

# 5

## Diabetes

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- 5-1 Diabetes education
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**5-1. Increase the proportion of persons with diabetes who receive formal diabetes education.**

<b>National Data Source</b>	National Health Interview Survey (NHIS), CDC, NCHS.
<b>State Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	17.14 (Diabetes and Chronic Disabling Conditions), age adjusted to 2000 standard population.
<b>Measure</b>	Percent (age adjusted—see Comments).
<b>Baseline</b>	45 (1998).
<b>Numerator</b>	Number of persons aged 18 years and older who report that they have ever been diagnosed with diabetes and have taken a course or class in diabetes self-management.
<b>Denominator</b>	Number of persons aged 18 years and older who report that they have ever been diagnosed with diabetes.
<b>Population Targeted</b>	U.S. civilian, noninstitutionalized population.
<b>Questions Used To Obtain the National Data</b>	From the 1998 National Health Interview Survey:  [NUMERATOR:] <ul style="list-style-type: none"><li>➤ <i>Have you ever taken a course or class in how to manage your diabetes yourself?</i></li></ul> [DENOMINATOR:] [For females:] <ul style="list-style-type: none"><li>➤ <i>Other than during pregnancy, have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?</i></li></ul> [For males:] <ul style="list-style-type: none"><li>➤ <i>Have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?</i></li></ul> Yes No Borderline Don't know Refused
<b>Expected Periodicity</b>	Periodic.

## Comments

Persons are considered to have diabetes if they respond “yes” to either of the two questions listed above in the DENOMINATOR section. Those who respond “borderline” are not included. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are also excluded.

Data are age adjusted to the 2000 standard population. Age-adjusted percents are weighted sums of age-specific percents. For a discussion on age adjustment, see Part A, section 5.

See Part C for a description of NHIS and BRFSS and Appendix A for focus area contact information.



## 5-2. Prevent diabetes.

<b>National Data Source</b>	National Health Interview Survey (NHIS), CDC, NCHS.
<b>State Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	17.11 (Diabetes and Chronic Disabling Conditions) (also 2.24).
<b>Measure</b>	Rate per 1,000 population (age adjusted, 3-year average—see Comments).
<b>Baseline</b>	3.5 (1994–96).
<b>Numerator</b>	Number of persons aged 18 years and older who report being diagnosed with diabetes in the past 12 months.
<b>Denominator</b>	Number of persons aged 18 years and older.
<b>Population Targeted</b>	U.S. civilian, noninstitutionalized population.
<b>Questions Used To Obtain the National Data</b>	From the 1996 National Health Interview Survey:  ➤ <i>During the past 12 months did any one in the family (read names) have diabetes?</i>  [If yes:] ○ <i>Who was this?</i>

- *When was diabetes first noticed?*
  - (1) *Within the past 2 weeks*
  - (2) *2 weeks to 3 months*
  - (3) *Over 3 months to 1 year*
  - (4) *Over 1 year to 5 years*
  - (5) *Over 5 years*

<b>Expected Periodicity</b>	Annual.
<b>Comments</b>	<p>Respondents who reported that the diabetes was first noticed within the past year (responses 1 through 3 listed above) are considered to have been diagnosed with diabetes in the past 12 months.</p> <p>The measure uses a 3-year moving average to reliably report data for select population groups that have small sample sizes.</p> <p>NHIS was redesigned in 1997. Diabetes incidence questions were not included in the 1997 or 1998 data collection years. The 1999 NHIS includes questions on diabetes incidence.</p> <p>Data are age adjusted to the 2000 standard population. Age-adjusted rates are weighted sums of age-specific rates. For a discussion on age adjustment—see Part A, section 5.</p> <p>See Part C for a description of NHIS and BRFSS and Appendix A for focus area contact information.</p>



**5-3. Reduce the overall rate of diabetes that is clinically diagnosed.**

<b>National Data Source</b>	National Health Interview Survey (NHIS), CDC, NCHS.
<b>State Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	17.11 (Diabetes and Chronic Disabling Conditions) (also 2.24), age adjusted to the 2000 population.
<b>Measure</b>	Rate per 1,000 population (age adjusted—see Comments).
<b>Baseline</b>	40 (1997).
<b>Numerator</b>	Number of persons who report ever being diagnosed with diabetes.

