4.5	59.5–77.0	70.8	4.6	61.8–79.9	62.2	4.4	53.6–70.8	38.9	4.6	29.8–48.0
1998	88.6	3.4	82.0–95.2	64.0	5.1	54.1–74.0	69.3	5.2	59.2–79.5	55.0	5.2	44.8–65.3	37.9	5.1	27.9–47.9
1999	93.3	2.6	88.2–98.3	70.9	4.8	61.5–80.3	71.7	5.0	61.9–81.5	52.3	5.4	41.8–62.8	44.3	5.5	33.5–55.0
2000	93.1	2.6	88.1–98.2	74.6	4.3	66.2–83.0	65.6	4.8	56.2–75.0	64.2	4.6	55.2–73.2	51.6	5.0	41.8–61.4
2001	92.4	1.9	88.6–96.1	69.4	3.6	62.4–76.4	63.9	3.6	56.7–71.0	48.7	3.7	41.5–55.9	50.7	3.8	43.3–58.1

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS– Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

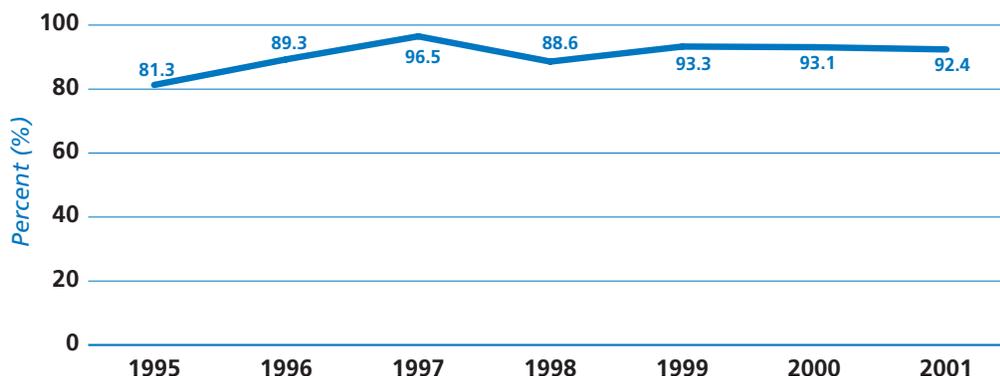
[3] For adults (18 years and older).

* In the past year.

Ever Received.

N/A Data not available for 1996.

Figure 2.15
Percentage of Adults with Diabetes Who have Seen a Doctor for their Diabetes in the Past Year, by Year, Ohio 1995–2001.^{[1][2][3]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS– Prevention, Ohio Department of Health.

[1] The percentage was adjusted to: 1) probability of selection, i.e., the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e., age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] For adults (18 years and older).

Figure 2.16

Percentage of Adults with Diabetes Who had a Dilated Eye Exam in the Past Year, by Year, Ohio 1995–2001.^{[1][2][3]}

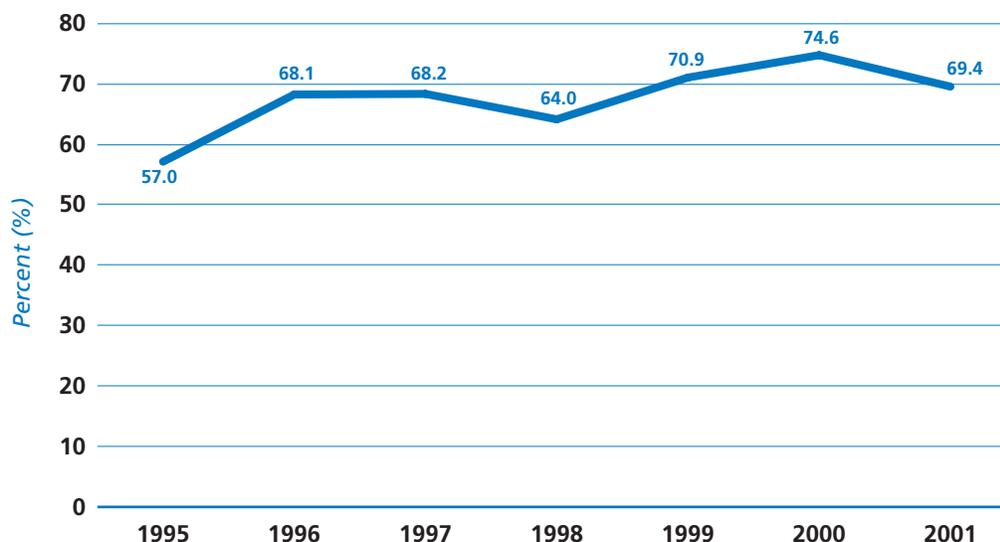
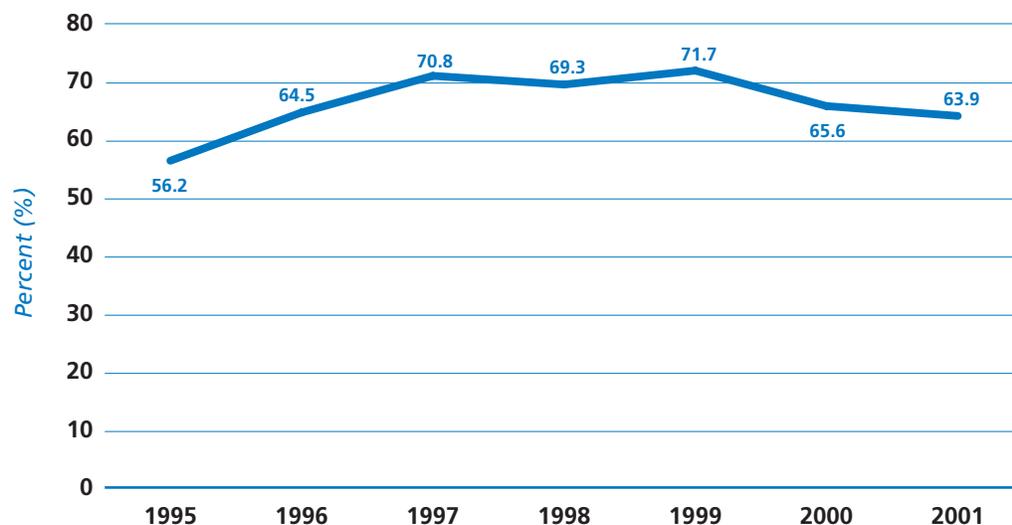


Figure 2.17

Percentage of Adults with Diabetes Who had Their Feet Checked by a Health Professional in the Past Year, by Year, Ohio 1995–2001.^{[1][2][3]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS—Prevention, Ohio Department of Health.

[1] The percentage was adjusted to: 1) probability of selection, i.e., the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e., age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] For adults (18 years and older).

Figure 2.18

Percentage of Adults with Diabetes Who had a Flu Shot in the Past Year, by Year, Ohio 1997–2001.^{[1][2][3]}

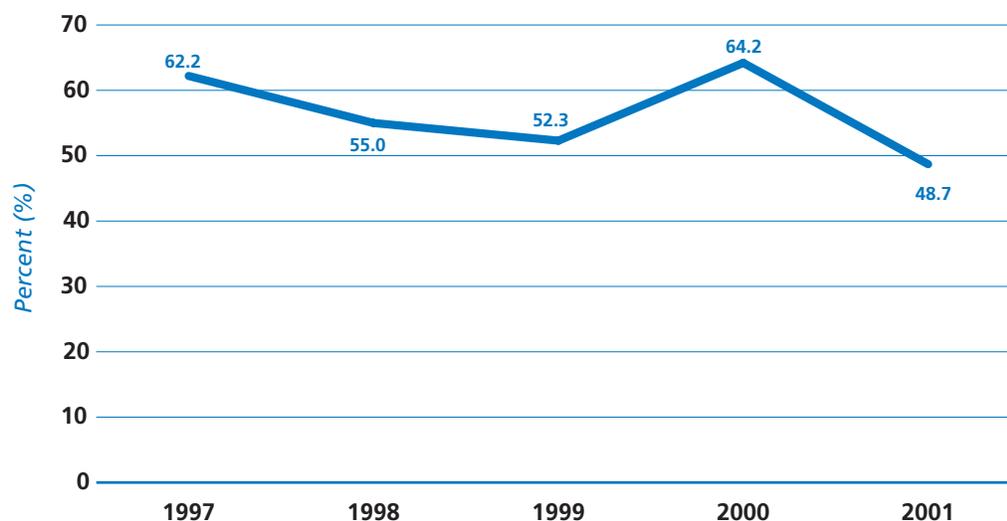
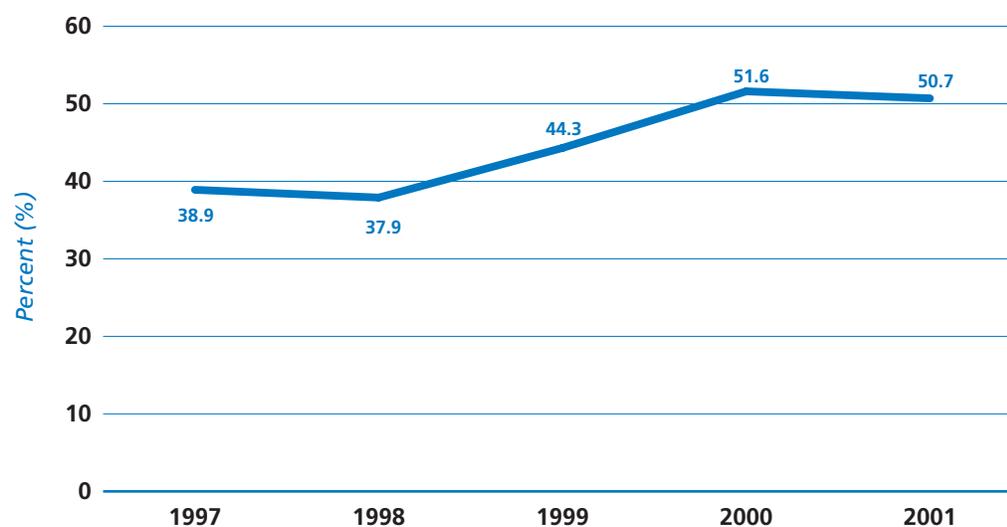


Figure 2.19

Percentage of Adults Who have Ever Received a Pneumonia Vaccination, by Year, Ohio 1997–2001.^{[1][2][3]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS—Prevention, Ohio Department of Health.

[1] The percentage was adjusted to: 1) probability of selection, i.e., the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e., age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

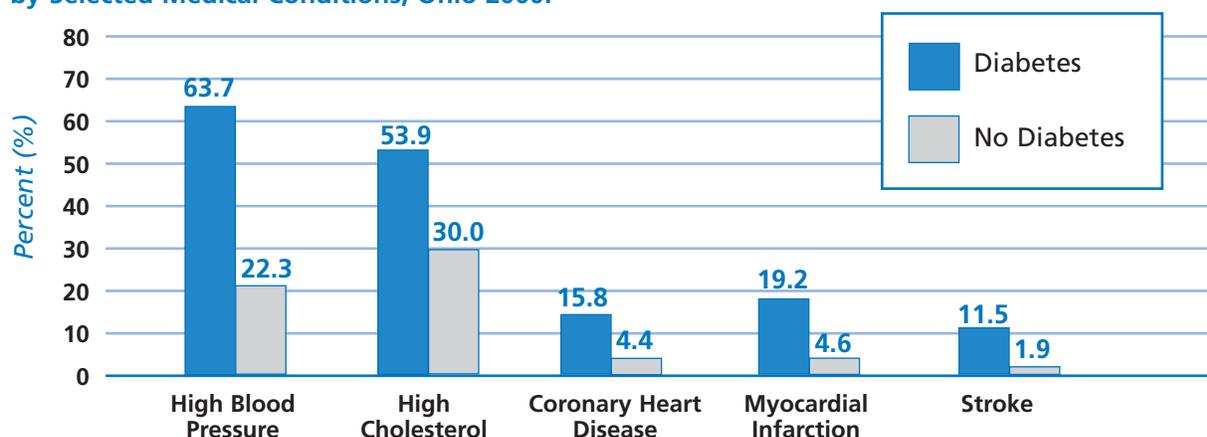
[3] For adults (18 years and older).

Medical Conditions

In Ohio in 2000, persons with diabetes had a higher percentage of other chronic medical conditions (high blood pressure, high cholesterol, coronary heart disease, stroke and myocardial infarction) compared to adults without diabetes (Figure 2.20, Table 2.14). Most notable was high blood pressure among persons with diabetes (64 percent) compared to adults without diabetes (22 percent). We did not control for age in this analysis and in general, persons with diabetes are older adults and older adults tend to have more chronic conditions. The persons without diabetes (Figure 2.20, Table 2.14) may be a younger group of adults and thus have fewer chronic medical conditions.

Figure 2.20

Percentage of Adults with and without Diabetes by Selected Medical Conditions, Ohio 2000.^{[1][2][3]}



Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The percentage was adjusted to: 1) probability of selection, i.e., the number of different phone numbers that reach the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e., age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] For adults (18 years and older).

Table 2.14

Percentage of Adults with and without Diabetes by Selected Medical Conditions, Ohio 2000.^{[1][2][3]}

Medical Condition	Diabetes			No Diabetes		
	%	SE	C.I.	%	SE	C.I.
High Blood Pressure	63.7	4.8	54.3–73.1	22.3	1.1	20.1–24.5
High Cholesterol	53.9	5.1	43.9–63.9	30.0	1.4	27.3–32.7
Coronary Heart Disease	15.8	3.6	8.7–22.9	4.4	0.5	3.4–5.4
Myocardial Infarction	19.2	4.2	11.0–27.4	4.6	0.6	3.5–5.7
Stroke	11.5	3.7	4.2–18.7	1.9	1.6	0.0–5.0

Source: Ohio Behavioral Risk Factor Surveillance System, Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] “Don’t know/Not sure” and “Refused” were excluded from the denominator.

[3] For adults (18 years and older).

Ohio Medicaid Program

The Ohio Medicaid Program provides health care for three main groups of low-income Ohioans: parents (pregnant women) and children, the elderly, and the blind or disabled. In 2000, the Medicaid program covered almost 1.4 million Ohioans. Nearly 60 percent were women, 63 percent were white, 33 percent were black and, 4 percent were other (Asian, Hispanic, Native American, and other) races. Eighty percent were less than 45 years of age (Table 3.1).

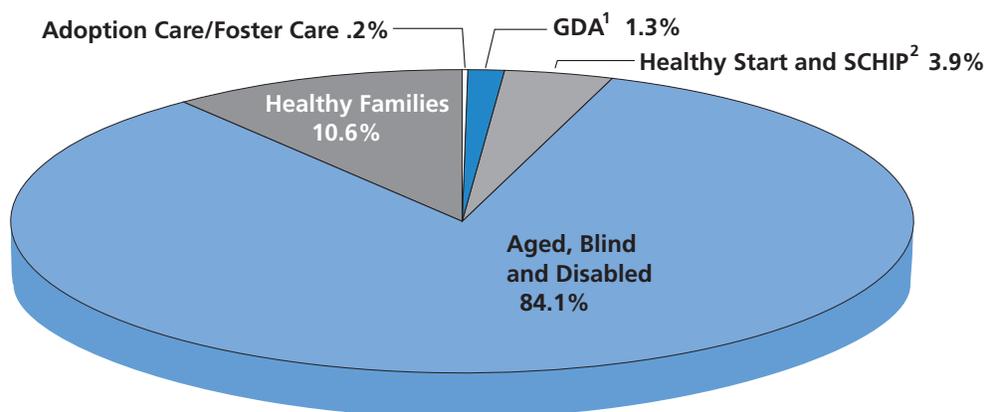
Prevalence (Gender, Race and Age Group)

Approximately 3 percent of Medicaid recipients were diagnosed with diabetes. Of these, 72 percent were women. The diabetes prevalence rates among the races were nearly equal; 2.7 percent for both whites and blacks each and 2.6 percent for all other races (Table 3.1). Nearly 64 percent of Medicaid recipients with diabetes were age 45 years or older. Eighty-four percent of diabetes Medicaid beneficiaries were classified as elderly, blind or disabled (Figure 3.01) compared to 29 percent of the general Medicaid population.

The age-specific prevalence of diabetes increased with age until age 65 years and older (Figure 3.02, Table 3.1). After the age of 65 many persons become insured under Medicare, thus a decrease in the number of persons enrolled in Medicaid including those with diabetes. Diabetes was most common in those 45–64 years of age. Prevalence was higher for females than for males; this was true across all races. Black and other females 45–64 years old had the highest diabetes prevalence rates of all age-racial-gender groups (Figure 3.02, Table 3.1).

Figure 3.01

Distribution of Medicaid Recipients with Diabetes by Aid Category, Ohio 2000.



Source: Ohio Medicaid Program, analysis completed by Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] General disability assistance.

[2] State Funded Children's Health Insurance Program.

Table 3.1
Prevalence of Diabetes Among Medicaid Recipients by Race, Gender and Age Group, Ohio 2000.^[1]

White

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES
0-17	399	220,986	0.2%	452	212,280	0.2%	851	433,266	0.2%
18-44	1,753	77,043	2.3%	3,839	177,516	2.2%	5,592	254,559	2.2%
45-64	3,301	34,761	9.5%	7,474	53,863	13.9%	10,775	88,624	12.2%
65-74	890	12,288	7.2%	2,671	25,924	10.3%	3,561	38,212	9.3%
75+	715	15,581	4.6%	3,022	61,907	4.9%	3,737	77,488	4.8%
Total	7,058	360,659	2.0%	17,458	531,490	3.3%	24,516	892,149	2.7%

Black

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES
0-17	177	139,568	0.1%	262	135,687	0.2%	439	275,255	0.2%
18-44	763	26,581	2.9%	2,497	95,977	2.6%	3,260	122,558	2.7%
45-64	1,533	12,143	12.6%	3,699	21,272	17.4%	5,232	33,415	15.7%
65-74	387	3,778	10.2%	1,556	9,515	16.4%	1,943	13,293	14.6%
75+	242	3,346	7.2%	1,263	12,500	10.1%	1,505	15,846	9.5%
Total	3,102	185,416	1.7%	9,277	274,951	3.4%	12,379	460,367	2.7%

Other¹

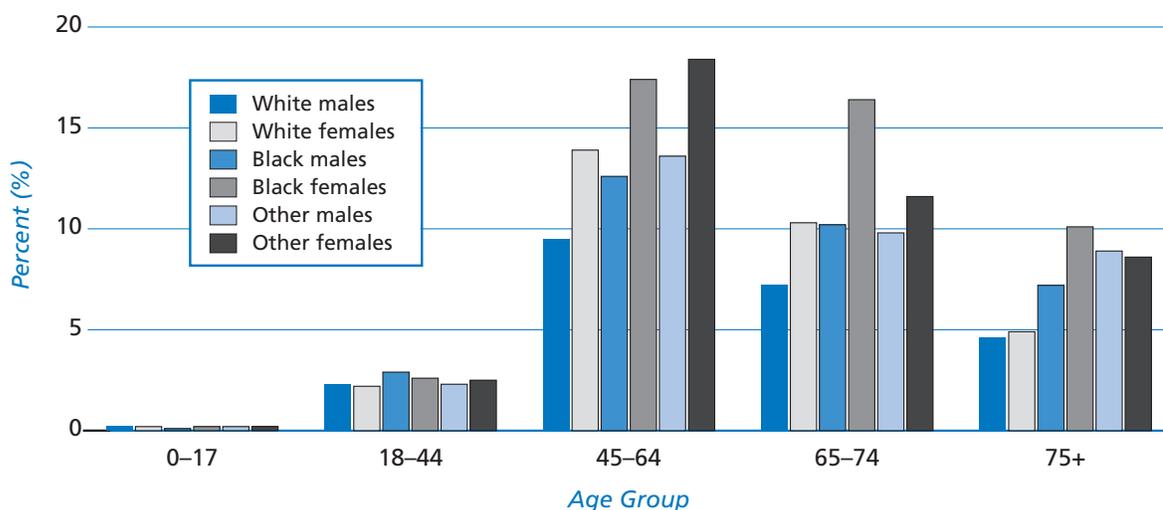
AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES
0-17	33	19,569	0.2%	43	18,514	0.2%	76	38,083	0.2%
18-44	107	4,639	2.3%	280	11,150	2.5%	387	15,789	2.5%
45-64	230	1,685	13.6%	442	2,407	18.4%	672	4,092	16.4%
65-74	94	955	9.8%	200	1,720	11.6%	294	2,675	11.0%
75+	74	828	8.9%	146	1,702	8.6%	220	2,530	8.7%
Total	538	27,676	1.9%	1,111	35,493	3.1%	1,649	63,169	2.6%

Total

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICAID RECIPIENTS	PREVALENCE OF DIABETES
0-17	609	380,123	0.2%	757	366,481	0.2%	1,366	746,604	0.2%
18-44	2,623	108,263	2.4%	6,616	284,643	2.3%	9,239	392,906	2.4%
45-64	5,064	48,589	10.4%	11,615	77,542	15.0%	16,679	126,131	13.2%
65-74	1,371	17,021	8.1%	4,427	37,159	11.9%	5,798	54,180	10.7%
75+	1,031	19,755	5.2%	4,431	76,109	5.8%	5,462	95,864	5.7%
Total	10,698	573,751	1.9%	27,846	841,934	3.3%	38,544	1,415,685	2.7%

Figure 3.02

Prevalence of Diabetes Among Medicaid Recipients* by Race, Gender and Age Group, Ohio 2000.^[1]



Source: Ohio Medicaid Program, analysis completed by Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] Other includes: Asian, Hispanic, Native American, and other races.

*Fee for service only.

Expenditures

In FY 2000, Ohio's Medicaid Program expenditures were \$7.6 billion. More than 8 percent (\$612 million) was spent on health care for recipients diagnosed with diabetes who represent less than 3 percent of the total Medicaid population (*Tables 3.1–3.3*). Other races had the lowest average expenditures per person compared to blacks and whites (*Tables 3.2, 3.4*). Although there were fewer men diagnosed with diabetes (*Table 3.1*) males had slightly higher average medical expenditures compared to women (*Table 3.4*). Medicaid recipients with diabetes 75 years of age and older had the highest average expenditures of all other age-groups (*Figure 3.03*).

Of the more than \$612 million spent on fee-for-service Medicaid recipients with a diagnosis of diabetes, 25.9 percent (\$158 million) (*Figure 3.04, Table 3.3*) was expended to nursing homes, caring for 17.9 percent (6,302) of the recipients with diabetes. Prescription drugs (diabetes-related and other medications) were the second-most expensive category and one of the most widely used benefits with 19.8 percent (\$121 million) (*Figure 3.04, Table 3.3*) going toward providing drugs for 96.2 percent (33,946) of the recipients with diabetes. Inpatient care was provided to 23.2 percent (8,195) of the diabetic recipients, costing 18.8 percent (\$115 million) (*Figure 3.04, Table 3.3*). Men had higher average expenditures related to inpatient care and habilitation. The fewest dollars were spent on services related to alcohol and drug services, the chiropractor, podiatrist, optometrist and dental care (*Figure 3.04, Tables 3.3, 3.4*).

Table 3.2

Medicaid Expenditures¹ per Person for Recipients¹ Diagnosed with Diabetes by Race, Gender and Age Group, Ohio 2000.

White

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹
0-17	270	5,040	1,360,702	313	8,373	2,620,761	583	6,829	3,981,463
18-44	1,630	16,044	26,152,151	3,176	13,342	42,373,720	4,806	14,258	68,525,871
45-64	3,243	18,210	59,053,894	7,353	16,842	123,840,639	10,596	17,261	182,894,534
65-74	890	17,887	15,919,202	2,671	16,772	44,797,930	3,561	17,051	60,717,132
75+	715	24,765	17,706,957	3,022	24,621	74,403,426	3,737	24,648	92,110,383
Total	6,748	17,812	120,192,906	16,535	17,420	288,036,478	23,283	17,533	408,229,384

Black

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹
0-17	80	10,454	836,287	102	11,068	1,128,922	182	10,798	1,965,209
18-44	681	15,817	10,771,489	1,405	13,140	18,462,382	2,086	14,014	29,233,871
45-64	1,476	20,066	29,617,227	3,443	17,064	58,752,113	4,919	17,965	88,369,340
65-74	386	19,644	7,582,582	1,555	16,023	24,916,342	1,941	16,743	32,498,923
75+	242	26,522	6,418,443	1,263	22,733	28,711,166	1,505	23,342	35,129,610
Total	2,865	19,276	55,226,029	7,768	16,989	131,970,925	10,633	17,605	187,196,953

Other²

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹
0-17	16	14,449	231,189	11	4,137	45,510	27	10,248	276,698
18-44	84	11,953	1,004,052	137	12,036	1,648,884	221	12,004	2,652,936
45-64	208	11,888	2,472,668	403	12,407	5,000,054	611	12,230	7,472,723
65-74	94	9,790	920,296	200	9,845	1,969,070	294	9,828	2,889,366
75+	74	13,649	1,010,059	146	12,945	1,890,018	220	13,182	2,900,077
Total	476	11,845	5,638,264	897	11,765	10,553,536	1,373	11,793	16,191,800

Total

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹	NUMBER OF RECIPIENTS WITH DIABETES	EXPENDITURES ¹ PER PERSON	TOTAL EXPENDITURES ¹
0-17	366	6,634	2,428,178	426	8,909	3,795,193	792	7,858	6,223,371
18-44	2,395	15,836	37,927,693	4,718	13,244	62,484,986	7,113	14,117	100,412,679
45-64	4,927	18,499	91,143,790	11,199	16,751	187,592,806	16,126	17,285	278,736,596
65-74	1,370	17,826	24,422,079	4,426	16,196	71,683,343	5,796	16,581	96,105,422
75+	1,031	24,380	25,135,459	4,431	23,698	105,004,611	5,462	23,826	130,140,070
Total	10,089	17,946	181,057,198	25,200	17,086	430,560,939	35,289	17,332	611,618,137

Source: Ohio Medicaid Program, analysis completed by Chronic Disease and Behavioral Epidemiology Section; BHSIOS-Prevention, Ohio Department of Health.

¹ Expenditures in dollars.

² Other includes: Asian, Hispanic, Native American and other races.

* Fee for service only.

Table 3.3
Total Medicaid Expenditures¹ for Recipients* Diagnosed with Diabetes by Health Service Category, Race and Gender, Ohio 2000.

GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/ PODIATRIST/ OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
White																		
Males	6,748	28,699,731	23,136,556	25,151,739	8,199,170	6,000,718	5,511,451	2,403,117	2,810,097	3,499,218	883,228	1,491,778	460,439	248,073	184,731	96,530	11,416,330	120,192,906
Females	16,535	82,344,352	63,143,236	45,261,604	18,912,145	14,495,585	13,820,105	7,585,086	7,142,507	2,619,434	1,949,338	1,759,029	1,042,399	633,947	234,899	363,174	26,729,638	288,036,478
Total	23,283	111,044,083	86,279,792	70,413,343	27,111,316	20,496,303	19,331,556	9,988,203	9,952,604	6,118,652	2,832,566	3,250,806	1,502,838	882,020	419,630	459,704	38,145,968	408,229,384
Black																		
Males	2,865	13,392,467	7,935,381	13,175,307	4,078,978	2,579,997	2,785,214	1,486,823	1,180,039	909,558	1,222,318	687,186	214,007	93,423	164,952	54,058	5,266,321	55,226,029
Females	7,768	30,916,703	23,473,239	27,235,097	10,209,969	6,680,541	6,951,316	3,228,437	3,154,127	510,849	2,498,115	358,908	505,888	242,163	252,553	164,831	15,588,189	131,970,925
Total	10,633	44,309,170	31,408,620	40,410,404	14,288,947	9,260,538	9,736,530	4,715,261	4,334,165	1,420,407	3,720,433	1,046,093	719,895	335,586	417,505	218,889	20,854,509	187,196,953
Other⁵																		
Males	476	1,143,420	1,205,266	1,242,750	454,419	316,414	413,535	172,640	124,519	123,369	91,810	20,268	39,737	7,953	11,979	3,734	266,450	5,638,264
Females	897	1,652,424	2,322,997	2,682,244	689,901	723,270	802,298	360,332	273,983	0	254,183	25,522	53,661	20,787	6,248	11,859	673,827	10,553,536
Total	1,373	2,795,844	3,528,263	3,924,994	1,144,321	1,039,684	1,215,833	532,972	398,502	123,369	345,993	45,790	93,398	28,740	18,227	15,593	940,277	16,191,800
Total																		
Males	10,089	43,235,618	32,277,204	39,569,795	12,732,568	8,897,129	8,710,200	4,062,580	4,114,655	4,532,145	2,197,356	2,199,231	714,183	349,448	361,663	154,322	16,949,101	181,057,198
Females	25,200	114,913,479	88,939,472	75,178,945	29,812,016	21,899,396	21,573,719	11,173,855	10,570,617	3,130,283	4,701,636	2,143,458	1,601,948	896,898	493,700	539,865	42,991,654	430,560,939
Total	35,289	158,149,097	121,216,675	114,748,741	42,544,583	30,796,525	30,283,919	15,236,435	14,685,272	7,662,428	6,899,993	4,342,689	2,316,131	1,246,346	855,363	694,186	59,940,754	611,618,137

Source: Ohio Medicaid Program, analysis completed by Chronic Disease and Behavioral Epidemiology Section; BHSIOS-Prevention, Ohio Department of Health.

1 Expenditures in Dollars.

2 Durable Medical Equipment.

3 Intermediate Care Facilities for the mentally retarded.

4 Federally Qualified Health Centers.

5 Other includes: Asian, Hispanic, Native American and other races.

*Fee for Service only.

Table 3.4
Average Medicaid Expenditures¹ per Person for Recipients* Diagnosed with Diabetes by Health Service Category, Race and Gender, Ohio 2000.

GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/PODIATRIST/OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
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White

Males	6,748	4,253	3,429	3,727	1,215	889	817	356	416	519	131	221	68	37	27	14	1,692	17,812
Females	16,535	4,980	3,819	2,737	1,144	877	836	459	432	158	118	106	63	38	14	22	1,617	17,420
Total	23,283	4,769	3,706	3,024	1,164	880	830	429	427	263	122	140	65	38	18	20	1,638	17,533

Black

Males	2,865	4,675	2,770	4,599	1,424	901	972	519	412	317	427	240	75	33	58	19	1,838	19,276
Females	7,768	3,980	3,022	3,506	1,314	860	895	416	406	66	322	46	65	31	33	21	2,007	16,989
Total	10,633	4,167	2,954	3,800	1,344	871	916	443	408	134	350	98	68	32	39	21	1,961	17,605

Other⁵

Males	476	2,402	2,532	2,611	955	665	869	363	262	259	193	43	83	17	25	8	560	11,845
Females	897	1,842	2,590	2,990	769	806	894	402	305	0	283	28	60	23	7	13	751	11,765
Total	1,373	2,036	2,570	2,859	833	757	886	388	290	90	252	33	68	21	13	11	685	11,793

Total

Males	10,089	4,285	3,199	3,922	1,262	882	863	403	408	449	218	218	71	35	36	15	1,680	17,946
Females	25,200	4,560	3,529	2,983	1,183	869	856	443	419	124	187	85	64	36	20	21	1,706	17,086
Total	35,289	4,482	3,435	3,252	1,206	873	858	432	416	217	195	123	66	35	24	20	1,699	17,332

Source: Ohio Medicaid Program, analysis completed by Chronic Disease and Behavioral Epidemiology Section, Ohio Department of Health.

1 Expenditures in Dollars.

2 Durable Medical Equipment.

3 Intermediate Care Facilities for the mentally retarded.

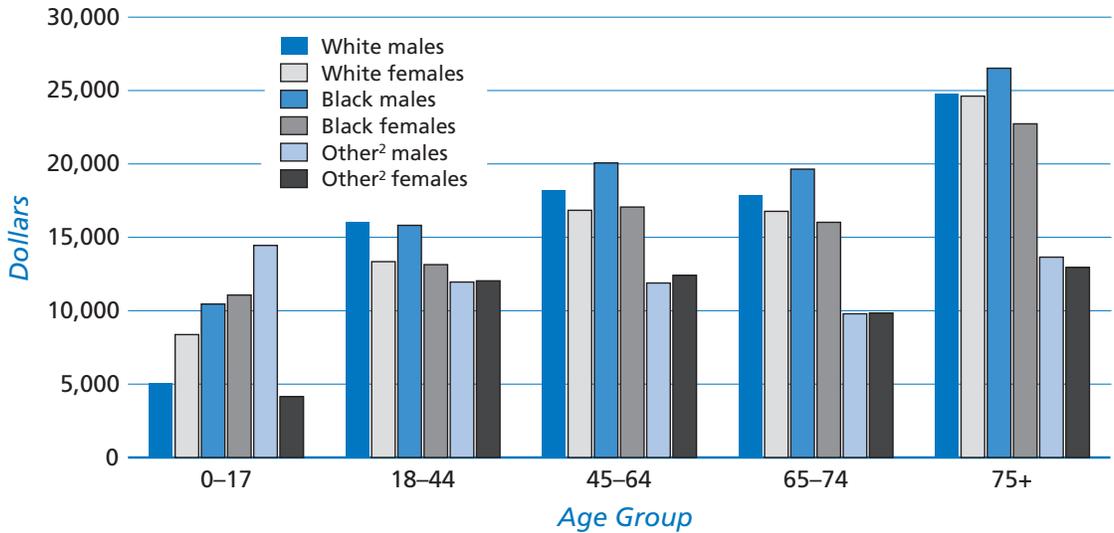
4 Federally Qualified Health Centers.

