

# 8

## Environmental Health

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    - 8-30h Matamoros
    - 8-30i Mexicali
    - 8-30j Nogales, Sonora
    - 8-30k Piedras Negras
    - 8-30l Reynosa



## Outdoor Air Quality

### 8-1. Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency's health-based standards for harmful air pollutants.

#### 8-1a. Ozone.

|   |  |
|---|--|
| <b>National Data Source</b>                       | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>State Data Source</b>                          | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>Leading Health Indicator</b>                   | Environmental Quality.   |
| <b>Healthy People 2000 Objective</b>              | Adapted from 11.5 (Environmental Health).  |
| <b>Measure</b>                                    | Percent.   |
| <b>Baseline</b>                                   | 43 (1997).   |
| <b>Numerator</b>                                  | Number of persons living in nonattainment areas that exceed the National Ambient Air Quality Standards for ozone in 1997.  |
| <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>                                   | All areas (100 percent) are required by law to come into attainment no later than 2012 for all pollutant criteria except particulate matter 2.5, which will come into attainment by 2017. EPA's air quality monitoring and NAAQS data collection have historically taken place in large urban centers and other appropriate areas generally considered to have the Nation's poorest air quality. |

Nonattainment areas may include single counties, multiple counties, parts of counties, municipalities, or combinations of the preceding jurisdictions. When an area is designated as “nonattainment,” it retains this status for 3 years, regardless of annual changes in air quality. Nonattainment areas may also include jurisdictions in which the source of the pollutants are located, even if that jurisdiction meets all NAAQS.

The areas monitored may change over time to reflect changes in air quality or the pollutants being monitored.

The population estimates used for the baseline are based on 1990 census estimates and do not reflect growth or depletion of population since that date. The NAAQS were revised in 1997 by EPA, but the revisions are currently being contested in court; resolution of the court case may affect the population estimates in the baseline.

The use of nonattainment areas in this objective represents an important measurement distinction from the measure used in Healthy People 2000 objective 11.5, which used counties that did not meet NAAQS in the previous 12 months. Nonattainment areas may include counties that did not meet NAAQS, but also counties that met the standards, but are sources of the pollutants.

This objective is one of the measures used to track the Environmental Quality Leading Health Indicator. See Appendix H for a complete list.

See Appendix A for focus area contact information.



#### **8-1b. Particulate matter.**

|                                      |  |
|--------------------------------------|--|
| <b>National Data Source</b>          | Aerometric Information Retrieval System, EPA, OAR. |
| <b>State Data Source</b>             | Aerometric Information Retrieval System, EPA, OAR. |
| <b>Healthy People 2000 Objective</b> | Adapted from 11.5 (Environmental Health).          |
| <b>Measure</b>                       | Percent.   |

|   |  |
|---|--|
| <b>Baseline</b>                                   | 12 (1997).   |
| <b>Numerator</b>                                  | Number of persons living in nonattainment areas that exceed the National Ambient Air Quality Standards for particulate matter in 1997. |
| <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>                                   | See Comments provided with objective 8-1a for more information.  |



**8-1c. Carbon monoxide.**

|   |   |
|---|---|
| <b>National Data Source</b>                       | Aerometric Information Retrieval System, EPA, OAR.  |
| <b>State Data Source</b>                          | Aerometric Information Retrieval System, EPA, OAR.  |
| <b>Healthy People 2000 Objective</b>              | Adapted from 11.5 (Environmental Health).   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 19 (1997).  |
| <b>Numerator</b>                                  | Number of persons living in nonattainment areas that exceed the National Ambient Air Quality Standards for carbon monoxide in 1997. |
| <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>                                   | See Comments provided with objective 8-1a for more information.   |



**8-1d. Nitrogen dioxide.**

|   |  |
|---|--|
| <b>National Data Source</b>                       | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>State Data Source</b>                          | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>Healthy People 2000 Objective</b>              | Adapted from 11.5 (Environmental Health).  |
| <b>Measure</b>                                    | Percent.   |
| <b>Baseline</b>                                   | 5 (1997).  |
| <b>Numerator</b>                                  | Number of persons living in nonattainment areas that exceed the National Ambient Air Quality Standards for nitrogen dioxide in 1997. |
| <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>                                   | See Comments provided with objective 8-1a for more information.  |



**8-1e. Sulfur dioxide.**

|                                      |  |
|--------------------------------------|--|
| <b>National Data Source</b>          | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>State Data Source</b>             | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>Healthy People 2000 Objective</b> | Adapted from 11.5 (Environmental Health).  |
| <b>Measure</b>                       | Percent.   |
| <b>Baseline</b>                      | 2 (1997).  |
| <b>Numerator</b>                     | Number of persons living in nonattainment areas that exceed the National Ambient Air Quality Standards for sulfur dioxide in 1997. |



|   |   |
|---|---|
| <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>                                   | See Comments provided with objective 8-1a for more information. |



**8-1f. Lead.**

|   |  |
|---|--|
| <b>National Data Source</b>                       | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>State Data Source</b>                          | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>Healthy People 2000 Objective</b>              | Adapted from 11.5 (Environmental Health).  |
| <b>Measure</b>                                    | Percent.   |
| <b>Baseline</b>                                   | <1 (1997).   |
| <b>Numerator</b>                                  | Number of persons living in nonattainment areas that exceed the National Ambient Air Quality Standards for lead in 1997. |
| <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>                                   | See Comments provided with objective 8-1a for more information.  |



**8-1g. Total number of people.**

|   |  |
|---|--|
| <b>National Data Source</b>                       | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>State Data Source</b>                          | Aerometric Information Retrieval System, EPA, OAR.   |
| <b>Healthy People 2000 Objective</b>              | Adapted from 11.5 (Environmental Health).  |
| <b>Measure</b>                                    | Number.  |
| <b>Baseline</b>                                   | 119,803,000 (1997).  |
| <b>Numerator</b>                                  | Number of persons living in areas that exceed the National Ambient Air Quality Standards (nonattainment areas) for either ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter 10 or 2.5, or lead. |
| <b>Denominator</b>                                | Not applicable.  |
| <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>                                   | See Comments provided with objective 8-1a for more information.  |



**8-2. Increase use of alternative modes of transportation to reduce motor vehicle emissions and improve the Nation's air quality.**

**8-2a. Trips made by bicycling.**

|                                      |   |
|--------------------------------------|---|
| <b>National Data Sources</b>         | National Center for Bicycling and Walking; Nationwide Personal Transportation Survey (NPTS), DOT, FHWA. |
| <b>State Data Source</b>             | Nationwide Personal Transportation Survey (NPTS), DOT, FHWA.  |
| <b>Healthy People 2000 Objective</b> | Not applicable.   |

|   |  |
|---|--|
| <b>Measure</b>                                    | Percent.   |
| <b>Baseline</b>                                   | 0.9 (1995).  |
| <b>Numerator</b>                                  | Number of trips taken by bicycling.                      |
| <b>Denominator</b>                                | Total number of trips.                                   |
| <b>Population Targeted</b>                        | U.S. civilian noninstitutionalized population.           |
| <b>Questions Used To Obtain the National Data</b> | From the 1995 Nationwide Personal Transportation Survey: |

*Now I have some questions about all trips (you/Person) took (yesterday/on Travel Day), (including long trips that may have already been reported). For these questions, a "trip" is any time (you/Person) went from one address to another by car, bus, walking, bicycling, or some other means. For example, if you leave work, stop at the store, and then continue home that would be two trips C one to the store and one from the store to home.*

- *Did (you/Person) go anywhere (yesterday/on Travel Day)?*

*(Excluding the trips taken as a regular part of the job), please tell me everywhere (you/Person) went (yesterday/on Travel Day). Remember, we want to know about any time (you/Person) went from one place to another for any purpose.*

- *Where did (you/Person) go first (yesterday/on Travel Day)?*
- *When (you/Person) left (Destination) where did (you/Person) go next?*

Repeat question until no more trips....

For nonsegmented trips:

- *How did (you/Person) get to (Destination)? That is, what means of transportation did (you/Person) use for this trip?*

|                      |                             |
|----------------------|-----------------------------|
| <i>Bicycle</i>       | <i>Bus</i>                  |
| <i>Elevated rail</i> | <i>Subway</i>               |
| <i>Walking</i>       | <i>Streetcar or trolley</i> |
| <i>Commuter rail</i> |                             |

For multisegment trips:

- *What means of transportation did (you/Person) use for the (first/next) part of this trip to (Destination)?*

|                      |                             |
|----------------------|-----------------------------|
| <i>Bicycle</i>       | <i>Bus</i>                  |
| <i>Elevated rail</i> | <i>Subway</i>               |
| <i>Walking</i>       | <i>Streetcar or trolley</i> |
| <i>Commuter rail</i> |                             |

Continue for additional segments...