<b>Denominator</b>	Number of persons.
<b>Population Targeted</b>	U.S. civilian, noninstitutionalized population.
<b>Questions Used To Obtain the National Data</b>	<p>From the 1997 National Health Interview Survey:</p> <p>[For children under 18 years:]</p> <ul style="list-style-type: none"> <li>➤ <i>Has a doctor or health professional told you that {sample child} has any of these conditions?</i></li> </ul> <p>[List of conditions includes diabetes]</p> <p>[For adults 18 years and older:]</p> <p>[For females:]</p> <ul style="list-style-type: none"> <li>➤ <i>Other than during pregnancy, have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?</i></li> </ul> <p>[For males:]</p> <ul style="list-style-type: none"> <li>➤ <i>Have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?</i></li> </ul> <p>Yes No Borderline Don't know Refused</p>
<b>Expected Periodicity</b>	Annual.
<b>Comments</b>	<p>Adults are considered to have diabetes if they respond “yes” to either of the two questions listed above. Those who respond “borderline” are not included. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are also excluded.</p> <p>Children are considered to have diabetes if the adult proxy respondent reports that they have ever been told by a doctor that the child has diabetes.</p> <p>Data are age adjusted to the 2000 standard population. Age-adjusted rates are weighted sums of age-specific rates. For a discussion on age adjustment, see Part A, section 5.</p>
<b>Comments</b>	See Part C for a description of NHIS and BRFSS and Appendix A for focus area contact information.



**5-4. Increase the proportion of adults with diabetes whose condition has been diagnosed.**

<b>National Data Source</b>	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
<b>State Data Source</b>	Not identified.
<b>Healthy People 2000 Objective</b>	Not applicable.
<b>Measure</b>	Percent (age adjusted—see Comments).
<b>Baseline</b>	68 (1988–94).
<b>Numerator</b>	Number of adults aged 20 years and older who report that they have ever being diagnosed with diabetes.
<b>Denominator</b>	Number of adults aged 20 years and older who have a fasting blood glucose level of 126 mg/dl.
<b>Population Targeted</b>	U.S. civilian, noninstitutionalized population.
<b>Questions Used To Obtain the National Data</b>	<p>From the 1988–94 National Health and Nutrition Examination Survey:</p> <ul style="list-style-type: none"><li>➤ <i>Have you ever been told by a doctor that you have diabetes or sugar diabetes?</i></li></ul> <p>[For female, if yes:]</p> <ul style="list-style-type: none"><li>○ <i>Were you pregnant when you were told that you had diabetes?</i></li><li>○ <i>Other than during pregnancy, has a doctor ever told you that you have diabetes or sugar diabetes?</i></li></ul>
<b>Expected Periodicity</b>	Annual, beginning with 1999 data.
<b>Comments</b>	<p>Persons are considered to have diabetes if they respond that they have ever been told by a doctor that they have diabetes or sugar diabetes. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are excluded.</p> <p>The undiagnosed population with diabetes is based on the American Diabetes Association criteria.<sup>1</sup></p> <p>Data are age adjusted to the 2000 standard population. Age-adjusted percents are weighted sums of age-specific percents. For a discussion on age adjustment, see Part A, section 5.</p>

See Part C for a description of NHANES and Appendix A for focus area contact information.



### **5-5. Reduce the diabetes death rate.**

<b>National Data Source</b>	National Vital Statistics System (NVSS), CDC, NCHS.
<b>State Data Source</b>	National Vital Statistics System (NVSS), CDC, NCHS.
<b>Healthy People 2000 Objective</b>	Adapted from 17.9 (Diabetes and Chronic Disabling Conditions), age adjusted to the 2000 standard population.
<b>Measure</b>	Rate per 100,000 population (age adjusted—see Comments).
<b>Baseline</b>	75 (1997).
<b>Numerator</b>	Number of deaths due to diabetes (ICD-9 code 250) reported as the underlying or multiple cause of death.
<b>Denominator</b>	Number of persons.
<b>Population Targeted</b>	U.S. resident population.
<b>Questions Used To Obtain the National Data</b>	Not applicable.
<b>Expected Periodicity</b>	Annual.
<b>Comments</b>	<p>Diabetes-related mortality data are derived from the multiple-cause-of-death files. Data include all mentions of diabetes on the death certificate, whether as an underlying or a multiple cause of death. Diabetes is approximately three times as likely to be listed as multiple cause of death than as underlying cause.<sup>2</sup></p> <p>Data are age adjusted to the 2000 standard population. Age-adjusted rates are weighted sums of age-specific rates. For a discussion on age adjustment, see Part A, section 5.</p>



This objective differs from Healthy People 2000 objective 17.9, which adjusted the death rates using the 1940 standard population. See Appendix C for comparison data.

