Healthy People 2010 snapshot for the American Indian or Alaska Native population: Progress toward targets, size of disparities, and changes in disparities

By Tamyra Garcia, M.P.H., Kenneth Keppel, Ph.D., and Suzanne Hallquist, M.S.P.H., Office of Analysis and Epidemiology, National Center for Health Statistics, Centers for Disease Control and Prevention

INTRODUCTION

Healthy People 2010 is a comprehensive, national agenda for improving the health of the U.S. population by the year 2010. It has two overarching goals: (1) increase quality and years of healthy life and (2) eliminate health disparities. These goals are supported by 955 health objectives and subobjectives organized in 28 different focus areas. Every measurable objective has a target to be achieved by the year 2010. Data from dozens of data systems are assembled for this wide range of health objectives, and progress toward these two goals is being monitored for the total population and for specific subgroups (1).

This snapshot is one in a series of five reports, one for each of the following racial and ethnic populations: American Indian or Alaska Native, Asian, Hispanic or Latino, non-Hispanic black, and non-Hispanic white. This series complements the Healthy People Statistical Note No. 26, entitled, “Comparing Racial and Ethnic Populations Based on Healthy People 2010 Objectives.” That report compares these five racial and ethnic populations in terms of progress toward Healthy People 2010 targets, the size of disparities, and changes in disparities over time (2) and can be accessed at http://www.cdc.gov/nchs/data/statnt/statnt26.htm. The purpose of the snapshots is to provide a more detailed look at data for each racial and ethnic population based on the Healthy People 2010 objectives. These are the first comprehensive population-specific analyses undertaken for Healthy People 2010 and can be accessed at: http://www.cdc.gov/nchs/about/otheract/hpdata2010/hpsnapshots.htm

Healthy People Statistical Note No. 26 is based on specific sets or groups of objectives with data for several racial and ethnic populations. This snapshot is based on all of the objectives with data for the American Indian or Alaska Native population and provides detailed information on:

- Availability of data for objectives in each Healthy People 2010 focus area.
- Progress toward the target for Healthy People 2010 objectives.
- Number and types of objectives for which the American Indian or Alaska Native population had the “best” rate.
- Number and types of objectives for which the American Indian or Alaska Native population had the largest disparities relative to the racial and ethnic group with the best rate.
• Number and types of objectives for which disparity is increasing or decreasing for the American Indian or Alaska Native population, relative to the racial and ethnic group with the “best” rate.

• Relationship between progress toward targets and changes in disparity over time.

METHODS

A detailed description of the methods used to assess progress and disparity for these racial and ethnic populations is provided in Healthy People Statistical Note No. 26 (2). However, a brief overview is provided below.

Data

Among the Healthy People 2010 objectives, there are 504 that call for data by demographic characteristics including race and ethnicity. These “population-based” objectives are measured in terms of the rates or proportion of individuals with a particular health attribute, such as a health condition or outcome, a known health risk, or utilization of a specific health care service. All of the population-based objectives in Healthy People 2010 call for tracking data by gender, race and ethnicity, and socio-economic status. However, data for each racial and ethnic group are not available for all objectives. In addition, the validity of the racial and ethnic data on which these results are based varies from one data source to another and may vary among objectives based on a single data source. The identification of persons as American Indians or Alaska Natives on death certificates is particularly problematic. For example, based on a comparison of race and Hispanic origin reported on death certificates with race and origin reported by the individual or a knowledgeable household member in the Current Population Survey (from the National Longitudinal Mortality Study), the number of deaths for the American Indian or Alaska Native population was underestimated by 30 percent compared to an underestimate for the Hispanic or Latino population by 5 percent, and an underestimate for the Asian population by 7 percent (3).

This report is based on data in the Healthy People 2010 database (DATA2010) as of August 2007. This point in time was consistently employed for Healthy People Statistical Note No. 26 and for the five snapshots in this series. There are 160 population-based objectives with at least one data point for the American Indian or Alaska Native population. For some objectives, only a single baseline data point was available. For most objectives, more recent data points were available.