**Expected Periodicity**

Periodic.

**Comments**

The number of trips is the sum of nonsegment trips plus each part of a multisegment trip. The 1995 NPTS characterizes a “trip” as travel to a destination (for example, worksite). Travel to work, for instance, that includes two stops along the way (trip chains) would constitute three trips.

NPTS is a household survey that uses resident logs of their trips; data are collected every 5 years. The 1995 NPTS sample design provided a scientific sample of households with telephones in the United States, covering all 50 States and the District of Columbia. The sample was stratified by geography and time so that the data collection would be dispersed nearly uniformly throughout the country and across the data collection period. The sampling was also controlled by day of week to capture variations in personal travel within a week. A Mitofsky-Waksberg random-digit-dialing design was used to select the sample telephone numbers, both listed and unlisted.

Demographic data for each household member included age, sex, and race of the household reference person (person who owned or rented the home), and the relationship of each household member to the reference person, annual combined household income, and education. The travel day was defined as beginning at 4:00 a.m. on the designated day and ending at 3:59 a.m. on the following day.

The data for this objective are different from those for objective 22-15 in the Physical Activity and Fitness focus area because the Physical Activity and Fitness objective specifies distance and age; the data presented for this objective do not include these restrictions.

See Appendix A for focus area contact information.



**8-2b. Trips made by walking.**

|   |   |
|---|---|
| <b>National Data Sources</b>                      | National Center for Bicycling and Walking; Nationwide Personal Transportation Survey (NPTS), DOT, FHWA. |
| <b>State Data Source</b>                          | Nationwide Personal Transportation Survey (NPTS), DOT, FHWA.  |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 5.4 (1995).   |
| <b>Numerator</b>                                  | Number of trips taken by walking.   |
| <b>Denominator</b>                                | Total number of trips.  |
| <b>Population Targeted</b>                        | U.S. civilian noninstitutionalized population.  |
| <b>Questions Used To Obtain the National Data</b> | See Questions Used To Obtain the National Data provided with objective 8-2a.                            |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-2a for more information.   |



**8-2c. Trips made by transit.**

|                                      |   |
|--------------------------------------|---|
| <b>National Data Sources</b>         | National Center for Bicycling and Walking; Nationwide Personal Transportation Survey (NPTS), DOT, FHWA. |
| <b>State Data Source</b>             | Nationwide Personal Transportation Survey (NPTS), DOT, FHWA.  |
| <b>Healthy People 2000 Objective</b> | Not applicable.   |
| <b>Measure</b>                       | Percent.  |
| <b>Baseline</b>                      | 1.8 (1995).   |
| <b>Numerator</b>                     | Number of trips taken by transit.   |
| <b>Denominator</b>                   | Total number of trips.  |
| <b>Population Targeted</b>           | U.S. civilian noninstitutionalized population.  |

|   |   |
|---|---|
| <b>Questions Used To Obtain the National Data</b> | See Questions Used To Obtain the National Data provided with objective 8-2a.  |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | Transit is defined as having used bus, elevated rail, subway, commuter rail, or streetcar or trolley. See Comments provided with objective 8-2a for more information. |



**8-2d. (Developmental) Persons who telecommute.**

|                 |   |
|-----------------|---|
| <b>Comments</b> | An operational definition could not be specified at the time of publication.<br><br>The proposed data source for people who telecommute will be available from the Federal Highway Administration through 2010.<br><br>See Appendix A for focus area contact information. |
|-----------------|---|



**8-3. Improve the Nation’s air quality by increasing the use of cleaner alternative fuels.**

|   |   |
|---|---|
| <b>National Data Source</b>                       | Alternatives to Traditional Transportation Fuels, Energy Information Administration, DOE.                                 |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 2.7 (1997).   |
| <b>Numerator</b>                                  | U.S. motor fuel consumption of cleaner alternative fuels by privately owned cars, buses, trucks, and vans (see Comments). |
| <b>Denominator</b>                                | Total U.S. fuel consumption.  |
| <b>Questions Used To Obtain the National Data</b> | From the 1998 Alternatives to Traditional Transportation Fuels:   |

➤ *Alternative Fuel Vehicle (AFV) numbers*

\_\_\_\_\_

➤ *How many AFVs did your stakeholders acquire in 1998?*

*Light duty CNG* \_\_\_\_\_  
*Propane (LPG)* \_\_\_\_\_  
*Electric* \_\_\_\_\_  
*Biodiesel* \_\_\_\_\_  
*LNG* \_\_\_\_\_  
*Methanol* \_\_\_\_\_  
*Ethanol* \_\_\_\_\_  
*Other* \_\_\_\_\_

○ *Of the vehicles reported, how many are:*

*Taxis?* \_\_\_\_\_  
*Police cruisers?* \_\_\_\_\_  
  
*Heavy duty CNG* \_\_\_\_\_  
*Propane (LPG)* \_\_\_\_\_  
*Electric* \_\_\_\_\_  
*Biodiesel* \_\_\_\_\_  
*LNG* \_\_\_\_\_  
*Methanol* \_\_\_\_\_  
*Ethanol* \_\_\_\_\_  
*Other* \_\_\_\_\_

➤ *What is the total number of AFVs in your coalition?*

*Light duty CNG* \_\_\_\_\_  
*Propane (LPG)* \_\_\_\_\_  
*Electric* \_\_\_\_\_  
*Biodiesel* \_\_\_\_\_  
*LNG* \_\_\_\_\_  
*Methanol* \_\_\_\_\_  
*Ethanol* \_\_\_\_\_  
*Other* \_\_\_\_\_

○ *Of the vehicles reported, how many are:*

*Taxis?* \_\_\_\_\_  
*Police cruisers?* \_\_\_\_\_  
  
*Heavy duty CNG* \_\_\_\_\_  
*Propane (LPG)* \_\_\_\_\_  
*Electric* \_\_\_\_\_  
*Biodiesel* \_\_\_\_\_  
*LNG* \_\_\_\_\_  
*Methanol* \_\_\_\_\_  
*Ethanol* \_\_\_\_\_  
*Other* \_\_\_\_\_

○ *Of the vehicles reported, how many are:*

*School buses?* \_\_\_\_\_  
*Transit buses?* \_\_\_\_\_

- *What do you expect the total number of AFVs in your coalition to be in 2000?*

*Total* \_\_\_\_\_  
 (add your best estimate of the breakout by fuel below)

*Light duty CNG* \_\_\_\_\_  
*LNG* \_\_\_\_\_  
*Propane (LPG)* \_\_\_\_\_  
*Methanol* \_\_\_\_\_  
*Electric* \_\_\_\_\_  
*Ethanol* \_\_\_\_\_  
*Biodiesel* \_\_\_\_\_  
*Other* \_\_\_\_\_

*Heavy duty CNG* \_\_\_\_\_  
*Propane (LPG)* \_\_\_\_\_  
*Electric* \_\_\_\_\_  
*Biodiesel* \_\_\_\_\_  
*LNG* \_\_\_\_\_  
*Methanol* \_\_\_\_\_  
*Ethanol* \_\_\_\_\_  
*Other* \_\_\_\_\_

**Expected Periodicity** Periodic.

**Comments** Motor fuel consumption of cleaner alternative fuels is estimated using an established methodology based on the number of alternative-fueled vehicles in use. The number of vehicles is determined from the Alternatives to Traditional Transportation Fuels Survey, conducted annually by the Energy Information Administration, DOE. For more detailed information on the survey and the estimating methodology, see <http://www.eia.gov/fuelalternate.html>.

See Appendix A for focus area contact information.