See Part C for a description of NVSS and Appendix A for focus area contact information.



## **5-6. Reduce diabetes-related deaths among persons with diabetes.**

<b>National Data Sources</b>	National Vital Statistics System (NVSS), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.
<b>State Data Sources</b>	National Vital Statistics System (NVSS), CDC, NCHS; Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	Not applicable.
<b>Measure</b>	Rate per 1,000 population (age adjusted—see Comments).
<b>Baseline</b>	8.8 (1997).
<b>Numerator</b>	Number of deaths due to diabetes (ICD-9 code 250) reported as the underlying or multiple cause of death.
<b>Denominator</b>	Number of persons who report that they have ever been diagnosed with diabetes.
<b>Population Targeted</b>	U.S. resident population; U.S. civilian, noninstitutionalized population.
<b>Questions Used To Obtain the National Data</b>	For denominator, see Questions Used To Obtain the National Data provided with objective 5-3.
<b>Expected Periodicity</b>	Annual.
<b>Comments</b>	The numerator and denominator of this measure refer to slightly different populations. The numerator includes all U.S. residents; the denominator includes only the U.S. civilian, noninstitutionalized population.

Adults are considered to have diabetes if they respond “yes” to either of the two questions listed in the DENOMINATOR section of objective 5-3. Those who respond “borderline” are not included. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are also excluded.

Children are considered to have diabetes if the adult proxy respondent reports that they have ever been told by a doctor that the child has diabetes. See Questions Used To Obtain the National Data for objective 5-3.

Diabetes-related mortality data are derived from the multiple-cause-of-death files. Data include all mentions of diabetes on the death certificate, whether as an underlying or a multiple cause of death. Diabetes is approximately three times as likely to be listed as multiple cause of death than as underlying cause.<sup>2</sup>

Data are age adjusted to the 2000 standard population. Age-adjusted rates are weighted sums of age-specific rates. For a discussion of age adjustment, see Part A, section 5.

See Part C for a description of NVSS and BRFSS and Appendix A for focus area contact information.



## **5-7. Reduce deaths from cardiovascular disease in persons with diabetes.**

<b>National Data Sources</b>	National Vital Statistics System (NVSS), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.
<b>State Data Sources</b>	National Vital Statistics System (NVSS), CDC, NCHS; Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	Not applicable.
<b>Measure</b>	Rate per 100,000 population (age adjusted—see Comments).
<b>Baseline</b>	343 (1997).

<b>Numerator</b>	Number of deaths due to cardiovascular disease as an underlying cause (ICD-9 codes 390-448), among persons who had diabetes listed (ICD-9 code 250) as a multiple cause of death.
<b>Denominator</b>	Number of persons who report that they have ever been diagnosed with diabetes.
<b>Population Targeted</b>	U.S. resident population; U.S. civilian, noninstitutionalized population.
<b>Questions Used To Obtain the National Data</b>	For denominator, see Questions Used To Obtain the National Data provided with objective 5-3.
<b>Expected Periodicity</b>	Annual.
<b>Comments</b>	See Comments provided with objective 5-6 for more information.



**5-8. (Developmental) Decrease the proportion of pregnant women with gestational diabetes.**

<b>Comments</b>	<p>An operational definition could not be specified at the time of publication.</p> <p>A proposed national data source is the National Vital Statistics System (NVSS), CDC, NCHS.</p> <p>See Part C for a description of NVSS and Appendix A for focus area contact information.</p>
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**5-9. (Developmental) Reduce the frequency of foot ulcers in persons with diabetes.**

<b>Comments</b>	<p>An operational definition could not be specified at the time of publication.</p> <p>A proposed national data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.</p>
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Beginning in 1999, NHANES collects information that can be used as a proxy for foot ulcers. The proxy measure that is proposed will track peripheral neuropathy as well as brachial ankle blood pressure index, which indicates peripheral vascular disease.