Measuring progress toward targets

Two or more data points are needed to evaluate progress toward a Healthy People 2010 target. As of August 2007, 123 of the objectives with data for the American Indian or Alaska Native population had two or more data points. Progress toward reaching the 2010 targets was
categorized as follows: moving away from the target, no change, moving toward the target, met or exceeded the target, and met the target at baseline. Objectives that met the target at baseline remain in that category only if they continue to meet the target at the most recent data point. When measures of variability were available, the statistical significance of the change toward or away from the target was tested. However, the results of the significance test did not affect the category to which an objective was assigned. Each category contains some objectives for which the change was significant, some for which the change was not significant, and some for which the change could not be tested.

Measuring the size of disparities

Disparity was calculated at the baseline and/or at the most recent data point, when data for more than one racial and ethnic group were available. The percent difference between the American Indian or Alaska Native group rate and the “best” group rate among the other racial and ethnic groups was calculated for 160 population-based objectives at the most recent data point. The “best” group rate is the most favorable racial and ethnic group rate. Having the “best” group rate does not imply that the rate for that racial and ethnic group cannot be improved. When measures of variability were available, the statistical significance of the percent difference was tested. The distribution of objectives by size of disparity at the most recent data point is presented for the American Indian or Alaska Native population using the following categories: best group rate, less than 10% different from the best group rate or not statistically significant, 10-49%, 50-99%, 100-199%, and 200% or more different from the best group rate. The latter four categories include objectives for which the percent difference was statistically significant and objectives for which the percent difference could not be tested.

Measuring changes in disparity

To assess changes in disparity over time, the percent difference between the rate for the American Indian or Alaska Native population and the “best” group rate at the baseline was subtracted from the percent difference at the most recent data point. The change is expressed in percentage points. Both disparity and trend data were required to measure changes in disparity over time. This created a subset of objectives that was smaller (123 objectives) than the number of objectives used to measure disparity at a single point in time (160 objectives). When measures of variability were available, the significance of changes in disparity was tested. Increases or decreases in disparity that were either less than 10 percentage points different than the percent difference at baseline or were 10 percentage points or more different but not statistically significant, were classified as “no change.” Objectives with increases or decreases of 10 percentage points or more include some for which the change was significant and some for which the change could not be tested.
Evaluating the association between progress and changes in disparity

The number of objectives with increasing disparity, decreasing disparity, and no change in disparity are shown for each of three categories of progress toward the HP2010 target. There were 122 objectives with the data required to assess both progress toward targets and changes in disparity for the American Indian or Alaska Native population. Objectives where the target was met at the baseline (8 objectives) were excluded from the analysis, decreasing the number of objectives analyzed to 114 objectives. Progress toward the HP2010 target and progress toward eliminating disparities are independent. To illustrate this point, we examined progress and change in disparity for new AIDS cases among persons aged 13 years and older in the United States from 1998 to 2005.

Statistical significance

Estimates of variability were available for about three-quarters of the population-based objectives in Healthy People 2010. When estimates of variability were available, statistical tests were employed to assess the probability that differences or changes occurred by chance. When a percent difference from the best group rate was greater than 10 percent and not statistically significant, it was categorized in the less than 10 percent category. When estimates of variability were not available, statistical tests could not be used to lend confidence to findings concerning differences and changes.

Limitations

There are some limitations to the findings in this report. Data are not available by race and ethnicity for all of the population-based objectives in Healthy People 2010. In addition, the validity of the findings in this report depends on the accuracy of data by race and ethnicity. Data on race and ethnicity are collected in different ways by different data collection systems (4). The validity of the racial and ethnic data on which these results are based varies from one data source to another, as noted above.