**8-4. Reduce air toxic emissions to decrease the risk of adverse health effects caused by airborne toxics.**

**National Data Source** National Toxic Release Inventory (TRI), EPA.

**State Data Source** Not identified.

**Healthy People 2000 Objective** Adapted from 11.7 (Environmental Health).

**Measure** Number.

**Baseline** 8.1 (1993).



|   |   |
|---|---|
| <b>Numerator</b>                                  | Millions of tons of toxics released into the air by private industries.   |
| <b>Denominator</b>                                | Not specified.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Annual.   |
| <b>Comments</b>                                   | <p>The TRI list of airborne toxics that pose the greatest threat to public health is updated annually to reflect new information related to industry airborne emissions and revised assessments of the danger posed by specific substances. To assess progress for this objective, however, the list of airborne toxics monitored will be “frozen” to those included on the 1993 list to ensure comparability of updates during the monitoring period.</p> <p>This objective differs from Healthy People 2000 objective 11-7, which measured carcinogens, compiled by HHS and the most toxic chemicals, compiled by ATSDR, in billions of pounds.</p> <p>See Appendix A for focus area contact information.</p> |



## Water Quality

### **8-5. Increase the proportion of persons served by community water systems who receive a supply of drinking water that meets the regulations of the Safe Drinking Water Act.**

|                                      |   |
|--------------------------------------|---|
| <b>National Data Sources</b>         | Potable Water Surveillance System (PWSS) and Safe Drinking Water Information System (SDWIS), EPA. |
| <b>State Data Source</b>             | Local drinking water supplies reports by State.   |
| <b>Healthy People 2000 Objective</b> | Adapted from 11.9 (Environmental Health).   |
| <b>Measure</b>                       | Percent.  |
| <b>Baseline</b>                      | 85 (1995).  |

|   |  |
|---|--|
| <b>Numerator</b>                                  | Number of persons served by community water supply utilities that do not have violations of the Safe Drinking Water Act Regulation.  |
| <b>Denominator</b>                                | Number of persons served by community water supplies.  |
| <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>The violations of the Safe Drinking Water Act are limited to those related to the Maximum Contaminant Levels for specific contaminants and do not include violations related to monitoring and reporting requirements. The number of contaminants monitored has changed over time, which affects trends. The denominator is estimated from reports of the number of persons served by the water system providers. While 93 percent of the U.S. population is served by community water supplies, those using wells or other sources are not included in the population estimates reported for this objective.</p> <p>This objective differs from Healthy People 2000 objective 11.9, which included violations related to monitoring and reporting requirements in the numerator.</p> <p>See Appendix A for focus area contact information.</p> |



**8-6. Reduce waterborne disease outbreaks arising from water intended for drinking among persons served by community water systems.**

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| <b>National Data Source</b>          | State Reporting Systems, CDC, NCID. |
| <b>State Data Source</b>             | State health departments.           |
| <b>Healthy People 2000 Objective</b> | 11.3 (Environmental Health).        |
| <b>Measure</b>                       | Number (10-year average).           |
| <b>Baseline</b>                      | 6 (1987–96).                        |

|   |  |
|---|--|
| <b>Numerator</b>                                  | Number of outbreaks where two or more people are affected by infectious agents or one or more people are affected by chemical agents from water intended for drinking.   |
| <b>Denominator</b>                                | Not applicable.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Biennial—see Comments.   |
| <b>Comments</b>                                   | <p>The data include only outbreaks from infectious agents (in two or more persons) and chemical poisoning (in a single person) from water intended for drinking. Community water systems are public or investor-owned water systems that serve large or small communities, subdivisions, or trailer parks with at least 15 service connections or 25 year-round residents.</p> <p>Although the reporting of these data is biennial, they are obtained annually by CDC.</p> <p>See Appendix A for focus area contact information.</p> |



### **8-7. Reduce the per capita domestic water withdrawals.**

|                                      |  |
|--------------------------------------|--|
| <b>National Data Source</b>          | Estimated Use of Water in the United States, DOI, USGS.  |
| <b>State Data Source</b>             | State publications prepared as part of the USGS National Water-Use Information Program, as referenced at <a href="http://water.usgs.gov/watuse/pdf1995/pdf/bibliography.pdf">http://water.usgs.gov/watuse/pdf1995/pdf/bibliography.pdf</a> . |
| <b>Healthy People 2000 Objective</b> | Not applicable.  |
| <b>Measure</b>                       | Rate.  |
| <b>Baseline</b>                      | 101 (1995).  |
| <b>Numerator</b>                     | Gallons of water used for domestic purposes per day.   |
| <b>Denominator</b>                   | Number of people.  |

|   |   |
|---|---|
| <b>Population Targeted</b>                        | U.S. resident population.   |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | <p>The data reported reflect domestic water use only and do not include water used in industrial or institutional settings. USGS publishes this information every 5 years. The year 2000 publication should be available in 2003.</p> <p>See Appendix A for focus area contact information.</p> |



**8-8. (Developmental) Increase the proportion of assessed rivers, lakes, and estuaries that are safe for fishing and recreational purposes.**

|                 |   |
|-----------------|---|
| <b>Comments</b> | <p>An operational definition could not be specified at the time of publication.</p> <p>The proposed national data source is the revised Clean Water Act Section 305-b report, EPA. These reports build on State data collection, include state breakouts, and thus can serve as the State data source as well. This report should be available in 2001.</p> <p>This objective is adapted from Healthy People 2000 objective 11.10, which provided biennial data (this objective will provide cumulative data). Additionally, data for this objective will be based on different surface water bodies.</p> <p>See Appendix A for focus area contact information.</p> |
|-----------------|---|



**8-9. (Developmental) Reduce the number of beach closings that result from the presence of harmful bacteria.**

|                 |  |
|-----------------|--|
| <b>Comments</b> | An operational definition could not be specified at the time of publication. |
|-----------------|--|

The proposed national data source is EPA's compilation of State data on beach closings. The National Resources Defense Fund has done some preliminary analyses using EPA data.

See Appendix A for focus area contact information.



**8-10. (Developmental) Reduce the potential human exposure to persistent chemicals by decreasing fish contaminant levels.**

**Comments**

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

The proposed national data source will extrapolate data from the following sources: Biomonitoring of Environmental Status and Trends; collection of mercury and other contaminant data in whole fish in the Mississippi River, Rio Grande River, and Columbia River basins, DOI, USGS and FWS; and State fish consumption advisories. The proposed State data sources are State fish consumption advisories.

See Appendix A for focus area contact information.



**Toxics and Waste**

**8-11. Eliminate elevated blood lead levels in children.**

|                                      |  |
|--------------------------------------|--|
| <b>National Data Source</b>          | National Health and Nutritional Examination Survey (NHANES), CDC, NCHS.        |
| <b>State Data Source</b>             | Not identified.  |
| <b>Healthy People 2000 Objective</b> | Adapted from 11.4 (Environmental Health).                                      |
| <b>Measure</b>                       | Percent.   |
| <b>Baseline</b>                      | 4.4 (1991–94).   |
| <b>Numerator</b>                     | Number of children aged 1 to 6 years with blood lead levels exceeding 10µg/dL. |

|   |  |
|---|--|
| <b>Denominator</b>                                | Number of children aged 1 to 5 years.  |
| <b>Population Targeted</b>                        | U.S. civilian, noninstitutionalized population.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Annual, beginning with 1999 data.  |
| <b>Comments</b>                                   | <p>This objective differs from Healthy People 2000 objective 11.4 in that it targets children aged 1 to 5 years; the baseline for 11.4 targeted children aged 6 months to 5 years. Additionally, 11.4 focused on blood lead levels (BLLs) of 15 and 25µg/dL, and this objective focuses on levels of 10µg/dL. BLLs of at least 10µg/dL are high enough to adversely affect children's intelligence, behavior, and development, hence the revision was prompted by more current knowledge in the field.</p> <p>See Appendix A for focus area contact information.</p> |



## **8-12. Minimize the risks to human health and the environment posed by hazardous sites.**

### **8-12a. National Priority List sites.**

|                                      |  |
|--------------------------------------|--|
| <b>National Data Source</b>          | Comprehensive Environmental Response and Cleanup Liability Information System (CERCLIS), OSWER, EPA. |
| <b>State Data Source</b>             | Comprehensive Environmental Response and Cleanup Liability Information System (CERCLIS), OSWER, EPA. |
| <b>Healthy People 2000 Objective</b> | Adapted from 11.14 (Environmental Health).   |
| <b>Measure</b>                       | Number.  |
| <b>Baseline</b>                      | 1,200 (1998).  |
| <b>Numerator</b>                     | National Priority List sites.  |
| <b>Denominator</b>                   | Not applicable.  |

**Questions Used To Obtain the National Data**

Not applicable.

**Expected Periodicity**

Annual.

**Comments**

The list of NPL sites will be “frozen” in the baseline year to monitor improvement for these sites. Additional sites may be added to the database during the decade, but will not be included in monitoring progress for this objective. Progress can be measured by the number of sites on the baseline year list that are “delisted”; delisting indicates a successful cleanup and reduction of health risk.