See Part C for a description of NHANES and BRFSS and Appendix A for focus area contact information.



## **5-10. Reduce the rate of lower extremity amputations in persons with diabetes.**

<b>National Data Sources</b>	National Hospital Discharge Survey (NHDS), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.
<b>State Data Sources</b>	State hospital discharge data systems; Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	Adapted from 17.10 (Diabetes and Chronic Disabling Conditions).
<b>Measure</b>	Rate per 1,000 population (age adjusted—see Comments).
<b>Baseline</b>	4.1 (1997).
<b>Numerator</b>	Number of hospital discharges among U.S. civilian persons with diabetes (ICD-9-CM code 250) as any listed diagnosis and amputation of the lower limb (ICD-9-CM procedure code 84.1) as any listed procedure.
<b>Denominator</b>	Number of persons in the NHIS population who report that they have ever been diagnosed with diabetes.
<b>Population Targeted</b>	U.S. civilian population; U.S. civilian, noninstitutionalized population.
<b>Questions Used To Obtain the National Data</b>	For denominator, see Questions Used To Obtain the National Data provided with objective 5-3.
<b>Expected Periodicity</b>	Annual.

## Comments

The numerator and denominator of this measure refer to slightly different populations. The numerator includes the U.S. civilian population; the denominator includes only the U.S. civilian, noninstitutionalized population.

The numerator is obtained from the National Hospital Discharge System (NHDS) and uses any mention ICD-9-CM procedure code 84.1 to define amputation of the lower limb and ICD-9-CM code 250 as any listed diagnosis to identify persons with diabetes.<sup>3</sup> Amputations due to trauma are not included.

Adults are considered to have diabetes if they respond “yes” to either of the two questions listed in the DENOMINATOR section of objective 5-3. Those who respond “borderline” are not included. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are also excluded.

Children are considered to have diabetes if the adult proxy respondent reports that they have ever been told by a doctor that the child has diabetes. For specific questions, see Questions Used To Obtain the National Data for objective 5-3.

Data are age adjusted to the 2000 standard population. Age-adjusted rates are weighted sums of age-specific rates. For a discussion on age adjustment, see Part A, section 5.

This objective is a modification of Healthy People 2000 objectives 17.10 and 17.10c, which tracked the proportion of persons with diabetes who had a hospital discharge with an amputation of the lower limb (excluding amputations due to trauma), using ICD-9-CM procedure codes 84.11 and 84.12. This measure expands the definition of the amputation of the lower limb to ICD-9-CM procedure code 84.1 and is age adjusted to the 2000 standard population.

See Part C for a description of NHDS, NHIS, and BRFSS and Appendix A for focus area contact information.



**5-11. (Developmental) Increase the proportion of adults with diabetes who obtain an annual urinary microalbumin measurement.**

**Comments** An operational definition could not be specified at the time of publication.

A proposed national data source is the Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCHS.

See Part C for a description of BRFSS and Appendix A for focus area contact information.



**5-12. Increase the proportion of adults with diabetes who have a glycosylated hemoglobin measurement at least once a year.**

<b>National Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>State Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	Not applicable.
<b>Measure</b>	Percent (age adjusted—see Comments).
<b>Baseline</b>	24 (1998) (Selected States—see Comments).
<b>Numerator</b>	Number of persons aged 18 years and older who report they have ever been diagnosed with diabetes and report that a doctor, nurse, or other health professional has checked the respondent's glycosylated hemoglobin (HbA <sub>1c</sub> ) one or more times in the past year.
<b>Denominator</b>	Number of persons aged 18 years and older who report they have ever been diagnosed with diabetes.
<b>Population Targeted</b>	U.S. civilian, noninstitutionalized population (selected States, see Comments).
<b>Questions Used To Obtain the National Data</b>	From the 1998 Behavioral Risk Factor Surveillance System:

[NUMERATOR:]

- *About how many times in the last year has a doctor, nurse, or other health professional checked you for glycosylated hemoglobin “A one C”?*

[DENOMINATOR:]

- *Have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?*

[For females, if yes:]

- *Was this only when you were pregnant?*

- *About how many times in the last year have you seen a doctor, nurse, or other health professional for your diabetes?*

**Expected Periodicity** Annual.

**Comments** Persons are considered to have diabetes if they have ever been told by a doctor or health professional that they have diabetes or sugar diabetes. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are excluded. Persons are considered to have been measured for glycosylated hemoglobin if they have seen a health professional for their diabetes in the past year at least once and have been checked for HbA<sub>1c</sub> one or more times in the past year.

