

24

Respiratory Diseases

Asthma

- 24-1 Deaths from asthma
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 - 24-1b Children aged 5 to 14 years
 - 24-1c Adolescents and adults aged 15 to 34 years
 - 24-1d Adults aged 35 to 64 years
 - 24-1e Adults aged 65 years and older
- 24-2 Hospitalizations for asthma
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- 24-3 Hospital emergency department visits for asthma
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- 24-4 Activity limitations
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 - 24-7b Persons with prescribed inhalers who receive instruction
 - 24-7c Education about recognizing early signs and symptoms of asthma episodes and how to respond appropriately
 - 24-7d Medication regimens that prevent the need for more than one canister of short-acting beta agonists per month
 - 24-7e Followup medical care for long-term management
 - 24-7f Assistance with assessing and reducing exposure to environmental risk factors
- 24-8 Surveillance systems

Chronic Obstructive Pulmonary Disease (COPD)

- 24-9 Activity limitations due to chronic lung and breathing problems
- 24-10 Deaths from COPD

Obstructive Sleep Apnea (OSA)

- 24-11 Medical evaluation and followup
 - 24-11a Seek medical evaluation
 - 24-11b Receive followup care
- 24-12 Vehicular crashes related to excessive sleepiness

Asthma

24-1. Reduce asthma deaths.

24-1a. Children under age 5 years.

National Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
State Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
Healthy People 2000 Objective	Not applicable.
Measure	Rate per 1,000,000 population.
Baseline	2.1 (1998).
Numerator	Number of asthma deaths (ICD-9 code 493) among children under age 5 years.
Denominator	Number of children under age 5 years.
Population Targeted	U.S. resident population.
Questions Used To Obtain the National Data	Not applicable.
Expected Periodicity	Annual.
Comments	See Part C for a description of NVSS and Appendix A for focus area contact information.



24-1b. Children aged 5 to 14 years.

National Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
State Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
Healthy People 2000 Objective	Not applicable.
Measure	Rate per 1,000,000 population.
Baseline	3.3 (1998).

Numerator	Number of asthma deaths (ICD-9 code 493) among children aged 5 to 14 years.
Denominator	Number of children aged 5 to 14 years.
Population Targeted	U.S. resident population.
Questions Used To Obtain the National Data	Not applicable.
Expected Periodicity	Annual.
Comments	See Part C for a description of NVSS and Appendix A for focus area contact information.



24-1c. Adolescents and adults aged 15 to 34 years.

National Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
State Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
Healthy People 2000 Objective	Not applicable.
Measure	Rate per 1,000,000 population.
Baseline	5.0 (1998).
Numerator	Number of asthma deaths (ICD-9 code 493) among adolescents and adults aged 15 to 34 years.
Denominator	Number of adolescents and adults aged 15 to 34 years.
Population Targeted	U.S. resident population.
Questions Used To Obtain the National Data	Not applicable.
Expected Periodicity	Annual.
Comments	See Part C for a description of NVSS and Appendix A for focus area contact information.



24-1d. Adults aged 35 to 64 years.

National Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
State Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
Healthy People 2000 Objective	Not applicable.
Measure	Rate per 1,000,000 population.
Baseline	17.8 (1998).
Numerator	Number of asthma deaths (ICD-9 code 493) among adults aged 35 to 64 years.
Denominator	Number of adults aged 35 to 64 years.
Population Targeted	U.S. resident population.
Questions Used To Obtain the National Data	Not applicable.
Expected Periodicity	Annual.
Comments	See Part C for a description of NVSS and Appendix A for focus area contact information.



24-1e. Adults aged 65 years and older.

National Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
State Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
Healthy People 2000 Objective	Not applicable.
Measure	Rate per 1,000,000 population.
Baseline	86.3 (1998).
Numerator	Number of asthma deaths (ICD-9 code 493) among adults aged 65 years and older.
Denominator	Number of adults aged 65 years and older.
Population Targeted	U.S. resident population.

Questions Used To Obtain the National Data	Not applicable.
Expected Periodicity	Annual.
Comments	See Part C for a description of NVSS and Appendix A for focus area contact information.



24-2. Reduce hospitalizations for asthma.

24-2a. Children under age 5 years.