Progress toward targets and changes in disparity are measured from the baseline to the most recent data point and intervening values are not considered. Baseline and most recent data years vary among objectives tracked using different data sources, resulting in shorter and longer time intervals for some objectives. Finally, the results shown here may look different if more recent data were examined. Despite these limitations, nearly all of the data analyzed here are routinely disseminated by agencies of the federal government.
FINDINGS

- Five of the 27 focus areas containing population-based objectives in HP2010 have no data for the American Indian or Alaska Native population.

Figure 1. Healthy People 2010 objectives with data for the American Indian or Alaska Native population by focus area

Thirty-two percent of the Healthy People 2010 population-based objectives had data for the American Indian or Alaska Native population. There were 160 objectives with at least one data point and 123 objectives with baseline data and at least one more recent data point. Five of the 27 HP2010 focus areas with population-based objectives have no data for the American Indian or Alaska Native population:  Educational and Community-based Programs, Family Planning, Food
Safety, Medical Product Safety, and Occupational Safety and Health. There are seven Healthy People focus areas with data for less than one-quarter of the population-based objectives in the American Indian or Alaska Native population: Arthritis, Osteoporosis, Chronic Back Conditions (8%), Disability and Secondary Conditions (23%), Mental Health and Mental Disorders (9%), Nutrition and Overweight (16%), Oral Health (16%), Respiratory Diseases (4%), and Vision and Hearing (5%).

Seven focus areas had data for the American Indian or Alaska Native population for more than half of the focus area’s objectives in Healthy People 2010: Cancer, Chronic Kidney Disease, Environmental Health, Heart Disease and Stroke, Maternal, Infant and Child Health, Sexually Transmitted Diseases, and Substance Abuse.
About two-thirds, (65%) of the Healthy People 2010 population-based objectives with data for the American Indian or Alaska Native population had met or were moving toward their targets.

There were 123 objectives that had both baseline and more recent data available for the American Indian or Alaska Native population. Of those objectives, 52% (\(n=64\)) were moving toward the HP2010 target, while 33% (\(n=40\)) were moving away from the HP2010 target. There was no change from baseline to the most recent data point for three objectives. Eight objectives (7%) met the target at baseline, while another 8 objectives met or exceeded the target at the most recent data point. The distribution of progress toward Healthy People 2010 targets in the American Indian or Alaska Native population is very similar to the progress seen in other racial and ethnic populations in HP2010 (see Healthy People Statistical Note no. 26).
The American Indian or Alaska Native population had the best rate for 16% of the population-based objectives with data for the American Indian or Alaska Native population.

Data to assess disparities between the American Indian or Alaska Native population and the best group rate were available for 160 objectives. The American Indian or Alaska Native population had the best rate for 16% (n=25) of the 160 objectives. Objectives where the American Indian or Alaska Native population had the most favorable rate are identified in Table 1. Rates were less than 10 percent different or not significantly different from the best group for an additional 16% of objectives. Approximately 27% of the objectives (n=43) had rates for the American Indian or Alaska Native population that were 10-49% different from the best group rate, while 23% of the objectives had rates that were 100 percent or more different from the best group. A 100 percent difference means that the American Indian or Alaska Native rate was 2 times the best group rate. The 10 objectives with the largest disparity for the American Indian or Alaska Native population are identified in Table 2. Racial and ethnic disparities could not be assessed for four (3%) of the 160 objectives because no best group could be identified for comparison.
The American Indian or Alaska Native population had the best rate for one-third of the objectives with data for the American Indian or Alaska Native population in the Immunization and Infectious Diseases focus area (FA-14.)

Table 1. *Healthy People 2010* objectives for which the American Indian or Alaska Native population had the "best" rate at the most recent data point\(^a\)^\(^b\)