NPL sites are sites that are initially discovered by local and State agencies, businesses, EPA, the U.S. Coast Guard, and the public. If the risk to human health is significant enough, based on the number and toxicity of substances discovered at the site and its ability to affect surrounding populations, then the site is placed on NPL. NPL is a published list of the most hazardous waste sites in the country that are eligible for extensive, long-term cleanup under the Superfund program.

See Appendix A for focus area contact information.



**8-12b. Resource Conservation and Recovery Act facilities.**

**National Data Source**

Resource Conservation and Recovery Act Information System (RCRIS), OSWER, EPA.

**State Data Source**

Resource Conservation and Recovery Act Information System (RCRIS), OSWER, EPA.

**Healthy People 2000 Objective**

Not applicable.

**Measure**

Number.

**Baseline**

2,475 (1998).

**Numerator**

RCRA facilities.

**Denominator**

Not applicable.

**Questions Used To Obtain the National Data**

Not applicable.

**Expected Periodicity**

Annual.

**Comments**

The list of RCRA sites will be “frozen” in the baseline year to monitor improvement for these sites. Additional sites may be added to the database during the decade, but will not be included in monitoring progress for this objective.

RCRA facilities are operations authorized and regulated by the Resource Conservation and Recovery Act. RCRA was enacted by Congress in 1976 to address the issue of how to safely manage and dispose of the huge volumes of municipal and industrial waste generated nationwide. With several amendments, the Act and its subsequent regulations govern the management of nonhazardous (solid) waste, hazardous waste, and underground storage tanks. Specifically, the RCRA program regulates solid waste recycling and disposal; Federal procurement of products containing recycled materials; waste minimization; hazardous waste generators and transporters; hazardous waste treatment, storage, and disposal facilities; and Leaking Underground Storage Facilities.

See Appendix A for focus area contact information.



**8-12c. Leaking underground storage facilities.**

**National Data Source**

Office of Solid Waste and Emergency Response (OSWER), EPA.

**State Data Source**

Office of Solid Waste and Emergency Response (OSWER), EPA.

**Healthy People 2000 Objective**

Not applicable.

**Measure**

Number.

**Baseline**

370,000 (1998).

**Numerator**

Leaking underground storage facilities.

**Denominator**

Not applicable.



**Questions Used To Obtain the National Data**

Not applicable.

**Expected Periodicity**

Annual.

**Comments**

This list will be “frozen” in the baseline year to monitor improvement for these sites. Additional sites may be added during the decade, but will not be included in monitoring progress for this objective.

The Leaking Underground Storage Tanks Program attempts to identify and eliminate the threat to human health posed by groundwater or soil contamination from petroleum released from these tanks.

See Appendix A for focus area contact information.



**8-12d. Brownfield properties.**

**National Data Source**

Office of Solid Waste and Emergency Response (OSWER), EPA.

**State Data Source**

Office of Solid Waste and Emergency Response (OSWER), EPA.

**Healthy People 2000 Objective**

Not applicable.

**Measure**

Number.

**Baseline**

1500 (1998).

**Numerator**

All brownfield properties.

**Denominator**

Not applicable.

**Questions Used To Obtain the National Data**

Not applicable.

**Expected Periodicity**

Annual.

**Comments**

This list will be “frozen” in the baseline year to monitor improvement for these sites. Additional sites may be added to the database during the decade, but will not be included in monitoring progress for this objective.

The term “brownfield” denotes abandoned, idle, or underused industrial or commercial sites where expansion or redevelopment is complicated by real or proposed environmental contamination perceived by the community.

See Appendix A for focus area contact information.



### **8-13. Reduce pesticide exposures that result in visits to a health care facility.**

|   |   |
|---|---|
| <b>National Data Source</b>                       | Toxic Exposure Surveillance System (TESS), American Association of Poison Control Centers.  |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Number.   |
| <b>Baseline</b>                                   | 27,156 (1997).  |
| <b>Numerator</b>                                  | Number of visits to any facility (other than personal residence) for treatment for pesticide poisoning (see Comments).  |
| <b>Denominator</b>                                | Not applicable.   |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Annual.   |
| <b>Comments</b>                                   | TESS initially captures pesticide exposures through telephone calls to one of 65 poison control centers from individuals exposed or persons reporting an exposure of another person. These centers serve all of 42 States and parts of 4 other States and the District of Columbia; approximately 258 million people are served by these centers. Individuals report the substance to which the person was exposed, and the product information is coded into a product information database as an insecticide or pesticide. The poison control centers make followup calls to collect information on visits to a health care facility. |

See Appendix A for focus area contact information.



**8-14. (Developmental) Reduce the amount of toxic pollutants released, disposed of, treated, or used for energy recovery.**

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

The proposed national and State data source is the Toxic Release Inventory, EPA.

See Appendix A for focus area contact information.



**8-15. Increase recycling of municipal solid waste.**

**National Data Source** Characterization of Municipal Solid Waste, EPA.

**State Data Source** Not identified.

**Healthy People 2000 Objective** Adapted from 11.8 (Environmental Health).

**Measure** Percent.

**Baseline** 27 (1996).

**Numerator** Estimated weight in pounds of municipal solid waste that is recycled or composted.

**Denominator** Estimated weight in pounds of all municipal solid waste.

**Questions Used To Obtain the National Data** Not applicable.

**Expected Periodicity** Annual.

**Comments**

Estimates of municipal solid waste and the proportion recycled and composted are derived using biennial estimates based on volume of material production and life cycle of materials, as well as samples of waste handled by municipal waste operators. These data are analyzed using an algorithm that produces national estimates. Annual estimates are based on projections from biennial estimates.

This objective differs from Healthy People 2000 objective 11.8, which measured average pounds of solid waste production per person per day and average pounds of solid waste after recycling and composites.

See Appendix A for focus area contact information.



## Healthy Homes and Healthy Communities

### 8-16. Reduce indoor allergen levels.

#### 8-16a. Group 1 dust mite indoor allergens that exceed 2µg per gram of dust in the bed.

|   |  |
|---|--|
| <b>National Data Source</b>                       | National Survey of Lead and Allergens in Housing, NIH, NIEHS, and HUD. |
| <b>State Data Source</b>                          | Not specified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.  |
| <b>Measure</b>                                    | Number.  |
| <b>Baseline</b>                                   | 36.3 (1998–99).  |
| <b>Numerator</b>                                  | Number of homes (in millions) that exceed 2 µg of dust in bed.         |
| <b>Denominator</b>                                | Not applicable.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Periodic.  |

**Comments**

Dust samples are collected by vacuuming a specified area (for example, a bed), for a specified amount of time. The sample is collected on a sampling membrane or collection bag that is attached to the vacuum modified for this purpose. The sample is then sent to a laboratory to identify and quantify the presence of specific allergens or other agents.

See Appendix A for focus area contact information



**8-16b. Group 1 dust mite indoor allergens that exceed 10µg per gram of dust in the bed.**

|   |  |
|---|--|
| <b>National Data Source</b>                       | National Survey of Lead and Allergens in Housing, CDC, NIH, NIEHS and HUD. |
| <b>State Data Source</b>                          | Not specified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.  |
| <b>Measure</b>                                    | Number.  |
| <b>Baseline</b>                                   | 18.6 (1998–99).  |
| <b>Numerator</b>                                  | Number of homes (in millions) that exceed 10µg of dust in bed.             |
| <b>Denominator</b>                                | Not applicable.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Periodic.  |
| <b>Comments</b>                                   | See Comments provided with objective 8-16a for more information.           |



**8-16c. German cockroach indoor allergens that exceed 0.1µg per gram of dust in the bed.**

|                             |  |
|-----------------------------|--|
| <b>National Data Source</b> | National Survey of Lead and Allergens in Housing, CDC, NIH, NIEHS and HUD. |
|-----------------------------|--|

|   |  |
|---|--|
| <b>State Data Source</b>                          | Not specified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.  |
| <b>Measure</b>                                    | Number.  |
| <b>Baseline</b>                                   | 4.7 (1998–99).   |
| <b>Numerator</b>                                  | Number of homes (in millions) that exceed 0.1µg of dust in bed.  |
| <b>Denominator</b>                                | Not applicable.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Periodic.  |
| <b>Comments</b>                                   | See Comments provided with objective 8-16a for more information. |