Data for this objective are collected using the core component and an optional module of the BRFSS, which is made available to States for administration annually. The number of States that select the diabetes module varies every year. In 1998, 39 States used the optional diabetes module. The measure is the mean of data for the reporting States.

Data are age adjusted to the 2000 standard population. Age-adjusted percents are weighted sums of age-specific percents. For a discussion on age adjustment, see Part A, section 5.

See Part C for a description of BRFSS and Appendix A for focus area contact information.



**5-13. Increase the proportion of adults with diabetes who have an annual dilated eye examination.**

<b>National Data Source</b>	National Health Interview Survey (NHIS), CDC, NCHS.
<b>State Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	17.23 (Diabetes and Chronic Disabling Conditions), age adjusted to the 2000 standard population.
<b>Measure</b>	Percent (age adjusted—see Comments).
<b>Baseline</b>	47 (1998).
<b>Numerator</b>	Number of persons aged 18 years and older who report that they have ever been told by a doctor that they have diabetes and report that they had a dilated eye examination in the past year.
<b>Denominator</b>	Number of persons aged 18 years and older who report that they have ever been told by a doctor that they have diabetes.
<b>Population Targeted</b>	U.S. civilian, noninstitutionalized population.
<b>Questions Used To Obtain the National Data</b>	From the 1998 National Health Interview Survey:  [NUMERATOR:] <ul style="list-style-type: none"><li>➤ <i>Have you EVER had an eye examination in which the pupils were dilated? This would have made you temporarily sensitive to bright light.</i><ul style="list-style-type: none"><li>[If yes:]<ul style="list-style-type: none"><li>○ <i>When was the last time you had this examination?</i><ul style="list-style-type: none"><li>(1) <i>A year ago or less</i></li><li>(2) <i>More than 1 year but less than 2 years</i></li><li>(3) <i>More than 2 years but less than 3 years</i></li><li>(4) <i>More than 3 years but less than 5 years</i></li><li>(5) <i>Over 5 years ago</i></li></ul></li></ul></li></ul></li></ul> [DENOMINATOR:] [For females:] <ul style="list-style-type: none"><li>➤ <i>Other than during pregnancy, have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?</i></li></ul>



[For males:]

- *Have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?*

*Yes*

*No*

*Borderline*

*Don't know*

*Refused*

**Expected Periodicity**

Periodic.

**Comments**

The numerator is limited to only the persons who reported that they have seen a health professional for an eye examination “a year ago or less.”

Persons are considered to have diabetes if they respond “yes” to either of the two questions listed above in the DENOMINATOR section. Those who respond “borderline” are not included. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are also excluded.

Data are age adjusted to the 2000 standard population. Age-adjusted percents are weighted sums of age-specific percents. For a discussion on age adjustment, see Part A, section 5.

State-level data are available from the BRFSS, which uses a slightly different question than the NHIS to determine the last time the respondent obtained a dilated eye examination. The question from the 1998 Behavioral Risk Factor Surveillance System follows:

- *When was the last time you had an eye examination in which the pupils were dilated? This would have made you temporarily sensitive to bright light.*

*1) Within the past month (0 to 1 month ago)*

*2) Within the past year (1 to 12 months ago)*

*3) Within the past 2 years (1 to 2 years ago)*

*4) 2 or more years ago*

See Part C for a description of NHIS and BRFSS, and Appendix A for focus area contact information.