5 Other includes: Asian, Hispanic, Native American and other races.

*Fee for service only.

Figure 3.03

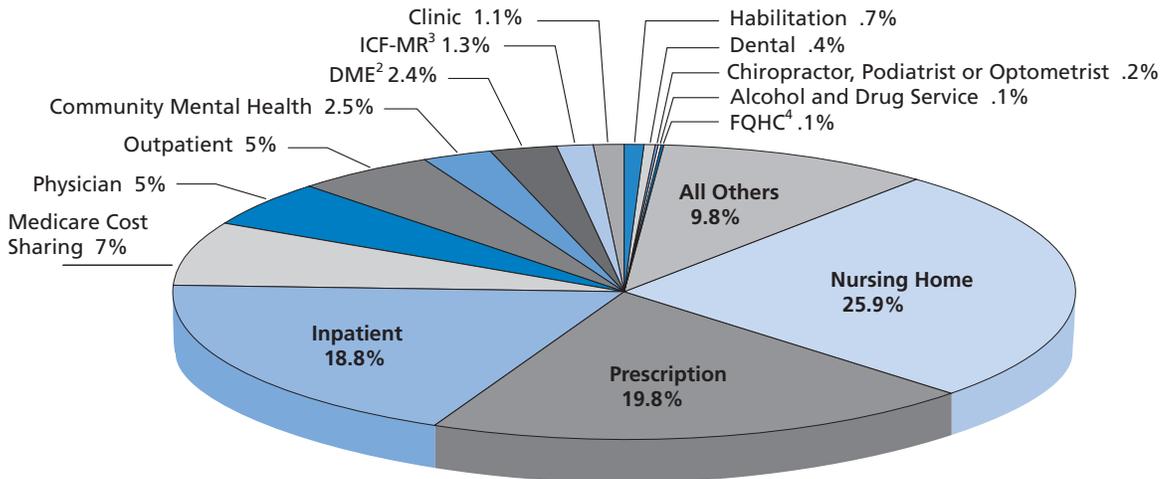
Average Medicaid Expenditures¹ per Person for Recipients* Diagnosed with Diabetes by Race, Gender and Age Group, Ohio 2000.



Source: Ohio Medicaid Program, analysis completed by Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.
 1 Expenditures in Dollars.
 2 Other includes: Asian, Hispanic, Native American and other races.
 *Fee for service only.

Figure 3.04

Health Service Category Percentages for Total Expenditures¹ for Medicaid Recipients* with Diabetes, Ohio 2000.



Source: Ohio Medicaid Program, analysis completed by Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.
 1 Expenditures in Dollars.
 2 Durable Medical Equipment.
 3 Intermediate Care Facilities for the Mentally Retarded.
 4 Federally Qualified Health Centers.
 *Fee for service only.

Ohio Hospital Discharge Data

Number of Hospital Discharges

Gender

The number of hospital discharges where diabetes was mentioned in the diagnosis (where diabetes was either the primary or a secondary listed diagnosis of hospital admission) increased steadily, rising by 20 percent between 1999 and 2001 (*Table 4.1*). In 2001, there were 227 hospital discharges with a mention of diabetes per 10,000 Ohio residents-up from 189 in 1999 (*Table 4.1, Figure 4.01*). Women had more discharges than men (*Table 4.1, Figure 4.01*). There were many more discharges per 10,000 persons with diabetes compared to 10,000 Ohio residents (*Table 4.1*). The average length of stay in hospitals decreased slightly for both men and women between 1999 and 2001 (*Table 4.1*).

Table 4.1

Hospital Discharges with any Mention of Diabetes¹ as a Listed Diagnosis by Year, Gender, Number of Discharges, Number of Days, Average Length of Stay², Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

Year	Gender	Number of Hospital Discharges	Total Number of Days	Average Length of Stay in Days ²	Discharges per 10,000 Ohio Residents	Discharges per 10,000 Ohio Diabetics
1999	Male	93,736	499,332	5.3	172	4,081
	Female	118,756	652,129	5.5	204	3,996
	Total	212,492	1,151,461	5.4	189	4,033
2000	Male	98,230	511,075	5.2	178	4,226
	Female	124,318	662,027	5.3	213	4,179
	Total	222,548	1,173,102	5.3	196	4,200
2001	Males	113,471	573,469	5.1	206	3,710
	Female	144,171	756,832	5.2	247	4,709
	Total	257,642	1,330,301	5.2	227	4,210

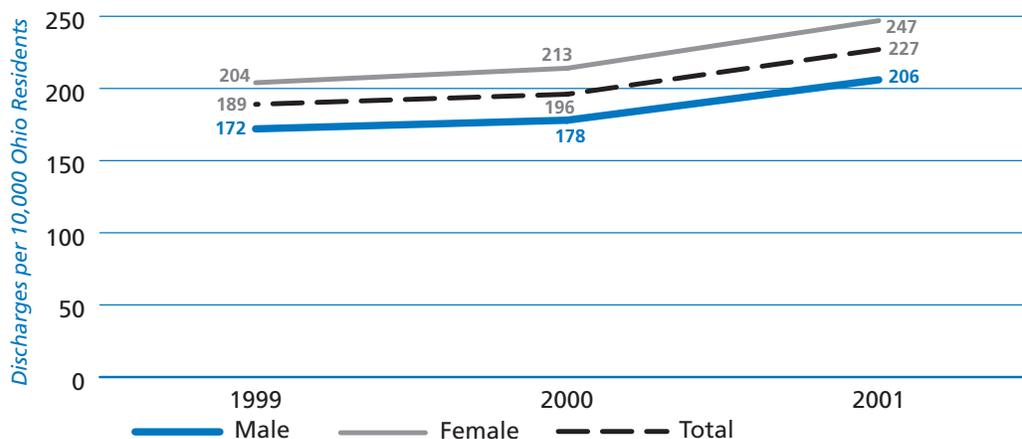
Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

¹ ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

² Number of days divided by number of hospital discharges.

Figure 4.01

The Number of Hospital Discharges with any Mention of Diabetes¹ as a Listed Diagnosis per 10,000 Residents, by Gender and Year, Ohio 1999–2001.



Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis by Chronic Disease and Behavioral Epidemiology Section; BHSIOS-Prevention, Ohio Department of Health.

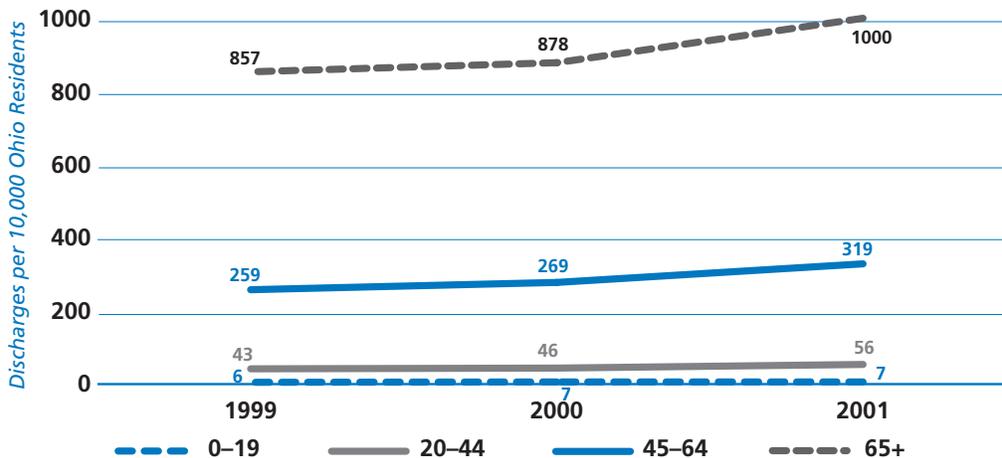
¹ ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

Age Group

The number of hospital discharges related to diabetes increased as the patient’s age increased (*Figure 4.02, Table 4.2*). Between 1999–2001, persons aged 65 years and older accounted for nearly 59 percent of the total number of discharges for diabetes (*Table 4.2*). In general, females had slightly higher discharge rates per 10,000 Ohio residents except for males 65 years of age and older (*Table 4.2*).

Figure 4.02

The Number of Hospital Discharges with any Mention of Diabetes¹ as a Listed Diagnosis per 10,000 Residents, by Age Group and Year, Ohio 1999–2001.



Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

¹ ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

Table 4.2

Hospital Discharges with any Mention of Diabetes¹ as a Listed Diagnosis by Year, Age Group, Gender, Number of Discharges and Discharges per 10,000 Residents, Ohio 1999–2001.

Year	Age Group	Males		Females		Total	
		Number Hospital Discharges	Hospital Discharges per 10,000 Ohio Residents	Number Hospital Discharges	Hospital Discharges per 10,000 Ohio Residents	Number Hospital Discharges	Hospital Discharges per 10,000 Ohio Residents
1999	0–19	834	5	1,209	8	2,043	6
	20–44	7,786	39	9,686	47	17,472	43
	45–64	30,993	259	33,333	258	64,326	259
	65+	54,123	890	74,528	835	128,651	857
	Total	93,736	172	118,756	204	212,492	189
2000	0–19	847	5	1,340	9	2,187	7
	20–44	8,322	41	10,281	50	18,603	46
	45–64	33,202	266	36,138	273	69,340	269
	65+	55,859	918	76,559	851	132,418	878
	Total	98,230	178	124,318	213	222,548	196
2001	0–19	881	5	1,295	8	2,176	7
	20–44	9,995	50	12,603	62	22,598	56
	45–64	39,206	313	42,955	324	82,161	319
	65+	63,389	1,042	87,318	971	150,707	1,000
	Total	113,471	206	144,171	247	257,642	227

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.
¹ ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

Complications and Conditions

Of the 692,682 total discharges with a mention of diabetes as a diagnosis, more than 8 percent had diabetes listed as the primary diagnosis, suggesting that the reason for hospitalization was a direct result from diabetes (*Table 4.3*). Ischemic heart disease (12 percent) was the principal reason (primary diagnosis) people with diabetes were admitted to the hospital. Other forms of heart disease (11 percent) and diseases of the respiratory system (10.4 percent) were the second and third-leading causes of why a patient with diabetes was admitted to the hospital (*Table 4.3*).

Among hospital discharges (per 10,000 Ohio residents and per 10,000 persons with diabetes) with a mention of diabetes, major cardiovascular diseases were noted more often in the medical record than any other condition (*Table 4.4*). Kidney disease, neurological manifestations and end stage kidney disease were some of the other frequently listed conditions. Women with limb amputations had the longest average length of hospital stay and men with ketoacidosis had the shortest (*Table 4.4*).

Table 4.3

The Number of Hospital Discharges with any Mention of Diabetes¹ as a Listed Diagnosis, by Primary Diagnosis, Average Length of Stay², and Percent of Discharges, Ohio 1999–2001.

Primary Diagnosis	Number of Discharges	Average Length of Stay in Days ²	Percent of Discharges
Infectious and parasitic diseases (001–139)	14,454	6.9	2.1%
Malignant neoplasms (140–208)	20,200	6.6	2.9%
Other neoplasms (210–239)	4,053	4.6	0.6%
Disorders of thyroid glands (240–246)	562	3.2	0.1%
Diabetes ¹	57,518	4.9	8.3%
Other endocrine, nutritional and metabolic disorders (251–279) ³	17,375	4.3	2.5%
Diseases of the blood and blood forming organs (280–289)	5,473	4.3	0.8%
Mental disorders (290–319)	22,399	7.8	3.2%
Diseases of the nervous system and sense organs (320–389) ³	7,337	5.4	1.1%
Acute rheumatic heart disease (390–392)	13	6.5	<0.1%
Chronic rheumatic heart disease (393–398)	920	6.7	0.1%
Hypertensive disease (401–405)	11,748	5.2	1.7%
Ischemic heart disease (410–414)	79,558	4.3	11.5%
Diseases of pulmonary circulation (415–417)	2,402	6.6	0.3%
Other forms of heart disease (420–429)	77,578	5.0	11.2%
Cerebrovascular disease (430–438)	33,682	4.8	4.9%
Arteries, arterioles and capillaries disease (440–448)	13,871	6.6	2.0%
Veins, lymphatic and other circulatory disease (451–459)	8,164	4.9	1.2%
Diseases of the respiratory system (460–519)	72,264	5.8	10.4%
Diseases of the digestive system (520–579)	54,920	5.0	7.9%
Nephritis, nephrotic syndrome, and nephrosis (580–589)	7,434	6.8	1.1%
Other diseases of the genitourinary system (590–629)	23,743	4.0	3.4%
Complications in pregnancy, childbirth and puerperium (630–677) ³	2,334	4.2	0.3%
Diseases of the skin and subcutaneous tissue (680–709)	16,804	5.7	2.4%
Musculoskeletal and connective tissue diseases (710–739)	29,491	4.7	4.3%
Congenital anomalies (740–759)	488	5.5	0.1%
Conditions of the perinatal period (760–779)	3	11.3	<0.1%
Symptoms, signs and ill-defined conditions (780–799)	45,332	3.2	6.5%
Injury and poisoning (800–999)	42,927	5.6	6.2%
Factors influencing health status/contact with health services (V01–V82)	19,580	11.7	2.8%
Other /unknown	55	5.0	<0.1%
Total	692,682	5.3	100.0%

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis by Chronic Disease and Behavioral Epidemiology Section, BHSIOS–Prevention, Ohio Department of Health.

1 ICD–9–CM Codes: Diabetes (250.0–250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01–362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00–648.04).

2 Number of days divided by number of hospital discharges.

3 Excludes diabetes–related ICD–9–CM codes (362.01–362.02, 366.41, or 648.00–648.04) falling within the designated range.

Table 4.4
Hospital Discharges with Any Mention of Diabetes¹ and Selected Complications as Listed Diagnoses by Gender, Number of Discharges, Average Length of Stay², Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COMPLICATIONS	GENDER	NUMBER OF DISCHARGES	AVERAGE LENGTH OF STAY ²	DISCHARGES PER 10,000 OHIO RESIDENTS	DISCHARGES PER 10,000 OHIO DIABETICS
Diabetes with Ketoacidosis ICD-9-CM Codes: Diabetes with Ketoacidosis (250.1)	Males	7969	4.1	5	104
	Females	9611	4.4	5	107
	Total	17,580	4.2	5	105
Diabetes with Neurological manifestations ICD-9-CM Codes: Diabetes with Neurological manifestations (250.6)	Males	27,141	6.2	16	353
	Females	33,132	6.3	19	368
	Total	60,273	6.3	18	361
Diabetes with Hyperosmolarity ICD-9-CM Codes: Diabetes with Hyperosmolarity (250.2)	Males	1,371	5.4	1	15
	Females	1,458	6.1	1	16
	Total	2,829	5.7	1	17
Diabetes with other Coma ICD-9-CM Codes: Diabetes with other Coma (250.3)	Males	392	6.7	<1	5
	Females	523	7.4	<1	6
	Total	915	7.1	<1	5
Diabetes with Peripheral Circulatory Disorders ICD-9-CM Codes: Diabetes with peripheral circulatory disorders (250.7)	Males	7,211	8.3	4	94
	Females	5,379	8.7	3	60
	Total	12,590	8.5	4	75
End Stage Renal Disease ICD-9-CM Procedure Codes: Chronic Dialysis(39.95) or Renal Transplantation (55.60-55.69), or Disease Codes: Chronic Renal Failure (585) or Kidney Transplant (V42.0) or Renal Dialysis Status (V45.1)	Males	22,869	6.6	14	298
	Females	26,013	6.9	15	289
	Total	48,882	6.7	14	293
Kidney Disease ICD-9-CM Codes: Diabetes with renal manifestations (250.4), Nephrotic syndrome (581.81), Nephritis and nephropathy (583.81), Acute renal failure (584), Renal failure (586), Renal sclerosis (587), Disorders resulting from impaired renal function (588), and Infections of kidney (590)	Males	31,579	7.0	19	411
	Females	38,311	7.1	22	425
	Total	69,890	7.1	21	419
Major Cardiovascular Diseases ICD-9-CM Codes: Major Cardiovascular Diseases (390-448)	Males	253,630	5.2	154	3,303
	Females	317,974	5.4	182	3,530
	Total	571,604	5.3	168	3,425
Non-Traumatic Lower Limb Amputations ICD-9-CM Procedure Codes: Lower limb amputations procedure (84.1) in the absence of lower limb amputation codes ICD-9-CM (895-897)	Males	6,798	9.1	4	89
	Females	4,674	10.0	3	52
	Total	11,472	9.5	3	69
Vision Disorders ICD-9-CM Codes: Diabetes with ophthalmic manifestation (250.5) or Disorders of the eye and adnexa (360-379)	Males	18,585	5.7	11	242
	Females	25,603	5.8	15	284
	Total	44,188	5.8	13	265

Source: Ohio Hospital Association Discharge Data Set, years 1999–2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section; BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 Number of days divided by the number of hospital discharges.

Cardiovascular Diseases

Fifty-seven percent (397,960) of the total discharges had hypertensive disease and diabetes listed as diagnoses. Females had somewhat higher discharge rates (per 10,000 Ohio residents and for 10,000 persons with diabetes) for hypertensive disease, cerebrovascular disease (stroke) and heart failure, while men had higher discharge rates for ischemic heart disease (*Table 4.5*).

Table 4.5

Hospital Discharges with Any Mention of Diabetes¹ and Selected Cardiovascular Diseases as Listed Diagnoses by Gender, Number of Discharges, Average Length of Stay², Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001

SELECTED CARDIOVASCULAR DISEASES

GENDER	HYPERTENSIVE DISEASE (ICD-9-CM CODES:401–405)				ISCHEMIC HEART DISEASE (ICD-9-CM CODES:410–414)			
	NUMBER OF DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ²	DISCHARGES PER 10,000 OHIO RESIDENTS	DISCHARGES PER 10,000 OHIO DIABETICS	NUMBER OF DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ²	DISCHARGES PER 10,000 OHIO RESIDENTS	DISCHARGES PER 10,000 OHIO DIABETICS
Male	167,669	5.0	102	2,183	130,451	4.7	79	1,699
Female	230,291	5.2	132	2,556	132,007	5.0	75	1,465
Total	397,960	5.1	117	2,385	262,458	4.9	77	1,573

SELECTED CARDIOVASCULAR DISEASES

GENDER	CEREBROVASCULAR DISEASE (ICD-9-CM CODES:430–438)				HEART FAILURE (ICD-9-CM CODES:428)			
	NUMBER OF DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ²	DISCHARGES PER 10,000 OHIO RESIDENTS	DISCHARGES PER 10,000 OHIO DIABETICS	NUMBER OF DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ²	DISCHARGES PER 10,000 OHIO RESIDENTS	DISCHARGES PER 10,000 OHIO DIABETICS
Male	31,674	6.0	19	412	73,419	5.8	45	956
Female	37,616	6.2	21	418	102,913	6.1	59	1,142
Total	69,290	6.1	20	415	176,332	6.0	52	1,057

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis Community Health Assessments Section; BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 Number of days divided by number of hospital discharges.

Pneumonia and Influenza

Pneumonia and influenza can be prevented or decreased in severity with the administration of a vaccine. However, between 1999 and 2001, there were 53,105 hospital discharges with a diagnosis of diabetes and pneumonia or influenza. The average length of stay in the hospital for treatment of these illnesses was more than one week (*Table 4.6*).

Table 4.6

Hospital Discharges with Any Mention of Diabetes¹ and Pneumonia or Influenza² as Listed Diagnoses by Gender, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

GENDER	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 OHIO RESIDENTS	DISCHARGES PER 10,000 OHIO DIABETICS
Male	24,554	7.0	15	320
Female	28,551	7.1	16	317
Total	53,105	7.1	16	318

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis by Community Health Assessments Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 ICD-9-CM Codes : Pneumonia and Influenza (480.0-487.8).

3 Number of days divided by number of hospital discharges.

Amulatory Care Sensitive Conditions

Ketoacidosis, hyperosmolarity and coma are considered ambulatory sensitive conditions—conditions in which timely and effective care would have prevented a hospitalization. Of the 35,857 discharges with diabetes listed as the primary diagnosis for persons under the age of 65, more than 39 percent had an ambulatory sensitive conditions (*Table 4.7*). Ketoacidosis accounted for 90 percent of the ambulatory sensitive conditions. Females had a fewer number of discharges with diabetes, but had a greater proportion (41.7 percent) of ambulatory sensitive conditions (*Table 4.7*).

Table 4.7
The Number of Hospital Discharges for Persons Under 65 Years of Age with Selected Ambulatory Care Sensitive (ACS) Diabetes Conditions Listed as the Primary Diagnosis by Gender and Percentage, Ohio 1999–2001.

GENDER	DISCHARGES WITH DIABETES LISTED AS PRIMARY DIAGNOSIS (ICD-9-CM CODES 250.0-250.9)	NUMBER OF HOSPITAL DISCHARGES WITH SELECTED DIABETES CONDITIONS			% SELECTED (ACS) CONDITIONS ¹
		DIABETES WITH KETOACIDOSIS (ICD-9-CM CODE 250.1)	DIABETES WITH HYPEROSMOLARITY (ICD-9-CM CODE 250.2)	DIABETES WITH OTHER COMA (ICD-9-CM CODE 250.3)	
Male	18,489	6,024	600	164	36.7
Female	17,368	6,685	388	161	41.7
Total	35,857	12,709	988	325	39.1

Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.
¹ Percentage of selected ACS conditions of the total discharges with diabetes listed as primary diagnosis (ICD-9-CM 250.0-250.9).

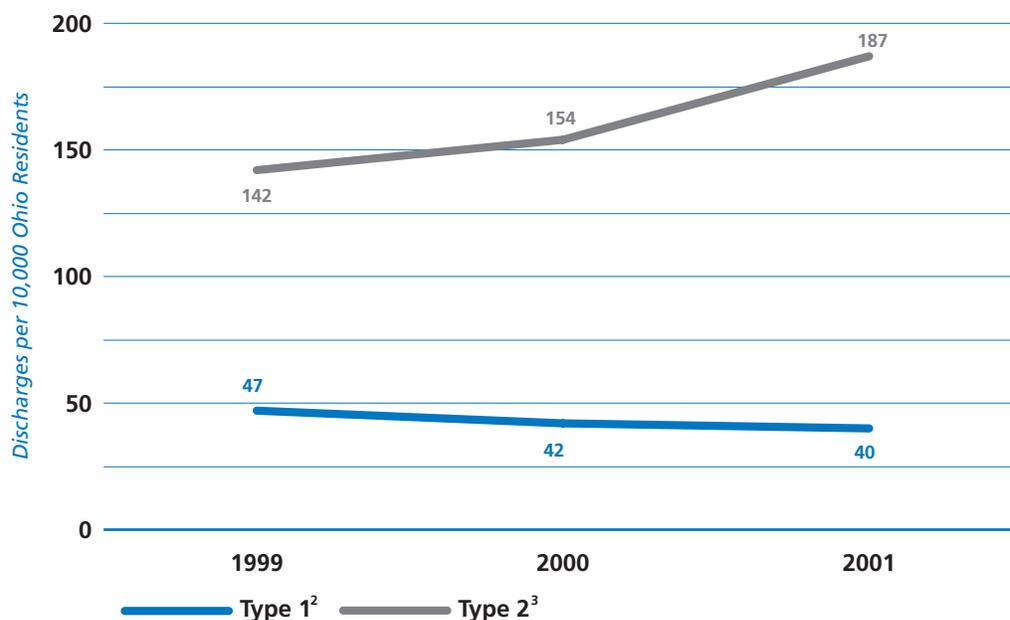
Number of Hospital Discharges by Type of Diabetes

Between 1999 and 2001, the number of discharges and the hospital discharge rate for any mention of type 1 diabetes decreased by 15 percent and 14 percent, respectively. In contrast, the number of discharges and discharge rate for any mention of type 2 diabetes both increased by 32 percent (*Figure 4.03, Table 4.8*). Among these two groups there were little differences in their average ages.

Similarly, those residents with a primary diagnosis of type 1 had a decrease and those with a primary diagnosis of type 2 diabetes had an increase, in the number of discharges and hospital discharge rates (*Figure 4.04, Table 4.9*). However, the average age was lower among those with type 1 than for persons with type 2 diabetes (*Tables 4.8*).

Figure 4.03

The Number of Hospital Discharges with Diabetes¹ as any Listed Diagnosis per 10,000 Residents, by Type and Year, Ohio 1999–2001.



Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9).

2 The fifth digit sub classification of 250.x1 and 250.x3

3 The fifth digit sub classification of 250.x0 and 250.x2

Table 4.8

The Number of Hospital Discharges with any Mention of Diabetes¹ as a Listed Diagnosis by Type, Year, Discharges per 10,000 Residents and Average Age, Ohio 1999–2001.

YEAR	TYPE 1 ²			TYPE 2 ³		
	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 OHIO RESIDENTS	AVERAGE AGE	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 OHIO RESIDENTS	AVERAGE AGE
1999	53,059	47	60	159,433	142	68
2000	47,395	42	59	175,153	154	68
2001	45,638	40	58	212,004	187	67

Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

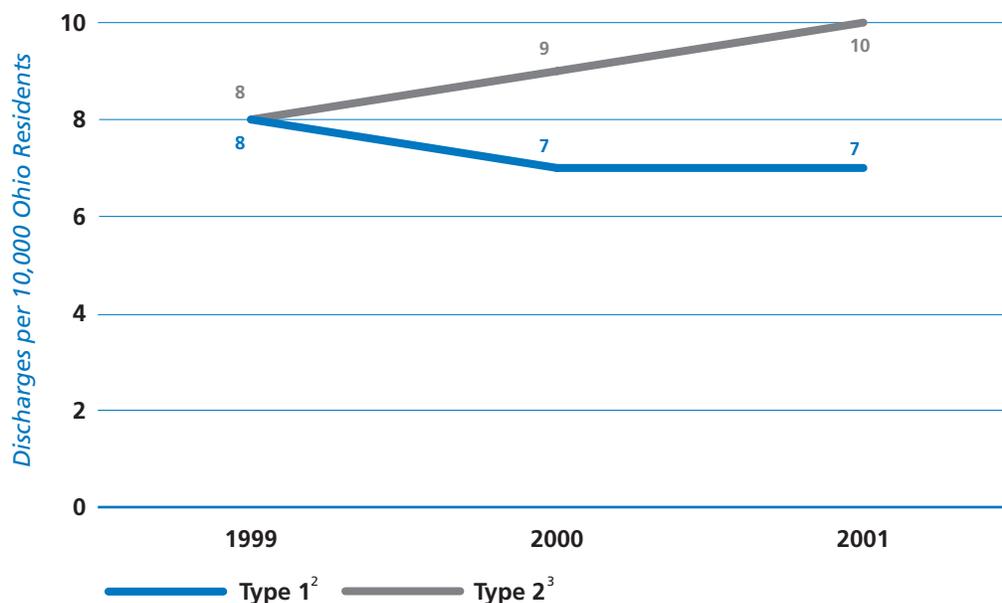
1 ICD-9-CM Codes: Diabetes (250.0-250.9).

2 The fifth digit sub classification of 250.x1 and 250.x3

3 The fifth digit sub classification of 250.x0 and 250.x2

Figure 4.04

The Number of Hospital Discharges with Diabetes¹ Listed as a Primary Diagnosis per 10,000 Residents, by Type and Year, Ohio 1999–2001.



Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9).

2 The fifth digit sub classification of 250.x1 and 250.x3

3 The fifth digit sub classification of 250.x0 and 250.x2

Table 4.9

The Number of Hospital Discharges with Diabetes¹ Listed as a Primary Diagnosis by Type, Year, Discharges per 10,000 Residents and Average Age, Ohio 1999–2001.

YEAR	TYPE 1 ²			TYPE 2 ³		
	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 OHIO RESIDENTS	AVERAGE AGE	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 OHIO RESIDENTS	AVERAGE AGE
1999	8,870	8	45	9,027	8	63
2000	8,363	7	43	9,798	9	62
2001	8,259	7	42	11,146	10	62

Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9).

2 The fifth digit sub classification of 250.x1 and 250.x3

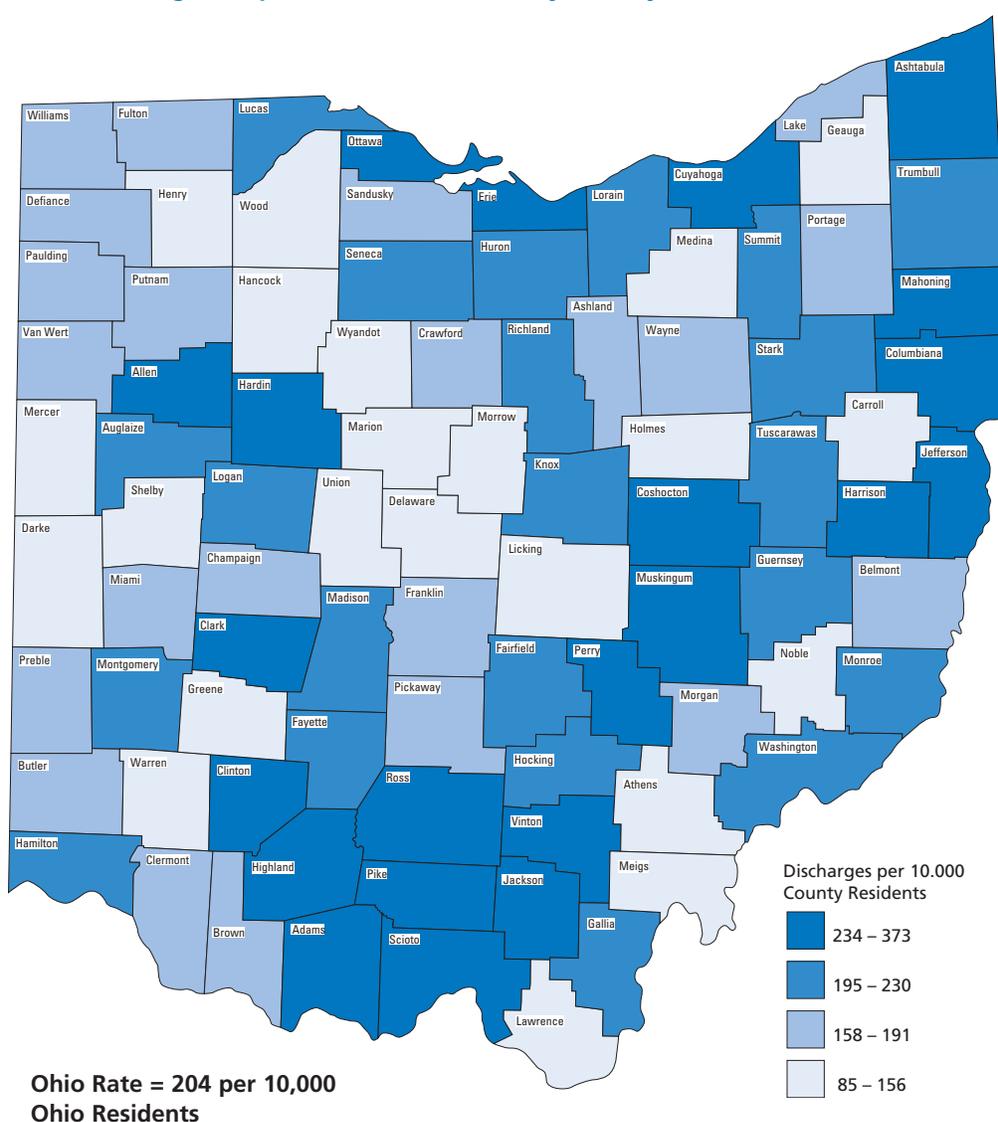
3 The fifth digit sub classification of 250.x0 and 250.x2

County Hospital Discharges

There were no apparent trends among Ohio counties by number of hospital discharges with any mention of diabetes. The southern part of the Ohio (in a portion of the Appalachian region) had some of the highest number of discharges per 10,000 county residents (*Figure 4.05*).

Figure 4.05

The Number of Hospital Discharges with Any Mention of Diabetes¹ as a Listed Diagnosis per 10,000 Residents, by County, Ohio 1999–2001.²



Source: Ohio Hospital Association, analysis completed by Chronic Disease and Behavioral Epidemiology Section; BHSIOS-Prevention, Ohio Department of Health.

