

# Healthy People 2020 Leading Health Indicators: Environmental Quality

## Overview

The quality of the environment directly affects a person's health status and plays a major role in quality of life and years of healthy life lived. Safe air, land, and water are fundamental to a healthy community environment. An environment free of hazards such as secondhand smoke, carbon monoxide, allergens, lead, and toxic chemicals helps prevent disease and other health problems for all populations.

## Progress in Numbers\*



Target met<sup>1</sup>



Improving<sup>2</sup>



Little or no detectable change<sup>3</sup>



Getting worse<sup>4</sup>

Status	Leading Health Topic and Indicator: Environmental Quality	Baseline (Year)	Most Recent (Year)	Target	Progress Toward Target <sup>5</sup>	Movement Away From Baseline <sup>6</sup>
	EH-1 Air Quality Index (AQI) exceeding 100 (number of billion days, weighted by population and AQI value)	2.237 (2006–08)	1.252 (2009–11)	1.980	383.3%	—
	TU-11.1 Children exposed to secondhand smoke (percent, nonsmokers, 3–11 years)	52.2% (2005–08)	41.3% (2009–12)	47.0%	209.6%	—

## Progress in Words

### EH-1: Air Quality Index (AQI) exceeding 100

- The Leading Health Indicator assesses changes in air quality by considering both the number and severity of unhealthy days. Between 2006–2008 and 2009–2011 the number of billion AQI-weighted people days exceeding 100 decreased about 44 percent, from 2.237 to 1.252, exceeding the Healthy People 2020 target of 1.980.

### TU-11.1: Children exposed to secondhand smoke

- Between 2005–2008 and 2009–2012, exposure to secondhand smoke among children aged 3 to 11 years decreased about 20 percent, from 52.2 percent to 41.3 percent, exceeding the Healthy People 2020 target of 47.0 percent.

\* Discrepancies between [healthypeople.gov](http://healthypeople.gov) and data in this report may exist due to the timing of data uploads. Data for the measures shown in this report are current as of May 2014.



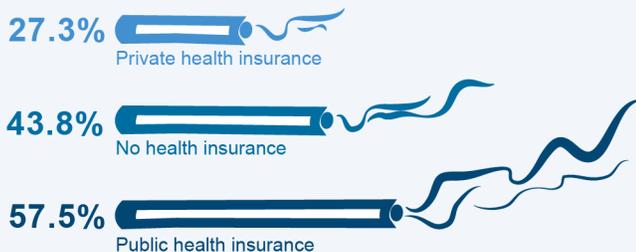
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## Progress in Pictures

Exposure to pollutants in the air (like secondhand smoke) can directly affect health status and is linked to premature death, cancer, heart disease, and respiratory disease. Globally, nearly 25% of all deaths and disease can be linked to environmental factors.

### Exposure to Secondhand Smoke among Children by Health Insurance Status, 2009–12

Among health insurance groups, children aged 3–11 years with private health insurance had the lowest rate of secondhand smoke exposure in 2009–12, 27.3%. Children with public health insurance had more than twice the rate of secondhand smoke exposure (57.5%).



Data source: National Health and Nutrition Examination Survey (NHANES), CDC/NCHS.



### HEALTHY PEOPLE 2020 TARGETS

#### Children Aged 3 to 11 Exposed to Secondhand Smoke

41.3% of children aged 3 to 11 were exposed to secondhand smoke in 2009–12.



Data source: National Health and Nutrition Examination Survey (NHANES), CDC/NCHS.

#### Air Quality Index (AQI) Exceeding 100

In 2009–11, the AQI exceeded 100 for 1.252 billion AQI-weighted people days.



Data source: Air Quality System (AQS), EPA.

### NOTES (from page 1)

- <sup>1</sup> Target met or exceeded
- <sup>2</sup> Movement is *toward* the target and is:
  - Statistically significant when measures of variability are available\*\* – OR –
  - 10% or more of the targeted change when measures of variability are unavailable\*\*
- <sup>3</sup> Objective demonstrates little or no detectable change, because either:
  - Movement toward/away from the target is not statistically significant when measures of variability are available\*\* – OR –
  - Movement is toward the target but the objective has achieved less than 10% of the targeted change when measures of variability are unavailable\*\* – OR –
  - Movement is away from the target but the objective has moved less than 10% relative to its baseline when measures of variability are unavailable\*\* – OR –
  - No change between baseline and most recent data point
- <sup>4</sup> Movement is *away from* the target and is:
  - Statistically significant when measures of variability are available\*\* – OR –
  - 10% or more relative to the baseline when measures of variability are unavailable\*\*
- <sup>5</sup> For objectives moving toward their targets, progress is measured as the percent of targeted change achieved, quantified as follows:

$$\text{Percent of targeted change achieved} = \frac{\text{Most recent value} - \text{Baseline value}}{\text{HP2020 target} - \text{Baseline value}} \times 100.$$

- <sup>6</sup> For objectives moving away from their baselines (and, therefore, their targets), progress is measured as the magnitude of the percent change from baseline, quantified as follows:

$$\text{Magnitude of percent change from baseline} = \frac{|\text{Most recent value} - \text{Baseline value}|}{\text{Baseline value}} \times 100.$$

- <sup>\*\*</sup> When measures of variability are available, statistical significance of the percent of targeted change achieved or the magnitude of the percent change from baseline is assessed at the 0.05 level using a one-sided test. When measures of variability are unavailable, the percent of targeted change achieved and the percent change from baseline are assessed only for their magnitude (e.g., <10% or ≥10%).

### DATA SOURCES

- EH-1 Air Quality System (AQS), EPA  
TU-11.1 National Health and Nutrition Examination Survey (NHANES), CDC/NCHS



U.S. Department of Health and Human Services  
Office of Disease Prevention and Health Promotion