**5-14. Increase the proportion of adults with diabetes who have at least an annual foot examination.**

<b>National Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>State Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	Not applicable.
<b>Measure</b>	Percent (age adjusted—see Comments).
<b>Baseline</b>	55 (1998) (selected States—see Comments).
<b>Numerator</b>	Number of adults aged 18 years and older with diabetes who report that they have seen a health professional for diabetes and have had their feet checked for any sores or irritations.
<b>Denominator</b>	Number of adults aged 18 years and older who report that they have ever been told that they have diabetes.
<b>Population Targeted</b>	Civilian, noninstitutionalized population (selected States—see Comments).
<b>Questions Used To Obtain the National Data</b>	<p>From the 1998 Behavioral Risk Factor Surveillance System:</p> <p>[NUMERATOR:]</p> <ul style="list-style-type: none"><li>➤ <i>About how many times in the last year has a health professional checked your feet for any sores or irritations?</i></li></ul> <p>[DENOMINATOR:]</p> <ul style="list-style-type: none"><li>➤ <i>Have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?</i></li></ul> <p>[For females, if yes:]</p> <ul style="list-style-type: none"><li>○ <i>Was this only when you were pregnant?</i></li></ul>
<b>Expected Periodicity</b>	Annual.

**Comments**

Persons are considered to have diabetes if they had ever been told by a doctor or health professional that they have diabetes or sugar diabetes. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are excluded. Persons are considered to have had a foot examination if their feet had been checked one or more times in the past year.

Data for this objective are collected using the core component and an optional module of the BRFSS, which is made available to States for administration annually. The number of States that select the diabetes module varies every year. In 1998, 39 States used the optional diabetes module. The measure is the mean of data for the reporting States.

Data are age adjusted to the 2000 standard population. Age-adjusted percents are weighted sums of age-specific percents. For a discussion on age adjustment, see Part A, section 5.

See Part C for a description of BRFSS and Appendix A for focus area contact information.

**5-15. Increase the proportion of persons with diabetes who have at least an annual dental examination.**

<b>National Data Source</b>	National Health Interview Survey (NHIS), CDC, NCHS.
<b>State Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	Not applicable.
<b>Measure</b>	Percent (age adjusted—see Comments).
<b>Baseline</b>	58 (1997).
<b>Numerator</b>	Number of persons aged 2 years and older who report ever being diagnosed with diabetes and report that they have seen or spoken to a dentist in the past year.
<b>Denominator</b>	Number of persons aged 2 years and older who have ever been told that they have diabetes.

**Population Targeted**

U.S. civilian, noninstitutionalized population.

**Questions Used To Obtain the National Data**

From the 1997 National Health Interview Survey:

[NUMERATOR:]

- *About how long has it been since you last saw or talked to a dentist? Include all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists, as well as hygienists.*

- (1) 6 months or less*
- (2) More than 6 months but not more than a year ago*
- (3) More than 1 year ago but less than 3 years ago*
- (4) More than 3 years*
- (5) Never*

[DENOMINATOR:]

[For children under 18 years:]

- *Has a doctor or health professional told you that {sample child} has any of these conditions?*

[List of conditions includes diabetes]

[For adults 18 years and older:]

[For females:]

- *Other than during pregnancy, have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?*

[For males:]

- *Have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?*

- Yes*
- No*
- Borderline*
- Don't know*
- Refused*

**Expected Periodicity**

Annual.

**Comments**

Adults are considered to have diabetes if they respond “yes” to either of the two questions listed above in the DENOMINATOR section. Those who respond “borderline” are not included. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are also excluded.

Children are considered to have diabetes if the adult proxy respondent reports that they have ever been told by a doctor that the child has diabetes.

An annual dental examination is defined as seeing or speaking to a dental professional in the past year.

Data are age adjusted to the 2000 standard population. Age-adjusted percents are weighted sums of age-specific percents. For a discussion on age adjustment, see Part A, section 5.

See Part C for a description of NHIS and BRFSS and Appendix A for focus area contact information.



## **5-16. Increase the proportion of persons with diabetes who take aspirin at least 15 times per month.**

<b>National Data Source</b>	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
<b>State Data Source</b>	Not identified.
<b>Healthy People 2000 Objective</b>	Not applicable.
<b>Measure</b>	Percent (age adjusted—see Comments).
<b>Baseline</b>	20 (1988–94).
<b>Numerator</b>	Number of persons aged 40 years and older with diabetes who reported taking aspirin products at least 15 times in the past month.
<b>Denominator</b>	Number of persons aged 40 years and older who report that they have ever been told that they have diabetes.
<b>Population Targeted</b>	U.S. civilian, noninstitutionalized population.
<b>Questions Used To Obtain the National Data</b>	From the 1988–94 National Health and Nutrition Examination Survey:  [NUMERATOR:] <ul style="list-style-type: none"><li>➤ <i>In the past month, have you taken any aspirin, Anacin, Bufferin, Ecotin, Ascriptin, or Midol?</i></li><li>➤ <i>How often did you take aspirin, Anacin, Bufferin, Ecotin, Ascriptin, or Midol during the past month?</i></li></ul> [DENOMINATOR:] <ul style="list-style-type: none"><li>➤ <i>Have you ever been told by a doctor that you have diabetes or sugar diabetes?</i></li></ul>