**8-17. (Developmental) Increase the number of office buildings that are managed using good indoor air quality practices.**

|                 |  |
|-----------------|--|
| <b>Comments</b> | An operational definition could not be specified at the time of publication.<br><br>See Appendix A for focus area contact information. |
|-----------------|--|



**8-18. Increase the proportion of persons who live in homes tested for radon concentrations.**

|                                      |  |
|--------------------------------------|--|
| <b>National Data Source</b>          | National Health Interview Survey (NHIS), CDC, NCHS.                        |
| <b>State Data Source</b>             | Not identified.  |
| <b>Healthy People 2000 Objective</b> | 11.6 (Environmental Health), age adjusted to the 2000 standard population. |
| <b>Measure</b>                       | Percent (age adjusted—see Comments).                                       |
| <b>Baseline</b>                      | 17 (1998).   |

|   |  |
|---|--|
| <b>Numerator</b>                                  | Number of homeowners/occupants who reported they know what radon is and that they tested their home for radon concentrations.  |
| <b>Denominator</b>                                | Number of homeowners/occupants who reported that they know what radon is.  |
| <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: <ul style="list-style-type: none"> <li>➤ <i>Have you ever heard of radon, a gas that is found in the air in some homes?</i></li> <li>➤ <i>Has your household air been tested for the presence of radon?</i></li> </ul>   |
| <b>Expected Periodicity</b>                       | Periodic.  |
| <b>Comments</b>                                   | <p>Persons are considered to live in homes tested for radon concentrations if they report that they have heard of radon and that their household air has been tested for the presence of radon.</p> <p>Data are age adjusted to the 2000 standard population. Age-adjusted percents are weighted sums of age-specific percents. For a discussion of age adjustment, see Part A, section 5.</p> <p>See Part C for a discussion of NHIS and Appendix A for focus area contact information.</p> |



**8-19. Increase the number of new homes constructed to be radon resistant.**

|                                      |  |
|--------------------------------------|--|
| <b>National Data Source</b>          | National Association of Home Builders Research Center Survey, NAHB.  |
| <b>State Data Source</b>             | Not identified.  |
| <b>Healthy People 2000 Objective</b> | Adapted from 11.12 (Environmental Health).   |
| <b>Measure</b>                       | Number.  |
| <b>Baseline</b>                      | 1,400,000 (1997).  |
| <b>Numerator</b>                     | Number of new single-family detached housing units built using methods to prevent radon entry or to vent radon to the outside. |

|   |  |
|---|--|
| <b>Denominator</b>                                | Not applicable.  |
| <b>Questions Used To Obtain the National Data</b> | Not identified—see Comments.   |
| <b>Expected Periodicity</b>                       | Annual.  |
| <b>Comments</b>                                   | <p>Radon-resistant home construction methods are characterized by (1) sealing the basement and other parts of the home that are underground to prevent radon from seeping into the house and (2) incorporation of systems that provide a path for radon generated in the soil beneath the foundation to vent to the outside of the home rather than entering the dwelling.</p> <p>The NAHB Research Center (<a href="http://www.nahbrc.org">http://www.nahbrc.org</a>) conducts an annual survey of home builders to gather information on a wide variety of home building practices. The survey collects information such as types of houses built, lot sizes, foundation designs, types of doors and windows used by builders, types of lumber used by builders, etc. The survey includes two questions regarding the inclusion of radon-resistant design features in new houses. Radon-resistant features are defined as (1) passive stack subslab/submembrane depressurization, (2) active subslab/submembrane depressurization, and (3) rough-in for subslab depressurization.</p> <p>The survey sample is divided into the nine U.S. Census divisions. The survey results are weighted to the Census Bureau's data for housing starts in each Census Division. Survey results are presented by Census Division, State-market areas, and the three EPA radon zones. There are thirty-two State-market areas composed of groups of smaller States, larger States (for example, California and Texas) divided into two areas, and the remaining States.</p> <p>Because survey results can be skewed by large production builders, responses from these builders are limited.</p> <p>This objective differs from Healthy People 2000 objective 11.12, which called for States to adopt radon-resistant building standards.</p> <p>See Appendix A for focus area contact information.</p> |



**8-20. (Developmental) Increase the proportion of the Nation’s primary and secondary schools that have official school policies ensuring the safety of students and staff from environmental hazards, such as chemicals in special classrooms, poor indoor air quality, asbestos, and exposure to pesticides.**

**Comments**

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

The expected national data source is the School Health Policies and Programs Study (SHPPS), CDC, DASH; no State data source has been identified. The measure will be a percent and the expected numerator will be the number of schools that have inspected and provided appropriate maintenance for environmental hazards (such as asbestos, pesticides or chemicals in laboratories or workshops) during the 12 months preceding the survey. The expected denominator will be the number of schools. The expected question used to obtain these data, from the 2000 School Health Policies and Programs Study, School Policy and Environment School questionnaire, is:

- *During the past 12 months, have environmental hazards such as, asbestos, pesticides or chemicals in labs or workshops been inspected and provided appropriate maintenance?*

See Appendix A for focus area contact information.



**8-21. (Developmental) Ensure that State health departments establish training, plans, and protocols, and conduct annual multi-institutional exercises to prepare for response to natural and technological disasters.**

**Comments**

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

The proposed data sources are surveys by the Association of State and Territorial Health Officials and PHF.

See Appendix A for focus area contact information.

**8-22. Increase the proportions of persons living in pre-1950s housing that have been tested for the presence of lead-based paint.**

|   |  |
|---|--|
| <b>National Data Source</b>                       | National Health Interview Survey (NHIS), CDC, NCHS.  |
| <b>State Data Source</b>                          | Not identified.  |
| <b>Healthy People 2000 Objective</b>              | 11.11 (Environmental Health), age adjusted to the 2000 standard population.  |
| <b>Measure</b>                                    | Percent (age adjusted—see Comments).   |
| <b>Baseline</b>                                   | 16 (1998).   |
| <b>Numerator</b>                                  | Number of persons who report living in houses built before 1950 that have been tested for the presence of lead-based paint.  |
| <b>Denominator</b>                                | Number of persons who report living in houses built before 1950.   |
| <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:<br><br>[NUMERATOR:]<br>➤ <i>Has paint from this home ever been analyzed for lead content?</i><br><br>[DENOMINATOR:]<br>➤ <i>Was your home built before 1950?</i>   |
| <b>Expected Periodicity</b>                       | Periodic.  |
| <b>Comments</b>                                   | The numerator for this objective is composed of respondents who report that paint from their home has been analyzed for lead content and their home was built before 1950.<br><br>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.<br><br>See Part C for a description of NHIS and Appendix A for focus area contact information. |

## 8-23. Reduce the proportion of occupied housing units that are substandard.

|   |  |
|---|--|
| <b>National Data Source</b>                       | American Housing Survey (AHS), DOC, Bureau of the Census.                                  |
| <b>State Data Source</b>                          | Not identified.  |
| <b>Healthy People 2000 Objective</b>              | Not applicable.  |
| <b>Measure</b>                                    | Percent.   |
| <b>Baseline</b>                                   | 6.2 (1995).  |
| <b>Numerator</b>                                  | Number of housing units identified with moderate or severe physical problems—see Comments. |
| <b>Denominator</b>                                | Number of housing units that are regularly occupied.                                       |
| <b>Questions Used To Obtain the National Data</b> | From the 1995 American Housing Survey:   |

### [NUMERATOR:]

- *Does the (house/apartment) have a bathtub or shower for this household's use only?*
- *Does the (house/apartment) have a flush toilet for this household's use only?*
- *In the last 3 months, was there any time when all the toilets in the home were not working?*
  - *How many of these breakdowns lasted 6 hours or more?*
- *Is all the wiring in the finished areas of your home concealed either in walls or metal coverings?*
- *Does every room have an electric outlet or wall plug that works?*
- *Have any fuses blown or circuit breakers tripped in the last 3 months?*
  - *How many times in the last 3 months?*
- *Has water leaked into your home from outdoors in the last 12 months?*
  - *Where did the water come in?*
- *Have there been water leaks in the (house/apartment) from INSIDE the building in the last 12 months?*
  - *Where did the water come in?*

- *Does the (house/apartment) have hot and cold piped water?*
  - *What fuel is used MOST to heat the water?*
- *Was your home ever completely without running water in the last 3 months?*
  - *How many times was it not available for 6 hours or more?*
- *Does your home have a refrigerator?*
  - *Is it more than 5 years old?*
- *Does your (house/apartment) have a cookstove or range with an oven?*
- *Does your (house/apartment) have an oven? cooking burners?*
  - [If yes:]
    - *(Is it/are they) more than 5 years old?*
    - *What fuel is used MOST for cooking?*
- *What type of heating equipment is used MOST to heat the (house/apartment)?*
- *Last winter was there any time when the (house/apartment) was so cold for 24 hours or more that it caused anyone in your household discomfort?*
  - *Was that because the heating equipment broke down?*
    - [If yes:]
      - *How many times did (it/they/all) break down for 6 hours or more?*
  - *Was it cold for any other reason?*
    - [If yes:]
      - *What was the reason?*
- *Does the (house/apartment) have a porch, deck, balcony, or patio?*
- *Does the (house/apartment) have open cracks or holds in the inside walls or ceilings?*
- *Does the (house/apartment) have holes in the floors?*
- *Does the (house/apartment) have any area of peeling paint or broken plaster bigger than 8 inches by 11 inches?*
- *In the last 3 months, have you seen any rats or signs of rats in the building?*

[DENOMINATOR:]

➤ *Does (household member) usually live here?*

**Expected Periodicity**

Biennial.