<table>
<thead>
<tr>
<th>Objective number</th>
<th>Objective</th>
<th>Most recent data year(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-03c.</td>
<td>Counseling about smoking cessation: 18+ years</td>
<td>2001</td>
</tr>
<tr>
<td>3-09b.</td>
<td>Sun exposure and skin cancer: 18+ years(^f)</td>
<td>2005</td>
</tr>
<tr>
<td>4-03.</td>
<td>Counseling: for chronic kidney failure patients</td>
<td>1996</td>
</tr>
<tr>
<td>5-12.</td>
<td>A1C Test at least two times a year: 18+ years with diabetes(^f)</td>
<td>2004</td>
</tr>
<tr>
<td>6-04.</td>
<td>Social participation: 18+ years with disabilities(^f)</td>
<td>2001</td>
</tr>
<tr>
<td>8-01a.</td>
<td>Harmful air pollutants: Ozone</td>
<td>2004</td>
</tr>
<tr>
<td>8-01d.</td>
<td>Harmful air pollutants: Nitrogen dioxide</td>
<td>2004</td>
</tr>
<tr>
<td>8-01e.</td>
<td>Harmful air pollutants: Sulfur dioxide</td>
<td>2004</td>
</tr>
<tr>
<td>8-01f.</td>
<td>Harmful air pollutants: Lead</td>
<td>2004</td>
</tr>
<tr>
<td>12-03a.</td>
<td>Receipt of artery-opening therapy within 1 hour of heart attack symptoms</td>
<td>2000-04</td>
</tr>
<tr>
<td>12-07.</td>
<td>Stroke death rate</td>
<td>2004</td>
</tr>
<tr>
<td>14-03a.</td>
<td>Hepatitis B in adults and high-risk groups (cases per 100,000 population, 19-24 year</td>
<td>2005</td>
</tr>
<tr>
<td>14-06.</td>
<td>Hepatitis A (new cases per 100,000 population)</td>
<td>2005</td>
</tr>
<tr>
<td>14-22d.</td>
<td>MMR immunization: 1 dose, children 19-35 months</td>
<td>2005</td>
</tr>
<tr>
<td>14-29c.</td>
<td>Influenza vaccination in past year: Noninstitutionalized high-risk, 18-64 years</td>
<td>2005</td>
</tr>
<tr>
<td>14-29e.</td>
<td>Influenza vaccination in past year: Institutionalized, 18+ years(^f)</td>
<td>2004</td>
</tr>
<tr>
<td>14-29f.</td>
<td>Pneumococcal vaccination ever received: Institutionalized, 18+ years(^f)</td>
<td>2004</td>
</tr>
<tr>
<td>16-09a.</td>
<td>Cesarean births - Women giving birth for the first time</td>
<td>2004</td>
</tr>
<tr>
<td>16-09b.</td>
<td>Cesarean births - Prior cesarean birth</td>
<td>2004</td>
</tr>
<tr>
<td>16-19e.</td>
<td>Exclusive breastfeeding at 6 months</td>
<td>2002</td>
</tr>
<tr>
<td>19-04.</td>
<td>Growth retardation among low-income children &lt; 5 years</td>
<td>2003</td>
</tr>
<tr>
<td>21-12.</td>
<td>Annual dental services for low-income youth(^f)</td>
<td>2002</td>
</tr>
<tr>
<td>26-15.</td>
<td>Inhalant use in past year: 12-17 years(^f)</td>
<td>2003</td>
</tr>
<tr>
<td>27-05.</td>
<td>Smoking cessation attempts: 18+ years(^f)</td>
<td>2005</td>
</tr>
<tr>
<td>27-16b.</td>
<td>Exposure to tobacco advertising in newspapers and magazines: Grades 9-12</td>
<td>2002</td>
</tr>
</tbody>
</table>

\(^a\) Based on data in the *Healthy People 2010* database, DATA2010, as of August 2007

\(^b\) The American Indian or Alaska Native population had the best rate among the racial and ethnic populations at the most recent data point, which is the baseline if there is only one data point

\(^f\) The rate for the American Indian or Alaska Native population was the most favorable but it did not meet the statistical criterion for being the best rate for the purpose of measuring relative disparity (having a relative standard error less than 10%). As a result, the population with the next best rate was chosen as the "best" rate for comparison.
The American Indian or Alaska Native population had the best rate among the racial and ethnic populations for 25 Healthy People 2010 objectives. The most well-represented focus areas are: Immunization and Infectious Disease (FA-14) with six objectives and Environmental Health (FA-8) with four objectives. The American Indian or Alaska Native population had the best rate among the racial and ethnic populations for six of the 17 objectives in focus area 14.
Objectives from the Maternal, Infant, and Child Health and Substance Abuse focus areas make up six of the ten largest health disparities between the American Indian or Alaska Native population and the group with the best rate.

