

## Healthy People 2010 Operational Definition

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

<b>National Data Sources</b>	National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.
<b>State Data Sources</b>	National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS; Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP. (See State Operational Definition, below.)
<b>Healthy People 2000 Objective</b>	Not applicable.
<b>Changes since the 2000 Publication</b>	Revised baseline (see Comments). Revised target (see Comments).
<b>Measure</b>	Rate per 100,000 population (age adjusted—see Comments).
<b>Baseline (Year)</b>	332 (1999)
<b>Target</b>	299
<b>Target-Setting Method</b>	10 percent improvement.  For a discussion of target-setting methods, see Part A, section 4.
<b>Numerator</b>	Number of deaths due to cardiovascular disease as an underlying cause (ICD-10 codes I00-I78), among persons who had diabetes listed (ICD-10 code E10 – E14) 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 Baseline Data</b>	From the 1999 National Health Interview Survey [DENOMINATOR]:  [For children under 18 years:] ➤ <i>Has a doctor or health professional told you that {sample child} has any of these conditions?</i>

[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 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.

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>1</sup>

The original baseline was revised from 343 deaths per 100,000 population to 332 per 100,000 due to changes in the International Classification of Diseases (ICD) system. The original baseline (1997) was based on ICD-9 codes 390-448 as the underlying cause, and ICD-9 code 250 as the multiple cause. The revised baseline (1999) is based on the ICD-10 system. The baseline year for all Healthy People 2010 mortality objectives was changed to 1999 so that a consistent trend based

on a single ICD classification scheme could be tracked throughout the decade. See Part A, section 8 for a discussion of the International Classification of Diseases (ICD). Information on comparability between ICD-9 and ICD-10 has been published by NCHS.<sup>2</sup>

The target was proportionally adjusted to reflect the revised baseline using the original target-setting method.

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.

Data (except those by education status) are age adjusted to the 2000 standard population using the age groups 0-44, 45-64, 65-74, and 75 years and over. Data by education status are age adjusted using the age groups 25-44 and 45-64 years. Age-adjusted percents are weighted sums of age-specific percents. For a discussion of age adjustment, see Part A, section 7.

For some measures, data do not meet the criteria for statistical reliability, data quality, or confidentiality and have been suppressed. Information on suppression of data for the major Healthy People 2010 data systems has been published in a *Healthy People Statistical Note*.<sup>3</sup>

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

## References

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1. National Center for Health Statistics. *Healthy People 2000 Review, 1998–99*. Hyattsville, MD: Public Health Service, 1999.
2. Anderson, R.N.; Minino, A.M.; Hoyert, D.L.; Rosenberg, H.M.; Comparability of cause of death between ICD-9 and ICD-10: Preliminary estimates. *National Vital Statistics Reports*. Vol. 49 No.2. Hyattsville, MD: National Center for Health Statistics, 2001.
3. Klein, R.J.; Proctor, S.E.; Boudreault, M.A.; Turczyn, K.M. Healthy People 2010 Criteria for Data Suppression. *Statistical Notes* No. 24. Hyattsville, MD: National Center for Health Statistics. 2002.

## State Operational Definition

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

<b>State Data Sources</b>	National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS; Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.
<b>National Data Sources</b>	National Vital Statistics System - Mortality (NVSS-M), CDC, NCHS; National Health Interview Survey (NHIS), CDC, NCHS.
<b>Measure</b>	Rate per 100,000 population (age adjusted—see Comments).
<b>Numerator</b>	Number of deaths due to cardiovascular disease as an underlying cause (ICD-10 codes I00-I78), among persons who had diabetes listed (ICD-10 code E10 – E14) as a multiple cause of death, persons aged 18 years and older.
<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>	State-specific resident population; State-specific civilian, non-institutionalized adult population residing in households with telephones (see Comments).
<b>Questions Used To Obtain the State Baseline Data</b>	From the 1999 Behavioral Risk Factor Surveillance System:  [DENOMINATOR:] ➤ <i>Have you ever been told by a doctor that you have diabetes?</i> Yes Yes, but female told only during pregnancy No Don't know/Not sure Refused
<b>Expected Periodicity</b>	Annual.

## Comments

Data for this objective are collected using the core component of the BRFSS. Thus the data are available for all 50 states and the District of Columbia.

National data from the NHIS and state data from the BRFSS may not be comparable for a number of reasons, including mode of question administration, context of questions, question wording, and survey sampling frame.

Persons are considered to have diabetes if they respond “yes” to the question “have you ever been told by a doctor that you have diabetes” listed above in the DENOMINATOR section. Women who report that the only time they have been diagnosed with diabetes was during pregnancy (gestational diabetes) are excluded.

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>1</sup>

The numerator and denominator of this measure refer to slightly different populations. The numerator includes all adult State residents; the denominator includes only the State civilian, noninstitutionalized adult population residing in households with telephones.

Data (except those by education status) are age adjusted to the 2000 standard population using the age groups 0-44, 45-64, and 65 years and over. Data by education status are age adjusted using the age groups 25-44 and 45-64 years. Age-adjusted percents are weighted sums of age-specific percents. For a discussion of age adjustment, see Part A, section 7.

For some measures, data do not meet the criteria for statistical reliability, data quality, or confidentiality and have been suppressed. Information on suppression of data for the major Healthy People 2010 data systems has been published in a *Healthy People Statistical Note*.<sup>2</sup>

See [www.cdc.gov/brfss](http://www.cdc.gov/brfss) for a description of BRFSS.  
See Part C for a description of NVSS-M and  
Appendix A for focus area contact information.

## References

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1. National Center for Health Statistics. *Healthy People 2000 Review, 1998–99*. Hyattsville, MD: Public Health Service, 1999.
2. Klein, R.J.; Proctor, S.E.; Boudreault, M.A.; Turczyn, K.M. Healthy People 2010 Criteria for Data Suppression. *Statistical Notes* No. 24. Hyattsville, MD: National Center for Health Statistics. 2002.