¹ ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

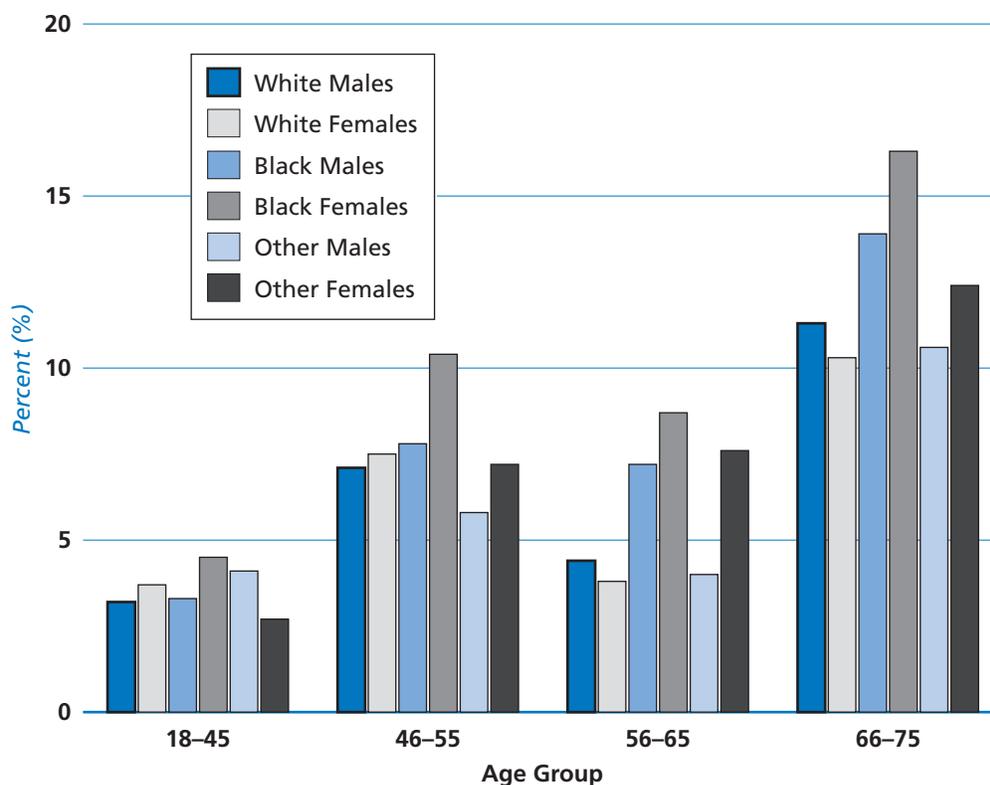
² Ranges determined by quartiles.

Ohio Medicare Program

Prevalence (Gender, Race and Age Group)

In 2001, Medicare covered more than 1.1 million Ohioans ages 18–75 years old. Of these 9% (102,954) were persons diagnosed with diabetes (Table 5.1). Among Medicare recipients, the prevalence of diabetes increased with age until 55 years of age and older (Figure 5.01, Table 5.1). Black women and men age 66–75 years old had the highest prevalence of all the racial gender-age groups (Figure 5.01, Table 5.1).

Figure 5.01
Prevalence of Diabetes Among Medicare Recipients
by Race, Gender and Age Group, Ohio 2001.^{[1][2]}



Source: Ohio KePRO, analysis completed by Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.

[1] For adult ages 18–75 years old.

[2] Other includes: Asian, Hispanic, Native American, and other races.

Table 5.1
Prevalence of Diabetes Among Medicare Recipients by Race, Gender and Age Group, Ohio 2001.

White

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES
18-45	1,205	38,235	3.2%	1,031	27,871	3.7%	2,236	66,106	3.4%
46-55	2,346	33,023	7.1%	1,900	25,418	7.5%	4,246	58,441	7.3%
56-65	4,552	103,332	4.4%	3,981	105,179	3.8%	8,533	208,511	4.1%
66-75	34,242	303,314	11.3%	38,793	376,667	10.3%	73,035	679,981	10.7%
Total	42,345	477,904	8.9%	45,705	535,135	8.5%	88,050	1,013,039	8.7%

Black

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES
18-45	323	9,784	3.3%	333	7,385	4.5%	656	17,169	3.8%
46-55	538	6,886	7.8%	651	6,253	10.4%	1,189	13,139	9.0%
56-65	874	12,139	7.2%	1,256	14,384	8.7%	2,130	26,523	8.0%
66-75	3,786	27,219	13.9%	6,114	37,580	16.3%	9,900	64,799	15.3%
Total	5,521	56,028	9.9%	8,354	65,602	12.7%	13,875	121,630	11.4%

Other¹

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES
18-45	46	1,119	4.1%	19	705	2.7%	65	1,824	3.6%
46-55	56	963	5.8%	42	587	7.2%	98	1,550	6.3%
56-65	61	1,530	4.0%	83	1,085	7.6%	144	2,615	5.5%
66-75	315	2,961	10.6%	407	3,290	12.4%	722	6,251	11.6%
Total	478	6,573	7.3%	551	5,667	9.7%	1,029	12,240	8.4%

Total

AGE GROUP	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES
18-45	1,574	49,138	3.2%	1,383	35,961	3.8%	2,957	85,099	3.5%
46-55	2,940	40,872	7.2%	2,593	32,258	8.0%	5,533	73,130	7.6%
56-65	5,487	117,001	4.7%	5,320	120,648	4.4%	10,807	237,649	4.5%
66-75	38,343	333,494	11.5%	45,314	417,537	10.9%	83,657	751,031	11.1%
Total	48,344	540,505	8.9%	54,610	606,404	9.0%	102,954	1,146,909	9.0%

Source: Ohio KePRO, analysis completed by Chronic Disease and Behavioral Epidemiology Section, BHSIOS- Prevention, Ohio Department of Health.

[1] Other includes: Asian, Hispanic, Native American, and other.

[2] Data not available for ages greater than 75.

Mortality

In 1999, diabetes was the fifth-leading cause of death for Ohioans (*Table 6.1*). Between 1990-1999, the overall mortality diabetes rate increased by 19 percent, from 27 to 32 per 100,000 persons (*Figure 6.01, Table 6.2*). The mortality rate for white males had the largest increase (31 percent) (*Figure 6.01, Table 6.2*). Blacks continued to die more often from diabetes than whites (*Figure 6.01, Table 6.2*).

Table 6.1
The 10 Leading Causes of Death—Number of Deaths, Percent of all Deaths, and Age-Adjusted Mortality Rates, per 100,000 Persons, Ohio 1999^[1]

RANKING	CAUSE OF DEATH	NUMBER OF DEATHS	PERCENT OF ALL DEATHS	RATE (PER 100,000 PERSONS)
1	Disease of Heart	34,199	31.7%	294
2	Cancer	25,388	23.5%	218
3	Cerebrovascular Disease	7,880	7.3%	68
4	Chronic Obstructive Pulmonary Disease	5,702	5.3%	49
5	Diabetes	3,783	3.5%	32
6	Influenza and Pneumonia	3,377	3.1%	28
7	Unintentional Injuries	3,273	3.0%	29
8	Alzheimer's Disease	2,209	2.0%	19
9	Nephritis, Nephrotic syndrome, Nephrosis	2,000	1.9%	17
10	Suicide	1,144	1.1%	10
	Others	19,079	17.7%	-
	All Causes	108,034	100.0%	930

Source: Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention; Ohio Department of Health.

[1] The direct age-adjusted rates were calculated using the inter-censal population estimates for 1999 as a denominator and the U.S. 2000 standard population for age adjustment.

Table 6.2
The Number of Deaths and Age-Adjusted Mortality Rates of Diabetes, per 100,000 Persons, by Race and Gender, Ohio 1990–1999^{[1][2][3]}

YEAR	WHITE				BLACK				TOTAL	
	MALES		FEMALES		MALES		FEMALES		NUMBER OF DEATHS	RATE
	NUMBER OF DEATHS	RATE	NUMBER OF DEATHS	RATE	NUMBER OF DEATHS	RATE	NUMBER OF DEATHS	RATE		
1990	990	26	1,395	24	178	52	239	47	2,805	27
1991	1,098	29	1,425	24	149	44	241	48	2,924	27
1992	1,084	28	1,524	25	154	43	259	49	3,027	28
1993	1,145	29	1,585	26	168	44	276	51	3,182	29
1994	1,204	30	1,620	26	186	50	259	49	3,275	30
1995	1,257	31	1,702	27	212	56	279	51	3,457	31
1996	1,444	35	1,798	29	210	52	308	55	3,767	33
1997	1,387	33	1,673	27	244	65	326	58	3,639	32
1998	1,356	32	1,715	27	232	57	289	51	3,600	31
1999	1,443	34	1,783	28	212	54	331	57	3,783	32

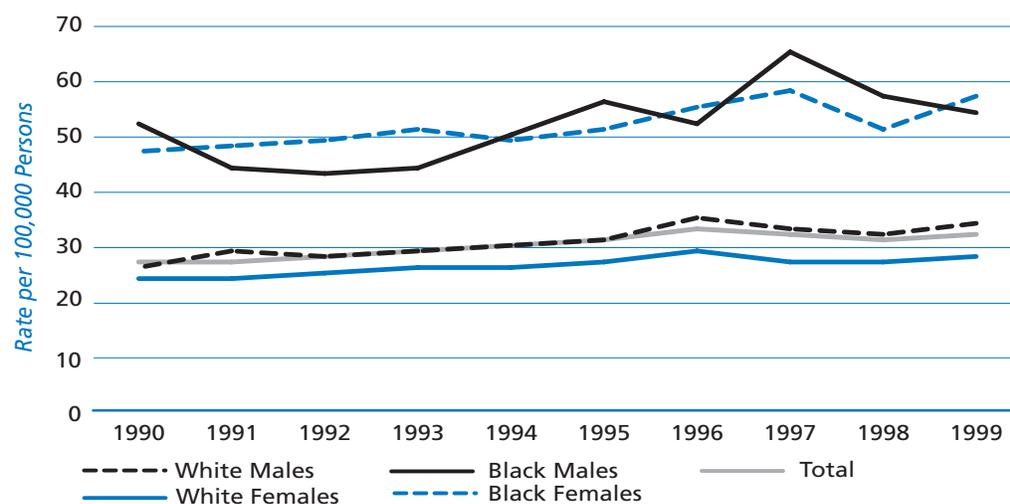
Source: Chronic Disease and Behavioral Epidemiology Section BHSIOS- Prevention, Ohio Department of Health.

[1] The direct age-adjusted rate was calculated using the inter-censal population estimates for 1990–1999 as the denominator and the U.S. 2000 standard population for age-adjustment.

[2] Ohio residents where the underlying cause of death was determined to be Diabetes Mellitus; International Classification of Diseases, Injuries, and Causes of Death, ICD-9 code 250 for 1990–1998 deaths (World Health Organization, Geneva, Switzerland, 1979, Volume 9), and ICD-10 codes E10-E14 for 1999 deaths (World Health Organization Geneva, Switzerland, 1992, Volume 10).

[3] “Total” category includes all races.

Figure 6.01
Trend in Age-Adjusted Mortality Rates of Diabetes, per 100,000 Persons, by Race and Gender, Ohio 1990–1999.^{[1][2][3]}



Source: Chronic Disease and Behavioral Epidemiology Section BHSIOS- Prevention, Ohio Department of Health.

[1] The direct age-adjusted rates were calculated using the inter-censal population estimates for 1990–1999 as a denominator and the U.S. 2000 standard population for age adjustment.

[2] Ohio residents where the underlying cause of death was determined to be diabetes mellitus; International Classification of Diseases, Injuries, and Causes of Deaths, [ICD-9] code 250 for 1990–1998 deaths (World Health Organization, Geneva, Switzerland, 1979, Volume 9); and [ICD-10] code E10-E14 for 1999 deaths World Health Organization, Geneva, Switzerland, 1992, Volume 10).

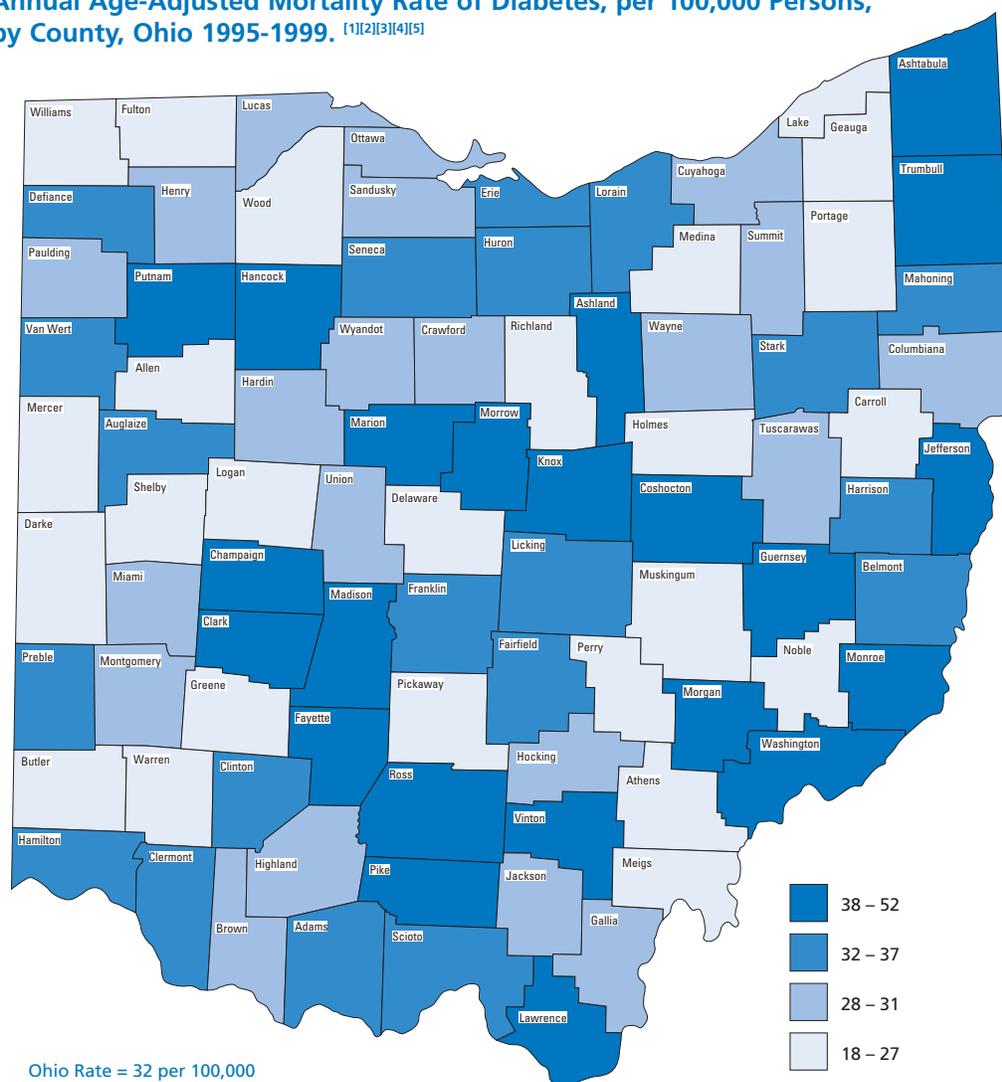
[3] “Total” category includes all races.

County Mortality (1995-1999)

The average annual age-adjusted mortality rate for Ohio was 32 per 100,000 persons for the five-year period of 1995–1999. The mortality rates among Ohio’s 88 counties ranged from a high of 52 per 100,000 persons for Marion County to a low of 18 per 100,000 persons for Holmes County (Appendix F). Mortality rates tend to be higher for the counties in central and southeast Ohio. Many of these counties are considered rural and some are part of the Appalachian region (Figure 6.02).

Figure 6.02

Annual Age-Adjusted Mortality Rate of Diabetes, per 100,000 Persons, by County, Ohio 1995-1999. ^{[1][2][3][4][5]}



Source: Chronic Disease and Behavioral Epidemiology Section; BHSIOS-Prevention, Ohio Department of Health

- [2] The direct age-adjusted rates were calculated using the inter-censal population estimates for 1995–1999 as a denominator and the U.S. 2000 standard population for age adjustment.
- [3] Ohio residents where the underlying cause of death was determined to be Diabetes Mellitus; International Classification of Diseases, Injuries, and Causes of Death, ICD-9 code 250 for 1995–1998 deaths (World Health Organization, Geneva, Switzerland, 1979, Volume 9), and ICD-10 codes E10-E14 for 1999 deaths (World Health Organization Geneva, Switzerland, 1992, Volume 10).
- [4] Annual rate is the average rate from five years of data, 1995-1999.
- [5] Ranges were determined by quartiles.

Appendix A

National Measures and Objectives

National Measures and Objectives

Recommendations, guidelines and objectives of national organizations were used to assist in describing and measuring diabetes in Ohio. Additionally, diabetes information was related to risk factors, co-morbid conditions and costs associated with caring for persons with diabetes were included to provide a more complete depiction of diabetes in Ohio.

Measures and objectives included:

- 1) Diabetes prevalence
- 2) Influenza vaccination
- 3) Pneumonia vaccination
- 4) Foot examination
- 5) Dilated eye examination
- 6) Overweight
- 7) Physical inactivity
- 8) Diabetes hospitalization
- 9) Lower extremity amputation
- 10) End stage renal disease
- 11) Diabetes mortality

Measures #1–11 are from Chronic Disease Surveillance Indicators (15). The development of the Chronic Disease Surveillance Indicators was a collaborative project of the Council of State and Territorial Epidemiologists, Association of State and Territorial Chronic Disease Program Directors, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC). Indicators can be used to describe or evaluate public health programs and services. They can also be used to develop a surveillance system containing a disease, condition, risk or prevention activity.

Measures #2–5 are also listed as national evaluation objectives from the Division of Diabetes Translation at CDC. Measure #5 is also from HEDIS (Health Plan Employer Data and Information Set) developed by the National Committee for Quality Assurance (16). Measures 1–5 are also from Healthy People 2010 (17).

Additional information related to diabetes and co-morbid conditions was provided by the Ohio Hospital Association. Expenditures associated with persons with diabetes were obtained from the Ohio Department of Jobs and Family Services Medicaid Program.

Description of Databases

The five databases were analyzed by the Community Health Assessments Section, Division of Prevention, Bureau of Health Surveillance, Information and Operational Support, Ohio Department of Health.

BRFSS

The BRFSS is an ongoing state-based, random-digit-dialed telephone survey for adults 18 years of age and older for the U.S. non-institutionalized civilian population (10). The survey is coordinated by the CDC and is conducted annually by all states. Ohio BRFSS data collected between 1995–2001 was analyzed for this report unless otherwise noted. A person was considered to have diabetes if they answered yes to the question “Have you ever been told by a doctor that you have diabetes?” Female respondents who answered yes to the question “Was this only when you were pregnant?” were excluded from analysis.

The following variables were analyzed in the BRFSS: age, gender, race, county of residence, income, education, weight, physical activity, cigarette smoking, physician visit, eye and foot exams, pneumonia and influenza vaccination, blood pressure, cholesterol, coronary heart disease, myocardial infarction and stroke. The national medians in the trend tables and figures were obtained from CDC, BRFSS Atlanta, GA.

The BRFSS prevalence of diabetes for each county was determined by combining three years of data to obtain a sufficiently large sample for analysis. Combining more than one year of data is necessary because some Ohio counties have a relatively small number of residents, and thus a small number of persons diagnosed with diabetes—too small to estimate a prevalence rate. The estimated prevalence was then applied to Ohio’s 2000 census population estimates for each county, obtained from the U.S. Census Bureau (18) to get a count of the number of persons with diabetes in that county. All analysis was completed using SAS version 8 (SAS Institute, Cary, NC) and SUDAAN (19).

Ohio Medicaid Program

The diabetes Medicaid data was obtained from the Ohio Department of Job and Family Services, Office of Ohio Health Plans’ Bureau of Health Plan Policy. Diabetes was defined by the following range of ICD-9-CM Codes: Diabetes (250.0–250.9). The variables analyzed included age; gender; race; county of residence; and expenditures related to: alcohol and drug services, mental health, chiropractor or podiatry, prescriptions, durable medical equipment, federally qualified health centers, habilitation, inpatient care, intermediate care facilities for the mentally retarded, nursing homes, outpatient care, physicians, clinic and others (vision, home health, independent labs and transportation). All analysis was completed using SAS version 8 (SAS Institute, Cary, NC).

Ohio Hospital discharge data

The hospital discharge data was collected and provided to the ODH Chronic Disease and Behavior Epidemiology Section by the Ohio Hospital Association. Data collected between 1999–2001 was analyzed for this report. Diabetes was defined by the following range of ICD-9-CM Codes: Diabetes (250.0–250.9); polyneuropathy in diabetes (357.2); diabetic retinopathy (362.01–362.02); diabetic cataract (366.41); and diabetes mellitus complicating pregnancy, childbirth, or the puerium, but not gestational diabetes (648.00–648.04).

ICD.9.CM codes were also used to differentiate between type 1 and type 2 diabetes. The fifth digit of the ICD.9.CM code (i.e., y in 250.xy) classifies the type of diabetes. The following specifies the definition of the fifth-digit categorization. Note that this classification is based on the definition of “insulin dependent” and not “insulin using”.

- Fifth-digit 0 sub-classifies the diagnosis as type 2 [non-insulin dependent type] [adult-onset type] or unspecified type, not stated as uncontrolled.
- Fifth-digit 1 sub-classifies the diagnosis as type 1 [insulin dependent type] [juvenile type], not stated as uncontrolled.
- Fifth-digit 2 sub-classifies the diagnosis as type 2 [non-insulin dependent type] [adult-onset type] or unspecified type, uncontrolled. The fifth-digit 2 is for use for type II, adult-onset, diabetic patients, even if the patient requires insulin.
- Fifth-digit 3 sub-classifies the diagnosis as type 1 [insulin dependent type] [juvenile type], uncontrolled.

The variables analyzed included the number of diabetes related discharges, average length of stay in the hospital in days, rates per 10,000 of the resident population, and crude rates per 10,000 of the estimated diabetic population by age, gender, select co-morbid conditions (listed below) and county of residence. “Any mention of diabetes” referred to a diagnosis of diabetes being present in one of the 10 available diagnosis fields in the hospital records. Hospital discharges with invalid dates of births, ages, unknown gender, and lengths of stay greater than 365 days were excluded from the analysis. All analysis was performed using SAS version 8 (SAS Institute, Cary, NC).

Co-morbid conditions were defined by the listed ICD-9-CM codes.

- 1) Diabetes with other coma: Diabetes with other coma (250.3)
- 2) Diabetes with hyperosmolarity: Diabetes with hyperosmolarity (250.2)
- 3) Diabetes with ketoacidosis: Diabetes with ketoacidosis (250.1)
- 4) Diabetes with neurological manifestations: Diabetes with neurological manifestations (250.6)
- 5) Diabetes with Peripheral Circulatory Disorders: Diabetes with Peripheral Circulatory Disorders (250.7)
- 6) End-stage renal disease (ESRD): Procedure codes for chronic dialysis (39.95) or renal transplantation (55.60–55.69), or disease codes kidney transplant (V42.0), renal dialysis status (V45.1), chronic renal failure (585).

- 7) Kidney disease: Diabetes with renal manifestations (250.4), nephrotic syndrome (581.81), nephritis and nephropathy (583.81), acute renal failure (584), renal failure (586), renal sclerosis (587), disorders resulting for impaired renal function (588), infections of kidney (590).
- 8) Vision disorders: Diabetes with ophthalmic manifestations (250.5), or disorders of the eye and adnexa (360–379).
- 8) Non-traumatic amputation of the lower limb: Lower limb amputation procedure code (84.1) in the absence of lower limb amputation disease codes (895–897).
- 9) Ischemic heart disease: Ischemic heart disease (410–414)
- 10) Heart failure: Heart failure (428)
- 11) Hypertensive disease: Hypertensive disease (401–405)
- 12) Major cardiovascular disease: Major cardiovascular disease (390–448)
- 13) Cerebrovascular disease: Cerebrovascular disease (Stroke:430–438)
- 14) Pneumonia or influenza: Pneumonia or influenza (480.0–487.8)

The Ohio resident population was obtained from the U.S Census Bureau, using the intercensal 1999 and census 2000 population estimates (18). The percent of change (increase or decrease) in population between year, 1999 and 2000 was calculated for each county. The population in 2001 was then estimated for each county by applying these percents of changes to the census 2000.

The estimated diabetic population was determined by combining two processes: 1) the adult estimated population was determined by applying the estimated prevalence of persons diagnosed with diabetes from the Ohio BRFSS (1999–2001) to the census estimates of each Ohio County for the corresponding years, 2) the estimated population for children 17 years of age and younger was determined by applying the estimated prevalence for Ohio from the 1994 National Health Interview Survey (most recent data available) to the corresponding census estimate for each county. These two figures were combined to determine the total estimated diabetic population.

Two different methods were used to calculate hospital discharge rates. In the first method, rates were calculated by using the estimate for Ohio's resident population as the denominator. In the second method, rates were calculated using the synthetic estimates of the number of person diagnosed with diabetes in Ohio as the denominator. Both rates were calculated as the number of hospital discharges per 10,000 persons.

The two rates provide different outlooks on the impact of diabetes hospitalizations in Ohio. Rates with the Ohio population as the denominator are useful to describe hospitalization discharges for diabetes and co-morbid conditions in the entire Ohio population. Rates using the estimated number of persons with diabetes as the denominator provides for calculating diabetes related hospitalization rates that related to an Ohio diabetic population rather than for all Ohioans.

Ohio Medicare Program

The Medicare data was obtained from Ohio Kepro, the Medicare Quality Improvement Organization for Ohio. Diabetes was defined by the following range of ICD-9-CM Codes: Diabetes (250.0–250.9). The variables analyzed included recipients by age, gender, race and county of residence. Medicare recipients with unknown age, gender, race and county of residence were excluded from analysis. All analysis was completed using SAS (SAS Institute, Cary, NC).

Mortality

All diabetes deaths between 1990 through 1999 (numerator) were identified through the population-based, computerized database maintained by the Office of Vital Statistics, Ohio Department of Health. Any person who had diabetes listed on their death certificate as an underlying cause of death was included in the analysis. The Ohio inter-censal population estimate from the U.S. Bureau of Census was used as the denominator. The rates were age-adjusted using the U.S. 2000 standard population (18).

Two methods of calculating mortality rates were used, direct age-adjusted mortality rates were calculated for different race and gender groups (white male, black male, white female, black female and total) for all ten years between 1990–1999. Average annual direct age-adjusted rates were calculated for Ohio's 88 counties for the five-year period, 1995–1999. Because some Ohio counties have a relatively small number of residents, and thus a small number of diabetes deaths, five years of data were combined to obtain a sufficiently large sample for analysis.

Appendix B-F

Table B.1

Estimated Prevalence of Diabetes and Number of Persons Diagnosed with Diabetes, by County and Gender, Ohio 2000^{[1][2][3][4][5][6]}

	MALES		FEMALES		ALL	
	PREVALENCE (%)	ESTIMATED NUMBER OF PERSONS	PREVALENCE (%)	ESTIMATED NUMBER OF PERSONS	PREVALENCE (%)	ESTIMATED NUMBER OF PERSONS
Ohio	6.3	253,856	6.7	298,124	6.5	551,980
Adams	6.4	631	7.2	740	6.8	1,371
Allen	6.8	2,713	5.2	2,124	6.0	4,837
Ashland	7.1	1,332	5.0	1,008	6.0	2,340
Ashtabula	7.1	2,586	5.0	1,963	6.0	4,549
Athens	4.2	1,023	7.7	2,022	6.1	3,045
Auglaize	6.8	1,110	5.2	914	6.0	2,024
Belmont	4.2	1,108	7.7	2,182	6.1	3,290
Brown	6.4	959	7.2	1,126	6.8	2,085
Butler	6.4	7,615	7.2	9,184	6.8	16,799
Carroll	4.2	439	7.7	850	6.1	1,289
Champaign	6.4	891	7.2	1,066	6.8	1,957
Clark	6.4	3,279	7.2	4,115	6.8	7,394
Clermont	6.4	3,995	7.2	4,744	6.8	8,739
Clinton	6.4	924	7.2	1,109	6.8	2,033
Columbiana	7.1	2,963	5.0	2,144	6.0	5,107
Coshocton	4.2	542	7.7	1,079	6.2	1,621
Crawford	6.8	1,144	5.2	966	6.0	2,110
Cuyahoga	6.0	29,009	8.1	45,532	7.1	74,541
Darke	6.4	1,222	7.2	1,455	6.8	2,677
Defiance	6.8	964	5.2	779	6.0	1,743
Delaware	8.1	3,098	4.4	1,765	6.2	4,863
Erie	6.8	1,961	5.2	1,628	6.0	3,589
Fairfield	8.1	3,553	4.4	1,997	6.2	5,550
Fayette	6.4	660	7.2	786	6.8	1,446
Franklin	6.3	24,018	6.6	27,560	6.4	51,578
Fulton	6.8	994	5.2	817	6.0	1,811
Gallia	4.2	466	7.7	932	6.1	1,398
Geauga	7.1	2,247	5.0	1,666	6.0	3,913
Greene	6.4	3,461	7.2	4,209	6.8	7,670
Guernsey	4.2	600	7.7	1,210	6.1	1,810
Hamilton	6.3	18,446	7.4	24,877	6.9	43,323
Hancock	6.8	1,722	5.2	1,449	6.0	3,171
Hardin	6.8	793	5.2	656	6.0	1,449
Harrison	4.2	241	7.7	494	6.1	735
Henry	6.8	698	5.2	572	6.0	1,270
Highland	6.4	925	7.2	1,108	6.8	2,033
Hocking	4.2	434	7.7	818	6.1	1,252
Holmes	7.1	871	5.0	638	6.0	1,509
Huron	6.8	1,401	5.2	1,157	6.0	2,558
Jackson	4.2	477	7.7	978	6.1	1,455
Jefferson	4.2	1,130	7.7	2,382	6.1	3,512
Knox	8.1	1,573	4.4	936	6.2	2,509
Lake	7.1	5,860	5.0	4,476	6.0	10,336
Lawrence	4.2	921	7.7	1,920	6.1	2,841

	MALES		FEMALES		ALL	
	PREVALENCE (%)	ESTIMATED NUMBER OF PERSONS	PREVALENCE (%)	ESTIMATED NUMBER OF PERSONS	PREVALENCE (%)	ESTIMATED NUMBER OF PERSONS
Licking	8.1	4,157	4.4	2,445	6.2	6,602
Logan	6.4	1,050	7.2	1,248	6.8	2,298
Lorain	7.1	7,221	5.0	5,395	6.0	12,616
Lucas	7.6	11,983	9.9	17,630	8.8	29,613
Madison	8.1	1,338	4.4	597	6.2	1,935
Mahoning	3.5	3,254	10.0	10,395	7.0	13,649
Marion	8.1	2,085	4.4	1,053	6.2	3,138
Medina	7.1	3,794	5.0	2,794	6.0	6,588
Meigs	4.2	352	7.7	700	6.1	1,052
Mercer	6.8	963	5.2	768	6.0	1,731
Miami	6.4	2,265	7.2	2,725	6.8	4,990
Monroe	4.2	237	7.7	455	6.1	692
Montgomery	5.4	10,703	6.7	15,024	6.1	25,727
Morgan	4.2	226	7.7	439	6.1	665
Morrow	8.1	917	4.4	506	6.2	1,423
Muskingum	4.2	1,226	7.7	2,557	6.1	3,783
Noble	4.2	265	7.7	348	6.1	613
Ottawa	6.8	1,043	5.2	844	6.0	1,887
Paulding	6.8	495	5.2	398	6.0	893
Perry	4.2	499	7.7	964	6.1	1,463
Pickaway	8.1	1,788	4.4	774	6.2	2,562
Pike	6.4	624	7.2	750	6.8	1,374
Portage	7.1	3,958	5.0	2,996	6.0	6,954
Preble	6.4	986	7.2	1,146	6.8	2,132
Putnam	6.8	820	5.2	648	6.0	1,468
Richland	6.8	3,291	5.2	2,541	6.0	5,832
Ross	6.4	1,872	7.2	1,910	6.8	3,782
Sandusky	6.8	1,496	5.2	1,239	6.0	2,735
Scioto	6.4	1,838	7.2	2,241	6.8	4,079
Seneca	6.8	1,449	5.2	1,161	6.0	2,610
Shelby	6.4	1,082	7.2	1,248	6.8	2,330
Stark	7.1	9,480	5.0	7,496	6.0	16,976
Summit	4.7	8,965	7.4	15,907	6.1	24,872
Trumbull	7.1	5,757	5.0	4,440	6.0	10,197
Tuscarawas	4.2	1,351	7.7	2,725	6.1	4,076
Union	8.1	1,102	4.4	695	6.2	1,797
Van Wert	6.8	719	5.2	596	6.0	1,315
Vinton	4.2	191	7.7	368	6.1	559
Warren	6.4	3,729	7.2	4,050	6.8	7,779
Washington	4.2	961	7.7	1,947	6.1	2,908
Wayne	7.1	2,797	5.0	2,068	6.0	4,865
Williams	6.8	968	5.2	770	6.0	1,738
Wood	6.8	3,003	5.2	2,528	6.0	5,531
Wyandot	6.8	557	5.2	462	6.0	1,019

Source: Ohio Behavioral Risk Factors Surveillance System, Chronic Disease and Behavioral Epidemiology Section BHSIOS-Prevention, Ohio Department of Health.