Table 2. Ten largest health disparities for the American Indian or Alaska Native population: Healthy People 2010 objectives

<table>
<thead>
<tr>
<th>Rank</th>
<th>Objective</th>
<th>Most recent data yeara</th>
<th>“Best” group rate</th>
<th>American Indian or Alaska Native rate</th>
<th>Percent difference from the &quot;best&quot; group rate</th>
<th>Number of cases in most recent data year</th>
<th>Number of cases if &quot;best&quot; rate had been attained§</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16-18. Fetal alcohol syndrome (cases per 1,000 live births)</td>
<td>1995-97</td>
<td>0.2 White non-Hispanic</td>
<td>3.2</td>
<td>1500 †</td>
<td>81 1 Cannot be estimated</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>16-17e. Women smoking during pregnancy (^2) (percent)</td>
<td>2004</td>
<td>2.2 Asian</td>
<td>18.2</td>
<td>727 *</td>
<td>7,995 966</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>26-1a. Alcohol-related motor vehicle crash deaths (per 100,000 population)</td>
<td>1998</td>
<td>2.4 Asian</td>
<td>19.2</td>
<td>700 †</td>
<td>Not available Cannot be estimated</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>25-2b. Gonorrhea: females 15-44 years (new cases per 100,000 population)</td>
<td>2004</td>
<td>43.0 Asian</td>
<td>320</td>
<td>644 †</td>
<td>1,825 245</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>26-2. Cirrhosis deaths (age adjusted, per 100,000 population)</td>
<td>2004</td>
<td>3.2 Asian</td>
<td>22.7</td>
<td>609 *</td>
<td>577 140</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>26-3. Drug-induced deaths (age adjusted, per 100,000 population)</td>
<td>2004</td>
<td>1.8 Asian</td>
<td>11.6</td>
<td>544 *</td>
<td>354 50</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>15-8. Deaths from poisoning (age adjusted, per 100,000 population)</td>
<td>2004</td>
<td>2.0 Asian</td>
<td>11.6</td>
<td>480 *</td>
<td>355 56</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>25-2a. Gonorrhea (new cases per 100,000 population)</td>
<td>2004</td>
<td>21.0 Asian</td>
<td>118</td>
<td>462 †</td>
<td>2,858 509</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>14-11. Tuberculosis (new cases per 100,000 population)</td>
<td>2005</td>
<td>1.3 White non-Hispanic</td>
<td>5.9</td>
<td>354 †</td>
<td>153 34</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>16-1h. Sudden infant death syndrome (deaths per 1,000 live births)</td>
<td>2003</td>
<td>0.3 Hispanic</td>
<td>1.2</td>
<td>300 *</td>
<td>53 13</td>
<td></td>
</tr>
</tbody>
</table>

a Based on data in Healthy People 2010 database, DATA2010, as of August 2007.  
§ An estimate of the number of events that would have occurred in the most recent data year if the American Indian or Alaska Native population had the best group rate was obtained by multiplying the best group rate times an estimate of the population at risk.  
† Measures of variability were not available. The statistical significance of the percent difference could not be tested.  
* The percent difference from the best group rate is statistically significant at the 0.05 level.  
1 Based on data from Alaska, Arizona, the Denver-Boulder Consolidated Metropolitan Statistical area and nine counties in western New York.  
2 Objective 16-17c calls for an increase in the percent of women who abstain from smoking during pregnancy. Relative disparities are measured in terms of adverse events, therefore, the percents shown are for the percent of women who smoked during pregnancy.  