**Comments**

A housing unit has severe physical problems if it has any of the following five problems:

*Plumbing.* Lacking hot or cold piped water or a flush toilet, or lacking both bathtub and shower, all inside the structure (and for the exclusive use of the unit, unless there are two or more full bathrooms).

*Heating.* Having been uncomfortably cold last winter for 24 hours or more because the heating equipment broke down, and it broke down at least three times last winter for at least 6 hours each time.

*Electric.* Having no electricity, or all of the following three electric problems: exposed wiring, a room with no working wall outlet, and three blown fuses or tripped circuit breakers in the last 90 days.

*Hallways.* Having all of the following four problems in public areas: no working light fixtures, loose or missing steps, loose or missing railings, and no working elevator.

*Upkeep.* Having any five of the following six maintenance problems: (1) water leaks from the outside, such as from the roof, basement, windows, or doors; (2) leaks from inside structure such as pipes or plumbing fixtures; (3) holes in the floors; (4) holes or open cracks in the walls or ceilings; (5) more than 8 inches by 11 inches of peeling paint or broken plaster; or (6) signs of rats in the last 90 days.

A unit has moderate physical problems if it has any of the following five problems, but none of the severe problems:

*Plumbing.* On at least three occasions during the last 3 months, all the flush toilets were broken down at the same time for 6 hours or more (see “Flush toilet and flush toilet breakdowns”).

*Heating.* Having unvented gas, oil, or kerosene heaters as the primary heating equipment.

*Kitchen.* Lacking a kitchen sink, refrigerator, oven or burners inside the structure for the exclusive use of the unit.

*Hallways.* Having any three of the four problems listed under severe physical problems.

*Upkeep.* Having any three or four of the six problems listed under severe physical problems.

See Appendix A for focal area contact information.



## Infrastructure and Surveillance

### **8-24. Reduce exposure to pesticides as measured by urine concentrations of metabolites.**

#### **8-24a. 1-naphthol (carbaryl).**

|   |   |
|---|---|
| <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>                                    | Concentration ( $\mu\text{g/g}$ ).  |
| <b>Baseline</b>                                   | 36.0 (1988–94).   |
| <b>Numerator</b>                                  | Concentration level of 1-naphthol (carbaryl) in urine samples at which 95 percent of the population is below the level. |
| <b>Denominator</b>                                | Not applicable.   |
| <b>Population Targeted</b>                        | U.S. civilian, noninstitutionalized population.   |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Annual, beginning with 1999 data.   |
| <b>Comments</b>                                   | Data are reported in concentrations of micrograms per gram of urine and are corrected for kidney function.              |

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



**8-24b. Paranitrophenol (methyl parathion and parathions).**

|   |  |
|---|--|
| <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>                                    | Concentration ( $\mu\text{g/g}$ ).   |
| <b>Baseline</b>                                   | 3.8 (1988–94).   |
| <b>Numerator</b>                                  | Concentration level of paranitrophenol (methyl parathion and parathion) in urine samples at which 95 percent of the population is below the level. |
| <b>Denominator</b>                                | Not applicable.  |
| <b>Population Targeted</b>                        | U.S. civilian, noninstitutionalized population.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Annual, beginning with 1999 data.  |
| <b>Comments</b>                                   | See Comments provided with objective 8-24a for more information.   |



**8-24c. 3, 5, 6-trichloro-2-pyridinol (chlorpyrifos).**

|                                      |   |
|--------------------------------------|---|
| <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>                       | Concentration ( $\mu\text{g/g}$ ).                                    |
| <b>Baseline</b>                      | 8.3 (1988–94).  |

|   |  |
|---|--|
| <b>Numerator</b>                                  | Concentration level of 3, 5, 6-trichloro-2 pyridinol (chlorpyrifos) in urine samples at which 95 percent of the population is below the level. |
| <b>Denominator</b>                                | Not applicable.  |
| <b>Population Targeted</b>                        | U.S. civilian, noninstitutionalized population.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Annual, beginning with 1999 data.  |
| <b>Comments</b>                                   | See Comments provided with objective 8-24a for more information.   |



**8-24d. Isopropoxyphenol (propoxur).**

|   |   |
|---|---|
| <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>                                    | Concentration (µg/g).   |
| <b>Baseline</b>                                   | 1.6 (1988–94)   |
| <b>Numerator</b>                                  | Concentration level of isopropoxyphenol (propoxur) in urine samples at which 95 percent of the population is below the level. |
| <b>Denominator</b>                                | Not applicable.   |
| <b>Population Targeted</b>                        | U.S. civilian, noninstitutionalized population.   |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Annual, beginning with 1999 data.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-24a for more information.  |





**8-25. (Developmental) Reduce exposure of the population to pesticides, heavy metals, and other toxic chemicals, as measured by blood and urine concentrations of the substances or their metabolites.**

**Heavy metals**

**8-25a. Arsenic.**

**Comments**

An operational definition could not be specified at the time of publication. The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-25b. Cadmium.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-25c. Lead.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-25d. Manganese.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-25e. Mercury.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**Pesticides**

**8-25f. 2, 4-D.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-25g. o-phenylphenol.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



#### **8-25h. Permethrins.**

##### **Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



#### **8-25i. Diazinon.**

##### **Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



#### **Persistent chemicals**

#### **8-25j. Polychlorinated biphenyls.**

##### **Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.

**8-25k. Dioxins.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-25l. Furans.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**Organochlorine compounds**

**8-25m. Chlordane.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-25n. Dieldrin.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-25o. DDT.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-25p. Lindane.**

**Comments**

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

The proposed data source is the National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

See Appendix A for focus area contact information.



**8-26. (Developmental) Improve quality, utility, awareness, and use of existing information systems for environmental health.**

**Comments**

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

The proposed data sources are the Toxics Release Inventory, EPA, and the Environmental Defense Fund.

The proposed measure would be a tabulation of the number of times that five representative information systems (for example, TOXLINE, IRIS, RTECS, HazDat, AIRS) are accessed annually via the Internet.

See Appendix A for focus area contact information.



**8-27. Increase or maintain the number of Territories, Tribes, and States and the District of Columbia that monitor diseases or conditions that can be caused by exposure to environmental hazards.**

**8-27a. Lead poisoning.**

|   |   |
|---|---|
| <b>National Data Source</b>                       | Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.  |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | 11.16 (Environmental Health).   |
| <b>Measure</b>                                    | Number.   |
| <b>Baseline</b>                                   | 51 (1997).  |
| <b>Numerator</b>                                  | Number of States and the District of Columbia monitoring lead poisoning.  |
| <b>Denominator</b>                                | Not applicable.   |
| <b>Questions Used To Obtain the National Data</b> | <p>From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:</p> <p>➤ <i>For which environmental disease are you coordinating a surveillance system? (Please check one)</i></p> <p style="padding-left: 40px;">[List of diseases includes:]</p> <p style="padding-left: 40px;">___ <i>Lead Poisoning (Please circle: adult child)</i></p> |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | A State is considered as monitoring lead poisoning if they report coordinating a surveillance system for either children or adults.   |

An operational definition for number of Tribes and number of Territories was not available at the time of publication, and no proposed data source for Tribes and Territories has been identified, therefore, data for Tribes and Territories are developmental.

See Appendix A for focus area contact information.