[For female, if yes:)

- *Were you pregnant when you were told that you had diabetes?*
- *Other than during pregnancy, has a doctor ever told you that you have diabetes or sugar diabetes?*

**Expected Periodicity** Annual, beginning with 1999 data.

**Comments** Persons are considered to have diabetes if they respond that they have ever been told by a doctor that they have diabetes or sugar diabetes. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are excluded.

Persons are considered to have used aspirin products if they reported using aspirin, Anacin, Bufferin, Ecotin, Ascriptin, or Midol 15 or more times in the past month.

Data are age adjusted to the 2000 standard population. Age-adjusted percents are weighted sums of age-specific percents. For a discussion on age adjustment, see Part A, section 5.

See Part C for a description of NHANES and Appendix A for focus area contact information.



**5-17. Increase the proportion of adults with diabetes who perform self-blood-glucose-monitoring at least once daily.**

<b>National Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>State Data Source</b>	Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>Healthy People 2000 Objective</b>	Not applicable.
<b>Measure</b>	Percent (age adjusted—see Comments).
<b>Baseline</b>	42 (1998) (selected States—see Comments).

<b>Numerator</b>	Number of persons aged 18 years and older with diabetes who report that they check their blood for glucose or sugar by themselves or by a family member or friend (excludes health professional) at least once a day.
<b>Denominator</b>	Number of persons aged 18 years and older who report that they have ever been told they have diabetes.
<b>Population Targeted</b>	Civilian, noninstitutionalized population (selected States, see Comments).
<b>Questions Used To Obtain the National Data</b>	<p>From the 1998 Behavioral Risk Factor Surveillance System:</p> <p>[NUMERATOR:]</p> <ul style="list-style-type: none"> <li>➤ <i>About how often do you check your blood for glucose or sugar? Include times when checked by a family member or friend, but do not include times when checked by a health professional.</i></li> </ul> <p style="margin-left: 40px;"> <input type="checkbox"/> <i>Times per day</i>  <input type="checkbox"/> <i>Times per week</i>  <input type="checkbox"/> <i>Times per month</i>  <input type="checkbox"/> <i>Times per year</i> </p> <p>[DENOMINATOR:]</p> <ul style="list-style-type: none"> <li>➤ <i>Have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?</i></li> </ul> <p style="margin-left: 40px;">[For females, if yes:]</p> <ul style="list-style-type: none"> <li>○ <i>Was this only when you were pregnant?</i></li> </ul>
<b>Expected Periodicity</b>	Annual.
<b>Comments</b>	Persons are considered to have diabetes if they have ever been told by a doctor or health professional that they have diabetes or sugar diabetes. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are excluded. Persons are considered to have had a foot examination if their feet have been checked one or more times in the past year.

Data for this objective are collected using the core component and an optional module of the BRFSS, which is made available to States for administration annually. The number of States that select the diabetes module varies every year. In 1998, 39 States used the optional diabetes module. The measure is the mean of data for the reporting States.

Data are age adjusted to the 2000 standard population. Age-adjusted percents are weighted sums of age-specific percents. For a discussion on age adjustment, see Part A, section 5.

See Part C for a description of BRFSS and Appendix A for focus area contact information.



## References

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1. Harris, M.I.; Flegal, K.M.; Cowie, C.C.; et al. Prevalence of diabetes, impaired fasting glucose, and impaired glucose tolerance in U.S. adults: The Third National Health and Nutrition Examination Survey, 1988–1994. *Diabetes Care* 21(4): 518-24, 1998.
2. National Center for Health Statistics. *Healthy People 2000 Review, 1998–99*. Hyattsville, MD: Public Health Service, 1999.
3. Centers for Disease Control and Prevention. *Diabetes Surveillance 1997*. Atlanta, GA: U.S. Department of Health and Human Services, 1997.