[1] The weighted percentage was adjusted to: 1) Probability of selection, i.e. the number of different phone numbers that reached the household, the number of adults in each household and the number of completed interviews in each cluster; 2) demographic distribution, i.e. age, sex, and race.

[2] "Don't know/Not sure" and "Refused" were excluded from the denominator.

[3] For adults (18 years and older)

[4] Three years of data 1999–2001, was used to calculate the prevalence.

[5] Number of persons with diabetes were estimated based on the U.S. 2000 census population (U.S. Census Bureau; U.S. Dept. of Commerce).

[6] The following counties were grouped together to create a sample size large enough for analysis. The groups were dependent on geographic locations. Northeast Counties: Ashland, Ashtabula, Columbiana, Geauga, Holmes, Lake, Lorain, Medina, Portage, Stark, Trumbull and Wayne Counties. Northwest: Allen, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Mercer, Ottawa, Paulding, Putnam, Richland, Sandusky, Seneca, Van Wert, Williams, Wood, and Wyandot. Central Counties: Delaware, Fairfield, Knox, Licking, Madison, Marion, Morrow, Pickaway, and Union. Southwest Counties: Adams, Brown, Butler, Champaign, Clark, Clermont, Clinton, Darke, Fayette, Greene, Highland, Logan, Miami, Pike, Preble, Ross, Scioto, Shelby, and Warren. Southeast Counties: Athens, Belmont, Carroll, Coshocton, Gallia, Guernsey, Harrison, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Tuscarawas, Vinton, and Washington.

Table C.1
Total Medicaid Expenditures¹ for Recipients* Diagnosed with Diabetes by Health Service Category, County and Gender, Ohio 2000.

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/ PODIATRIST/ OPTOMETRIST SERVICES	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Adams	Male	76	214,741	297,341	226,019	67,867	66,732	75,734	9,462	47,052	0	1,486	90	1,693	3,654	612	5,954	150,673	1,169,108
	Female	177	664,917	726,248	382,111	197,519	139,842	148,393	58,048	73,009	0	11,420	1,030	7,257	6,853	0	15,887	311,995	2,744,527
	Total	253	879,658	1,023,589	608,130	265,386	206,573	224,127	67,509	120,061	0	12,906	1,120	8,950	10,507	612	21,841	462,667	3,913,636
Allen	Male	98	375,097	310,091	209,659	171,684	58,921	78,820	2,906	35,187	0	953	28,063	5,167	932	508	0	75,782	1,353,772
	Female	292	949,143	918,863	580,755	312,415	292,015	321,222	31,643	99,762	0	5,896	51,933	21,327	7,403	618	0	524,098	4,117,093
	Total	390	1,324,239	1,228,954	790,414	484,099	350,936	400,042	34,549	134,950	0	6,849	79,996	26,494	8,335	1,126	0	599,880	5,470,865
Ashland	Male	24	17,963	44,234	138,550	20,860	34,190	17,113	618	5,738	0	436	2,630	1,427	275	459	0	24,656	309,148
	Female	61	156,109	205,314	296,066	60,732	65,289	61,056	48,717	25,338	0	376	36	8,086	3,180	0	0	52,630	982,927
	Total	85	174,071	249,547	434,615	81,592	99,479	78,168	49,335	31,077	0	812	2,666	9,512	3,455	459	0	77,285	1,292,074
Ashtabula	Male	143	1,257,516	610,756	738,797	160,347	139,449	149,202	34,825	77,622	144,004	31,666	22,966	8,769	5,507	2,224	0	240,858	3,624,509
	Female	296	2,334,232	1,106,847	646,972	352,090	259,070	278,582	62,717	143,256	0	70,344	3,539	17,556	15,704	788	0	378,964	5,670,660
	Total	439	3,591,748	1,717,602	1,385,769	512,437	398,519	427,782	97,542	220,878	144,004	102,010	26,505	26,324	21,211	3,012	0	619,822	9,295,168
Athens	Male	69	48,269	217,215	339,206	55,033	44,646	47,013	26,220	26,105	35,721	1,626	2,312	8,003	2,661	964	0	62,601	917,595
	Female	193	808,216	690,460	449,913	168,195	189,989	159,167	70,181	80,438	0	12,247	10,546	11,857	2,901	0	0	552,942	3,207,051
	Total	262	856,485	907,675	789,119	223,228	234,635	206,180	96,401	106,542	35,721	13,873	12,858	19,859	5,562	964	0	615,543	4,124,646
Auglaize	Male	24	169,320	75,180	38,812	52,011	16,217	15,134	179	5,378	0	535	0	1,364	93	0	0	12,337	386,561
	Female	60	440,789	218,388	39,132	76,649	31,077	34,407	12,300	12,989	6,002	302	11,619	2,348	1,526	0	0	26,791	914,318
	Total	84	610,109	293,568	77,944	128,660	47,294	49,540	12,479	18,367	6,002	837	11,619	3,712	1,620	0	0	39,129	1,300,879
Belmont	Male	110	294,695	311,476	1,055,379	94,850	119,553	114,615	7,987	46,030	72,873	0	13,561	7,054	2,522	1,453	1,100	100,768	2,243,915
	Female	272	541,663	896,718	500,737	179,254	230,284	265,824	133,288	84,826	72,873	15,447	14,588	13,774	7,748	5,619	2,985	333,787	3,299,416
	Total	382	836,358	1,208,194	1,556,117	274,104	349,837	380,439	141,275	130,855	145,745	15,447	28,150	20,828	10,270	7,073	4,085	434,555	5,543,331
Brown	Male	43	342,410	208,070	93,933	50,583	34,877	38,147	3,056	18,089	0	332	15,287	1,422	1,869	0	2,198	141,264	951,355
	Female	117	770,423	502,230	359,012	166,288	132,528	83,678	31,705	46,256	0	3,588	0	4,472	4,507	0	32,744	254,705	2,392,135
	Total	160	1,112,833	710,300	452,944	216,871	167,405	121,825	34,761	64,345	0	3,920	15,287	5,894	6,376	0	34,942	395,968	3,343,670
Butler	Male	210	1,043,660	682,017	619,405	217,700	280,314	149,067	81,499	102,689	297,012	44,371	94,017	10,963	8,752	304	1,658	475,386	4,108,816
	Female	516	3,269,679	2,110,923	1,296,653	633,253	465,041	433,731	169,745	310,320	166,295	112,276	117,660	27,140	20,243	868	3,314	956,675	10,093,815
	Total	726	4,313,339	2,792,941	1,916,058	850,953	745,355	582,798	251,244	413,009	463,308	156,647	211,676	38,103	28,996	1,172	4,972	1,432,061	14,202,631
Carroll	Male	36	121,269	115,236	143,434	42,121	39,015	22,745	3,843	14,790	0	13	0	2,059	676	0	141	49,907	555,251
	Female	53	135,206	231,762	69,266	45,407	44,773	37,291	16,833	18,298	0	1,842	0	3,044	863	159	0	77,538	682,281
	Total	89	256,475	346,998	212,700	87,528	83,788	60,036	20,676	33,088	0	1,854	0	5,103	1,539	159	141	127,445	1,237,531
Champaign	Male	42	302,470	109,016	56,048	52,100	24,633	10,219	15,180	13,395	119,939	0	28,201	1,771	350	0	0	91,241	824,563
	Female	78	529,648	263,029	230,867	95,306	49,446	49,743	18,479	25,826	0	381	6,834	2,773	5,332	45	0	113,640	1,391,350
	Total	120	832,117	372,045	286,916	147,407	74,080	59,962	33,659	39,222	119,939	381	35,035	4,544	5,682	45	0	204,881	2,215,913
Clark	Male	127	772,043	454,667	514,928	169,002	127,952	95,665	75,511	46,596	106,068	332	22,193	9,139	1,808	7,433	0	160,776	2,564,115
	Female	375	2,666,301	1,568,938	1,761,632	513,741	427,713	242,759	156,987	186,959	0	63,643	26,200	6,708	7,734	6,708	158	704,354	8,360,146
	Total	502	3,438,344	2,023,606	2,276,560	682,743	555,665	338,424	232,498	233,554	106,068	63,975	48,393	35,459	9,542	14,141	158	865,130	10,924,261
Clermont	Male	87	458,751	324,650	530,486	121,657	78,684	66,560	59,153	35,499	266,624	7,813	24,525	2,775	6,374	0	8,941	87,311	2,079,802
	Female	240	1,236,499	938,048	1,032,782	245,959	231,752	208,078	47,773	105,154	59,572	9,611	28,232	13,851	16,597	2,725	37,371	387,947	4,601,953
	Total	327	1,695,250	1,262,698	1,563,268	367,617	310,436	274,638	106,926	140,653	326,196	17,424	52,757	16,626	22,971	2,725	46,312	475,258	6,681,755

Table C.1 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/ PODIATRIST/ OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Clinton	Male	33	90,336	116,768	38,125	45,426	21,276	30,390	20,429	17,308	0	13,341	16,246	1,771	267	867	417	57,602	470,570
	Female	103	602,551	466,291	102,549	188,062	59,260	66,127	30,297	45,298	0	32,921	0	6,266	3,170	1,055	1,025	81,434	1,686,303
	Total	136	692,887	583,059	140,674	233,488	80,535	96,517	50,726	62,606	0	46,262	16,246	8,037	3,437	1,922	1,441	139,035	2,156,873
Columbia	Male	113	228,529	319,210	649,379	122,225	132,520	135,892	18,965	52,248	0	17,448	13,070	3,950	14,960	5,152	1,292	122,292	1,837,132
	Female	276	1,174,214	969,083	737,377	324,766	316,854	251,569	77,884	111,900	73,224	57,021	27,470	18,194	21,123	2,071	14,943	353,638	4,531,330
	Total	389	1,402,743	1,288,292	1,386,756	446,991	449,374	387,460	96,849	164,148	73,224	74,469	40,540	22,144	36,083	7,223	16,235	475,930	6,368,463
Coshocton	Male	48	208,887	172,508	74,642	70,407	80,666	14,409	15,052	11,781	0	186	11,336	1,404	497	1,850	0	56,298	719,922
	Female	120	782,078	343,334	167,937	134,915	90,686	65,352	8,235	20,812	0	41,890	9,848	4,145	5,237	0	0	177,482	1,851,949
	Total	168	990,965	515,842	242,579	205,322	171,351	79,761	23,287	32,592	0	42,076	21,184	5,548	5,734	1,850	0	233,780	2,571,871
Crawford	Male	42	325,345	175,333	83,870	58,280	27,883	21,457	11,260	20,271	0	16	3,548	2,811	853	927	0	257,644	989,498
	Female	139	525,192	531,939	351,581	102,517	123,350	154,218	66,437	75,598	0	17,584	5,082	7,853	5,930	2,404	0	167,540	2,137,225
	Total	181	850,537	707,272	435,451	160,797	151,233	175,675	77,697	95,869	0	17,601	8,630	10,664	6,783	3,331	0	425,184	3,126,723
Cuyahoga	Male	1,498	6,595,161	4,129,508	7,067,532	1,971,417	1,207,590	1,344,455	638,649	644,943	373,306	514,979	405,411	100,190	58,076	61,551	22,674	2,815,503	27,950,946
	Female	3,698	16,211,530	11,085,326	14,692,697	5,010,744	2,963,273	3,202,701	1,366,160	1,709,573	743,281	866,907	344,228	220,178	123,576	35,935	56,774	7,661,085	66,293,966
	Total	5,196	22,806,690	15,214,833	21,760,229	6,982,161	4,170,863	4,547,156	2,004,809	2,354,516	1,116,587	1,381,886	749,639	320,369	181,652	97,486	79,448	10,476,588	94,244,912
Darke	Male	30	219,500	63,347	53,214	72,424	17,929	14,589	2,167	8,559	0	2,730	0	5,176	0	0	2,365	36,536	498,536
	Female	63	394,884	220,695	185,157	63,729	36,974	43,564	37,885	16,477	0	1,688	0	3,221	531	3,119	6,275	104,113	1,118,313
	Total	93	614,385	284,042	238,371	136,153	54,903	58,153	40,052	25,036	0	4,418	0	8,397	531	3,119	8,640	140,649	1,616,849
Defiance	Male	22	76,618	49,997	31,657	10,246	11,314	12,777	9,429	1,618	0	5	374	287	1,623	810	0	13,599	220,354
	Female	36	164,784	92,097	103,247	33,121	38,581	17,802	13,100	6,795	0	19	0	1,248	750	0	0	25,374	496,916
	Total	58	241,402	142,094	134,904	43,368	49,895	30,579	22,529	8,413	0	24	374	1,535	2,372	810	0	38,973	717,271
Delaware	Male	29	99,757	108,312	52,448	53,860	17,840	13,391	2,698	7,600	0	446	21,536	269	505	6,647	0	215,521	600,830
	Female	61	454,534	257,190	47,374	82,060	27,897	43,854	27,311	14,860	14,860	866	5,111	4,698	1,683	744	0	91,200	1,059,381
	Total	90	554,291	365,501	99,822	135,920	45,737	57,245	30,010	22,460	0	1,311	26,647	4,967	2,188	7,391	0	306,720	1,660,211
Erie	Male	79	525,546	187,018	210,353	135,421	75,083	53,008	33,744	23,826	0	1,535	7,965	4,444	2,764	504	397	46,856	1,308,465
	Female	169	1,234,075	565,075	531,798	195,259	204,825	116,539	62,202	56,513	0	25,544	54,452	11,406	6,183	0	0	216,378	3,280,250
	Total	248	1,759,621	752,093	742,151	330,680	279,908	169,548	95,946	80,339	0	27,079	62,416	15,850	8,947	504	397	263,234	4,588,714
Fairfield	Male	61	178,896	239,421	231,228	137,353	61,501	45,304	24,534	32,639	0	25,218	0	5,800	2,019	0	120	79,917	1,063,948
	Female	202	615,520	872,627	377,637	267,801	177,141	170,925	86,853	109,923	0	31,715	8,255	17,131	5,105	5,070	98	341,570	3,087,371
	Total	263	794,417	1,112,047	608,865	405,154	238,641	216,228	111,388	142,562	0	56,932	8,255	22,931	7,124	5,070	218	421,488	4,151,320
Fayette	Male	47	456,790	216,056	318,778	49,998	49,026	36,178	3,362	34,010	0	21	34	2,819	1,974	0	822	75,829	1,245,699
	Female	115	475,101	391,891	245,194	136,501	82,566	83,235	46,929	54,317	0	37,811	9,022	4,877	3,854	3,624	7,176	276,824	1,858,922
	Total	162	931,891	607,947	563,972	186,500	131,592	119,412	50,291	88,328	0	37,832	9,056	7,696	5,829	3,624	7,997	352,653	3,104,621
Franklin	Male	819	3,432,159	2,889,926	3,204,039	948,211	1,050,007	714,573	451,964	357,706	596,143	206,364	282,272	83,143	32,723	93,030	17,933	2,194,878	16,555,073
	Female	2,090	8,830,630	8,231,196	6,413,830	2,238,982	2,278,911	1,766,821	1,174,330	1,050,611	243,102	334,723	280,931	153,141	83,935	85,167	36,431	3,895,400	37,098,142
	Total	2,909	12,262,789	11,121,122	9,617,869	3,187,194	3,328,918	2,481,394	1,626,295	1,408,317	839,245	541,087	563,203	236,284	116,659	178,198	54,363	6,090,279	53,653,215
Fulton	Male	13	46,952	24,623	56,176	1,387	11,796	15,385	645	3,195	0	0	129	200	475	0	0	11,130	172,092
	Female	42	142,230	120,470	268,754	29,796	43,059	41,543	18,805	25,488	0	2,813	3,878	2,424	1,635	0	0	28,829	729,723
	Total	55	189,182	145,093	324,930	31,183	54,855	56,928	19,450	28,684	0	2,813	4,007	2,623	2,109	0	0	39,959	901,815

Table C.1 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/ PODIATRIST/ OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Gallia	Male	61	367,124	244,417	195,927	72,371	59,320	43,551	4,737	19,182	149,228	871	2,173	3,756	304	246	782	71,640	1,235,628
	Female	121	999,548	514,392	325,586	114,404	129,375	88,418	24,589	65,276	48,055	1,277	10,734	6,473	2,696	732	290	180,949	2,512,796
	Total	182	1,366,671	758,810	521,513	186,776	188,695	131,969	29,326	84,458	197,282	2,148	12,907	10,230	3,000	978	1,072	252,588	3,748,424
Geauga	Male	12	131,707	33,845	30,472	4,842	15,089	70,461	2,132	4,419	0	0	0	2,921	50	0	0	944	296,882
	Female	31	222,516	110,257	91,475	46,158	21,344	17,431	52,911	8,565	0	0	728	950	188	446	80	63,187	636,234
	Total	43	354,223	144,103	121,946	51,000	36,432	87,892	55,043	12,984	0	0	728	3,871	238	446	80	64,130	933,117
Greene	Male	73	327,777	235,965	588,367	112,132	89,058	55,974	34,091	31,656	55,006	880	30,705	5,632	2,388	198	0	99,701	1,669,530
	Female	232	1,579,071	775,268	685,721	264,637	201,798	128,631	123,009	78,091	0	2,447	50	19,462	3,860	536	0	219,457	4,082,039
	Total	305	1,906,848	1,011,233	1,274,089	376,768	290,856	184,605	157,100	109,747	55,006	3,327	30,755	25,094	6,249	733	0	319,158	5,751,569
Guernsey	Male	62	137,733	244,928	146,889	41,035	54,891	60,255	33,980	20,336	0	114	12,139	5,565	1,722	1,109	393	340,723	1,101,811
	Female	146	301,495	544,355	376,937	146,092	116,039	105,645	50,266	55,588	94,678	2,207	48,359	10,304	5,477	1,367	1,885	301,543	2,162,237
	Total	208	439,228	789,283	523,826	187,127	170,930	165,899	84,246	75,924	94,678	2,322	60,498	15,869	7,199	2,476	2,278	642,266	3,264,048
Hamilton	Male	842	4,533,169	2,385,840	3,400,817	1,033,887	646,292	814,744	383,181	279,046	133,853	269,677	226,240	66,715	24,576	21,280	18,953	1,350,786	15,589,057
	Female	2,115	10,482,252	6,522,255	6,889,913	2,422,843	1,555,839	2,046,368	1,049,486	721,459	0	358,447	102,271	127,705	64,520	16,919	87,646	3,688,691	36,136,614
	Total	2,957	15,015,422	8,908,095	10,290,730	3,456,730	2,202,131	2,861,112	1,432,667	1,000,505	133,853	628,124	328,511	194,420	89,097	38,199	106,600	5,039,477	51,725,671
Hancock	Male	31	243,054	130,771	144,294	45,471	26,577	22,246	27,678	17,269	0	4	0	2,711	276	360	0	22,885	683,594
	Female	83	486,978	303,431	258,350	120,764	82,935	67,242	77,891	33,412	0	1,617	0	5,583	4,140	531	474	102,868	1,546,215
	Total	114	730,032	434,202	402,644	166,234	109,512	89,487	105,568	50,682	0	1,621	0	8,294	4,415	891	474	125,754	2,229,810
Hardin	Male	35	175,688	113,512	136,558	54,089	16,300	23,861	1,117	11,622	0	85	2,290	4,334	1,014	0	297	45,494	463,362
	Female	93	827,193	305,350	159,558	121,230	72,780	72,068	6,158	15,090	0	380	10,632	3,531	853	0	0	81,077	1,675,899
	Total	128	1,002,881	418,862	173,217	175,319	89,081	95,929	7,275	26,712	0	465	12,921	7,865	1,867	0	297	126,570	2,139,261
Harrison	Male	25	46,178	63,493	162,753	39,276	38,900	14,630	258	7,622	57,767	865	14,346	202	567	0	864	23,144	470,865
	Female	57	302,894	147,068	27,766	70,277	35,076	45,709	9,692	15,573	0	70	8,517	2,939	839	0	1,414	43,097	710,932
	Total	82	349,072	210,562	190,519	109,553	73,977	60,339	9,950	23,196	57,767	935	22,863	3,141	1,406	0	2,278	66,241	1,181,797
Henry	Male	12	106,019	23,038	21,364	26,153	2,877	2,489	0	4,725	0	0	2,561	229	22	0	0	23,479	212,957
	Female	29	74,574	90,233	48,530	24,486	26,457	29,807	28,319	11,620	0	524	183	1,027	711	0	0	34,572	371,045
	Total	41	180,593	113,271	69,895	50,640	29,334	32,297	28,319	16,345	0	524	2,743	1,256	733	0	0	58,052	584,001
Highland	Male	48	218,193	136,871	123,762	114,327	40,474	29,831	2,136	14,676	0	21,017	0	2,757	235	0	1,354	95,507	801,160
	Female	108	573,746	324,986	165,737	160,535	70,071	77,805	14,221	44,620	0	1,479	22,466	7,119	3,070	2,897	6,026	221,396	1,696,174
	Total	156	791,939	461,858	289,500	274,862	110,545	107,636	16,356	59,295	0	22,496	22,466	9,876	3,325	2,897	7,380	316,903	2,497,334
Hocking	Male	39	140,404	124,714	50,125	23,583	22,577	24,974	14,434	22,363	0	1,061	2,498	3,804	334	0	0	97,124	527,996
	Female	113	512,342	443,245	296,193	148,432	85,142	78,327	45,966	47,651	0	3,003	5,103	10,102	1,489	548	79	180,184	1,857,806
	Total	152	652,747	567,958	346,318	172,015	107,719	103,302	60,400	70,013	0	4,064	7,601	13,906	1,823	548	79	277,308	2,385,802
Holmes	Male	26	356,900	94,260	81,274	17,166	20,256	9,055	9,682	4,344	0	0	0	2,244	482	0	0	7,995	603,657
	Female	42	499,433	161,819	93,113	35,333	29,522	21,113	8,350	13,504	0	580	2,039	1,116	2,055	0	0	54,209	922,187
	Total	68	856,333	256,079	174,387	52,500	49,778	30,168	18,032	17,848	0	580	2,039	3,360	2,538	0	0	62,204	1,525,844
Huron	Male	43	52,522	128,405	250,348	45,584	39,499	24,864	16,822	19,135	0	580	7,131	4,087	1,835	166	840	46,547	638,365
	Female	108	332,334	373,476	89,035	111,540	61,609	72,759	66,844	30,118	0	4,003	0	6,587	4,843	0	0	85,482	1,238,630
	Total	151	384,855	501,881	339,383	157,124	101,108	97,623	83,666	49,254	0	4,583	7,131	10,675	6,678	166	840	132,028	1,876,994

Table C.1 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME*	ICF-MR*	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/PODIATRIST/OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC*	ALL OTHERS	TOTAL EXPENDITURES
Jackson	Male	67	151,740	212,215	87,530	103,198	45,101	46,786	6,606	21,887	0	2,975	184	2,084	1,778	664	0	80,701	763,450
	Female	164	641,353	658,510	520,621	203,032	150,735	90,816	11,347	81,929	0	19,127	1,167	4,842	1,415	0	3,522	316,765	2,705,183
	Total	231	793,093	870,725	608,151	306,230	195,836	137,601	17,954	103,816	0	22,103	1,352	6,926	3,194	664	3,522	397,466	3,468,633
Jefferson	Male	124	230,730	369,076	398,187	93,125	122,311	125,109	27,404	44,014	0	3,084	2,551	8,701	6,115	8,010	167	97,383	1,535,967
	Female	320	923,924	1,174,086	1,007,245	358,144	301,528	338,645	175,873	159,191	46,592	15,996	45,240	20,490	13,476	4,434	1,665	445,764	5,032,293
	Total	444	1,154,654	1,543,162	1,405,433	451,269	423,839	463,754	203,277	203,205	46,592	19,080	47,791	29,191	19,591	12,443	1,832	543,147	6,568,260
Knox	Male	51	452,928	147,160	303,108	44,215	47,728	39,701	21,222	18,976	524,466	0	16,152	2,650	1,067	0	0	50,406	1,669,779
	Female	88	311,636	339,648	176,043	93,560	68,049	60,168	64,597	33,994	225,701	17,385	51,706	8,735	3,908	0	0	418,984	1,874,114
	Total	139	764,565	486,809	479,151	137,774	115,777	99,869	85,819	52,971	750,167	17,385	67,859	11,385	4,974	0	0	469,390	3,543,893
Lake	Male	76	713,532	321,585	336,965	109,336	86,677	71,119	41,481	59,432	43,551	27,206	65,701	5,019	4,292	0	0	254,699	2,140,594
	Female	160	1,210,537	628,372	432,731	250,518	116,605	77,015	95,333	62,409	48,072	31,412	6,424	10,884	6,415	87	0	318,100	3,294,914
	Total	236	1,924,069	949,956	769,696	359,854	203,282	148,133	136,814	121,841	91,623	58,618	72,125	15,903	10,707	87	0	572,799	5,435,508
Lawrence	Male	172	259,636	550,057	550,880	115,039	159,031	226,478	8,132	93,718	0	81,078	12,055	14,309	5,098	2,993	5,400	252,448	2,336,352
	Female	397	714,931	1,755,108	1,068,847	332,097	381,517	464,361	210,153	182,426	0	90,074	4,134	31,473	21,214	1,762	25,160	698,888	5,982,145
	Total	569	974,568	2,305,165	1,619,727	447,136	540,548	690,838	218,285	276,144	0	171,152	16,189	45,781	26,312	4,755	30,560	951,335	8,318,497
Licking	Male	118	682,626	408,967	222,093	164,591	70,585	66,124	42,492	40,881	0	35,449	88,319	5,453	3,645	1,105	0	147,475	1,979,805
	Female	272	1,191,712	1,046,094	502,167	253,023	228,477	306,280	71,280	111,146	0	4,450	2,010	8,698	9,439	846	295	488,557	4,224,475
	Total	390	1,874,338	1,455,061	724,260	417,615	299,062	372,404	113,772	152,028	0	39,899	90,329	14,151	13,084	1,951	295	636,032	6,204,280
Logan	Male	35	100,820	102,561	110,156	42,562	32,081	15,387	8,206	6,339	0	0	14,462	816	2,156	0	0	85,284	520,831
	Female	78	218,312	285,319	164,513	139,539	64,721	55,051	30,773	28,874	0	8,080	6,541	2,456	2,301	0	0	160,332	1,166,812
	Total	113	319,133	387,880	274,669	182,101	96,802	70,438	38,979	35,213	0	8,080	21,004	3,272	4,457	0	0	245,615	1,687,643
Lorain	Male	201	531,139	567,464	763,654	181,099	189,511	155,580	185,403	69,960	213,238	40,294	47,384	11,804	6,334	2,992	183	154,012	3,120,052
	Female	498	1,731,410	1,730,773	1,630,921	520,103	541,747	478,510	533,202	223,625	0	199,599	3,818	31,320	18,485	7,524	481	612,648	8,264,166
	Total	699	2,262,548	2,298,236	2,394,576	701,203	731,258	634,091	718,605	293,585	213,238	239,893	51,201	43,124	24,819	10,516	664	766,660	11,384,218
Lucas	Male	537	1,514,813	1,624,065	2,449,764	804,058	495,478	591,836	249,074	197,986	217,682	216,836	85,992	27,181	15,707	16,997	8,150	726,338	9,241,957
	Female	1,284	5,019,324	4,470,395	4,698,115	1,760,000	1,205,487	1,216,183	820,761	422,781	190,866	524,015	143,227	68,738	42,823	108,334	18,998	1,793,899	22,503,946
	Total	1,821	6,534,137	6,094,460	7,147,879	2,564,059	1,700,965	1,808,020	1,069,835	620,767	408,547	740,851	229,219	95,919	58,530	125,331	27,148	2,520,237	31,745,903
Madison	Male	26	272,552	87,202	74,349	26,240	16,818	10,839	8,817	20,745	0	21,341	9,583	916	1,029	0	0	75,268	625,701
	Female	86	617,463	344,019	198,834	84,041	58,750	54,798	49,994	35,556	0	3,524	0	4,317	4,753	233	172	103,143	1,559,595
	Total	112	890,015	431,221	273,184	110,281	75,568	65,637	58,811	56,301	0	24,865	9,583	5,233	5,782	233	172	178,411	2,185,296
Mahoning	Male	247	1,388,821	927,301	788,966	415,260	172,416	174,673	69,742	89,076	226,444	90,599	19,694	19,792	20,148	22,084	1,454	185,533	4,612,003
	Female	703	2,982,089	2,350,907	2,400,654	841,921	713,640	681,045	248,844	318,880	181,513	234,248	16,386	56,676	40,942	26,031	6,128	813,534	11,913,437
	Total	950	4,370,910	3,278,208	3,189,620	1,257,181	886,056	855,718	318,587	407,956	407,957	324,846	36,080	76,469	61,089	48,114	7,582	999,067	16,525,440
Marion	Male	61	131,769	227,067	198,702	108,176	52,719	35,626	16,392	20,389	55,112	2,387	20,557	2,873	1,110	1,314	0	177,635	1,051,828
	Female	166	459,942	679,682	462,176	224,858	256,585	143,090	105,953	62,055	68,375	12,932	40,279	13,277	4,771	732	0	258,669	2,793,375
	Total	227	591,711	906,749	660,878	333,035	309,304	178,716	122,345	82,444	123,487	15,319	60,836	16,150	5,880	2,046	0	436,304	3,845,203
Medina	Male	41	222,525	145,597	331,617	69,953	71,156	62,697	12,314	14,622	0	15,701	2,085	4,717	2,193	0	0	34,511	989,687
	Female	129	1,148,435	469,979	390,146	195,611	113,185	99,017	17,594	33,738	264,218	25,652	67,961	10,879	5,408	58	0	238,938	3,080,818
	Total	170	1,370,959	615,576	721,763	265,564	184,341	161,714	29,908	48,360	264,218	41,353	70,046	15,596	7,601	58	0	273,449	4,070,504