### **8-27b. Pesticide poisoning.**

|   |  |
|---|--|
| <b>National Data Source</b>                       | Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.   |
| <b>State Data Source</b>                          | Not identified.  |
| <b>Healthy People 2000 Objective</b>              | 11.16 (Environmental Health).  |
| <b>Measure</b>                                    | Number.  |
| <b>Baseline</b>                                   | 20 (1997).   |
| <b>Numerator</b>                                  | Number of States monitoring pesticide poisoning.   |
| <b>Denominator</b>                                | Not applicable.  |
| <b>Questions Used To Obtain the National Data</b> | From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:<br><br>➤ <i>For which environmental disease are you coordinating a surveillance system? (Please check one)</i><br><br>[List of diseases includes:]<br><br>_____ <i>Pesticide Poisoning</i> |
| <b>Expected Periodicity</b>                       | Periodic.  |
| <b>Comments</b>                                   | See Comments provided with objective 8-27a for more information.   |



### **8-27c. Mercury poisoning.**

|                             |  |
|-----------------------------|--|
| <b>National Data Source</b> | Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists. |
|-----------------------------|--|

|   |  |
|---|--|
| <b>State Data Source</b>                          | Not identified.  |
| <b>Healthy People 2000 Objective</b>              | 11.16 (Environmental Health).  |
| <b>Measure</b>                                    | Number.  |
| <b>Baseline</b>                                   | 14 (1997).   |
| <b>Numerator</b>                                  | Number of States monitoring mercury poisoning.   |
| <b>Denominator</b>                                | Not applicable.  |
| <b>Questions Used To Obtain the National Data</b> | From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:<br><br>➤ <i>For which environmental disease are you coordinating a surveillance system? (Please check one)</i><br>[List of diseases includes:]<br>_____ <i>Mercury Poisoning</i> |
| <b>Expected Periodicity</b>                       | Periodic.  |
| <b>Comments</b>                                   | See Comments provided with objective 8-27a for more information.   |



**8-27d. Arsenic poisoning.**

|   |  |
|---|--|
| <b>National Data Source</b>                       | Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists. |
| <b>State Data Source</b>                          | Not identified.  |
| <b>Healthy People 2000 Objective</b>              | 11.16 (Environmental Health).  |
| <b>Measure</b>                                    | Number.  |
| <b>Baseline</b>                                   | 10 (1997).   |
| <b>Numerator</b>                                  | Number of States monitoring arsenic poisoning.   |
| <b>Denominator</b>                                | Not applicable.  |
| <b>Questions Used To Obtain the National Data</b> | From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:            |



- *For which environmental disease are you coordinating a surveillance system? (Please check one)*

[List of diseases includes:]

*Arsenic Poisoning*

**Expected Periodicity** Periodic.

**Comments** See Comments provided with objective 8-27a for more information.



**8-27e. Cadmium poisoning.**

**National Data Source** Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.

**State Data Source** Not identified.

**Healthy People 2000 Objective** 11.16 (Environmental Health).

**Measure** Number.

**Baseline** 10 (1997).

**Numerator** Number of States monitoring cadmium poisoning.

**Denominator** Not applicable.

**Questions Used To Obtain the National Data** From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:

- *For which environmental disease are you coordinating a surveillance system? (Please check one)*

[List of diseases includes:]

*Cadmium Poisoning*

**Expected Periodicity** Periodic.

**Comments** See Comments provided with objective 8-27a for more information.



### 8-27f. Methemoglobinemia.

|   |   |
|---|---|
| <b>National Data Source</b>                       | Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.  |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | 11.16 (Environmental Health).   |
| <b>Measure</b>                                    | Number.   |
| <b>Baseline</b>                                   | 9 (1997).   |
| <b>Numerator</b>                                  | Number of States monitoring methemoglobinemia.  |
| <b>Denominator</b>                                | Not applicable.   |
| <b>Questions Used To Obtain the National Data</b> | From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:<br><br>➤ <i>For which environmental disease are you coordinating a surveillance system? (Please check one)</i><br><br>[List of diseases includes:]<br><br>____ <i>Methemoglobinemia</i> |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-27a for more information.  |



### 8-27g. Acute chemical poisoning.

|                                      |  |
|--------------------------------------|--|
| <b>National Data Source</b>          | Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists. |
| <b>State Data Source</b>             | Not identified.  |
| <b>Healthy People 2000 Objective</b> | 11.16 (Environmental Health).  |
| <b>Measure</b>                       | Number.  |
| <b>Baseline</b>                      | 8 (1997).  |
| <b>Numerator</b>                     | Number of States monitoring acute chemical poisoning.  |
| <b>Denominator</b>                   | Not applicable.  |

**Questions Used To Obtain the National Data**

From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:

- *For which environmental disease are you coordinating a surveillance system? (Please check one)*

[List of diseases includes:]

\_\_\_\_\_ *Acute chemical Poisoning*

**Expected Periodicity**

Periodic.

**Comments**

Acute chemical poisoning refers to unintentional poisonings caused by nonmedicinal chemicals not identified elsewhere in the objective.

See Comments provided with objective 8-27a for more information.



**8-27h. Carbon monoxide poisoning.**

**National Data Source**

Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.

**State Data Source**

Not identified.

**Healthy People 2000 Objective**

11.16 (Environmental Health).

**Measure**

Number.

**Baseline**

7 (1997).

**Numerator**

Number of States monitoring carbon monoxide poisoning.

**Denominator**

Not applicable.

**Questions Used To Obtain the National Data**

From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:

- *For which environmental disease are you coordinating a surveillance system? (Please check one)*

[List of diseases includes:]

\_\_\_\_\_ *Carbon monoxide Poisoning*

**Expected Periodicity**

Periodic.

**Comments**

See Comments provided with objective 8-27a for more information.

### 8-27i. Asthma.

|   |   |
|---|---|
| <b>National Data Source</b>                       | Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.  |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | 11.16 (Environmental Health).   |
| <b>Measure</b>                                    | Number.   |
| <b>Baseline</b>                                   | 6 (1997).   |
| <b>Numerator</b>                                  | Number of States monitoring asthma.   |
| <b>Denominator</b>                                | Not applicable.   |
| <b>Questions Used To Obtain the National Data</b> | From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:<br><br>➤ <i>For which environmental disease are you coordinating a surveillance system? (Please check one)</i><br><i>[List of diseases includes:]</i><br><input type="checkbox"/> <i>Asthma</i> |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-27a for more information.  |



### 8-27j. Hyperthermia.

|                                      |  |
|--------------------------------------|--|
| <b>National Data Source</b>          | Periodic surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists. |
| <b>State Data Source</b>             | Not identified.  |
| <b>Healthy People 2000 Objective</b> | 11.16 (Environmental Health).  |
| <b>Measure</b>                       | Number.  |
| <b>Baseline</b>                      | 4 (1997).  |
| <b>Numerator</b>                     | Number of States monitoring hyperthermia.  |
| <b>Denominator</b>                   | Not applicable.  |

**Questions Used To Obtain the National Data**

From the 1997 Survey of State and Territorial Environmental Public Health Surveillance Systems:

- *For which environmental disease are you coordinating a surveillance system? (Please check one)*

*[List of diseases includes:]*

*Hyperthermia*

**Expected Periodicity**

Periodic.

**Comments**

See Comments provided with objective 8-27a for more information.



**8-27k. (Developmental) Hypothermia.**

**Comments**

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

A proposed data source is Periodic Surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.

See Appendix A for focus area contact information.



**8-27l. (Developmental) Skin cancer.**

**Comments**

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

A proposed data source is Periodic Surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.

See Appendix A for focus area contact information.



**8-27m. (Developmental) Malignant melanoma.**

**Comments**

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

A proposed data source is Periodic Surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.

See Appendix A for focus area contact information.



**8-27n. (Developmental) Other skin cancer.**

**Comments**

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

A proposed data source is Periodic Surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.

See Appendix A for focus area contact information.



**8-27o. (Developmental) Birth defects.**

**Comments**

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

A proposed data source is Periodic Surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.

See Appendix A for focus area contact information.



**8-28. (Developmental) Increase the number of local health departments or agencies that use data from surveillance of environmental risk factors as part of their vector control programs.**

**Comments**

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

A proposed data source is Periodic Surveys by the Public Health Foundation and the Council of State and Territorial Epidemiologists.

See Appendix A for focus area contact information.

## Global Environmental Health

### **8-29. Reduce the global burden of disease due to poor water quality, sanitation, and personal and domestic hygiene.**

#### **Comments**

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

The 1990 baseline data (2,688,200) for this objective represent the worldwide estimate of deaths attributable to poor water quality, sanitation, and personal hygiene; U.S. estimates are currently unavailable.<sup>1,2</sup>

See Appendix A for focus area contact information.