National Data Source	National Hospital Discharge Survey (NHDS), CDC, NCHS.
State Data Source	State hospital discharge data systems.
Healthy People 2000 Objective	Adapted from 11.1 (Environmental Health).
Measure	Rate per 10,000 population.
Baseline	45.6 (1998).
Numerator	Number of discharges with principal diagnosis of asthma (ICD-9-CM code 493) among children under age 5 years.
Denominator	Number of children under age 5 years.
Population Targeted	U.S. civilian population.
Questions Used To Obtain the National Data	From the 1998 National Hospital Discharge Survey: ➤ <i>Final Diagnoses (Including E-code diagnoses)</i> <i>Principal:</i> _____
Expected Periodicity	Annual.
Comments	Principal diagnosis is the diagnosis chiefly responsible for admission of the person to the hospital. This objective differs from Healthy People 2000 objective 11.1 in that different age breakouts are specified.

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



24-2b. Children and adults aged 5 to 64 years.

National Data Source	National Hospital Discharge Survey (NHDS), CDC, NCHS.
State Data Source	State hospital discharge data systems.
Healthy People 2000 Objective	Adapted from 11.1 (Environmental Health).
Measure	Rate per 10,000 population (age adjusted—see Comments).
Baseline	12.5 (1998).
Numerator	Number of discharges with first listed diagnosis of asthma (ICD-9-CM code 493) among children and adults aged 5 to 64 years.
Denominator	Number of children and adults aged 5 to 64 years.
Population Targeted	U.S. civilian population.
Questions Used To Obtain the National Data	See Questions Used To Obtain the National Data provided with objective 24-2a.
Expected Periodicity	Annual.
Comments	See Comments provided with objective 24-2a for more information. 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.



24-2c. Adults aged 65 years and older.

National Data Source	National Hospital Discharge Survey (NHDS), CDC, NCHS.
State Data Source	State hospital discharge data systems.

Healthy People 2000 Objective	Adapted from 11.1 (Environmental Health).
Measure	Rate per 10,000 population (age adjusted—see Comments).
Baseline	17.7 (1998).
Numerator	Number of discharges with first listed diagnosis of asthma (ICD-9-CM code 493) among adults aged 65 years and older.
Denominator	Number of adults aged 65 years and older.
Population Targeted	U.S. civilian population.
Questions Used To Obtain the National Data	See Questions Used To Obtain the National Data provided with objective 24-2a.
Expected Periodicity	Annual.
Comments	See Comments provided with objective 24-2b for more information.



24-3. Reduce hospital emergency department visits for asthma.

24-3a. Children under age 5 years.

National Data Source	National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.
State Data Source	Not identified.
Healthy People 2000 Objective	Not applicable.
Measure	Rate per 10,000 population.
Baseline	150.0 (1995–97).
Numerator	Number of visits to an emergency department with first listed diagnosis of asthma (ICD-9-CM code 493) among children under age 5 years.
Denominator	Number of children under age 5 years.
Population Targeted	U.S. civilian, noninstitutionalized population.

Questions Used To Obtain the National Data From the 1997–98 National Hospital Ambulatory Medical Care Survey:

➤ *Physician’s diagnosis for the visit*

Primary diagnosis _____

Expected Periodicity Annual

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



24-3b. Children and adults aged 5 to 64 years.

National Data Source National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

State Data Source Not identified.

Healthy People 2000 Objective Not applicable.

Measure Rate per 10,000 population.

Baseline 71.1 (1995–97).

Numerator Number of visits to an emergency department with first listed diagnosis of asthma (ICD-9-CM code 493) among children and adults aged 5 to 64 years.

Denominator Number of children and adults aged 5 to 64 years.

Population Targeted U.S. civilian, noninstitutionalized population.

Questions Used To Obtain the National Data See Questions Used To Obtain the National Data provided with objective 24-3a.

Expected Periodicity Annual.

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



24-3c. Adults aged 65 years and older.

National Data Source National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.

State Data Source	Not identified.
Healthy People 2000 Objective	Not applicable.
Measure	Rate per 10,000.
Baseline	29.5 (1995–97).
Numerator	Number of visits to an emergency department with first listed diagnosis of asthma (ICD-9-CM code 493) among adults aged 65 years and older.
Denominator	Number of adults aged 65 years and older.
Population Targeted	U.S. civilian, noninstitutionalized population.
Questions Used To Obtain the National Data	See Questions Used To Obtain the National Data provided with objective 24-3a.
Expected Periodicity	Annual.
Comments	See Part C for a description on NHAMCS and Appendix A for focus area contact information.



24-4. Reduce activity limitations among persons with asthma.