Table C.1 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/PODIATRIST/OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Meigs	Male	37	134,398	120,509	66,083	60,597	24,643	29,298	3,879	12,903	0	0	0	1,744	209	0	0	28,439	482,702
	Female	102	382,016	373,959	238,672	122,235	129,982	117,151	12,812	37,699	0	68,897	1,226	5,397	1,727	610	197	204,141	1,696,720
	Total	139	516,414	494,467	304,754	182,832	154,625	146,449	16,691	50,602	0	68,897	1,226	7,141	1,936	610	197	232,580	2,179,422
Mercer	Male	22	83,799	74,662	35,691	21,777	8,659	13,544	2,376	8,320	44,985	819	4,138	1,688	341	0	0	17,575	318,374
	Female	48	228,105	157,107	18,095	35,834	19,008	26,403	16,172	9,801	0	0	0	3,465	1,540	0	0	21,910	537,439
	Total	70	311,905	231,768	53,786	57,611	27,667	39,947	18,548	18,122	44,985	819	4,138	5,152	1,880	0	0	39,484	855,813
Miami	Male	65	418,357	172,963	79,830	89,426	45,520	93,511	49,324	34,092	0	6,064	19,263	4,614	2,359	2,587	0	91,500	1,109,410
	Female	152	976,212	442,827	416,637	197,576	133,696	183,522	53,903	63,253	0	4,119	7,763	12,911	8,238	3,629	0	204,253	2,708,538
	Total	217	1,394,569	615,790	496,467	287,002	179,216	277,033	103,227	97,345	0	10,183	27,026	17,526	10,597	6,216	0	295,753	3,817,949
Monroe	Male	22	58,864	27,668	10,054	15,614	15,582	2,729	6,064	0	9,414	1,011	0	513	209	0	2,357	2,214	142,879
	Female	46	135,084	133,877	140,372	34,334	40,593	54,177	2,205	24,162	0	3,665	1,767	2,413	880	0	12,847	81,921	668,300
	Total	68	135,084	192,742	168,040	44,388	56,207	69,758	4,934	30,226	0	4,676	1,767	2,926	1,089	0	15,203	84,136	811,178
Montgomery	Male	450	2,048,515	1,398,975	1,827,019	469,774	341,353	431,623	207,258	179,938	250,805	86,752	77,952	30,770	6,869	24,600	0	706,793	8,088,996
	Female	1,245	5,689,922	4,426,099	4,114,244	1,387,694	929,665	1,051,797	655,086	422,560	82,336	237,686	38,916	82,895	20,374	51,179	1,261	2,070,023	21,261,737
	Total	1,695	7,738,438	5,825,073	5,941,263	1,857,468	1,271,018	1,483,420	862,344	602,498	333,141	324,438	116,868	113,665	27,243	75,779	1,261	2,776,816	29,350,733
Morgan	Male	22	51,565	70,746	132,376	14,273	24,105	27,589	0	9,414	0	1,634	0	1,266	1,733	0	0	13,201	347,902
	Female	40	99,096	134,700	124,813	18,094	35,291	29,900	10,784	16,885	0	2,362	25	2,766	278	0	0	50,428	525,422
	Total	62	150,661	205,446	257,189	32,367	59,397	57,490	10,784	26,299	0	3,995	25	4,032	2,011	0	0	63,629	873,324
Morrow	Male	24	60,344	87,007	70,422	18,327	18,154	23,971	2,338	14,992	0	669	0	2,166	1,407	4,985	0	34,246	339,028
	Female	57	239,826	219,601	128,250	55,437	43,993	32,273	7,230	20,537	57,542	469	4,497	2,491	1,561	0	0	89,302	903,010
	Total	81	300,170	306,608	198,672	73,764	62,147	56,244	9,568	35,529	57,542	1,138	4,497	4,657	2,968	4,985	0	123,549	1,242,039
Muskingum	Male	92	214,514	276,130	321,584	108,749	76,104	63,230	25,277	26,173	0	14,142	757	7,565	4,067	559	394	309,461	2,118,175
	Female	242	431,164	804,515	458,976	209,921	213,512	209,158	157,596	70,133	0	8,147	3,251	21,083	7,557	2,609	0	67,674	2,907,475
	Total	334	645,678	1,080,645	780,560	318,670	289,616	272,388	182,873	96,306	0	22,289	4,007	28,648	11,624	3,168	394	388,784	4,125,651
Noble	Male	16	160,740	51,683	6,158	39,769	4,555	4,475	7,277	2,726	0	6	56	1,185	31	0	0	6,292	284,952
	Female	32	79,481	93,302	82,199	46,883	32,905	14,462	22,074	13,829	0	18,591	36	162	159	6,100	314	70,051	480,546
	Total	48	240,220	144,985	88,356	86,651	37,459	18,937	29,351	16,555	0	18,597	92	1,347	190	6,100	314	76,343	765,498
Ottawa	Male	30	189,698	71,315	92,233	11,936	33,688	32,711	7,444	16,769	75,126	8,975	6,340	825	509	1,080	836	17,114	566,600
	Female	61	736,571	162,237	66,839	131,518	21,659	16,016	13,012	14,558	0	325	23,580	2,219	691	7,075	0	67,674	1,263,973
	Total	91	926,269	233,552	159,072	143,454	55,346	48,727	20,456	31,327	75,126	9,300	29,921	3,044	1,200	8,155	836	84,789	1,830,574
Paulding	Male	16	47,941	56,121	5,165	31,904	5,005	4,812	1,709	2,041	0	0	5,942	497	63	2,021	0	42,733	205,953
	Female	38	95,316	110,348	63,520	20,515	21,649	30,418	895	10,073	0	0	4,270	849	1,604	0	0	26,504	385,961
	Total	54	143,257	166,469	68,685	52,419	26,654	35,230	2,604	12,114	0	0	10,211	1,346	1,667	2,021	0	69,237	591,914
Perry	Male	50	92,105	150,308	166,346	61,168	36,652	30,303	10,551	21,171	0	7,278	23	4,108	434	87	2,285	36,636	619,455
	Female	100	109,303	321,095	432,227	68,503	98,364	69,440	18,164	37,957	0	7,814	218	10,054	3,122	87	8,748	74,664	1,259,672
	Total	150	201,407	471,403	598,573	129,671	135,016	99,744	28,715	59,127	0	15,092	241	14,162	3,556	87	11,033	111,299	1,879,127
Pickaway	Male	42	81,888	141,328	69,271	44,579	32,716	25,596	2,363	13,694	0	837	278	1,934	546	0	0	130,084	545,114
	Female	132	431,233	536,153	301,385	158,053	126,193	126,514	13,476	51,613	0	12,030	23,524	4,325	1,831	1,779	197	298,885	2,087,191
	Total	174	513,121	677,481	370,657	202,632	158,909	152,110	15,838	65,307	0	12,868	23,803	6,259	2,377	1,779	197	428,969	2,632,305

Table C.1 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DMIE ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/ PODIATRIST/ OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Pike	Male	70	309,344	205,181	222,038	78,164	38,285	68,087	7,279	13,269	38,560	7,505	9,136	6,849	2,122	76	11,859	92,735	1,110,490
	Female	156	427,044	592,732	319,412	172,731	122,368	110,638	26,839	69,662	0	2,332	1,937	9,252	5,963	336	27,002	181,804	2,070,054
	Total	226	736,389	797,913	541,450	250,896	160,653	178,725	34,118	82,931	38,560	9,837	11,073	16,102	8,085	412	38,861	274,539	3,180,544
Portage	Male	70	36,409	237,163	309,245	60,674	59,547	52,053	42,388	19,078	77,595	1,144	27,984	10,524	3,232	1,919	0	35,795	974,748
	Female	200	670,615	691,911	475,127	288,855	160,918	145,173	139,857	90,296	0	36,890	0	18,102	9,823	239	0	249,113	2,976,919
	Total	270	707,024	929,074	784,371	349,529	220,465	197,225	182,245	109,374	77,595	38,034	27,984	28,626	13,054	2,158	0	284,908	3,951,667
Preble	Male	24	9,175	51,731	84,222	17,886	25,769	21,811	15,929	6,232	0	0	7,319	1,732	594	83	0	27,583	270,065
	Female	49	46,534	129,328	92,906	41,068	41,695	36,917	11,895	17,028	0	1,188	11,152	4,057	216	0	0	74,860	508,845
	Total	73	55,709	181,059	177,128	58,954	67,464	58,728	27,824	23,260	0	1,188	18,471	5,789	810	83	0	102,443	778,910
Putnam	Male	14	137,965	58,439	11,881	9,445	5,637	6,925	0	4,969	0	0	94	66	62	940	0	5,227	241,650
	Female	25	106,673	79,729	23,921	14,363	19,871	54,374	69	3,876	0	759	44	898	853	0	0	21,588	327,019
	Total	39	244,638	138,169	35,802	23,808	25,508	61,299	69	8,845	0	759	139	964	915	940	0	26,815	568,669
Richland	Male	118	320,118	344,272	287,459	213,523	85,361	72,741	87,172	28,910	0	1,381	13,146	8,830	4,055	13,028	5,724	130,264	1,615,984
	Female	322	795,583	1,155,421	687,957	321,934	251,303	170,887	159,048	159,346	310,359	79,173	37,393	28,685	20,049	1,211	24,681	840,066	5,043,098
	Total	440	1,115,701	1,499,694	975,417	535,457	336,664	243,628	246,220	188,256	310,359	80,554	50,540	37,515	24,104	14,239	30,405	970,330	6,659,081
Ross	Male	104	55,329	400,641	185,867	105,791	76,964	129,849	29,896	40,682	0	16,089	6,192	5,634	1,688	3,776	11,203	118,187	1,187,785
	Female	239	619,386	857,272	471,443	210,081	174,916	211,599	82,714	92,545	0	77,202	27,138	15,578	5,593	12,379	46,285	389,969	3,294,101
	Total	343	674,714	1,257,913	657,309	315,872	251,879	341,448	112,610	133,227	0	93,291	33,330	21,212	7,281	16,155	57,488	508,156	4,481,886
Sandusky	Male	42	238,028	145,501	78,820	46,468	22,037	35,348	270	12,967	0	29	3,817	589	950	168	4,912	27,236	617,141
	Female	115	586,587	413,519	188,965	138,998	67,023	79,104	21,281	45,732	47,346	1,526	15,785	1,452	2,264	800	23,775	183,305	1,817,461
	Total	157	824,615	559,020	267,785	185,466	89,060	114,452	21,551	58,699	47,346	1,555	19,602	2,042	3,213	968	28,687	210,541	2,434,602
Scioto	Male	255	664,289	969,397	680,832	305,176	192,594	200,655	69,833	119,603	0	56,337	24,152	27,468	11,512	0	4,401	286,696	3,612,944
	Female	571	2,491,498	2,438,113	1,278,376	671,459	533,135	533,668	136,139	291,639	0	101,151	57,782	37,680	24,663	8,656	5,575	1,230,100	9,839,634
	Total	826	3,155,786	3,407,509	1,959,208	976,634	725,730	734,323	205,972	411,242	0	157,488	81,934	65,148	36,174	8,656	9,976	1,516,796	13,452,578
Seneca	Male	47	216,079	105,013	124,477	21,926	43,170	52,531	1,845	35,480	85,166	1,160	5,723	254	1,958	720	300	32,800	728,602
	Female	117	560,687	374,747	406,149	81,007	134,679	180,074	52,663	85,828	0	53,374	3,848	7,535	6,270	0	1,478	125,053	2,073,391
	Total	164	776,766	479,760	530,627	102,933	177,849	232,604	54,508	121,308	85,166	54,534	9,571	7,788	8,228	720	1,777	157,854	2,801,993
Shelby	Male	33	113,607	85,632	77,765	60,292	28,349	29,467	7,033	15,790	0	469	4,487	756	912	0	0	92,826	517,384
	Female	64	192,727	229,318	174,566	62,987	78,813	100,584	38,080	26,403	0	2,166	0	3,729	4,337	0	1,025	107,984	1,022,721
	Total	97	306,334	314,951	252,331	123,279	107,163	130,051	45,113	42,193	0	2,635	4,487	4,485	5,249	0	1,025	200,810	1,540,105
Stark	Male	323	1,735,106	1,059,278	1,436,716	382,019	282,905	188,760	160,936	129,548	58,867	3,397	76,780	26,810	6,626	7,393	0	509,305	6,064,444
	Female	753	3,789,811	2,790,329	1,863,628	742,114	660,131	591,115	417,501	267,332	0	141,987	37,855	41,916	21,374	4,216	366	1,214,428	12,584,104
	Total	1,076	5,524,917	3,849,607	3,300,343	1,124,132	943,036	779,875	578,438	396,880	58,867	145,384	114,635	68,726	28,000	11,609	366	1,723,733	18,648,548
Summit	Male	468	1,491,557	1,688,883	2,521,657	615,100	365,826	442,697	321,011	260,002	56,351	155,016	151,245	42,951	17,274	27,721	1,099	1,252,245	9,410,634
	Female	1,209	5,092,990	4,674,037	3,632,620	1,718,757	789,923	922,620	664,363	631,706	0	328,256	130,445	101,587	37,085	44,572	5,379	2,850,495	21,624,821
	Total	1,677	6,584,547	6,362,920	6,154,262	2,333,857	1,155,749	1,365,317	985,374	891,708	56,351	483,272	281,690	144,538	54,359	72,293	6,478	4,102,741	31,035,456
Trumbull	Male	229	1,235,841	725,780	1,106,937	308,534	260,046	207,081	75,737	102,532	0	66,213	5,163	17,392	11,371	3,091	0	233,053	4,358,772
	Female	590	3,944,131	1,845,572	1,705,410	715,736	579,581	558,651	185,617	219,482	27,519	103,524	14,878	41,560	32,556	5,806	1,861	543,405	10,525,289
	Total	819	5,179,972	2,571,353	2,812,347	1,024,270	839,627	765,732	261,354	322,015	27,519	169,737	20,041	58,952	43,926	8,897	1,861	776,458	14,884,061

Table C.1 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/PODIATRIST/OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Tuscarawas	Male	71	147,434	203,606	62,386	92,596	28,940	23,706	21,441	17,388	0	3,231	19,472	3,985	2,822	897	0	143,410	771,315
	Female	199	489,789	670,269	542,224	211,074	197,946	156,441	49,737	67,567	72,763	19,117	5,772	11,450	11,582	802	0	330,964	2,837,497
	Total	270	637,223	873,875	604,610	303,670	226,886	180,148	71,178	84,956	72,763	22,348	25,244	15,436	14,403	1,699	0	474,374	3,608,812
Union	Male	17	96,119	45,750	0	19,099	3,141	4,651	1,334	2,200	0	0	0	675	209	0	0	8,292	181,467
	Female	59	387,726	193,059	138,923	63,596	37,693	32,098	25,382	19,691	0	0	11,830	2,389	1,541	79	0	46,016	960,023
	Total	76	483,845	238,809	138,923	82,695	40,833	36,749	26,716	21,891	0	0	11,830	3,064	1,750	79	0	54,308	1,141,490
Van Wert	Male	7	0	16,740	4,655	7,624	3,733	4,357	1,372	2,535	0	0	0	0	0	0	0	8,958	49,974
	Female	46	142,053	151,806	48,923	29,595	31,079	35,676	10,074	11,429	0	0	7,473	801	1,639	0	0	49,583	520,132
	Total	53	142,053	168,546	53,578	37,219	34,813	40,033	11,446	13,964	0	0	7,473	801	1,639	0	0	58,541	570,106
Vinton	Male	27	77,373	71,181	74,294	16,566	23,564	42,188	1,008	3,776	0	1,901	905	4,233	0	0	3,783	23,126	343,898
	Female	48	105,892	187,225	136,416	45,840	40,287	27,866	4,831	18,259	0	11,653	0	1,153	889	0	8,984	66,280	655,575
	Total	75	183,264	258,406	210,710	62,406	63,851	70,054	5,840	22,035	0	13,555	905	5,386	889	0	12,767	89,406	999,473
Warren	Male	66	549,471	255,518	148,546	126,451	46,915	39,258	5,019	27,381	57,326	22,434	9,036	3,994	1,678	0	0	77,047	1,370,074
	Female	141	1,597,673	553,638	283,437	187,955	104,747	93,656	18,790	43,931	0	28,491	930	4,434	2,781	758	0	119,069	3,040,289
	Total	207	2,147,144	809,157	431,982	314,406	151,661	132,915	23,809	71,312	57,326	50,925	9,966	8,428	4,459	758	0	196,116	4,410,364
Washington	Male	85	265,240	314,719	292,441	146,479	81,582	72,999	9,037	39,319	0	21,049	1,649	2,883	999	0	0	190,728	1,439,124
	Female	197	734,908	615,776	379,346	194,072	115,520	103,857	41,052	61,218	0	8,835	17,954	10,470	3,914	494	0	206,461	2,493,877
	Total	282	1,000,148	930,496	671,787	340,551	197,102	176,856	50,088	100,537	0	29,884	19,603	13,353	4,913	494	0	397,189	3,933,001
Wayne	Male	60	108,095	211,854	141,623	79,172	33,280	19,721	36,962	18,907	99,326	1,218	16,320	3,305	2,754	1,034	0	169,388	942,959
	Female	150	663,472	621,941	390,410	157,028	122,367	104,445	103,336	97,572	0	15,716	15,850	12,029	15,153	8,678	0	259,860	2,587,855
	Total	210	771,566	833,794	532,033	236,199	155,647	124,166	140,298	116,479	99,326	16,934	32,170	15,333	17,907	9,712	0	429,248	3,530,814
Williams	Male	19	60,951	52,092	44,835	49,619	16,313	19,175	1,502	6,232	0	855	0	622	2,693	0	0	20,865	275,753
	Female	39	290,578	162,173	175,739	81,956	45,077	40,340	30,908	22,019	0	332	0	826	731	956	0	71,311	922,947
	Total	58	351,529	214,265	220,574	131,575	61,390	59,515	32,410	28,251	0	1,187	0	1,448	3,424	956	0	92,177	1,198,700
Wood	Male	40	179,373	135,240	61,957	67,157	25,655	20,071	57,906	7,422	0	29	0	525	439	87	714	37,909	594,485
	Female	99	723,872	375,509	130,922	135,928	38,812	49,872	89,188	19,549	0	1,651	8,465	3,515	1,728	0	0	152,738	1,731,749
	Total	139	903,245	510,749	192,879	203,085	64,467	69,943	147,095	26,971	0	1,679	8,465	4,041	2,167	87	714	190,648	2,326,234
Wyandot	Male	24	212,075	60,631	109,176	61,235	17,412	9,094	4,272	7,838	0	5,755	1,296	90	18	0	0	14,449	503,341
	Female	50	344,329	146,219	13,957	140,043	13,794	8,351	12,832	7,679	0	808	7,386	1,550	2,938	0	0	86,122	786,007
	Total	74	556,404	206,850	123,133	201,277	31,206	17,446	17,104	15,517	0	6,563	8,682	1,640	2,956	0	0	100,571	1,289,348
Total	Male	10,089	43,235,618	32,277,204	39,569,795	12,732,568	8,897,129	8,710,200	4,062,580	4,114,655	4,532,145	2,197,356	2,199,231	714,183	349,448	361,663	154,322	16,949,101	181,057,198
	Female	25,200	114,913,479	88,939,472	75,178,945	29,812,016	21,899,396	21,573,719	11,173,855	10,570,617	3,130,283	4,701,636	2,143,458	1,601,948	896,898	493,700	539,865	42,991,654	430,560,939
	Total	35,289	158,149,097	121,216,675	114,748,741	42,544,583	30,796,525	30,283,919	15,236,435	14,685,272	7,662,428	6,898,993	4,342,689	2,316,131	1,246,346	855,363	694,186	59,940,754	611,618,137

Source: Ohio Medicaid Program, analysis completed by Chronic Disease and Behavioral Epidemiology, BHSIOS, Ohio Department of Health.

1 Expenditures in Dollars.

2 Durable Medical Equipment.

3 Intermediate Care Facilities for the mentally retarded.

4 Federally Qualified Health Centers.

*Fee For Service only.

Table C.2
Average Medicaid Expenditures¹ per Person for Recipients* Diagnosed with Diabetes by Health Services Category, County and Gender, Ohio 2000

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/ PODIATRIST/ OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Adams	Male	76	2,826	3,912	2,974	893	878	996	124	619	0	20	1	22	48	8	78	1,983	15,383
	Female	177	3,757	4,103	2,159	1,116	790	838	328	412	0	65	6	41	39	0	90	1,763	15,506
	Total	253	3,477	4,046	2,404	1,049	816	886	267	475	0	51	4	35	42	2	86	1,829	15,469
Allen	Male	98	3,828	3,164	2,139	1,752	601	804	30	359	0	10	286	53	10	5	0	773	13,814
	Female	292	3,250	3,147	1,989	1,070	1,000	1,100	108	342	0	20	178	73	25	2	0	1,795	14,100
	Total	390	3,395	3,151	2,027	1,241	900	1,026	89	346	0	18	205	68	21	3	0	1,538	14,028
Ashland	Male	24	748	1,843	5,773	869	1,425	713	26	239	0	18	110	59	11	19	0	1,027	12,881
	Female	61	2,559	3,366	4,854	996	1,070	1,001	799	415	0	6	1	133	52	0	0	863	16,114
	Total	85	2,048	2,936	5,113	960	1,170	920	580	366	0	10	31	112	41	5	0	909	15,201
Ashtabula	Male	143	8,794	4,271	5,166	1,121	975	1,043	244	543	1,007	221	161	61	39	16	0	1,684	25,346
	Female	296	7,886	3,739	2,186	1,189	875	941	212	484	0	238	12	59	53	3	0	1,280	19,158
	Total	439	8,182	3,913	3,157	1,167	908	974	222	503	328	232	60	60	48	7	0	1,412	21,174
Athens	Male	69	700	3,148	4,916	798	647	681	380	378	518	24	34	116	39	14	0	907	13,298
	Female	193	4,188	3,578	2,331	871	984	825	364	417	0	63	55	61	15	0	0	2,865	16,617
	Total	262	3,269	3,464	3,012	852	896	787	368	407	136	53	49	76	21	4	0	2,349	15,743
Auglaize	Male	24	7,055	3,133	1,617	2,167	676	631	7	224	0	22	0	57	4	0	0	514	16,107
	Female	60	7,346	3,640	652	1,277	518	573	205	216	100	5	194	39	25	0	0	447	15,239
	Total	84	7,263	3,495	928	1,532	563	590	149	219	71	10	138	44	19	0	0	466	15,487
Belmont	Male	110	2,679	2,832	9,594	862	1,087	1,042	73	418	662	0	123	64	23	13	10	916	20,399
	Female	272	1,991	3,297	1,841	659	847	977	490	312	268	57	54	51	28	21	11	1,227	12,130
	Total	382	2,189	3,163	4,074	718	916	996	370	343	382	40	74	55	27	19	11	1,138	14,511
Brown	Male	43	7,963	4,839	2,184	1,176	811	887	71	421	0	8	356	33	43	0	51	3,285	22,129
	Female	117	6,585	4,293	3,068	1,421	1,133	715	271	395	0	31	0	38	39	0	280	2,177	20,446
	Total	160	6,955	4,439	2,831	1,355	1,046	761	217	402	0	25	96	37	40	0	218	2,475	20,898
Butler	Male	210	4,970	3,248	2,950	1,037	1,335	710	388	489	1,414	211	448	52	42	1	8	2,264	19,566
	Female	516	6,337	4,091	2,513	1,227	901	841	329	601	322	218	228	53	39	2	6	1,854	19,562
	Total	726	5,941	3,847	2,639	1,172	1,027	803	346	569	638	216	292	52	40	2	7	1,973	19,563
Carroll	Male	36	3,369	3,201	3,984	1,170	1,084	632	107	411	0	0	0	57	19	0	4	1,386	15,424
	Female	53	2,551	4,373	1,307	857	845	704	318	345	0	35	0	57	16	3	0	1,463	12,873
	Total	89	2,882	3,899	2,390	983	941	675	232	372	0	21	0	57	17	2	2	1,432	13,905
Champaign	Male	42	7,202	2,596	1,334	1,240	587	243	361	319	2,856	0	671	42	8	0	0	2,172	19,632
	Female	78	6,790	3,372	2,960	1,222	634	638	237	331	0	5	88	36	68	1	0	1,457	17,838
	Total	120	6,934	3,100	2,391	1,228	617	500	280	327	999	3	292	38	47	0	0	1,707	18,466
Clark	Male	127	6,079	3,580	4,055	1,331	1,007	753	595	367	835	3	175	72	14	59	0	1,266	20,190
	Female	375	7,110	4,184	4,698	1,370	1,141	647	419	499	0	170	70	70	21	18	0	1,878	22,294
	Total	502	6,849	4,031	4,535	1,360	1,107	674	463	465	211	127	96	71	19	28	0	1,723	21,761
Clermont	Male	87	5,273	3,732	6,098	1,398	904	765	680	408	3,065	90	282	32	73	0	103	1,004	23,906
	Female	240	5,152	3,909	4,303	1,025	966	867	199	438	248	40	118	58	69	11	156	1,616	19,175
	Total	327	5,184	3,861	4,781	1,124	949	840	327	430	998	53	161	51	70	8	142	1,453	20,434

Table C.2 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/PODIATRIST/OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Clinton	Male	33	2,737	3,538	1,155	1,377	645	921	619	524	0	404	492	54	8	26	13	1,746	1,4260
	Female	103	5,850	4,527	996	1,826	575	642	294	440	0	320	0	61	31	10	10	791	1,6372
	Total	136	5,095	4,287	1,034	1,717	592	710	373	460	0	340	119	116	35	132	46	11	1,022
Columbiana	Male	113	2,022	2,825	5,747	1,082	1,173	1,203	168	462	0	154	116	35	132	46	11	1,082	1,6258
	Female	276	4,254	3,511	2,672	1,177	1,148	911	282	405	265	207	100	66	77	8	54	1,281	1,6418
	Total	389	3,606	3,312	3,565	1,149	1,155	996	249	422	188	191	104	104	93	19	42	1,223	1,6371
Coshocton	Male	48	4,352	3,594	1,555	1,467	1,681	300	314	245	0	4	236	29	10	39	0	1,173	1,4998
	Female	120	6,517	2,861	1,399	1,124	756	545	69	173	0	349	82	35	44	0	0	1,479	1,5433
	Total	168	5,899	3,070	1,444	1,222	1,020	475	139	194	0	250	126	84	33	11	0	1,392	1,5309
Crawford	Male	42	7,746	4,175	1,997	1,388	664	511	268	483	0	0	84	67	20	22	0	6,134	2,3559
	Female	139	3,778	3,827	2,529	738	887	1,109	478	544	0	127	37	56	43	17	0	1,205	1,5376
	Total	181	4,699	3,908	2,406	888	836	971	429	530	0	97	48	59	37	18	0	2,349	1,7275
Cuyahoga	Male	1,498	4,403	2,757	4,718	1,316	806	897	426	431	249	344	271	67	39	41	15	1,880	1,8659
	Female	3,698	4,384	2,998	3,973	1,355	801	866	369	462	201	234	93	60	33	10	15	2,072	1,7927
	Total	5,196	4,389	2,928	4,188	1,344	803	875	386	453	215	266	144	62	35	19	15	2,016	1,8138
Darke	Male	30	7,317	2,112	1,774	2,414	598	486	72	285	0	91	0	173	0	0	79	1,218	1,6618
	Female	63	6,268	3,503	2,939	1,012	587	691	601	262	0	27	0	51	8	50	100	1,653	1,7751
	Total	93	6,606	3,054	2,563	1,464	590	625	431	269	0	48	0	0	6	34	93	1,512	1,7385
Defiance	Male	22	3,483	2,273	1,439	466	514	581	429	74	0	0	17	13	74	37	0	618	1,0016
	Female	36	4,577	2,558	2,868	920	1,072	494	364	189	0	1	0	35	21	0	0	705	1,3803
	Total	58	4,162	2,450	2,326	748	860	527	388	145	0	0	6	6	41	14	0	672	1,2367
Delaware	Male	29	3,440	3,735	1,809	1,857	615	462	93	262	0	15	743	9	17	229	0	7,432	2,0718
	Female	61	7,451	4,216	777	1,345	457	719	448	244	0	14	84	77	28	12	0	1,495	1,7367
	Total	90	6,159	4,061	1,109	1,510	508	636	333	250	0	15	296	55	24	82	0	3,408	1,8447
Erie	Male	79	6,652	2,367	2,663	1,714	950	671	427	302	0	19	101	56	35	6	5	593	1,6563
	Female	169	7,302	3,344	3,147	1,155	1,212	690	368	334	0	151	322	67	37	0	0	1,280	1,9410
	Total	248	7,095	3,033	2,993	1,333	1,129	684	387	324	0	109	252	64	36	2	2	1,061	1,8503
Fairfield	Male	61	2,933	3,925	3,791	2,252	1,008	743	402	535	0	413	0	95	33	0	2	1,310	1,7442
	Female	202	3,047	4,320	1,869	1,326	877	846	430	544	0	157	41	85	25	25	0	1,691	1,5284
	Total	263	3,021	4,228	2,315	1,541	907	822	424	542	0	216	31	31	27	19	1	1,603	1,5784
Fayette	Male	47	9,719	4,597	6,783	1,064	1,043	770	72	724	0	0	1	60	42	0	17	1,613	2,6504
	Female	115	4,131	3,408	2,132	1,187	718	724	408	472	0	329	78	42	34	32	62	2,407	1,6165
	Total	162	5,752	3,753	3,481	1,151	812	737	310	545	0	234	56	48	36	22	49	2,177	1,9164
Franklin	Male	819	4,191	3,529	3,912	1,158	1,282	872	552	437	728	252	345	102	40	114	22	2,680	2,0214
	Female	2,090	4,225	3,938	3,069	1,071	1,090	845	562	503	116	160	134	73	40	41	17	1,864	1,7750
	Total	2,909	4,215	3,823	3,306	1,096	1,144	853	559	484	288	186	194	81	40	61	19	2,094	1,8444
Fulton	Male	13	3,612	1,894	4,321	107	907	1,183	50	246	0	0	10	15	37	0	0	856	1,3238
	Female	42	3,386	2,868	6,399	709	1,025	989	448	607	0	67	92	58	39	0	0	686	1,7374
	Total	55	3,440	2,638	5,908	567	997	1,035	354	522	0	51	73	48	38	0	0	727	1,6397

Table C.2 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/ PODIATRIST/ OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Gallia	Male	61	6,018	4,007	3,212	1,186	972	714	78	314	2,446	14	36	62	5	4	13	1,174	20,256
	Female	121	8,261	4,251	2,691	945	1,069	731	203	539	397	11	89	53	22	6	2	1,495	20,767
	Total	182	7,509	4,169	2,865	1,026	1,037	725	161	464	1,084	12	71	56	16	5	6	1,388	20,596
Geauga	Male	12	10,976	2,820	2,539	403	1,257	5,872	178	368	0	0	0	243	4	0	0	79	24,740
	Female	31	7,178	3,557	2,951	1,489	689	562	1,707	276	0	0	23	31	6	14	3	2,038	20,524
	Total	43	8,238	3,351	2,836	1,186	847	2,044	1,280	302	0	0	17	90	6	10	2	1,491	21,700
Greene	Male	73	4,490	3,232	8,060	1,536	1,220	767	467	434	754	12	421	77	33	3	0	1,366	22,870
	Female	232	6,806	3,342	2,956	1,141	870	554	530	337	0	11	0	84	17	2	0	946	17,595
	Total	305	6,252	3,316	4,177	1,235	954	605	515	360	180	11	101	82	20	2	0	1,046	18,858
Guernsey	Male	62	2,221	3,950	2,369	662	885	972	548	328	0	2	196	90	28	18	6	5,496	17,771
	Female	146	2,065	3,728	2,582	1,001	795	724	344	381	648	15	331	71	38	9	13	2,065	14,810
	Total	208	2,112	3,795	2,518	900	822	798	405	365	455	11	291	76	35	12	11	3,088	15,693
Hamilton	Male	842	5,384	2,834	4,039	1,228	768	968	455	331	159	320	269	79	29	25	23	1,604	18,514
	Female	2,115	4,956	3,084	3,258	1,146	736	968	496	341	0	169	48	60	31	8	41	1,744	17,086
	Total	2,957	5,078	3,013	3,480	1,169	745	968	485	338	45	212	111	111	66	30	36	1,704	17,493
Hancock	Male	31	7,840	4,218	4,655	1,467	857	718	893	557	0	0	0	87	9	12	0	738	22,051
	Female	83	5,867	3,656	3,113	1,455	999	810	938	403	0	19	0	67	50	6	6	1,239	18,629
	Total	114	6,404	3,809	3,532	1,458	961	785	926	445	0	14	0	73	39	8	4	1,103	19,560
Hardin	Male	35	5,020	3,243	390	1,545	466	682	32	332	0	2	65	124	29	0	8	1,300	13,239
	Female	93	8,895	3,283	1,716	1,304	783	775	66	162	0	4	114	38	9	0	0	872	18,020
	Total	128	7,835	3,272	1,353	1,370	696	749	57	209	0	4	101	61	15	0	2	989	16,713
Harrison	Male	25	1,847	2,540	6,510	1,571	1,556	585	10	305	2,311	35	574	8	23	0	35	926	18,835
	Female	57	5,314	2,580	487	1,233	615	802	170	273	0	1	149	52	15	0	25	756	12,472
	Total	82	4,257	2,568	2,323	1,336	902	736	121	283	704	11	279	38	17	0	28	808	14,412
Henry	Male	12	8,835	1,920	1,780	2,179	240	207	0	394	0	0	213	19	2	0	0	1,957	17,746
	Female	29	2,572	3,111	1,673	844	912	1,028	977	401	0	18	6	35	25	0	0	1,192	12,795
	Total	41	4,405	2,763	1,705	1,235	715	788	691	399	0	13	67	31	18	0	0	1,416	14,244
Highland	Male	48	4,546	2,851	2,578	2,382	843	621	44	306	0	438	0	57	5	0	28	1,990	16,691
	Female	108	5,312	3,009	1,535	1,486	649	720	132	413	0	14	208	66	28	27	56	2,050	15,705
	Total	156	5,077	2,961	1,856	1,762	709	690	105	380	0	144	144	63	21	19	47	2,031	16,009
Hocking	Male	39	3,600	3,198	1,285	605	579	640	370	573	0	27	64	98	9	0	0	2,490	13,538
	Female	113	4,534	3,923	2,621	1,314	753	693	407	422	0	27	45	89	13	5	1	1,595	16,441
	Total	152	4,294	3,737	2,278	1,132	709	680	397	461	0	27	50	91	4	4	1	1,824	15,696
Holmes	Male	26	13,727	3,625	3,126	660	779	348	372	167	0	0	0	86	19	0	0	307	23,218
	Female	42	11,891	3,853	2,217	841	703	503	199	322	0	14	49	27	49	0	0	1,291	21,957
	Total	68	12,593	3,766	2,565	772	732	444	265	262	0	9	30	49	37	0	0	915	22,439
Huron	Male	43	1,221	2,986	5,822	1,060	919	578	391	445	0	13	166	95	43	4	20	1,082	14,846
	Female	108	3,077	3,458	824	1,033	570	674	619	279	0	37	0	61	45	0	0	791	11,469
	Total	151	2,549	3,324	2,248	1,041	670	647	554	326	0	30	47	71	44	1	6	874	12,430