The ten largest health disparities between the American Indian or Alaska Native population and the group with the best rate included three objectives from the Maternal, Infant, and Child Health focus area, three objectives from the Substance Abuse focus area; two from the Sexually Transmitted Diseases focus area, one from the Immunization and Infectious diseases focus area, and one objective from the Injury and Violence Prevention focus area. The American Indian or Alaska Native population shares three of its largest disparities with the black non-Hispanic population: New cases of gonorrhea (25-2a), New cases of gonorrhea among females 15-44 years (25-2b), and New cases of tuberculosis (14-11). The results presented here should be
interpreted with some caution because some of these data are based on voluntary reporting by health professionals. It is possible that some of the differences noted here are due to clinical reporting practices.

If the best group rate had been attained, the number of Women smoking during pregnancy (16-17c), the number of Females 15-44 with new cases of gonorrhea (25-2b), and New cases of Gonorrhea (25-2a) would have been substantially reduced. For objectives where the number of cases can be estimated, the number of cases in the most recent data year would have been reduced by 75 percent or more had the best group rate been attained.
The disparity between the American Indian or Alaska Native population and the racial and ethnic group with the best rate decreased for 17 objectives and increased for 15 objectives.

Figure 4. Percent distribution of Healthy People 2010 objectives by categories of change in disparity over time for the American Indian or Alaska Native population

- Disparity decreased by 10 percentage points or more: 13.9% (N=17)
- Disparity increased by 10 percentage points or more: 12.3% (N=15)
- No change, disparity did not increase or decrease by 10 percentage points or more: 73.8% (N=90)

N = 122 objectives

- Categories of change in disparity
  - Disparity decreased by 10 percentage points or more
  - Disparity increased by 10 percentage points or more
  - No change, disparity did not increase or decrease by 10 percentage points or more

The number of objectives with decreasing disparities is nearly equal to the number of objectives with increasing disparities. Disparities between the American Indian or Alaska Native population and the population with the best rate decreased for 17 objectives (14%) between the baseline and most recent data point. An increase in disparity was observed for 15 objectives (12%). There were no changes in disparity over time for 90 objectives (74%). The decrease in disparity was statistically significant for three objectives, while the increase in disparity was statistically significant for seven objectives; significance could not be tested for the remainder. Statistical significance could not be tested where measures of variability were not available.
Disparities between the American Indian or Alaska Native population and the racial and ethnic group with the best rate were reduced for 4 objectives in the Immunization and Infectious Diseases (FA-14) and 4 in the Sexually Transmitted Diseases (FA-25) focus areas.

Table 3. Healthy People 2010 objectives with decreasing disparities between the American Indian or Alaska Native population and the group with the best rate

<table>
<thead>
<tr>
<th>Objective number</th>
<th>Objective</th>
<th>Baseline data year</th>
<th>Most recent data year³</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-6.</td>
<td>Hepatitis A †</td>
<td>1997</td>
<td>2005</td>
</tr>
<tr>
<td>26-11d.</td>
<td>Binge drinking: 12-17 years *</td>
<td>2002</td>
<td>2003</td>
</tr>
</tbody>
</table>

50-99 percentage point decrease in disparity

<table>
<thead>
<tr>
<th>Objective number</th>
<th>Objective</th>
<th>Baseline data year</th>
<th>Most recent data year³</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1.</td>
<td>End-stage renal disease *</td>
<td>1997</td>
<td>2004</td>
</tr>
<tr>
<td>8-1d.</td>
<td>Harmful air pollutants: Nitrogen dioxide †</td>
<td>1997</td>
<td>2004</td>
</tr>
<tr>
<td>13-11.</td>
<td>HIV testing in TB patients: 25-44 years †</td>
<td>1998</td>
<td>2005</td>
</tr>
<tr>
<td>14-3b.</td>
<td>Hepatitis B: 25-39 years †</td>
<td>1997</td>
<td>2005</td>
</tr>
<tr>
<td>25-1a.</td>
<td>Chlamydia: females attending family planning clinics, 15-24 years ††</td>
<td>1999</td>
<td>2004</td>
</tr>
<tr>
<td>25-1b.</td>
<td>Chlamydia: females attending STD clinics, 15-24 years †</td>
<td>1999</td>
<td>2004</td>
</tr>
<tr>
<td>26-13b.</td>
<td>Adult males exceeding guidelines for low-risk drinking: 21+ years †</td>
<td>1992</td>
<td>2001-02</td>
</tr>
</tbody>
</table>