National Data Source	National Health Interview Survey (NHIS), CDC, NCHS.
State Data Source	Not identified.
Healthy People 2000 Objective	17.4 (Diabetes and Chronic Disabling Conditions), age adjusted to the 2000 standard population.
Measure	Percent (age adjusted—see Comments).
Baseline	20 (1994–96).
Numerator	Number of persons who report having asthma and activity limitation in the past year.
Denominator	Number of persons who report having asthma.
Population Targeted	U.S. civilian, noninstitutionalized population
Questions Used To Obtain the National Data	From the 1996 National Health Interview Survey:

[NUMERATOR:]

- *Does any impairment or health problem now keep (name) from working at a job or business (or play/school for children under 18 years)?*
- *Is (name) limited in the kind or amount of work (name) can do because of any impairment or health problem?*
- *Does any impairment or health problem now keep (name) from doing any housework at all?*
- *Is (name) limited in the kind or amount of housework (name) can do because of any impairment or health problem?*
- *Is (name) limited in anyway in any activities because of an impairment or health problem?*

[DENOMINATOR:]

- *During the past 12 months did anyone in the family (names) have asthma?*

Expected Periodicity

Annual.

Comments

Persons are classified as having an activity limitation if they responded “yes” to any of the questions listed above under Numerator. 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.

Subsequent versions of the NHIS will use different questions on a periodic basis to provide data related to this objective.

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



24-5. (Developmental) Reduce the number of school or work days missed by persons with asthma due to asthma.

Comments

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

A proposed data source is the National Health Interview Survey (NHIS), CDC, NCHS.

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



24-6. Increase the proportion of persons with asthma who receive formal patient education, including information about community and self-help resources, as an essential part of the management of their condition.

National Data Source	National Health Interview Survey (NHIS), CDC, NCHS.
State Data Source	Not identified.
Healthy People 2000 Objective	17.14b (Diabetes and Chronic Disabling Conditions) age adjusted to the 2000 standard population.
Measure	Percent (age adjusted—see Comments).
Baseline	8.4 (1998).
Numerator	Number of persons aged 18 years and older who report having asthma and have ever taken a course or class on how to manage their asthma.
Denominator	Number of persons aged 18 years and older who report having asthma in the past year.
Population Targeted	U.S. civilian, noninstitutionalized population.
Questions Used To Obtain the National Data	From the 1998 National Health Interview Survey: [NUMERATOR:] <ul style="list-style-type: none">➤ <i>Have you ever taken a course or class in how to manage your asthma yourself?</i> [DENOMINATOR:] <ul style="list-style-type: none">➤ <i>Have you ever been told by a doctor or other health professional that you had asthma?</i>
Expected Periodicity	Periodic.
Comments	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 Appendix A for focus area contact information.



24-7. (Developmental) Increase the proportion of persons with asthma who receive appropriate asthma care according to the NAEPP Guidelines.

24-7a. (Developmental) Persons with asthma who receive written asthma management plans from their health care provider.

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

A proposed data source is the National Health Interview Survey (NHIS), CDC, NCHS.

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



24-7b. (Developmental) Persons with asthma with prescribed inhalers who receive instruction on how to use the inhaler properly.

Comments See Comments provided with objective 24-7a for more information.



24-7c. (Developmental) Persons with asthma who receive education about recognizing the early signs and symptoms of asthma episodes and how to respond appropriately, including instruction on peak flow monitoring for those who use daily therapy.

Comments See Comments provided with objective 24-7a for more information.



24-7d. (Developmental) Persons with asthma who receive medication regimens that prevent the need for more than one canister of short-acting inhaled beta agonists per month for relief of symptoms.

Comments See Comments provided with objective 24-7a for more information.

24-7e. (Developmental) Persons who receive followup medical care for long-term management of asthma after any hospitalization due to asthma.

Comments See Comments provided with objective 24-7a for more information.



24-7f. (Developmental) Persons with asthma who receive assistance with assessing and reducing exposure to environmental risk factors in their home, school, and work environments.

Comments See Comments provided with objective 24-7a for more information.



24-8. (Developmental) Establish in at least 25 States a surveillance system for tracking asthma death, illness, disability, impact of occupational and environmental factors on asthma, access to medical care, and asthma management.

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

Proposed data sources are periodic surveys by the Council of State and Territorial Epidemiologists and the Association of Schools of Public Health.

See Appendix A for focus area contact information.



Chronic Obstructive Pulmonary Disease (COPD)

24-9. Reduce the proportion of adults whose activity is limited due to chronic lung and breathing problems.

