Respiratory Diseases

Asthma

24-1 Deaths from asthma
24-1a Children under age 5 years
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
24-2a Children under age 5 years
24-2b Children and adults age 5 to 64 years
24-2c Adults aged 65 years and older

24-3 Hospital emergency department visits for asthma
24-3a Children under age 5 years
24-3b Children and adults aged 5 to 64 years
24-3c Adults aged 65 years and older

24-4 Activity limitations

24-5 School or work days lost

24-6 Patient education

24-7 Appropriate asthma care
24-7a Written asthma management plans
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.


Numerator: Number of asthma deaths (ICD-9 code 493) among children under age 5 years.

Denominator: Number of children under age 5 years.


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.
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.
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:

> Final Diagnoses (Including E-code diagnoses)
> Principal: ________________

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.
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).


**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.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Measure</th>
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<th>Denominator</th>
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<th>Questions Used To Obtain the National Data</th>
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<tr>
<td>Healthy People 2000</td>
<td>Adapted from 11.1 (Environmental Health).</td>
<td>17.7 (1998)</td>
<td>Number of discharges with first listed diagnosis of asthma (ICD-9-CM code 493) among adults aged 65 years and older.</td>
<td>Number of adults aged 65 years and older.</td>
<td>U.S. civilian population.</td>
<td>See Questions Used To Obtain the National Data provided with objective 24-2a.</td>
<td>Annual</td>
<td>See Comments provided with objective 24-2b for more information.</td>
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<td>24-3. Reduce hospital emergency department visits for asthma.</td>
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<tr>
<td>24-3a. Children under age 5 years.</td>
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<tr>
<td>National Data Source</td>
<td>National Hospital Ambulatory Medical Care Survey (NHAMCS), CDC, NCHS.</td>
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<tr>
<td>Healthy People 2000</td>
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<tr>
<td>Measure</td>
<td>Rate per 10,000 population.</td>
<td>150.0 (1995–97).</td>
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<td>Baseline</td>
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<tr>
<td>Numerator</td>
<td>Number of visits to an emergency department with first listed diagnosis of asthma (ICD-9-CM code 493) among children under age 5 years.</td>
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<tr>
<td>Denominator</td>
<td>Number of children under age 5 years.</td>
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<tr>
<td>Population Targeted</td>
<td>U.S. civilian, noninstitutionalized population.</td>
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</tbody>
</table>
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


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.
24-1. Reduce activity limitations among persons aged 65 years and older with diabetes.

State Data Source: Not identified.

Healthy People 2000 Objective: Not applicable.

Measure: Rate per 10,000.


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.


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).


Numerator: Number of persons who report having asthma and activity limitation in the past year.

Denominator: Number of persons who report having asthma.


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**  

**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:**
  - Have you ever taken a course or class in how to manage your asthma yourself?

- **DENOMINATOR:**
  - Have you ever been told by a doctor or other health professional that you had asthma?

**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.

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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).


**Numerator**  Number of COPD deaths (ICD-9 code 490-496) among adults aged 45 years and older.
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

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 contact information.
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.