Table C.2 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/PODIATRIST/OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Jackson	Male	67	2,265	3,167	1,306	1,540	673	698	99	327	0	44	3	31	27	10	0	1,204	11,395
	Female	164	3,911	4,015	3,175	1,238	919	554	69	500	0	117	7	30	9	0	21	1,931	16,495
	Total	231	3,433	3,769	2,633	1,326	848	596	78	449	0	96	6	30	14	3	15	1,721	15,016
Jefferson	Male	124	1,861	2,976	3,211	751	986	1,009	221	355	0	25	21	70	49	65	1	785	12,387
	Female	320	2,887	3,669	3,148	1,119	942	1,058	550	497	146	50	141	64	42	14	5	1,393	15,726
	Total	444	2,601	3,476	3,165	1,016	955	1,044	458	458	105	43	108	66	44	28	4	1,223	14,793
Knox	Male	51	8,881	2,885	5,943	867	936	778	416	372	10,284	0	317	52	21	0	0	988	32,741
	Female	88	3,541	3,860	2,000	1,063	773	684	734	386	2,565	198	588	99	44	0	0	4,761	21,297
	Total	139	5,500	3,502	3,447	991	833	718	617	381	5,397	125	488	82	36	0	0	3,377	25,496
Lake	Male	76	9,389	4,231	4,434	1,439	1,140	936	546	782	573	358	864	66	56	0	0	3,351	28,166
	Female	160	7,566	3,927	2,705	1,566	729	481	596	390	300	196	40	68	40	1	0	1,988	20,593
	Total	236	8,153	4,025	3,261	1,525	861	628	580	516	388	248	306	67	45	0	0	2,427	23,032
Lawrence	Male	172	1,510	3,198	3,203	669	925	1,317	47	545	0	471	70	83	30	17	31	1,468	13,583
	Female	397	1,801	4,421	2,692	837	961	1,170	529	460	0	227	10	79	53	4	63	1,760	15,068
	Total	569	1,713	4,051	2,847	786	950	1,214	384	485	0	301	28	80	46	8	54	1,672	14,620
Licking	Male	118	5,785	3,466	1,882	1,395	598	560	360	346	0	300	748	46	31	9	0	1,250	16,778
	Female	272	4,381	3,846	1,846	930	840	1,126	262	409	0	16	7	32	35	3	1	1,796	15,531
	Total	390	4,806	3,731	1,857	1,071	767	955	292	390	0	102	232	36	34	5	1	1,631	15,908
Logan	Male	35	2,881	2,930	3,147	1,216	917	440	234	181	0	0	413	23	62	0	0	2,437	14,881
	Female	78	2,799	3,658	2,109	1,789	830	706	395	370	0	104	84	31	30	0	0	2,056	14,959
	Total	113	2,824	3,433	2,431	1,612	857	623	345	312	0	72	186	29	39	0	0	2,174	14,935
Lorain	Male	201	2,642	2,823	3,799	901	943	774	922	348	1,061	200	236	59	32	15	1	766	15,523
	Female	498	3,477	3,475	3,275	1,044	1,088	961	1,071	449	0	401	8	63	37	15	1	1,230	16,595
	Total	699	3,237	3,288	3,426	1,003	1,046	907	1,028	420	305	343	73	62	36	15	1	1,097	16,286
Lucas	Male	537	2,821	3,024	4,562	1,497	923	1,102	464	369	405	404	160	51	29	32	15	1,353	17,210
	Female	1,284	3,909	3,482	3,659	1,371	939	947	639	329	149	408	112	54	33	84	15	1,397	17,526
	Total	1,821	3,588	3,347	3,925	1,408	934	993	587	341	224	407	126	53	32	69	15	1,384	17,433
Madison	Male	26	10,483	3,354	2,860	1,009	647	417	339	798	0	821	369	35	40	0	0	2,895	24,065
	Female	86	7,180	4,000	2,312	977	683	637	581	413	0	41	0	50	55	3	2	1,199	18,135
	Total	112	7,947	3,850	2,439	985	675	586	525	503	0	222	86	47	52	2	2	1,593	19,512
Mahoning	Male	247	5,623	3,754	3,194	1,681	698	707	282	361	917	367	80	80	82	89	6	751	18,672
	Female	703	4,242	3,344	3,415	1,198	1,015	969	354	454	258	333	23	81	58	37	9	1,157	16,947
	Total	950	4,601	3,451	3,357	1,323	933	901	335	429	429	342	38	80	64	51	8	1,052	17,395
Marion	Male	61	2,160	3,722	3,257	1,773	864	584	269	334	903	39	337	47	18	22	0	2,912	17,243
	Female	166	2,771	4,094	2,784	1,355	1,546	862	638	374	412	78	243	80	29	4	0	1,558	16,828
	Total	227	2,607	3,994	2,911	1,467	1,363	787	539	363	544	67	268	71	26	9	0	1,922	16,939
Medina	Male	41	5,427	3,551	8,088	1,706	1,736	1,529	300	357	0	383	51	115	53	0	0	842	24,139
	Female	129	8,903	3,643	3,024	1,516	877	768	136	262	2,048	199	527	84	42	0	0	1,852	23,882
	Total	170	8,064	3,621	4,246	1,562	1,084	951	176	284	1,554	243	412	92	45	0	0	1,609	23,944

Table C.2 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/ PODIATRIST/ OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Meigs	Male	37	3,632	3,257	1,786	1,638	666	792	105	349	0	0	0	47	6	0	0	769	13,046
	Female	102	3,745	3,666	2,340	1,198	1,274	1,149	126	370	0	675	12	53	17	6	2	2,001	16,635
	Total	139	3,715	3,557	2,192	1,315	1,112	1,054	120	364	0	496	9	51	14	4	1	1,673	15,679
Mercer	Male	22	3,809	3,394	1,622	990	394	616	108	378	2045	37	188	77	15	0	0	799	14,472
	Female	48	4,752	3,273	377	747	396	550	337	204	0	0	0	72	32	0	0	456	11,197
	Total	70	4,456	3,311	768	823	395	571	265	259	643	12	59	74	27	0	0	564	12,226
Miami	Male	65	6,436	2,661	1,228	1,376	700	1,439	759	524	0	93	296	71	36	40	0	1,408	17,068
	Female	152	6,422	2,913	2,741	1,300	880	1,207	355	416	0	27	51	85	54	24	0	1,344	17,819
	Total	217	6,427	2,838	2,288	1,323	826	1,277	476	449	0	47	125	81	49	29	0	1,363	17,594
Monroe	Male	22	0	2,676	1,258	457	710	708	124	276	0	46	0	23	9	0	107	101	6,494
	Female	46	2,937	2,910	3,052	746	882	1,178	48	525	0	80	38	52	19	0	279	1,781	14,528
	Total	68	1,987	2,834	2,471	653	827	1,026	73	445	0	69	26	43	16	0	224	1,237	11,929
Montgomery	Male	450	4,552	3,109	4,060	1,044	759	959	461	400	557	193	173	68	15	55	0	1,571	17,976
	Female	1,245	4,570	3,555	3,305	1,115	747	845	526	339	66	191	31	67	16	41	1	1,663	17,078
	Total	1,695	4,565	3,437	3,505	1,096	750	875	509	355	197	191	69	67	16	45	1	1,638	17,316
Morgan	Male	22	2,344	3,216	6,017	649	1,096	1,254	0	428	0	74	0	58	79	0	0	600	15,814
	Female	40	2,477	3,368	3,120	452	882	748	270	422	0	59	1	69	7	0	0	1,261	13,136
	Total	62	2,430	3,314	4,148	522	958	927	174	424	0	64	0	65	32	0	0	1,026	14,086
Morrow	Male	24	2,514	3,625	2,934	764	756	999	97	625	0	28	0	90	59	208	0	1,427	14,126
	Female	57	4,207	3,853	2,250	973	772	566	127	360	1010	8	79	44	27	0	0	1,567	15,842
	Total	81	3,706	3,785	2,453	911	767	694	118	439	710	14	56	57	37	62	0	1,525	15,334
Muskingum	Male	92	2,332	3,001	3,495	1,182	827	687	275	284	0	154	8	82	44	6	0	862	13,241
	Female	242	1,782	3,324	1,897	867	882	864	651	290	0	34	13	87	31	11	2	1,279	12,014
	Total	334	1,933	3,235	2,337	954	867	816	548	288	0	67	12	86	35	9	1	1,164	12,352
Noble	Male	16	10,046	3,230	385	2,486	285	280	455	170	0	0	4	74	2	0	0	393	17,809
	Female	32	2,484	2,916	2,569	1,465	1,028	452	690	432	0	581	1	5	5	191	10	2,189	15,017
	Total	48	5,005	3,021	1,841	1,805	780	395	611	345	0	387	2	28	4	127	7	1,590	15,948
Ottawa	Male	30	6,323	2,377	3,074	398	1,123	1,090	248	559	2504	299	211	28	17	36	28	570	18,887
	Female	61	12,075	2,660	1,096	2,156	355	263	213	239	0	5	387	36	11	116	0	1,109	20,721
	Total	91	10,179	2,567	1,748	1,576	608	535	225	344	826	102	329	33	13	90	9	932	20,116
Paulding	Male	16	2,996	3,508	323	1,994	313	301	107	128	0	0	371	31	4	126	0	2,671	12,872
	Female	38	2,508	2,904	1,672	540	570	800	24	265	0	0	112	22	42	0	0	697	10,157
	Total	54	2,653	3,083	1,272	971	494	652	48	224	0	0	189	25	31	37	0	1,282	10,961
Perry	Male	50	1,842	3,006	3,327	1,223	733	606	211	423	0	146	0	82	9	2	46	733	12,389
	Female	100	1,093	3,211	4,322	685	984	694	182	380	0	78	2	101	31	0	87	747	12,597
	Total	150	1,343	3,143	3,990	864	900	665	191	394	0	101	2	94	24	1	74	742	12,528
Pickaway	Male	42	1,950	3,365	1,649	1,061	779	609	56	326	0	20	7	46	13	0	0	3,097	12,979
	Female	132	3,267	4,062	2,283	1,197	956	958	102	391	0	91	178	33	14	13	1	2,264	15,812
	Total	174	2,949	3,894	2,130	1,165	913	874	91	375	0	74	137	36	14	10	1	2,465	15,128

Table C.2 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/ PODIATRIST/ OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Pike	Male	70	4,419	2,931	3,172	1,117	547	973	104	190	551	107	131	98	30	1	169	1,325	15,864
	Female	156	2,737	3,800	2,048	1,107	784	709	172	447	0	15	12	59	38	2	173	1,165	13,270
	Total	226	3,258	3,531	2,396	1,110	711	791	151	367	171	44	49	71	36	2	172	1,215	14,073
Portage	Male	70	520	3,388	4,418	867	851	744	606	273	1109	16	400	150	46	27	0	511	13,925
	Female	200	3,353	3,460	2,376	1,444	805	726	699	451	0	184	0	91	49	1	0	1,246	14,885
	Total	270	2,619	3,441	2,905	1,295	817	730	675	405	287	141	104	106	48	8	0	1,055	14,636
Preble	Male	24	382	2,155	3,509	745	1,074	909	664	260	0	0	305	72	25	3	0	1,149	11,253
	Female	49	950	2,639	1,896	838	851	753	243	348	0	24	228	83	4	0	0	1,528	10,385
	Total	73	763	2,480	2,426	808	924	804	381	319	0	16	253	79	11	1	0	1,403	10,670
Putnam	Male	14	9,855	4,174	849	675	403	495	0	355	0	0	7	5	4	67	0	373	17,261
	Female	25	4,267	3,189	957	575	795	2,175	3	155	0	30	2	36	34	0	0	864	13,081
	Total	39	6,273	3,543	918	610	654	1,572	2	227	0	19	4	25	23	24	0	688	14,581
Richland	Male	118	2,713	2,918	2,436	1,810	723	616	739	245	0	12	111	75	34	110	49	1,104	13,695
	Female	322	2,471	3,588	2,137	1,000	780	531	494	495	964	246	116	89	62	4	77	2,609	15,662
	Total	440	2,536	3,408	2,217	1,217	765	554	560	428	705	183	115	85	55	32	69	2,205	15,134
Ross	Male	104	532	3,852	1,787	1,017	740	1,249	287	391	0	155	60	54	16	36	108	1,136	11,421
	Female	239	2,592	3,587	1,973	879	732	885	346	387	0	323	114	65	23	52	194	1,632	13,783
	Total	343	1,967	3,667	1,916	921	734	995	328	388	0	272	97	62	21	47	168	1,482	13,067
Sandusky	Male	42	5,667	3,464	1,877	1,106	525	842	6	309	0	1	91	14	23	4	117	648	14,694
	Female	115	5,101	3,596	1,643	1,209	583	688	185	398	412	13	137	13	20	7	207	1,594	15,804
	Total	157	5,252	3,561	1,706	1,181	567	729	137	374	302	10	125	13	20	6	183	1,341	15,507
Scioto	Male	255	2,605	3,802	2,670	1,197	755	787	274	469	0	221	95	108	45	0	17	1,124	14,168
	Female	571	4,363	4,270	2,239	1,176	934	935	238	511	0	177	101	66	43	15	10	2,154	17,232
	Total	826	3,821	4,125	2,372	1,182	879	889	249	498	0	191	99	99	44	10	12	1,836	16,286
Seneca	Male	47	4,597	2,234	2,648	467	919	1,118	39	755	1812	25	122	5	42	15	6	698	15,502
	Female	117	4,792	3,203	3,471	692	1,151	1,539	450	734	0	456	33	64	54	0	13	1,069	17,721
	Total	164	4,736	2,925	3,236	628	1,084	1,418	332	740	519	333	58	47	50	4	11	963	17,085
Shelby	Male	33	3,443	2,595	2,357	1,827	859	893	213	478	0	14	136	23	28	0	0	2,813	15,678
	Female	64	3,011	3,583	2,728	984	1,231	1,572	595	413	0	34	0	58	68	0	16	1,687	15,980
	Total	97	3,158	3,247	2,601	1,271	1,105	1,341	465	435	0	27	46	46	54	0	11	2,070	15,877
Stark	Male	323	5,372	3,279	4,448	1,183	876	584	498	401	182	11	238	83	21	23	0	1,577	18,775
	Female	753	5,033	3,706	2,475	986	877	785	554	355	0	189	50	56	28	6	0	1,613	16,712
	Total	1,076	5,135	3,578	3,067	1,045	876	725	538	369	55	135	107	62	26	11	0	1,602	17,331
Summit	Male	468	3,187	3,609	5,388	1,314	782	946	686	556	120	331	323	92	37	59	2	2,676	20,108
	Female	1,209	4,213	3,866	3,005	1,422	653	763	550	523	0	272	108	84	31	37	4	2,358	17,887
	Total	1,677	3,926	3,794	3,670	1,392	689	814	588	532	34	288	168	168	32	43	4	2,446	18,507
Trumbull	Male	229	5,397	3,169	4,834	1,347	1,136	904	331	448	0	289	23	76	50	13	0	1,018	19,034
	Female	590	6,685	3,128	2,891	1,213	982	947	315	372	47	175	25	70	55	10	3	921	17,839
	Total	819	6,325	3,140	3,434	1,251	1,025	935	319	393	34	207	24	72	54	11	2	948	18,173

Table C.2 continued

COUNTY	GENDER	NUMBER OF RECIPIENTS WITH DIABETES	NURSING HOME	PRESCRIPTION	INPATIENT	MEDICARE COST SHARING	PHYSICIAN	OUT-PATIENT	COMMUNITY MENTAL HEALTH	DME ²	ICF-MR ³	CLINIC	HABILITATION	DENTAL	CHIROPRACTOR/PODIATRIST/OPTOMETRIST	ALCOHOL AND DRUG SERVICES	FQHC ⁴	ALL OTHERS	TOTAL EXPENDITURES
Tuscarawas	Male	71	2,077	2,868	879	1,304	408	334	302	245	0	46	274	56	40	13	0	2,020	10,864
	Female	199	2,461	3,368	2,725	1,061	995	786	250	340	366	96	29	58	58	4	0	1,663	14,259
	Total	270	2,360	3,237	2,239	1,125	840	667	264	315	269	83	93	57	53	6	0	1,757	13,366
Union	Male	17	5,654	2,691	0	1,123	185	274	78	129	0	0	0	40	12	0	0	488	10,675
	Female	59	6,572	3,272	2,355	1,078	639	544	430	334	0	0	201	40	26	1	0	780	16,272
	Total	76	6,366	3,142	1,828	1,088	537	484	352	288	0	0	156	40	23	1	0	715	15,020
Van Wert	Male	7	0	2,391	665	1,089	533	622	196	362	0	0	0	0	0	0	0	1,280	7,139
	Female	46	3,088	3,300	1,064	643	676	776	219	248	0	0	162	17	36	0	0	1,078	11,307
	Total	53	2,680	3,180	1,011	702	657	755	216	263	0	0	141	15	31	0	0	1,105	10,757
Vinton	Male	27	2,866	2,636	2,752	614	873	1,563	37	140	0	70	34	157	0	0	140	857	12,737
	Female	48	2,206	3,901	2,842	955	839	581	101	380	0	243	0	24	19	0	187	1,381	13,658
	Total	75	2,444	3,445	2,809	832	851	934	78	294	0	181	12	72	12	0	170	1,192	13,326
Warren	Male	66	8,325	3,871	2,251	1,916	711	595	76	415	869	340	137	61	25	0	0	1,167	20,759
	Female	141	11,331	3,927	2,010	1,333	743	664	133	312	0	202	7	31	20	5	0	844	21,562
	Total	207	10,373	3,909	2,087	1,519	733	642	115	345	277	246	48	41	22	4	0	947	21,306
Washington	Male	85	3,120	3,703	3,440	1,723	960	859	106	463	0	248	19	34	12	0	0	2,244	16,931
	Female	197	3,730	3,126	1,926	985	586	527	208	311	0	45	91	53	20	3	0	1,048	12,659
	Total	282	3,547	3,300	2,382	1,208	699	627	178	357	0	106	70	47	17	2	0	1,408	13,947
Wayne	Male	60	1,802	3,531	2,360	1,320	555	329	616	315	1,655	20	272	55	46	17	0	2,823	15,716
	Female	150	4,423	4,146	2,603	1,047	816	696	689	650	0	105	106	80	101	58	0	1,732	17,252
	Total	210	3,674	3,970	2,533	1,125	741	591	668	555	473	81	153	73	85	46	0	2,044	16,813
Williams	Male	19	3,208	2,742	2,360	2,612	859	1,009	79	328	0	45	0	33	142	0	0	1,098	14,513
	Female	39	7,451	4,158	4,506	2,101	1,156	1,034	793	565	0	9	0	21	19	25	0	1,828	23,665
	Total	58	6,061	3,694	3,803	2,269	1,058	1,026	559	487	0	20	0	0	25	16	0	1,589	20,667
Wood	Male	40	4,484	3,381	1,549	1,679	641	502	1,448	186	0	1	0	13	11	2	18	948	14,862
	Female	99	7,312	3,793	1,322	1,373	392	504	901	197	0	17	86	36	17	0	0	1,543	17,492
	Total	139	6,498	3,674	1,388	1,461	464	503	1,058	194	0	12	61	29	16	1	5	1,372	16,735
Wyandot	Male	24	8,836	2,526	4,549	2,551	725	379	178	327	0	240	54	4	1	0	0	602	20,973
	Female	50	6,887	2,924	2,79	2,801	276	167	257	154	0	16	148	31	59	0	0	1,722	15,720
	Total	74	7,519	2,795	1,664	2,720	422	236	231	210	0	89	117	22	40	0	0	1,359	17,424
Total	Male	10,089	4,285	3,199	3,922	1,262	882	863	403	408	449	218	218	71	35	36	15	1,680	17,946
	Female	25,200	4,560	3,529	2,983	1,183	869	856	443	419	124	187	85	64	36	20	21	1,706	17,086
	Total	35,289	4,482	3,435	3,252	1,206	873	858	432	416	217	195	123	66	66	35	24	1,699	17,332

Source: Ohio Medicaid Program, analysis completed by Chronic Disease and Behavioral Epidemiology, BHSIOS, Ohio Department of Health.

¹Expenditures in Dollars.²Durable Medical Equipment.³Intermediate Care Facilities for the mentally retarded.⁴Federally Qualified Health Centers.

*Fee For Service only.

Table D.1

Hospital Discharges with Any Mention of Diabetes¹ as a Listed Diagnosis by County, Number of Discharges, Discharge per 10,000 Residents, Number of Days and Average Length of Stay², Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	LENGTH OF STAY	
			NUMBER OF DAYS	AVERAGE LENGTH OF STAY IN DAYS ²
Adams	2,053	246	9,032	4.4
Allen	7,608	235	42,153	5.5
Ashland	2,486	158	11,328	4.6
Ashtabula	7,422	241	38,128	5.1
Athens	1,813	97	9,227	5.1
Auglaize	3,234	230	16,857	5.2
Belmont	4,008	190	20,966	5.2
Brown	2,418	191	10,084	4.2
Butler	17,290	172	86,963	5.0
Carroll	1,288	148	7,566	5.9
Champaign	2,229	191	10,642	4.8
Clark	11,937	275	66,452	5.6
Clermont	8,916	166	41,183	4.6
Clinton	3,173	260	13,470	4.2
Columbiana	8,305	248	45,265	5.5
Coshocton	2,893	264	13,700	4.7
Crawford	2,343	167	11,799	5.0
Cuyahoga	103,130	249	596,690	5.8
Darke	2,461	153	12,059	4.9
Defiance	2,237	189	10,948	4.9
Delaware	3,687	111	16,468	4.5
Erie	6,513	275	34,630	5.3
Fairfield	7,601	202	38,758	5.1
Fayette	1,843	217	8,607	4.7
Franklin	56,064	177	295,601	5.3
Fulton	2,379	188	12,060	5.1
Gallia	1,923	201	9,465	4.9
Geauga	3,049	112	14,417	4.7
Greene	6,253	140	32,808	5.2
Guernsey	2,533	206	12,510	4.9
Hamilton	52,961	210	270,780	5.1
Hancock	1,800	85	8,307	4.6
Hardin	2,552	268	13,139	5.1
Harrison	1,462	306	8,997	6.2
Henry	1,340	152	6,527	4.9
Highland	3,249	264	15,445	4.8
Hocking	1,961	228	9,849	5.0
Holmes	1,129	97	5,621	5.0
Huron	3,983	222	19,174	4.8
Jackson	2,681	274	11,943	4.5
Jefferson	8,233	373	55,157	6.7
Knox	3,349	205	16,976	5.1
Lake	11,272	165	61,448	5.5
Lawrence	2,883	153	15,954	5.5
Licking	6,694	156	30,543	4.6

COUNTY	NUMBER OF HOSPITAL DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	LENGTH OF STAY	
			NUMBER OF DAYS	AVERAGE LENGTH OF STAY IN DAYS ²
Logan	2,770	200	13,764	5.0
Lorain	16,636	195	85,768	5.2
Lucas	30,195	223	174,077	5.8
Madison	2,542	209	12,540	4.9
Mahoning	18,792	245	106,581	5.7
Marion	2,337	117	10,218	4.4
Medina	6,206	137	31,440	5.1
Meigs	905	129	4,536	5.0
Mercer	1,919	156	9,124	4.8
Miami	5,424	183	26,546	4.9
Monroe	994	217	4,794	4.8
Montgomery	36,301	216	195,923	5.4
Morgan	822	185	4,397	5.3
Morrow	1,204	125	4,888	4.1
Muskingum	6,721	264	36,155	5.4
Noble	659	154	3,155	4.8
Ottawa	3,107	252	15,036	4.8
Paulding	1,067	176	4,529	4.2
Perry	2,564	250	13,116	5.1
Pickaway	2,984	188	14,227	4.8
Pike	2,210	265	9,089	4.1
Portage	8,001	175	39,487	4.9
Preble	2,316	180	11,365	4.9
Putnam	1,695	162	8,742	5.2
Richland	7,625	197	47,698	6.3
Ross	5,483	246	23,288	4.2
Sandusky	3,216	174	15,728	4.9
Scioto	8,415	353	44,741	5.3
Seneca	3,816	216	18,560	4.9
Shelby	2,252	156	10,189	4.5
Stark	25,738	228	145,373	5.6
Summit	32,743	202	160,552	4.9
Trumbull	15,332	227	79,466	5.2
Tuscarawas	5,792	214	29,457	5.1
Union	1,812	146	7,156	3.9
Van Wert	1,474	165	6,547	4.4
Vinton	898	234	3,795	4.2
Warren	5,821	122	27,156	4.7
Washington	4,018	212	18,709	4.7
Wayne	5,659	169	26,116	4.6
Williams	2,216	191	11,790	5.3
Wood	5,510	152	29,672	5.4
Wyandot	1,035	151	4,657	4.5
Unknown	818	N/A	5,021	6.1
Total	692,682	204	3,654,864	5.3

Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.2

Hospital Discharges per 10,000 Residents with Any Mention of Diabetes¹ as a Listed Diagnosis by County and Age Group, Ohio 1999–2001.

	AGE GROUP									
	0–19		20–44		45–64		65+		TOTAL	
	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS
Adams	39	16	168	59	762	393	1,084	979	2,053	246
Allen	51	5	565	51	2,500	351	4,492	987	7,608	235
Ashland	34	7	168	32	671	187	1,613	738	2,486	158
Ashtabula	40	4	507	49	2,077	289	4,798	1,064	7,422	241
Athens	12	2	200	24	614	185	987	573	1,813	97
Auglaize	16	4	173	37	900	296	2,145	1,047	3,234	230
Belmont	3	1	214	31	1,165	226	2,626	689	4,008	190
Brown	16	4	219	49	816	287	1,367	928	2,418	191
Butler	223	8	1,648	43	5,752	264	9,667	905	17,290	172
Carroll	9	4	163	57	340	157	776	639	1,288	148
Champaign	28	8	148	37	793	276	1,260	859	2,229	191
Clark	80	7	859	60	4,015	385	6,983	1,101	11,937	275
Clermont	99	6	807	40	3,085	259	4,925	1,011	8,916	166
Clinton	50	14	228	52	1,040	387	1,855	1,248	3,173	260
Columbiana	80	9	545	48	2,430	304	5,250	1,039	8,305	248
Coshocton	42	13	230	65	945	361	1,676	1,037	2,893	264
Crawford	28	7	157	34	828	245	1,330	620	2,343	167
Cuyahoga	712	6	8,907	61	30,244	328	63,267	973	103,130	249
Darke	9	2	193	37	665	180	1,594	651	2,461	153
Defiance	14	4	157	39	687	249	1,379	909	2,237	189
Delaware	62	6	344	28	1,161	149	2,120	765	3,687	111
Erie	38	6	433	57	2,054	349	3,988	1,083	6,513	275
Fairfield	85	8	603	45	2,473	276	4,440	1,074	7,601	202
Fayette	28	12	179	62	538	266	1,098	894	1,843	217
Franklin	736	8	6,152	46	20,121	318	29,055	932	56,064	177
Fulton	19	5	152	35	738	264	1,470	920	2,379	188
Gallia	20	7	150	46	581	253	1,172	923	1,923	201
Geauga	37	5	120	14	806	114	2,086	605	3,049	112
Greene	33	3	676	42	1,967	189	3,577	692	6,253	140
Guernsey	21	6	233	58	977	335	1,302	738	2,533	206
Hamilton	564	8	4,859	53	16,580	308	30,958	901	52,961	210
Hancock	29	5	245	32	626	131	900	323	1,800	85
Hardin	17	6	128	37	765	374	1,642	1,321	2,552	268
Harrison	10	8	50	33	340	283	1,062	1,267	1,462	306
Henry	19	7	111	38	434	223	776	623	1,340	152
Highland	33	9	194	47	1,063	374	1,959	1,154	3,249	264
Hocking	18	7	165	57	645	301	1,133	1,010	1,961	228
Holmes	9	2	52	14	297	139	771	626	1,129	97
Huron	40	7	254	41	1,190	304	2,499	1,132	3,983	222
Jackson	41	14	241	71	873	388	1,526	1,155	2,681	274
Jefferson	21	4	441	64	2,337	416	5,434	1,319	8,233	373
Knox	16	3	315	56	988	263	2,030	897	3,349	205
Lake	96	5	639	27	2,956	178	7,581	789	11,272	165
Lawrence	42	8	326	52	1,034	224	1,481	553	2,883	153
Licking	84	7	569	38	2,203	215	3,838	754	6,694	156
Logan	34	8	191	41	888	277	1,657	869	2,770	200
Lorain	165	7	1,484	49	5,266	271	9,721	916	16,636	195
Lucas	258	7	2,936	60	9,536	329	17,465	986	30,195	223

Table D.2 continued

	AGE GROUP									
	0-19		20-44		45-64		65+		TOTAL	
	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS	NUMBER OF DISCHARGES	DISCHARGES PER 10,000 COUNTY RESIDENTS
Madison	22	7	200	41	890	330	1,430	1,086	2,542	209
Mahoning	156	8	1,268	51	4,903	274	12,465	914	18,792	245
Marion	37	7	315	43	874	191	1,111	421	2,337	117
Medina	50	4	345	21	1,751	161	4,060	851	6,206	137
Meigs	12	6	69	30	321	185	503	495	905	129
Mercer	14	4	101	26	566	220	1,238	697	1,919	156
Miami	51	6	465	46	1,877	257	3,031	778	5,424	183
Monroe	3	2	104	74	221	182	666	890	994	217
Montgomery	222	5	4,001	66	11,922	313	20,156	868	36,301	216
Morgan	23	18	61	44	286	265	452	664	822	185
Morrow	19	7	123	37	433	186	629	585	1,204	125
Muskingum	47	6	624	72	2,120	368	3,930	1,097	6,721	264
Noble	4	4	50	29	230	255	375	698	659	154
Ottawa	39	12	106	27	813	255	2,149	1,048	3,107	252
Paulding	17	9	44	22	319	226	687	902	1,067	176
Perry	54	17	218	61	856	376	1,436	1,162	2,564	250
Pickaway	27	6	277	44	1,081	292	1,599	938	2,984	188
Pike	17	7	137	48	663	363	1,393	1,263	2,210	265
Portage	133	10	591	34	2,499	250	4,778	956	8,001	175
Preble	44	12	166	38	798	258	1,308	781	2,316	180
Putnam	10	3	76	22	456	214	1,153	831	1,695	162
Richland	56	5	587	44	2,310	250	4,672	856	7,625	197
Ross	36	6	468	55	1,756	335	3,223	1,195	5,483	246
Sandusky	27	5	235	37	1,051	252	1,903	715	3,216	174
Scioto	64	10	682	84	2,734	500	4,935	1,403	8,415	353
Seneca	19	4	265	44	1,133	293	2,399	959	3,816	216
Shelby	14	3	163	32	745	240	1,330	757	2,252	156
Stark	196	6	1,955	51	7,338	275	16,249	952	25,738	228
Summit	326	7	2,600	45	9,883	266	19,934	872	32,743	202
Trumbull	188	10	1,241	56	4,705	285	9,198	867	15,332	227
Tuscarawas	47	6	433	48	1,647	259	3,665	903	5,792	214
Union	23	6	181	37	563	210	1,045	882	1,812	146
Van Wert	10	4	131	44	468	232	865	636	1,474	165
Vinton	17	15	76	57	316	355	489	1,050	898	234
Warren	72	5	479	26	1,903	179	3,367	746	5,821	122
Washington	38	7	327	51	1,254	269	2,399	857	4,018	212
Wayne	22	2	345	30	1,636	219	3,656	891	5,659	169
Williams	27	8	135	34	591	226	1,463	902	2,216	191
Wood	38	4	387	27	1,573	209	3,512	878	5,510	152
Wyandot	14	7	61	27	289	185	671	638	1,035	151
Unknown	11	N/A	83	N/A	287	N/A	437	N/A	818	N/A
Total	6,406	7	58,673	48	215,827	282	411,776	912	692,682	204

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

N/A Not Computed because population estimates were unavailable.