### **8-30. Increase the proportion of the population in the United States-Mexico border region who have adequate drinking water and sanitation facilities.**

#### **Wastewater sewer service**

#### **8-30a. Ciudad Acuna.**

#### **National Data Sources**

EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association.

#### **State Data Source**

Not identified.

#### **Healthy People 2000 Objective**

Not applicable.

#### **Measure**

Percent.

#### **Baseline**

39 (1997) (Ciudad Acuna).

#### **Numerator**

Number of residents of Ciudad Acuna who have wastewater sewer service.

#### **Denominator**

Number of Ciudad Acuna resident persons.

#### **Population Targeted**

Resident population of Ciudad Acuna.

#### **Questions Used To Obtain the National Data**

Not applicable.

|                             |   |
|-----------------------------|---|
| <b>Expected Periodicity</b> | Periodic.   |
| <b>Comments</b>             | <p>The 200-kilometer border region is home to more than 10.5 million people, with about 6.2 million in the United States and 4.3 million in Mexico. In 1996, there were approximately 250,000 people in the Mexico border cities without potable water and 1.5 million people without sewer connections. In Mexico, the population figures are official estimates for 1998 based on 1990 census data.</p> <p>In the United States, there is virtually 100 percent coverage in the major cities; however, the data do not exist for the smaller border towns. These data will be forthcoming in later Border XXI Indicators Reports. The data for Mexico are from the selected major cities, and, much like the United States, the data for the smaller border towns are not known at this time.</p> <p>See Appendix A for focus area contact information.</p> |



**8-30b. Matamoros.**

|   |   |
|---|---|
| <b>National Data Sources</b>                      | EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association. |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 47 (1997) (Matamoros).  |
| <b>Numerator</b>                                  | Number of residents of Matamoros who have wastewater sewer service.   |
| <b>Denominator</b>                                | Number of Matamoros resident persons.   |
| <b>Population Targeted</b>                        | Resident population of Matamoros.   |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Periodic.   |



**Comments** See Comments provided with objective 8-30a for more information.



**8-30c. Mexicali.**

**National Data Sources** EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association.

**State Data Source** Not identified.

**Healthy People 2000 Objective** Not applicable.

**Measure** Percent.

**Baseline** 80 (1997) (Mexicali).

**Numerator** Number of residents of Mexicali who have wastewater sewer service.

**Denominator** Number of Mexicali resident persons.

**Population Targeted** Resident population of Mexicali.

**Questions Used To Obtain the National Data** Not applicable.

**Expected Periodicity** Periodic.

**Comments** See Comments provided with objective 8-30a for more information.



**8-30d. Nogales, Sonora.**

**National Data Sources** EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association.

**State Data Source** Not identified.

**Healthy People 2000 Objective** Not applicable.

**Measure** Percent.

|   |  |
|---|--|
| <b>Baseline</b>                                   | 81 (1997) (Nogales, Sonora).   |
| <b>Numerator</b>                                  | Number of residents of Nogales, Sonora, who have wastewater sewer service. |
| <b>Denominator</b>                                | Number of Nogales, Sonora, resident persons.                               |
| <b>Population Targeted</b>                        | Resident population of Nogales, Sonora.                                    |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Periodic.  |
| <b>Comments</b>                                   | See Comments provided with objective 8-30a for more information.           |



**8-30e. Piedras Negras.**

|   |   |
|---|---|
| <b>National Data Sources</b>                      | EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association. |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 80 (1997) (Piedras Negras).   |
| <b>Numerator</b>                                  | Number of residents of Piedras Negras who have wastewater sewer service.  |
| <b>Denominator</b>                                | Number of Piedras Negras resident persons.  |
| <b>Population Targeted</b>                        | Resident population of Piedras Negras.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-30a for more information.  |

**8-30f. Reynosa.**

|   |   |
|---|---|
| <b>National Data Sources</b>                      | EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association. |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 57 (1997) (Reynosa).  |
| <b>Numerator</b>                                  | Number of residents of Reynosa who have wastewater sewer service.   |
| <b>Denominator</b>                                | Number of Reynosa resident persons.   |
| <b>Population Targeted</b>                        | Resident population of Reynosa.   |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-30a for more information.  |



**Wastewater receiving treatment**

**8-30g. Ciudad Acuna.**

|                                      |   |
|--------------------------------------|---|
| <b>National Data Sources</b>         | EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association. |
| <b>State Data Source</b>             | Not identified.   |
| <b>Healthy People 2000 Objective</b> | Not applicable.   |
| <b>Measure</b>                       | Percent.  |
| <b>Baseline</b>                      | 0 (1997) (Ciudad Acuna).  |
| <b>Numerator</b>                     | Number of residents of Ciudad Acuna who have wastewater treatment service.  |

|   |  |
|---|--|
| <b>Denominator</b>                                | Number of Ciudad Acuna resident persons.                         |
| <b>Population Targeted</b>                        | Resident population of Ciudad Acuna.                             |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Periodic.  |
| <b>Comments</b>                                   | See Comments provided with objective 8-30a for more information. |



**8-30h. Matamoros.**

|   |   |
|---|---|
| <b>National Data Sources</b>                      | EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association. |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 0 (1997) (Matamoros).   |
| <b>Numerator</b>                                  | Number of residents of Matamoros who have wastewater treatment service.   |
| <b>Denominator</b>                                | Number of Matamoros resident persons.   |
| <b>Population Targeted</b>                        | Resident population of Matamoros.   |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-30a for more information.  |



**8-30i. Mexicali.**

|   |   |
|---|---|
| <b>National Data Sources</b>                      | EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association. |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 72 (1997) (Mexicali).   |
| <b>Numerator</b>                                  | Number of residents of Mexicali who have wastewater treatment service.  |
| <b>Denominator</b>                                | Number of Mexicali resident persons.  |
| <b>Population Targeted</b>                        | Resident population of Mexicali.  |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-30a for more information.  |



**8-30j. Nogales, Sonora.**

|                                      |   |
|--------------------------------------|---|
| <b>National Data Sources</b>         | EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association. |
| <b>State Data Source</b>             | Not identified.   |
| <b>Healthy People 2000 Objective</b> | Not applicable.   |
| <b>Measure</b>                       | Percent.  |
| <b>Baseline</b>                      | 100 (1997) (Nogales, Sonora).   |
| <b>Numerator</b>                     | Number of residents of Nogales, Sonora, who have wastewater treatment service.  |

|   |  |
|---|--|
| <b>Denominator</b>                                | Number of Nogales, Sonora, resident persons.                     |
| <b>Population Targeted</b>                        | Resident population of Nogales, Sonora.                          |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.  |
| <b>Expected Periodicity</b>                       | Periodic.  |
| <b>Comments</b>                                   | See Comments provided with objective 8-30a for more information. |



**8-30k. Piedras Negras.**

|   |   |
|---|---|
| <b>National Data Sources</b>                      | EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association. |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 0 (1997) (Piedras Negras).  |
| <b>Numerator</b>                                  | Number of residents of Piedras Negras who have wastewater treatment service.  |
| <b>Denominator</b>                                | Number of Piedras Negras resident persons.  |
| <b>Population Targeted</b>                        | Resident population of Piedras Negras.  |
| <b>Questions Used To Obtain the National Data</b> | Not identified.   |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-30a for more information.  |



### 8-30I. Reynosa.

|   |   |
|---|---|
| <b>National Data Sources</b>                      | EPA; Mexico's Comisión Nacional de Agua; State/local health departments; American Water Works Association; Rural Water Association; U.S.-Mexican Border Health Association. |
| <b>State Data Source</b>                          | Not identified.   |
| <b>Healthy People 2000 Objective</b>              | Not applicable.   |
| <b>Measure</b>                                    | Percent.  |
| <b>Baseline</b>                                   | 100 (1997) (Reynosa).   |
| <b>Numerator</b>                                  | Number of residents of Reynosa who have wastewater treatment service.   |
| <b>Denominator</b>                                | Number of Reynosa resident persons.   |
| <b>Population Targeted</b>                        | Resident population of Reynosa.   |
| <b>Questions Used To Obtain the National Data</b> | Not applicable.   |
| <b>Expected Periodicity</b>                       | Periodic.   |
| <b>Comments</b>                                   | See Comments provided with objective 8-30a for more information.  |

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