National Data Source National Health Interview Survey (NHIS), CDC, NCHS.

State Data Source Not identified.

Healthy People 2000 Objective	Not applicable.
Measure	Percent (age adjusted—see Comments).
Baseline	2.2 (1997).
Numerator	Number of adults aged 45 years and older who report activity limitation due to a chronic lung or breathing problem in the past year.
Denominator	Number of adults aged 45 years and older who report activity limitation in the past year.
Population Targeted	U.S. civilian, noninstitutionalized population.
Questions Used To Obtain the National Data	From the 1997 National Health Interview Survey:

[NUMERATOR:]

- *What condition or health problem causes (Subject name's) limitation?*

[Response categories include:]

Lung/breathing problem

[If yes,]

- *How long have you had (lung/breathing problem)?*

[DENOMINATOR:]

- *I am now going to ask you about (your/the) general health (/of family members) and the effects of any physical, mental, or emotional health problems.*
- *Because of a physical, mental or emotional problem (do/does) (you/anyone) in the family need the help of other persons with PERSONAL CARE NEEDS, such as eating, bathing, dressing, or getting around inside this home?*
- *Because of a physical, mental or emotional problem (do/does) (you/anyone) in the family need the help of other persons in handling ROUTINE NEEDS, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?*
- *Does a physical, mental or emotional problem NOW keep (you/any family members aged 18 and older) from working at a job or business?*
- *(Are any of family members aged 18 and older) limited in the kind OR amount of work (you/they) can do because of a physical, mental or emotional problem?*

- *Because of a health problem, (do/does) (you/anyone) in the family have difficulty walking without using any special equipment?*
- *(Are/Is) (you/anyone) in the family LIMITED IN ANY WAY in any activities because of difficulty remembering or because (you/they) experience periods of confusion?*
- *(Are/Is) (you/anyone) in the family LIMITED IN ANY WAY in any activities because of physical, mental or emotional problems?*

Expected Periodicity Periodic.

Comments Adults aged 45 years and older are defined as being limited in activity due to a chronic lung or breathing problem if they respond “yes” to any of the limitation questions listed above in the Denominator section and report that the reason for the limitation is a chronic lung or breathing problem. An adult is considered to have a chronic lung/breathing problem if they report having the condition for 3 months or more.

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 Appendix A for focus area contact information.



24-10. Reduce deaths from chronic obstructive pulmonary disease (COPD) among adults.

National Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
State Data Source	National Vital Statistics Systems (NVSS), CDC, NCHS.
Healthy People 2000 Objective	Adapted from 3.3 (Tobacco), age adjusted to the 2000 standard population.
Measure	Rate per 100,000 (age adjusted—see Comments).
Baseline	119.4 (1998).
Numerator	Number of COPD deaths (ICD-9 code 490-496) among adults aged 45 years and older.

Denominator	Number of adults aged 45 years and older.
Population Targeted	U.S. resident population.
Questions Used To Obtain the National Data	Not applicable.
Expected Periodicity	Annual.
Comments	<p>This objective is adapted from Healthy People 2000 objective 3.3 (Tobacco), which tracked COPD among persons of all ages and was age adjusted to the 1940 standard population. This measure tracks adults aged 45 years and older only and is age adjusted to the 2000 standard population. See Appendix C for comparison data. 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 NVSS and Appendix A for focus area contact information.</p>



Obstructive Sleep Apnea (OSA)

24-11. (Developmental) Increase the proportion of persons with symptoms of obstructive sleep apnea whose condition is medically managed.

24-11a. (Developmental) Persons with excessive daytime sleepiness, loud snoring, and other signs associated with obstructive sleep apnea who seek medical evaluation.

Comments	<p>An operational definition could not be specified at the time of publication.</p> <p>A proposed data source is the National Health Interview Survey (NHIS), CDC, NCHS.</p> <p>See Part C for a description of NHIS and Appendix A for focus area contact information.</p>
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24-11b. (Developmental) Persons with excessive daytime sleepiness, loud snoring, and other signs associated with obstructive sleep apnea, who receive followup medical care for long-term management of their condition.

Comments See Comments provided with objective 24-11b for more information.



24-12. (Developmental) Reduce the proportion of vehicular crashes caused by persons with excessive sleepiness.

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

A proposed data source for this objective is the National Health Interview Survey (NHIS), CDC, NCHS. A set of questions have been drafted for inclusion in a future NHIS.

Other proposed data sources are the Fatality Analysis Reporting System (FARS), DOT, NHTSA.

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