Table D.3

Hospital Discharges with Any Mention of Diabetes¹ and Ketoacidosis² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	64	4.1	8	159
Allen	148	5.2	5	94
Ashland	83	2.8	5	108
Ashtabula	120	4.8	4	80
Athens	44	4.5	2	45
Auglaize	44	3.4	3	66
Belmont	45	4.3	2	42
Brown	47	5.5	4	78
Butler	492	3.8	5	101
Carroll	45	4.8	5	105
Champaign	58	4.2	5	102
Clark	296	4.8	7	138
Clermont	239	3.7	4	94
Clinton	55	4.0	5	93
Columbiana	204	4.0	6	123
Coshocton	62	3.4	6	116
Crawford	75	3.7	5	108
Cuyahoga	2,503	4.5	6	121
Darke	32	2.9	2	41
Defiance	66	3.2	6	116
Delaware	105	3.5	3	66
Erie	106	4.8	4	90
Fairfield	191	3.9	5	105
Fayette	54	4.2	6	129
Franklin	1,811	4.1	6	116
Fulton	63	4.7	5	105
Gallia	46	4.4	5	98
Geauga	50	3.7	2	38
Greene	171	4.6	4	77
Guernsey	61	4.5	5	102
Hamilton	1,613	4.1	6	131
Hancock	56	4.3	3	54
Hardin	39	3.7	4	83
Harrison	13	5.5	3	54
Henry	25	3.9	3	59
Highland	52	4.6	4	88
Hocking	35	3.1	4	83
Holmes	18	3.8	2	36
Huron	77	4.1	4	91
Jackson	98	2.9	10	206
Jefferson	93	5.8	4	82
Knox	95	4.9	6	117
Lake	240	4.3	4	70
Lawrence	61	3.7	3	65
Licking	185	4.4	4	88

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Logan	61	4.5	4	91
Lorain	410	4.0	5	99
Lucas	796	4.0	6	121
Madison	48	3.0	4	80
Mahoning	447	4.7	6	116
Marion	126	3.3	6	128
Medina	89	4.0	2	41
Meigs	13	5.2	2	37
Mercer	30	4.9	2	53
Miami	117	3.9	4	81
Monroe	14	3.1	3	61
Montgomery	1,150	5.2	7	138
Morgan	35	2.9	8	162
Morrow	57	3.2	6	124
Muskingum	177	3.8	7	143
Noble	21	4.8	5	98
Ottawa	48	3.2	4	77
Paulding	16	2.1	3	55
Perry	76	3.2	7	156
Pickaway	77	4.0	5	97
Pike	34	4.1	4	85
Portage	250	3.3	5	110
Preble	41	4.5	3	66
Putnam	29	4.9	3	60
Richland	164	4.0	4	86
Ross	149	3.6	7	134
Sandusky	72	3.9	4	80
Scioto	192	4.6	8	163
Seneca	74	3.6	4	87
Shelby	43	5.2	3	63
Stark	617	4.3	5	110
Summit	916	4.1	6	114
Trumbull	388	4.6	6	115
Tuscarawas	119	3.8	4	89
Union	46	4.2	4	77
Van Wert	33	5.2	4	76
Vinton	18	3.6	5	98
Warren	139	4.1	3	60
Washington	103	4.2	5	109
Wayne	88	3.7	3	55
Williams	39	2.9	3	69
Wood	89	4.4	2	49
Wyandot	22	3.7	3	66
Unknown	27	3.5	N/A	N/A
Total	17,580	4.2	5	105

Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 ICD-9-CM Codes for Ketoacidosis: Diabetes with Ketoacidosis (250.1).

3 Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.4

Hospital Discharges with Any Mention of Diabetes¹ and End Stage Renal Disease² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents, and Discharges per 10,000 Diabetics , Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	95	6.7	11	236
Allen	538	7.3	17	342
Ashland	171	5.9	11	223
Ashtabula	652	6.4	21	435
Athens	133	6.9	7	137
Auglaize	164	7.2	12	245
Belmont	137	6.1	6	126
Brown	82	5.6	6	136
Butler	1,083	7.2	11	222
Carroll	52	6.9	6	122
Champaign	120	6.6	10	211
Clark	965	6.8	22	451
Clermont	466	6.5	9	183
Clinton	201	6.1	16	341
Columbiana	488	7.2	15	294
Coshocton	178	6.9	16	334
Crawford	144	6.3	10	208
Cuyahoga	8,084	6.9	19	392
Darke	117	6.7	7	150
Defiance	126	6.8	11	221
Delaware	195	6.0	6	123
Erie	433	6.8	18	369
Fairfield	527	6.7	14	290
Fayette	127	6.0	15	304
Franklin	4,672	6.9	15	299
Fulton	119	6.2	9	199
Gallia	56	6.2	6	120
Geauga	174	6.9	6	134
Greene	567	6.7	13	256
Guernsey	120	6.6	10	201
Hamilton	3,931	6.5	16	319
Hancock	107	5.9	5	103
Hardin	79	6.8	8	168
Harrison	99	7.2	21	411
Henry	96	6.1	11	228
Highland	156	6.4	13	263
Hocking	128	6.3	15	305
Holmes	70	5.5	6	140
Huron	245	6.2	14	289
Jackson	131	5.6	13	275
Jefferson	406	9.4	18	357
Knox	273	6.6	17	337
Lake	770	6.4	11	225
Lawrence	86	8.2	5	92
Licking	643	5.5	15	307

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Logan	137	6.2	10	205
Lorain	1,003	7.5	12	242
Lucas	2,779	6.9	21	422
Madison	198	6.7	16	328
Mahoning	1,364	7.7	18	355
Marion	101	5.1	5	102
Medina	338	6.4	7	156
Meigs	45	9.0	6	129
Mercer	89	5.5	7	156
Miami	306	6.2	10	211
Monroe	66	5.7	14	288
Montgomery	2,920	6.8	17	350
Morgan	43	9.1	10	199
Morrow	65	5.5	7	141
Muskingum	644	6.4	25	520
Noble	22	6.6	5	102
Ottawa	259	6.1	21	416
Paulding	35	5.9	6	121
Perry	159	6.9	15	327
Pickaway	162	6.1	10	205
Pike	174	5.0	21	436
Portage	635	6.6	14	279
Preble	178	5.6	14	285
Putnam	136	7.1	13	282
Richland	635	8.4	16	332
Ross	354	5.4	16	318
Sandusky	212	6.9	11	236
Scioto	609	6.9	26	518
Seneca	281	7.1	16	329
Shelby	205	5.1	14	303
Stark	1,284	7.3	11	229
Summit	1,806	6.2	11	224
Trumbull	1,064	6.2	16	316
Tuscarawas	359	6.6	13	270
Union	76	4.9	6	127
Van Wert	114	6.0	13	263
Vinton	58	6.6	15	315
Warren	336	6.5	7	146
Washington	271	5.9	14	286
Wayne	364	5.5	11	228
Williams	183	6.6	16	325
Wood	492	7.3	14	272
Wyandot	65	5.7	9	194
Unknown	50	8.2	N/A	N/A
Total	48,882	6.7	14	293

Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 ICD-9-CM Procedure Codes: Chronic Dialysis(39.95) or Renal Transplantation (55.60-55.69), or Disease Codes: Chronic Renal Failure (585) or Kidney Transplant (V42.0) or Renal Dialysis Status (V45.1)

3 Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.5

Hospital Discharges with Any Mention of Diabetes¹ and Kidney Disease Disorders² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	172	6.0	21	428
Allen	579	7.0	18	368
Ashland	305	5.6	19	398
Ashtabula	862	6.7	28	575
Athens	148	7.0	8	152
Auglaize	282	7.1	20	421
Belmont	340	6.1	16	314
Brown	308	5.3	24	511
Butler	1,663	7.2	17	340
Carroll	132	8.6	15	309
Champaign	245	6.6	21	431
Clark	1,261	7.7	29	589
Clermont	882	6.7	16	346
Clinton	246	5.9	20	417
Columbiana	968	7.8	29	583
Coshocton	231	6.7	21	433
Crawford	242	6.6	17	349
Cuyahoga	10,979	7.1	26	533
Darke	185	7.1	12	238
Defiance	221	6.9	19	387
Delaware	321	6.6	10	203
Erie	567	7.4	24	483
Fairfield	666	6.7	18	366
Fayette	188	6.3	22	450
Franklin	6,136	7.0	19	393
Fulton	235	6.9	19	393
Gallia	117	7.1	12	250
Geauga	261	7.0	10	201
Greene	788	7.3	18	356
Guernsey	209	6.1	17	350
Hamilton	5,265	6.7	21	427
Hancock	193	6.0	9	186
Hardin	188	6.4	20	399
Harrison	126	6.0	26	523
Henry	137	6.6	16	325
Highland	304	6.3	25	512
Hocking	178	6.2	21	423
Holmes	100	6.3	9	200
Huron	391	6.9	22	461
Jackson	208	6.1	21	437
Jefferson	525	9.8	24	462
Knox	363	7.0	22	448
Lake	1,082	7.2	16	317
Lawrence	278	7.3	15	298
Licking	577	5.9	13	275

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Logan	281	6.1	20	420
Lorain	1,770	7.6	21	428
Lucas	3,737	7.5	28	568
Madison	276	7.6	23	458
Mahoning	1,943	8.0	25	506
Marion	181	6.5	9	183
Medina	457	7.0	10	210
Meigs	67	7.8	10	193
Mercer	159	5.4	13	279
Miami	475	7.0	16	328
Monroe	157	5.6	34	684
Montgomery	4,189	7.5	25	502
Morgan	65	8.2	15	301
Morrow	130	5.3	14	283
Muskingum	698	7.0	27	563
Noble	49	6.5	11	228
Ottawa	313	6.5	25	503
Paulding	72	6.1	12	249
Perry	249	6.6	24	512
Pickaway	278	7.2	17	351
Pike	269	5.7	32	674
Portage	590	7.0	13	259
Preble	246	6.5	19	395
Putnam	177	6.7	17	366
Richland	839	8.6	22	439
Ross	572	5.6	26	515
Sandusky	331	7.2	18	369
Scioto	888	7.3	37	756
Seneca	405	7.4	23	474
Shelby	201	6.1	14	297
Stark	2,555	7.5	23	456
Summit	2,609	6.6	16	324
Trumbull	1,625	7.3	24	483
Tuscarawas	621	7.2	23	466
Union	135	5.6	11	226
Van Wert	120	6.3	13	277
Vinton	98	5.2	26	531
Warren	588	6.7	12	256
Washington	367	6.4	19	387
Wayne	511	6.0	15	320
Williams	162	7.1	14	288
Wood	630	7.6	17	348
Wyandot	79	5.7	12	236
Unknown	72	8.1	N/A	N/A
Total	69,890	7.1	21	419

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

¹ ICD-9-CM Codes for Diabetes: (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

² ICD-9-CM Codes for Kidney Disease: Diabetes with renal manifestations (250.4), Nephrotic syndrome (581.81), Nephritis and nephropathy (583.81), Acute renal failure (584), Renal failure (586), Renal sclerosis (587), Disorders resulting from impaired renal function (588), and Infections of kidney (590).

³ Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.6

Hospital Discharges with Any Mention of Diabetes¹ and Major Cardiovascular Diseases² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	1,577	4.5	189	3,921
Allen	6,258	5.6	193	3,981
Ashland	2,074	4.6	132	2,709
Ashtabula	6,246	5.2	202	4,168
Athens	1,438	5.3	77	1,480
Auglaize	2,741	5.3	195	4,090
Belmont	3,454	5.3	164	3,189
Brown	2,060	4.1	163	3,420
Butler	14,112	5.1	141	2,889
Carroll	1,050	5.9	121	2,458
Champaign	1,884	4.8	162	3,315
Clark	10,153	5.7	234	4,744
Clermont	7,280	4.7	135	2,857
Clinton	2,647	4.3	217	4,485
Columbiana	7,125	5.5	213	4,290
Coshocton	2,353	4.8	215	4,414
Crawford	1,826	5.1	130	2,632
Cuyahoga	86,162	5.8	208	4,181
Darke	1,927	5.0	120	2,475
Defiance	1,889	5.0	159	3,308
Delaware	2,980	4.5	90	1,884
Erie	5,455	5.3	230	4,651
Fairfield	6,150	5.2	164	3,383
Fayette	1,485	4.8	175	3,555
Franklin	45,587	5.4	144	2,917
Fulton	1,957	5.2	155	3,274
Gallia	1,613	4.9	169	3,443
Geauga	2,585	4.7	95	1,990
Greene	5,079	5.4	114	2,294
Guernsey	1,826	5.0	149	3,060
Hamilton	44,234	5.1	175	3,586
Hancock	1,147	4.8	54	1,104
Hardin	2,167	5.2	227	4,597
Harrison	1,279	6.1	268	5,307
Henry	1,091	4.8	123	2,588
Highland	2,628	4.8	213	4,427
Hocking	1,622	5.2	189	3,859
Holmes	935	5.0	80	1,868
Huron	3,220	4.9	180	3,798
Jackson	2,218	4.5	227	4,658
Jefferson	6,967	6.9	316	6,132
Knox	2,770	5.0	169	3,420
Lake	9,194	5.4	135	2,692
Lawrence	2,262	5.6	120	2,426
Licking	5,238	4.6	122	2,497
Logan	2,292	5.0	165	3,425
Lorain	13,626	5.2	160	3,292
Lucas	25,301	5.8	187	3,845
Madison	2,058	4.9	169	3,414
Mahoning	15,633	5.8	204	4,068
Marion	1,388	4.7	70	1,406
Medina	5,303	5.0	117	2,441
Meigs	742	5.1	106	2,135
Mercer	1,500	4.8	122	2,631
Miami	4,540	5.0	153	3,131
Monroe	842	4.9	184	3,670
Montgomery	29,539	5.4	176	3,542
Morgan	648	5.4	146	3,000
Morrow	890	4.1	93	1,936
Muskingum	5,485	5.5	216	4,425
Noble	529	4.9	123	2,458
Ottawa	2,623	4.9	213	4,218
Paulding	841	4.3	139	2,906
Perry	2,139	5.2	208	4,400
Pickaway	2,451	4.8	154	3,095
Pike	1,874	4.2	225	4,695
Portage	6,417	5.0	141	2,822
Preble	1,891	5.0	147	3,033
Putnam	1,439	5.2	138	2,979
Richland	6,281	6.2	163	3,285
Ross	4,624	4.2	207	4,160
Sandusky	2,599	4.9	140	2,896
Scioto	6,951	5.4	292	5,914
Seneca	3,097	4.8	175	3,621
Shelby	1,828	4.6	127	2,699
Stark	21,546	5.7	191	3,848
Summit	27,107	4.9	167	3,368
Trumbull	12,797	5.2	190	3,801
Tuscarawas	4,716	5.1	174	3,543
Union	1,479	4.0	119	2,475
Van Wert	1,110	4.7	124	2,561
Vinton	743	4.4	194	4,029
Warren	4,796	4.7	100	2,087
Washington	3,335	4.7	176	3,517
Wayne	4,744	4.6	142	2,967
Williams	1,840	5.3	158	3,271
Wood	4,635	5.5	128	2,562
Wyandot	781	4.6	114	2,336
Unknown	659	6.1	N/A	N/A
Total	571,604	5.3	168	3,425

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 ICD-9-CM Codes for Major Cardiovascular Diseases: Major Cardiovascular Diseases (390-448).

3 Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.7

Hospital Discharges with Any Mention of Diabetes¹ and Non-Traumatic Amputations of the Lower Limb² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	24	10.2	3	60
Allen	83	11.7	3	53
Ashland	31	10.0	2	40
Ashtabula	98	7.5	3	65
Athens	35	9.3	2	36
Auglaize	40	9.1	3	60
Belmont	45	9.3	2	42
Brown	35	7.5	3	58
Butler	320	8.8	3	66
Carroll	15	7.2	2	35
Champaign	39	8.2	3	69
Clark	178	9.5	4	83
Clermont	154	9.2	3	60
Clinton	49	10.1	4	83
Columbiana	87	9.0	3	52
Coshocton	33	9.9	3	62
Crawford	37	11.7	3	53
Cuyahoga	1,905	9.4	5	92
Darke	47	9.2	3	60
Defiance	22	9.0	2	39
Delaware	53	9.2	2	34
Erie	101	8.7	4	86
Fairfield	149	9.3	4	82
Fayette	37	6.8	4	89
Franklin	1,062	9.3	3	68
Fulton	34	10.4	3	57
Gallia	19	6.0	2	41
Geauga	64	8.2	2	49
Greene	81	9.0	2	37
Guernsey	48	8.8	4	80
Hamilton	1,097	9.2	4	89
Hancock	42	8.4	2	40
Hardin	29	8.9	3	62
Harrison	21	9.3	4	87
Henry	22	10.5	2	52
Highland	39	10.1	3	66
Hocking	43	7.4	5	102
Holmes	21	8.5	2	42
Huron	76	9.6	4	90
Jackson	39	8.3	4	82
Jefferson	91	12.3	4	80
Knox	48	10.5	3	59
Lake	228	9.3	3	67
Lawrence	31	12.5	2	33
Licking	122	8.8	3	58
Logan	39	9.4	3	58
Lorain	302	10.6	4	73
Lucas	476	10.3	4	72
Madison	35	7.3	3	58
Mahoning	341	10.3	4	89
Marion	33	7.7	2	33
Medina	102	8.4	2	47
Meigs	15	7.9	2	43
Mercer	22	8.3	2	39
Miami	93	8.3	3	64
Monroe	14	6.4	3	61
Montgomery	652	10.6	4	78
Morgan	12	7.4	3	56
Morrow	14	8.4	1	30
Muskingum	97	9.7	4	78
Noble	13	9.8	3	60
Ottawa	33	9.0	3	53
Paulding	6	8.3	1	21
Perry	28	11.1	3	58
Pickaway	51	8.4	3	64
Pike	18	9.2	2	45
Portage	112	9.3	2	49
Preble	34	10.3	3	55
Putnam	17	13.4	2	35
Richland	97	12.8	3	51
Ross	104	8.5	5	94
Sandusky	73	8.2	4	81
Scioto	107	11.9	4	91
Seneca	57	8.9	3	67
Shelby	28	6.3	2	41
Stark	351	10.9	3	63
Summit	486	8.5	3	60
Trumbull	227	9.4	3	67
Tuscarawas	91	8.4	3	68
Union	20	8.9	2	33
Van Wert	28	6.9	3	65
Vinton	14	8.1	4	76
Warren	100	9.2	2	44
Washington	54	10.0	3	57
Wayne	57	8.6	2	36
Williams	24	8.5	2	43
Wood	89	9.5	2	49
Wyandot	17	9.1	2	51
Unknown	15	13.5	N/A	N/A
Total	11,472	9.5	3	69

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

¹ ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

² ICD-9-CM Codes: Lower limb amputation procedure (84.1) in the absence of Lower limb amputation codes ICD-9-CM 895-897.

³ Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.8

Hospital Discharges with Any Mention of Diabetes¹ and Vision Disorders² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	81	4.1	10	201
Allen	242	6.3	8	154
Ashland	155	4.9	10	202
Ashtabula	535	5.5	17	357
Athens	93	5.8	5	96
Auglaize	92	6.1	7	137
Belmont	170	4.8	8	157
Brown	123	5.3	10	204
Butler	893	5.5	9	183
Carroll	97	6.4	11	227
Champaign	120	4.6	10	211
Clark	387	6.4	9	181
Clermont	593	5.0	11	233
Clinton	151	4.4	12	256
Columbiana	523	5.7	16	315
Coshocton	171	5.9	16	321
Crawford	122	5.2	9	176
Cuyahoga	8,728	5.9	21	424
Darke	105	6.0	7	135
Defiance	188	5.6	16	329
Delaware	234	5.8	7	148
Erie	313	6.2	13	267
Fairfield	374	6.1	10	206
Fayette	113	5.4	13	271
Franklin	3,549	5.7	11	227
Fulton	169	6.0	13	283
Gallia	96	5.0	10	205
Geauga	215	5.0	8	166
Greene	359	5.4	8	162
Guernsey	121	5.0	10	203
Hamilton	3,949	5.3	16	320
Hancock	132	5.1	6	127
Hardin	126	5.7	13	267
Harrison	51	5.3	11	212
Henry	113	5.4	13	268
Highland	199	5.2	16	335
Hocking	112	5.1	13	267
Holmes	59	5.3	5	118
Huron	199	6.3	11	235
Jackson	141	5.5	14	296
Jefferson	234	8.6	11	206
Knox	189	5.2	12	233
Lake	666	5.8	10	195
Lawrence	161	7.9	9	173
Licking	326	5.4	8	155
Logan	172	5.4	12	257
Lorain	1,127	6.6	13	272
Lucas	2,413	6.2	18	367
Madison	138	5.6	11	229
Mahoning	976	6.6	13	254
Marion	110	4.5	6	111
Medina	467	5.5	10	215
Meigs	44	4.6	6	127
Mercer	73	5.3	6	128
Miami	407	5.2	14	281
Monroe	61	4.7	13	266
Montgomery	2,190	6.2	13	263
Morgan	37	6.9	8	171
Morrow	89	4.5	9	194
Muskingum	337	5.5	13	272
Noble	33	5.1	8	153
Ottawa	158	6.1	13	254
Paulding	22	4.7	4	76
Perry	126	4.7	12	259
Pickaway	147	6.4	9	186
Pike	101	5.3	12	253
Portage	356	5.5	8	157
Preble	110	5.1	9	176
Putnam	78	6.4	8	162
Richland	322	6.6	8	168
Ross	443	4.7	20	399
Sandusky	227	5.3	12	253
Scioto	353	5.7	15	300
Seneca	247	6.3	14	289
Shelby	81	4.4	6	120
Stark	1,855	6.0	16	331
Summit	1,983	5.2	12	246
Trumbull	1,060	6.0	16	315
Tuscarawas	333	5.8	12	250
Union	95	3.3	8	159
Van Wert	50	4.8	6	115
Vinton	48	5.3	13	260
Warren	337	5.6	7	147
Washington	203	5.0	11	214
Wayne	328	5.2	10	205
Williams	149	6.8	13	265
Wood	427	6.5	12	236
Wyandot	38	5.3	6	114
Unknown	68	7.0	N/A	N/A
Total	44,188	5.8	13	265

Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 ICD-9-CM Codes for Vision Disorders: Diabetes with ophthalmic manifestation (250.5) or Disorders of the eye and adnexa (360-379)

3 Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.9

Hospital Discharges with Any Mention of Diabetes¹ and Hypertensive Disease² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	969	4.5	116	2,409
Allen	4,101	5.5	127	2,609
Ashland	1,357	4.7	86	1,772
Ashtabula	4,111	5.0	133	2,743
Athens	967	5.2	52	995
Auglaize	1,729	5.0	123	2,580
Belmont	2,089	5.2	99	1,929
Brown	1,427	3.9	113	2,369
Butler	10,005	4.9	100	2,048
Carroll	731	5.7	84	1,712
Champaign	1,285	4.7	110	2,261
Clark	6,767	5.3	156	3,162
Clermont	4,890	4.4	91	1,919
Clinton	1,799	4.1	147	3,048
Columbiana	4,848	5.1	145	2,919
Coshocton	1,590	4.5	145	2,982
Crawford	1,176	4.8	84	1,695
Cuyahoga	63,392	5.5	153	3,076
Darke	1,286	4.6	80	1,652
Defiance	1,355	4.8	114	2,373
Delaware	2,008	4.3	61	1,269
Erie	3,609	5.0	152	3,077
Fairfield	3,982	5.0	106	2,190
Fayette	936	4.8	110	2,241
Franklin	33,102	5.1	105	2,118
Fulton	1,301	5.2	103	2,177
Gallia	1,013	4.7	106	2,162
Geauga	1,743	4.5	64	1,342
Greene	3,478	5.0	78	1,571
Guernsey	1,038	4.7	85	1,739
Hamilton	32,048	4.9	127	2,598
Hancock	690	4.6	32	664
Hardin	1,494	5.2	157	3,169
Harrison	830	5.7	174	3,444
Henry	682	4.9	77	1,618
Highland	1,727	4.5	140	2,909
Hocking	1,036	5.3	121	2,465
Holmes	642	4.9	55	1,283
Huron	1,966	4.6	110	2,319
Jackson	1,483	4.3	151	3,114
Jefferson	4,484	6.5	203	3,947
Knox	1,731	4.7	106	2,137
Lake	5,986	5.1	88	1,752
Lawrence	1,526	5.4	81	1,637
Licking	3,394	4.4	79	1,618

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Logan	1,609	4.9	116	2,404
Lorain	9,012	4.9	106	2,177
Lucas	18,346	5.6	135	2,788
Madison	1,347	4.8	111	2,235
Mahoning	11,022	5.4	144	2,868
Marion	806	4.4	40	816
Medina	3,457	4.8	76	1,591
Meigs	491	4.7	70	1,413
Mercer	899	4.6	73	1,577
Miami	3,149	4.7	106	2,172
Monroe	545	4.8	119	2,375
Montgomery	22,424	5.2	133	2,688
Morgan	432	5.0	97	2,000
Morrow	610	3.9	63	1,327
Muskingum	3,503	5.1	138	2,826
Noble	375	4.7	87	1,743
Ottawa	1,691	4.8	137	2,719
Paulding	538	4.1	89	1,859
Perry	1,392	4.9	136	2,864
Pickaway	1,555	4.8	98	1,964
Pike	1,239	4.2	148	3,104
Portage	4,567	4.7	100	2,008
Preble	1,240	4.7	97	1,989
Putnam	977	5.1	93	2,023
Richland	4,695	6.0	121	2,456
Ross	3,126	4.1	140	2,812
Sandusky	1,678	4.6	91	1,870
Scioto	4,526	5.1	190	3,851
Seneca	2,011	4.7	114	2,351
Shelby	1,139	4.6	79	1,681
Stark	15,386	5.4	136	2,748
Summit	18,344	4.6	113	2,279
Trumbull	8,772	4.9	130	2,605
Tuscarawas	3,084	4.9	114	2,317
Union	1,022	3.9	82	1,711
Van Wert	690	4.5	77	1,592
Vinton	487	4.4	127	2,641
Warren	3,270	4.5	68	1,423
Washington	2,462	4.5	130	2,596
Wayne	3,078	4.4	92	1,925
Williams	1,244	5.2	107	2,211
Wood	2,997	5.2	83	1,656
Wyandot	470	4.5	69	1,406
Unknown	450	5.5	N/A	N/A
Total	397,960	5.1	117	2,385

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

¹ ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

² ICD-9-CM Codes: Hypertensive Disease (401-405).

³ Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.10

Hospital Discharges with Any Mention of Diabetes¹ and Ischemic Heart Disease² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	788	4.0	94	1,959
Allen	3,147	5.3	97	2,002
Ashland	1,044	4.2	66	1,364
Ashtabula	3,054	4.8	99	2,038
Athens	777	4.7	42	800
Auglaize	1,441	4.9	103	2,150
Belmont	2,019	5.0	96	1,864
Brown	1,062	3.5	84	1,763
Butler	6,878	4.6	69	1,408
Carroll	510	5.4	59	1,194
Champaign	966	4.4	83	1,700
Clark	5,179	5.2	119	2,420
Clermont	3,466	4.1	65	1,360
Clinton	1,327	3.9	109	2,248
Columbiana	3,497	4.9	104	2,105
Coshocton	1,189	4.5	109	2,230
Crawford	917	4.4	65	1,322
Cuyahoga	36,720	5.4	89	1,782
Darke	774	4.9	48	994
Defiance	874	4.6	74	1,531
Delaware	1,482	4.2	45	937
Erie	2,680	4.7	113	2,285
Fairfield	3,057	4.8	81	1,681
Fayette	712	4.4	84	1,705
Franklin	20,141	4.9	64	1,289
Fulton	1,025	4.9	81	1,715
Gallia	784	4.3	82	1,674
Geauga	1,084	4.6	40	835
Greene	2,175	5.0	49	982
Guernsey	959	4.4	78	1,607
Hamilton	18,420	4.5	73	1,493
Hancock	572	4.4	27	551
Hardin	1,152	4.9	121	2,444
Harrison	688	5.2	144	2,855
Henry	506	4.4	57	1,201
Highland	1,187	4.2	96	2,000
Hocking	838	4.4	98	1,994
Holmes	442	4.6	38	883
Huron	1,527	4.5	85	1,801
Jackson	1,070	3.9	109	2,247
Jefferson	3,560	6.3	161	3,133
Knox	1,591	4.6	97	1,964
Lake	4,185	5.0	61	1,225
Lawrence	1,079	5.2	57	1,157
Licking	2,427	4.3	57	1,157
Logan	1,227	4.7	88	1,833
Lorain	6,441	4.4	76	1,556
Lucas	12,131	5.5	90	1,844
Madison	1,099	4.7	90	1,823
Mahoning	7,137	5.2	93	1,857
Marion	802	4.2	40	812
Medina	2,646	4.6	58	1,218
Meigs	383	4.2	55	1,102
Mercer	669	4.5	55	1,174
Miami	2,087	4.6	70	1,440
Monroe	492	4.6	107	2,144
Montgomery	11,155	5.1	66	1,337
Morgan	307	5.0	69	1,421
Morrow	476	4.0	50	1,036
Muskingum	2,677	5.1	105	2,160
Noble	259	4.4	60	1,204
Ottawa	1,370	4.6	111	2,203
Paulding	383	4.3	63	1,324
Perry	1,158	4.9	113	2,382
Pickaway	1,262	4.4	79	1,594
Pike	784	3.6	94	1,964
Portage	2,476	4.6	54	1,089
Preble	908	4.4	71	1,456
Putnam	746	5.2	71	1,545
Richland	2,450	5.5	63	1,282
Ross	2,403	3.9	108	2,162
Sandusky	1,294	4.7	70	1,442
Scioto	3,648	4.8	153	3,104
Seneca	1,542	4.6	87	1,803
Shelby	775	4.3	54	1,144
Stark	9,590	5.2	85	1,713
Summit	11,794	4.6	73	1,466
Trumbull	6,378	4.8	95	1,894
Tuscarawas	2,443	4.7	90	1,835
Union	694	3.7	56	1,162
Van Wert	474	4.2	53	1,094
Vinton	395	4.0	103	2,142
Warren	2,276	4.4	48	990
Washington	1,615	4.5	85	1,703
Wayne	2,428	4.3	73	1,519
Williams	982	4.9	85	1,745
Wood	2,474	5.2	68	1,367
Wyandot	388	4.5	57	1,160
Unknown	368	6.4	N/A	N/A
Total	262,458	4.9	77	1,573

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 ICD-9-CM Codes for Ischemic Heart Disease: Ischemic Heart Disease (410-414)

3 Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.11

Hospital Discharges with Any Mention of Diabetes¹ and Cerebrovascular Disease² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	201	4.8	24	500
Allen	715	7.0	22	455
Ashland	209	5.3	13	273
Ashtabula	662	5.5	22	442
Athens	120	5.6	7	124
Auglaize	323	5.8	23	482
Belmont	392	5.8	19	362
Brown	265	4.4	21	440
Butler	1,688	5.9	17	346
Carroll	159	6.3	18	372
Champaign	222	5.6	19	391
Clark	1,409	6.5	33	658
Clermont	867	4.9	16	340
Clinton	274	4.8	23	464
Columbiana	870	5.8	26	524
Coshocton	234	6.0	21	439
Crawford	217	6.5	15	313
Cuyahoga	10,920	6.9	26	530
Darke	194	6.2	12	249
Defiance	207	5.2	18	363
Delaware	320	5.2	10	202
Erie	600	5.8	25	512
Fairfield	628	6.2	17	345
Fayette	188	4.8	22	450
Franklin	5,419	6.5	17	347
Fulton	255	5.2	20	427
Gallia	142	6.4	15	303
Geauga	291	4.6	11	224
Greene	679	5.9	15	307
Guernsey	201	6.0	16	337
Hamilton	5,681	5.7	23	461
Hancock	116	5.3	6	112
Hardin	257	6.3	27	545
Harrison	163	8.9	34	676
Henry	124	4.9	14	294
Highland	274	5.0	22	462
Hocking	170	5.6	20	405
Holmes	109	4.4	9	218
Huron	376	5.6	21	444
Jackson	259	5.8	26	544
Jefferson	934	8.9	42	822
Knox	346	5.7	21	427
Lake	1,246	5.4	18	365
Lawrence	216	5.8	12	232
Licking	541	5.4	13	258

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Logan	288	5.8	21	430
Lorain	1,754	6.4	21	424
Lucas	3,123	6.4	23	475
Madison	220	5.5	18	365
Mahoning	2,223	6.0	29	578
Marion	154	5.4	8	156
Medina	625	5.4	14	288
Meigs	69	7.3	10	199
Mercer	209	5.3	17	367
Miami	521	5.4	18	359
Monroe	74	5.4	16	323
Montgomery	3,532	6.7	21	424
Morgan	96	6.8	22	444
Morrow	93	4.6	10	202
Muskingum	667	6.4	26	538
Noble	57	5.7	13	265
Ottawa	313	5.2	25	503
Paulding	112	5.0	19	387
Perry	250	6.6	24	514
Pickaway	288	5.6	18	364
Pike	249	5.2	30	624
Portage	730	4.9	16	321
Preble	230	5.8	18	369
Putnam	133	6.8	13	275
Richland	570	8.1	15	298
Ross	489	4.9	22	440
Sandusky	328	4.8	18	366
Scioto	767	6.9	32	653
Seneca	407	4.7	23	476
Shelby	251	6.0	17	371
Stark	2,684	6.2	24	479
Summit	3,219	5.0	20	400
Trumbull	1,548	6.1	23	460
Tuscarawas	519	5.3	19	390
Union	152	4.3	12	254
Van Wert	126	5.5	14	291
Vinton	61	6.2	16	331
Warren	533	5.2	11	232
Washington	397	5.1	21	419
Wayne	557	5.2	17	348
Williams	251	5.9	22	446
Wood	561	6.0	16	310
Wyandot	93	4.2	14	278
Unknown	84	6.8	N/A	N/A
Total	69,290	6.1	20	415

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

¹ ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

² ICD-9-CM Codes for Cerebrovascular Disease (Stroke): Cerebrovascular Disease(430-438)

³ Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.12

Hospital Discharges with Any Mention of Diabetes¹ and Heart Failure² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	547	5.1	65	1,360
Allen	1,643	6.1	51	1,045
Ashland	659	4.9	42	861
Ashtabula	2,108	6.0	68	1,407
Athens	377	5.9	20	388
Auglaize	760	6.0	54	1,134
Belmont	1,129	6.2	53	1,042
Brown	644	4.7	51	1,069
Butler	3,842	5.9	38	787
Carroll	327	6.4	38	766
Champaign	526	5.5	45	926
Clark	3,332	6.5	77	1,557
Clermont	2,453	5.5	46	963
Clinton	760	4.8	62	1,288
Columbiana	2,492	6.2	74	1,500
Coshocton	494	5.9	45	927
Crawford	470	5.8	33	677
Cuyahoga	27,361	6.2	66	1,328
Darke	584	5.7	36	750
Defiance	503	5.7	42	881
Delaware	905	5.1	27	572
Erie	1,604	6.2	68	1,367
Fairfield	1,790	6.2	48	985
Fayette	502	4.9	59	1,202
Franklin	13,252	6.0	42	848
Fulton	498	6.3	39	833
Gallia	569	5.4	60	1,215
Geauga	824	5.2	30	634
Greene	1,588	6.3	36	717
Guernsey	457	6.0	37	766
Hamilton	14,097	5.6	56	1,143
Hancock	272	5.7	13	262
Hardin	632	5.2	66	1,341
Harrison	505	6.7	106	2,096
Henry	276	5.3	31	655
Highland	869	5.5	71	1,464
Hocking	479	5.2	56	1,140
Holmes	290	5.1	25	579
Huron	876	6.0	49	1,033
Jackson	725	5.1	74	1,523
Jefferson	2,774	7.8	126	2,442
Knox	790	6.0	48	975
Lake	2,824	6.2	41	827
Lawrence	808	6.7	43	867
Licking	1,360	5.1	32	648

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Logan	486	5.9	35	726
Lorain	3,759	6.2	44	908
Lucas	8,269	6.3	61	1,257
Madison	486	5.4	40	806
Mahoning	5,144	6.7	67	1,338
Marion	357	5.5	18	362
Medina	1,683	5.5	37	775
Meigs	245	5.8	35	705
Mercer	399	5.6	32	700
Miami	1,643	5.8	55	1,133
Monroe	278	5.6	61	1,212
Montgomery	8,374	6.1	50	1,004
Morgan	144	6.8	32	667
Morrow	286	4.6	30	622
Muskingum	1,504	6.3	59	1,213
Noble	148	5.6	35	688
Ottawa	907	5.4	74	1,458
Paulding	196	5.1	32	677
Perry	554	5.8	54	1,140
Pickaway	854	4.9	54	1,078
Pike	567	4.2	68	1,421
Portage	1,925	6.1	42	846
Preble	609	5.6	47	977
Putnam	420	5.6	40	870
Richland	1,674	6.8	43	876
Ross	1,201	4.7	54	1,080
Sandusky	734	5.8	40	818
Scioto	2,118	6.1	89	1,802
Seneca	984	5.4	56	1,151
Shelby	622	5.1	43	918
Stark	6,442	6.4	57	1,150
Summit	9,718	5.6	60	1,208
Trumbull	4,363	5.9	65	1,296
Tuscarawas	1,517	6.0	56	1,140
Union	422	4.5	34	706
Van Wert	241	5.2	27	556
Vinton	239	4.8	62	1,296
Warren	1,359	5.7	28	591
Washington	865	5.5	46	912
Wayne	1,462	5.4	44	914
Williams	585	5.7	50	1,040
Wood	1,516	6.3	42	838
Wyandot	272	5.0	40	813
Unknown	184	8.0	N/A	N/A
Total	176,332	6.0	52	1,057

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 ICD-9-CM Codes for Heart Failure: Heart Failure (428).

3 Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.13

Hospital Discharges with Any Mention of Diabetes¹ and Pneumonia or Influenza² as Listed Diagnoses by County, Number of Discharges, Average Length of Stay³, Discharges per 10,000 Residents and Discharges per 10,000 Diabetics, Ohio 1999–2001.

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Adams	244	6.6	29	607
Allen	438	7.1	14	279
Ashland	150	5.8	10	196
Ashtabula	630	6.3	20	420
Athens	102	7.0	6	105
Auglaize	232	6.8	17	346
Belmont	451	6.7	21	416
Brown	321	5.2	25	533
Butler	1,553	7.5	16	318
Carroll	89	8.3	10	208
Champaign	173	6.2	15	304
Clark	1,127	7.8	26	527
Clermont	945	6.7	18	371
Clinton	320	5.6	26	542
Columbiana	770	7.4	23	464
Coshocton	203	6.8	19	381
Crawford	168	7.3	12	242
Cuyahoga	7,245	7.3	18	352
Darke	169	6.6	11	217
Defiance	183	6.6	15	321
Delaware	291	6.2	9	184
Erie	599	7.8	25	511
Fairfield	658	7.1	18	362
Fayette	137	6.4	16	328
Franklin	3,360	7.2	11	215
Fulton	174	7.6	14	291
Gallia	169	6.8	18	361
Geauga	263	6.2	10	203
Greene	497	7.4	11	225
Guernsey	156	6.6	13	261
Hamilton	4,710	6.9	19	382
Hancock	65	4.8	3	63
Hardin	175	6.6	18	371
Harrison	141	6.4	30	585
Henry	82	6.8	9	195
Highland	340	7.3	28	573
Hocking	134	5.8	16	319
Holmes	91	5.4	8	182
Huron	274	7.9	15	323
Jackson	241	5.9	25	506
Jefferson	623	9.1	28	548
Knox	303	7.1	19	374
Lake	840	7.4	12	246
Lawrence	205	7.7	11	220
Licking	456	6.0	11	217

COUNTY	NUMBER OF HOSPITAL DISCHARGES	AVERAGE LENGTH OF STAY IN DAYS ³	DISCHARGES PER 10,000 COUNTY RESIDENTS	DISCHARGES PER 10,000 COUNTY DIABETICS
Logan	199	6.2	14	297
Lorain	1,112	6.7	13	269
Lucas	2,024	7.6	15	308
Madison	157	7.4	13	261
Mahoning	1,184	7.5	16	308
Marion	70	7.0	4	71
Medina	528	6.5	12	243
Meigs	60	8.7	9	173
Mercer	173	5.4	14	304
Miami	473	6.9	16	326
Monroe	86	6.7	19	375
Montgomery	2,441	8.1	15	293
Morgan	80	8.9	18	370
Morrow	101	4.9	11	220
Muskingum	658	7.2	26	531
Noble	50	6.9	12	232
Ottawa	209	6.2	17	336
Paulding	108	4.3	18	373
Perry	229	6.7	22	471
Pickaway	235	6.1	15	297
Pike	205	5.2	25	514
Portage	694	7.0	15	305
Preble	173	6.5	14	278
Putnam	107	6.2	10	222
Richland	618	8.6	16	323
Ross	535	6.1	24	481
Sandusky	227	6.7	12	253
Scioto	767	7.5	32	653
Seneca	295	5.8	17	345
Shelby	207	6.0	14	306
Stark	2,051	7.2	18	366
Summit	2,466	6.5	15	306
Trumbull	1,166	6.5	17	346
Tuscarawas	527	6.9	20	396
Union	139	5.2	11	233
Van Wert	67	7.5	8	155
Vinton	81	5.1	21	439
Warren	529	6.6	11	230
Washington	355	6.7	19	374
Wayne	510	5.8	15	319
Williams	146	5.9	13	260
Wood	424	7.4	12	234
Wyandot	99	6.0	14	296
Unknown	43	5.8	N/A	N/A
Total	53,105	7.1	16	318

Source: Ohio Hospital Association Discharge Data, years 1999-2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0-250.9), Polyneuropathy in diabetes (357.2), Diabetic retinopathy (362.01-362.02), Diabetic cataract (366.41) Diabetes in pregnancy but not gestational (648.00-648.04).

2 ICD-9-CM Codes for Pneumonia or Influenza: Pneumonia and Influenza (480.0-487.8).

3 Number of days divided by the number of hospital discharges.

N/A Not Computed because population estimates were unavailable.

Table D.14**Hospital Discharges Under 65 Years of Age with Selected Ambulatory Care Sensitive (ACS) Diabetes Conditions Listed as the Primary Diagnosis by County and Percentage, Ohio 1999–2001.**

COUNTY	DISCHARGES WITH DIABETES ¹ LISTED AS PRIMARY DIAGNOSIS	NUMBER OF HOSPITAL DISCHARGES WITH SELECTED DIABETES CONDITIONS			% SELECTED (ACS) CONDITIONS ⁵
		DM (250.1) ²	DM (250.2) ³	DM (250.3) ⁴	
Adams	129	48	0	0	37.2
Allen	287	105	14	3	42.5
Ashland	140	66	4	1	50.7
Ashtabula	323	86	9	9	32.2
Athens	91	33	1	0	37.4
Auglaize	93	35	1	1	39.8
Belmont	113	29	4	5	33.6
Brown	124	34	0	0	27.4
Butler	890	342	11	8	40.6
Carroll	90	42	0	0	46.7
Champaign	97	36	5	1	43.3
Clark	516	198	11	9	42.2
Clermont	445	184	7	9	44.9
Clinton	144	36	5	0	28.5
Columbiana	421	151	2	4	37.3
Coshocton	142	54	5	0	41.5
Crawford	137	54	3	4	44.5
Cuyahoga	5,593	1690	207	52	34.8
Darke	78	21	1	1	29.5
Defiance	117	56	1	3	51.3
Delaware	201	79	1	2	40.8
Erie	275	70	17	0	31.6
Fairfield	366	150	2	4	42.6
Fayette	111	38	1	0	35.1
Franklin	3,878	1443	121	37	41.3
Fulton	129	41	2	2	34.9
Gallia	96	34	5	1	41.7
Geauga	127	33	2	0	27.6
Greene	278	122	13	3	49.6
Guernsey	193	47	1	2	25.9
Hamilton	2,959	1129	96	20	42.1
Hancock	126	49	2	0	40.5
Hardin	98	32	1	0	33.7
Harrison	29	10	0	0	34.5
Henry	65	18	2	1	32.3
Highland	121	35	1	2	31.4
Hocking	92	26	2	1	31.5
Holmes	29	13	0	0	44.8
Huron	190	58	1	0	31.1
Jackson	141	64	2	2	48.2
Jefferson	271	51	9	4	23.6
Knox	183	65	2	2	37.7
Lake	424	165	10	6	42.7
Lawrence	142	43	0	2	31.7
Licking	380	154	8	2	43.2

COUNTY	DISCHARGES WITH DIABETES ¹ LISTED AS PRIMARY DIAGNOSIS	NUMBER OF HOSPITAL DISCHARGES WITH SELECTED DIABETES CONDITIONS			% SELECTED (ACS) CONDITIONS ⁵
		DM (250.1) ²	DM (250.2) ³	DM (250.3) ⁴	
Logan	130	49	2	0	39.2
Lorain	970	304	25	6	34.5
Lucas	1,708	598	48	12	38.5
Madison	127	42	1	1	34.6
Mahoning	765	280	23	7	40.5
Marion	215	103	4	0	49.8
Medina	248	58	8	1	27.0
Meigs	34	7	1	1	26.5
Mercer	81	17	0	0	21.0
Miami	261	92	3	4	37.9
Monroe	48	6	0	0	12.5
Montgomery	2,032	794	85	15	44.0
Morgan	51	30	0	0	58.8
Morrow	118	49	0	0	41.5
Muskingum	339	144	6	2	44.8
Noble	48	17	2	0	39.6
Ottawa	95	38	0	2	42.1
Paulding	30	13	0	0	43.3
Perry	133	67	1	1	51.9
Pickaway	172	60	2	4	38.4
Pike	74	20	0	1	28.4
Portage	422	197	3	4	48.3
Preble	89	28	2	1	34.8
Putnam	42	18	1	1	47.6
Richland	346	117	7	4	37.0
Ross	247	98	3	3	42.1
Sandusky	196	60	3	1	32.7
Scioto	385	152	5	1	41.0
Seneca	191	58	2	2	32.5
Shelby	84	29	2	3	40.5
Stark	1,291	460	29	14	39.0
Summit	1,650	641	71	16	44.1
Trumbull	813	247	16	10	33.6
Tuscarawas	279	97	7	0	37.3
Union	84	39	0	0	46.4
Van Wert	65	20	2	0	33.8
Vinton	38	13	0	1	36.8
Warren	268	95	7	3	39.2
Washington	214	84	3	0	40.7
Wayne	186	69	7	0	40.9
Williams	88	33	2	0	39.8
Wood	211	55	8	0	29.9
Wyandot	52	17	0	1	34.6
Unknown	63	25	5	0	47.6
Total	35,857	12,709	988	325	39.1

Source: Ohio Hospital Association Discharge Data, years 1999–2001. Analysis and table by Chronic Disease and Behavioral Epidemiology Section, BHSIOS-Prevention, Ohio Department of Health.

1 ICD-9-CM Codes: Diabetes (250.0–250.9).

2 DM with Ketoacidosis (250.1).

3 DM with hyperosmolarity (250.2).

4 DM with other coma (250.3).

5 Percentage of selected ACS conditions of the total discharges with diabetes listed as primary diagnosis (ICD-9-CM 250.0–250.9).

Table E.1Prevalence of Diabetes Among Medicare Recipients by County and Gender, Ohio 2001.^[1]

COUNTY	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES %	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES %	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES %
Adams	210	1,992	10.5	207	1,705	12.1	417	3,697	11.3
Allen	617	5,271	11.7	658	5,816	11.3	1,275	11,087	11.5
Ashland	259	2,381	10.9	278	2,602	10.7	537	4,983	10.8
Ashtabula	560	5,749	9.7	655	6,018	10.9	1,215	11,767	10.3
Athens	256	2,641	9.7	328	2,601	12.6	584	5,242	11.1
Auglaize	285	2,480	11.5	301	2,751	10.9	586	5,231	11.2
Belmont	341	4,265	8.0	382	4,768	8.0	723	9,033	8.0
Brown	221	2,143	10.3	215	2,042	10.5	436	4,185	10.4
Butler	1,263	14,300	8.8	1,259	15,902	7.9	2,522	30,202	8.4
Carroll	89	1,202	7.4	116	1,138	10.2	205	2,340	8.8
Champaign	205	1,849	11.1	242	1,974	12.3	447	3,823	11.7
Clark	738	7,747	9.5	929	8,647	10.7	1,667	16,394	10.2
Clermont	442	6,132	7.2	465	6,461	7.2	907	12,593	7.2
Clinton	173	2,005	8.6	214	2,200	9.7	387	4,205	9.2
Columbiana	652	6,380	10.2	795	6,846	11.6	1,447	13,226	10.9
Coshocton	266	2,012	13.2	282	2,138	13.2	548	4,150	13.2
Crawford	268	2,773	9.7	299	2,888	10.4	567	5,661	10.0
Cuyahoga	4,997	66,567	7.5	6,000	80,221	7.5	10,997	146,788	7.5
Darke	253	2,649	9.6	292	2,840	10.3	545	5,489	9.9
Defiance	190	1,878	10.1	250	2,110	11.8	440	3,988	11.0
Delaware	247	3,247	7.6	251	3,517	7.1	498	6,764	7.4
Erie	564	4,408	12.8	539	4,681	11.5	1,103	9,089	12.1
Fairfield	559	5,336	10.5	615	5,730	10.7	1,174	11,066	10.6
Fayette	156	1,472	10.6	181	1,488	12.2	337	2,960	11.4
Franklin	3,084	39,270	7.9	3,751	46,071	8.1	6,835	85,341	8.0
Fulton	170	2,001	8.5	179	2,178	8.2	349	4,179	8.4
Gallia	243	2,090	11.6	233	1,887	12.3	476	3,977	12.0
Geauga	218	3,263	6.7	199	3,495	5.7	417	6,758	6.2
Greene	469	5,156	9.1	519	5,803	8.9	988	10,959	9.0
Guernsey	297	2,598	11.4	349	2,588	13.5	646	5,186	12.5
Hamilton	2933	40,135	7.3	3,602	48,281	7.5	6,535	88,416	7.4
Hancock	326	2,841	11.5	333	3,170	10.5	659	6,011	11.0
Hardin	161	1,536	10.5	187	1,627	11.5	348	3,163	11.0
Harrison	100	1,124	8.9	120	1,062	11.3	220	2,186	10.1
Henry	133	1,412	9.4	150	1,558	9.6	283	2,970	9.5
Highland	239	2,366	10.1	249	2,318	10.7	488	4,684	10.4
Hocking	221	1,524	14.5	197	1,446	13.6	418	2,970	14.1
Holmes	86	1,049	8.2	93	1,056	8.8	179	2,105	8.5
Huron	384	3,214	11.9	413	3,568	11.6	797	6,782	11.8
Jackson	235	1,905	12.3	259	1,907	13.6	494	3,812	13.0
Jefferson	565	5,047	11.2	620	5,557	11.2	1,185	10,604	11.2
Knox	220	2,815	7.8	248	3,073	8.1	468	5,888	7.9
Lake	827	11,198	7.4	781	12,792	6.1	1,608	23,990	6.7
Lawrence	498	4,322	11.5	562	4,113	13.7	1,060	8,435	12.6
Licking	588	6,562	9.0	640	7,033	9.1	1,228	13,595	9.0
Logan	266	2,394	11.1	303	2,518	12.0	569	4,912	11.6
Lorain	1258	12,807	9.8	1,361	14,240	9.6	2,619	27,047	9.7
Lucas	1448	20,968	6.9	1,731	23,974	7.2	3,179	44,942	7.1

Table E.1 continued

COUNTY	MALES			FEMALES			TOTAL		
	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES %	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES %	NUMBER OF RECIPIENTS WITH DIABETES	NUMBER OF MEDICARE RECIPIENTS	PREVALENCE OF DIABETES %
Madison	152	1,901	8.0	163	2,065	7.9	315	3,966	7.9
Mahoning	1,492	14,816	10.1	1,717	17,339	9.9	3,209	32,155	10.0
Marion	314	3,546	8.9	312	3,881	8.0	626	7,427	8.4
Medina	475	6,011	7.9	459	6,296	7.3	934	12,307	7.6
Meigs	173	1,385	12.5	174	1,300	13.4	347	2,685	12.9
Mercer	200	2,014	9.9	229	2,286	10.0	429	4,300	10.0
Miami	459	4,915	9.3	546	5,454	10.0	1,005	10,369	9.7
Monroe	104	1,044	10.0	113	905	12.5	217	1,949	11.1
Montgomery	2,595	29,390	8.8	2,859	34,468	8.3	5,454	63,858	8.5
Morgan	107	838	12.8	91	783	11.6	198	1,621	12.2
Morrow	130	1,339	9.7	135	1,311	10.3	265	2,650	10.0
Muskingum	635	5,059	12.6	679	5,372	12.6	1,314	10,431	12.6
Noble	67	568	11.8	75	600	12.5	142	1,168	12.2
Ottawa	242	2,579	9.4	233	2,727	8.5	475	5,306	9.0
Paulding	116	962	12.1	118	1,030	11.5	234	1,992	11.7
Perry	230	2,005	11.5	231	1,922	12.0	461	3,927	11.7
Pickaway	232	2,324	10.0	254	2,372	10.7	486	4,696	10.3
Pike	171	1,541	11.1	216	1,454	14.9	387	2,995	12.9
Portage	559	6,357	8.8	538	6,792	7.9	1,097	13,149	8.3
Preble	229	2,163	10.6	224	2,213	10.1	453	4,376	10.4
Putnam	172	1,592	10.8	175	1,702	10.3	347	3,294	10.5
Richland	800	6,979	11.5	906	7,832	11.6	1,706	14,811	11.5
Ross	388	3,912	9.9	437	3,902	11.2	825	7,814	10.6
Sandusky	325	2,765	11.8	363	3,142	11.6	688	5,907	11.6
Scioto	697	5,446	12.8	823	5,347	15.4	1,520	10,793	14.1
Seneca	417	3,464	12.0	524	3,816	13.7	941	7,280	12.9
Shelby	163	1,992	8.2	201	2,176	9.2	364	4,168	8.7
Stark	1,876	20,449	9.2	2,126	22,981	9.3	4,002	43,430	9.2
Summit	2,013	25,710	7.8	2,319	29,563	7.8	4,332	55,273	7.8
Trumbull	1,219	12,246	10.0	1,350	13,533	10.0	2,569	25,779	10.0
Tuscarawas	542	4,860	11.2	583	5,213	11.2	1,125	10,073	11.2
Union	122	1,294	9.4	148	1,445	10.2	270	2,739	9.9
Van Wert	137	1,323	10.4	169	1,518	11.1	306	2,841	10.8
Vinton	88	692	12.7	95	647	14.7	183	1,339	13.7
Warren	450	5,752	7.8	504	6,388	7.9	954	12,140	7.9
Washington	356	3,776	9.4	415	3,901	10.6	771	7,677	10.0
Wayne	521	5,342	9.8	580	5,678	10.2	1,101	11,020	10.0
Williams	149	1,799	8.3	193	2,118	9.1	342	3,917	8.7
Wood	304	4,658	6.5	348	5,181	6.7	652	9,839	6.6
Wyandot	143	1,221	11.7	153	1,352	11.3	296	2,573	11.5
Total	48,344	540,505	8.9	54,610	606,404	9.0	102,954	1,146,909	9.0

Source: Ohio KePRO, analysis completed by Chronic Disease and Behavioral Epidemiology Section; BHSIOS- Prevention, Ohio Department of Health.
 [1] For Adults 18 to 75 years old.

Table F.1

The Total Number of Deaths and Annual Age-Adjusted Mortality Rates of Diabetes, per 100,000 Persons, by County, Ohio 1995–1999^{[1][2][3]}

COUNTY	TOTAL NUMBER OF DEATHS	ANNUAL RATE PER 100,000 PERSONS	COUNTY	TOTAL NUMBER OF DEATHS	ANNUAL RATE PER 100,000 PERSONS
Ohio	18,246	32			
Adams	51	35	Licking	207	33
Allen	154	27	Logan	61	25
Ashland	115	42	Lorain	479	37
Ashtabula	224	39	Lucas	695	31
Athens	45	19	Madison	62	38
Auglaize	87	32	Mahoning	596	36
Belmont	176	36	Marion	171	52
Brown	55	28	Medina	144	25
Butler	357	26	Meigs	27	21
Carroll	38	25	Mercer	51	24
Champaign	79	42	Miami	138	28
Clark	343	43	Monroe	39	39
Clermont	212	35	Montgomery	902	30
Clinton	66	34	Morgan	35	40
Columbiana	177	29	Morrow	63	48
Coshocton	86	42	Muskingum	99	22
Crawford	79	29	Noble	19	27
Cuyahoga	2,266	28	Ottawa	72	28
Darke	60	19	Paulding	27	28
Defiance	69	36	Perry	45	27
Delaware	91	26	Pickaway	61	27
Erie	156	36	Pike	58	41
Fairfield	186	35	Portage	154	24
Fayette	68	43	Preble	71	34
Franklin	1,492	37	Putnam	72	41
Fulton	54	27	Richland	172	26
Gallia	50	30	Ross	139	39
Geauga	89	21	Sandusky	104	31
Greene	167	27	Scioto	157	34
Guernsey	92	41	Seneca	111	33
Hamilton	1,591	35	Shelby	60	27
Hancock	140	40	Stark	760	36
Hardin	51	31	Summit	827	29
Harrison	38	36	Trumbull	484	38
Henry	53	31	Tuscarawas	159	31
Highland	61	28	Union	47	31
Hocking	45	31	Van Wert	64	36
Holmes	29	18	Vinton	26	44
Huron	101	36	Warren	137	25
Jackson	49	29	Washington	149	42
Jefferson	198	39	Wayne	157	30
Knox	127	44	Williams	56	27
Lake	308	27	Wood	134	26
Lawrence	139	42	Wyandot	40	29

Source: Chronic Disease and Behavioral Epidemiology Section; BHSIOS-Prevention, Ohio Department of Health.

^[1] The direct age-adjusted rates were calculated using the inter-censal population estimates for 1995-1999 as a denominator and the U.S. 2000 standard population for age adjustment.

^[2] Ohio residents where the underlying cause of death was determined to be Diabetes Mellitus; International Classification of Diseases, Injuries, and Causes of Death, ICD-9 code 250 for 1990-1998 deaths (World Health Organization, Geneva, Switzerland, 1979, Volume 9), and ICD-10 codes E10-E14 for 1999 deaths (World Health Organization Geneva, Switzerland, 1992, Volume 10).

^[3] Annual Rate is the average of the five years of data.

Appendix G

Glossary of Terms^{11,13,20}

adult-onset diabetes: former term for type 2 diabetes.

age-adjusted rates: age-adjustment is a statistical process applied to rates of disease, death, injuries or other health outcomes which allows communities with different age structures to be compared.

ambulatory care sensitive conditions (ACS): certain diabetes diagnosis (i.e. diabetes with ketoacidosis, diabetes with hyperosmolarity, and diabetes with other coma) that with timely and effective ambulatory care a hospital admission may have been prevented.

any mention of diabetes: referred to a diagnosis of diabetes being present in one of the available diagnosis fields in a hospital record.

atherosclerosis: clogging, narrowing, and hardening of the body's large arteries and medium-sized blood vessels. Atherosclerosis can lead to stroke, heart attack, eye problems and kidney problems.

arteriosclerosis: hardening of the arteries.

Behavioral Risk Factor Surveillance System (BRFSS): an ongoing state-based, random-digit-dialed telephone survey for adults 18 years and older for the U.S. non-institutionalized civilian population. The survey is coordinated by the Centers for Disease Control and Prevention and is conducted annually by all states. The BRFSS is the primary source of information on health-related behaviors of Americans.

blood glucose: The main sugar that the body makes from the three elements of food-proteins, fats and carbohydrates- but mostly from carbohydrates. Glucose is the major source of energy for living cells and is carried to each cell through the blood stream. However, the cells cannot use glucose without the help of insulin.

body mass index (BMI): a measure used to evaluate body weight relative to a person's height. BMI is used to find out if a person is underweight, normal weight, overweight or obese.

cholesterol: a type of fat produced by the liver and found in the blood; it is also found in some foods. Cholesterol is used by the body to make hormones and build cell walls.

complications: harmful effects of diabetes such as damage to the eyes, heart, blood vessels, nervous system, teeth and gums, feet and skin or kidneys.

congestive heart failure: loss of the heart's pumping power, which causes fluids to collect in the body, especially in the feet and lungs.

confidence interval (C.I.): a range of numbers in which the true values of the estimate would be found (95 percent of the time). Confidence interval ranges are related to sample size, the larger the sample size, the more reliable will be the estimate, and the confidence interval will be smaller.

coronary heart disease: heart disease caused by narrowing of the arteries that supply blood to the heart. If the blood supply is cut off the result is a heart attack.

crude rates: are the actual rate for the disease incidence and mortality unadjusted for other factors. They should be used for planning purposes.

diabetes related hospital discharges: hospital discharges of Ohio residents with diabetes as a primary or secondary diagnosis.

diabetes mellitus: a condition characterized by hyperglycemia resulting from the body's inability to use blood glucose for energy. In type 1 diabetes, the pancreas no longer makes insulin and therefore blood glucose cannot enter the cells to be used for energy. In type 2 diabetes, either the pancreas does not make enough insulin or the body is unable to use insulin correctly.

diabetic ketoacidosis (DKA): an emergency condition in which extremely high blood glucose levels, along with a severe lack of insulin, result in the breakdown of body fat for energy and an accumulation of ketones in the blood and urine. Signs of DKA are nausea and vomiting, stomach pain, fruity breath odor and rapid breathing. Untreated DKA can lead to coma and death.

diabetic retinopathy: diabetic eye disease; damage to the small blood vessels in the retina. Loss of vision may result.

dilated eye exam: a test done by an eye care specialist in which the pupil (the black center) of the eye is temporarily enlarged with eye drops to allow the specialist to see the inside of the eye more easily.

gangrene: the death of body tissue, most often caused by a lack of blood flow and infection. It can lead to amputation.

hospital discharge data: information collected on patients discharged from the hospital.

hypertension: a condition present when blood flows through the blood vessels with a force greater than normal. Also called high blood pressure. Hypertension can strain the heart, damage blood vessels and increase the risk of heart attack, stroke, kidney problems and death.

hypoglycemia: a condition that occurs when one's blood glucose is lower than normal, usually less than 70 mg/dL. Signs include hunger, nervousness, shakiness, perspiration, dizziness or light-headedness, sleepiness and confusion. If left untreated, hypoglycemia may lead to unconsciousness. Hypoglycemia is treated by consuming a carbohydrate-rich food such as a glucose tablet or juice. It may also be treated with an injection of glucagon if the person is unconscious or unable to swallow. Also called an insulin reaction.

insulin: a hormone that helps the body use glucose for energy. The beta cells of the pancreas make insulin. When the body cannot make enough insulin, insulin is taken by injection or through use of an insulin pump.

ICD-9: International Classification of Diseases, Ninth Revision; this is a system of classifying diseases using specific diagnoses code numbers to describe a patient's health care condition.

ischemic heart disease: a group of heart diseases related to circulatory disturbances caused by coronary atherosclerosis and inadequate oxygen supply to the myocardium.

juvenile diabetes: former term for insulin-dependent diabetes mellitus (IDDM), or type 1.

diabetes kidney failure: a chronic condition in which the body retains fluid and harmful wastes build up because the kidneys no longer work properly. A person with kidney failure needs dialysis or a kidney transplant. Also called end-stage renal disease or ESRD.

kidneys: the two bean-shaped organs that filter wastes from the blood and form urine. The kidneys are located near the middle of the back. They send urine to the bladder.

maturity-onset diabetes of the young: a kind of type 2 diabetes that accounts for 1 to 5 percent of people with diabetes. Of the six forms identified, each is caused by a defect in a single gene

Medicaid: program provides medical assistance for certain individuals and families with low incomes and resources. Medicaid eligibility is limited to individuals who fall into specific categories. Although the federal government establishes general guidelines for the program, the Medicaid program requirements are actually established by each state. Whether or not a person can be eligible for Medicaid will depend on the state where he or she lives.

Medicare: the federal health program that provides medical coverage for people 65 or older, for certain disabled people and for some people with end-stage renal disease.

Medicare Part A: (also called hospital insurance): part of the federal health program that helps to pay for (not limited to) inpatient hospital care; inpatient care in a skilled nursing facility following a covered hospital stay; home health care; and hospice care. Most people do not have to pay for Medicare Part A since they or their spouse paid Medicare taxes while they were working.

Medicare Part B: (also called medical insurance): part of the federal health program that helps to pay for doctor's services; outpatient hospital care, clinical laboratory and diagnostic services; surgical supplies and durable medical equipment; ambulance services; and other medical services that are not covered by Part A. The covered service or supply must be medically necessary. After age 65, individuals may choose to enroll in the program, and pay monthly premiums and an annual deductible for services covered by Medicare Part B.

morbidity: a descriptive measurement of sickness.

mortality rate: number of deaths in a time period divided by the population at risk.

nephropathy: disease of the kidneys. Hyperglycemia and hypertension can damage the kidneys' glomeruli. When the kidneys are damaged, protein leaks out of the kidneys into the urine. Damaged kidneys can no longer remove waste and extra fluids from the bloodstream.

neuropathy: disease of the nervous system. The three major forms in people with diabetes are peripheral neuropathy, autonomic neuropathy, and mononeuropathy. The most common form is peripheral neuropathy, which affects mainly the legs and feet.

non-insulin-dependent diabetes mellitus (NIDDM): former term for type 2 diabetes.

non-traumatic lower extremity amputation: loss of extremities due to diabetes.

obesity: a condition in which a greater than normal amount of fat is in the body; more severe than overweight; having a body mass index of 30 or more.

principal diagnosis: the principal diagnosis (also referred to as primary diagnosis) is submitted as the first of several possible diagnoses coded on the discharge record. The condition established after study to be chiefly responsible for admitting the patient to the hospital for care.

prevalence: the number of people in a given group or population who are reported to have a disease.

risk factor: anything that raises the chances of a person developing a disease.

secondary diagnosis: a diagnoses listed as a condition or disease in the medical record but is not the cause of admittance to the hospital.

self-management: in diabetes, the ongoing process of managing diabetes. Includes meal planning, planned physical activity, blood glucose monitoring, taking diabetes medicines, handling episodes of illness related to low and high blood glucose, managing diabetes when traveling, and more. The person with diabetes designs his or her own self-management treatment plan in consultation with a variety of health care professionals such as physicians, nurses, dentists, dieticians, pharmacists, podiatrists and others.

stroke: condition caused by damage to blood vessels in the brain; may cause loss of ability to speak or to move parts of the body.

type 1 diabetes: a condition characterized by high blood glucose levels caused by a total lack of insulin. Occurs when the body's immune system attacks the insulin-producing beta cells in the pancreas and destroys them. The pancreas then produces little or no insulin. Type 1 diabetes develops most often in young people but can appear in adults.

type 2 diabetes: a condition characterized by high blood glucose levels caused by either a lack of insulin or the body's inability to use insulin efficiently. Type 2 diabetes develops most often in middle-aged and older adults but can appear in young people.

type I diabetes: former term for type 1 diabetes.

type II diabetes: former term for type 2 diabetes.



The Burden of Diabetes in Ohio

Ohio Diabetes Prevention and Control Program
Division of Prevention
Ohio Department of Health

Bob Taft
GOVERNOR

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