10-49 percentage point decrease in disparity

<table>
<thead>
<tr>
<th>Objective number</th>
<th>Objective</th>
<th>Baseline data year</th>
<th>Most recent data year³</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-5.</td>
<td>Diabetes-related deaths *</td>
<td>1999</td>
<td>2004</td>
</tr>
<tr>
<td>13-1.</td>
<td>New AIDS cases: 13+ years †</td>
<td>1998</td>
<td>2005</td>
</tr>
<tr>
<td>14-3a.</td>
<td>Hepatitis B: 19-24 years †</td>
<td>1997</td>
<td>2005</td>
</tr>
<tr>
<td>14-11.</td>
<td>Tuberculosis †</td>
<td>1998</td>
<td>2005</td>
</tr>
<tr>
<td>27-12.</td>
<td>Indoor worksite policies that prohibit smoking †</td>
<td>1998-99</td>
<td>2001-02</td>
</tr>
</tbody>
</table>

³ Based on the Healthy People 2010 database, DATA2010, as of August 2007.
* The change in disparity from the baseline to the most recent data value is statistically significant at the 0.05 level.
† Measures of variability were not available. The statistical significance of changes in disparity could not be tested.
‡ Objectives where the rate for the most recent data year was further away from the HP2010 target than the baseline.

Disparities decreased for the American Indian or Alaska Native population for 17 objectives. Three objectives had a decrease in disparity of 100 percentage points or more. Seven objectives demonstrated a decrease in disparity of 50-99 percentage points, while seven additional objectives showed a decrease in disparity of 10-49 percentage points. Disparities between the American Indian or Alaska Native population and the racial and ethnic group with the best rate were reduced for 4 objectives in the Immunization and Infectious Diseases (FA-14) and Sexually Transmitted Diseases (FA-25) focus areas and 3 objectives in the Substance Abuse (FA-26) focus area.
There were three objectives where the rate for the most recent data year was further away from the target than the baseline rate but disparity between the American Indian or Alaska Native population and the group with the best rate decreased: Primary and Secondary Syphilis (25-3), Chlamydia among females 15-24 years attending family planning clinics (25-1a.), and New AIDS Cases among persons 13 years an over (13-1). The best group rate for these objectives increased by a greater proportion than the rate for the American Indian or Alaska Native population. This resulted in a decrease in the relative difference between the American Indian or Alaska Native population and the group with the best rate. When that occurs, movement away from the Healthy People 2010 target is associated with a decrease in disparity.
Disparities between the American Indian or Alaska Native population and the racial and ethnic group with the best rate increased for three objectives in the Maternal, Infant, and Child Health focus area.

#### Table 4. Healthy People 2010 objectives with increasing disparities between the American Indian or Alaska Native population and the group with the best rate

<table>
<thead>
<tr>
<th>Objective number</th>
<th>Objective</th>
<th>Baseline data year</th>
<th>Most recent data year</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-17c.</td>
<td>Women abstaining from smoking during pregnancy: 15-44 years * ‡</td>
<td>1998</td>
<td>2004</td>
</tr>
<tr>
<td>26-11c.</td>
<td>Binge drinking in past 30 days: 18+ years *</td>
<td>2002</td>
<td>2004</td>
</tr>
<tr>
<td>8-1c.</td>
<td>Harmful air pollutants: Carbon monoxide † ‡</td>
<td>1997</td>
<td>2004</td>
</tr>
<tr>
<td>25-2a</td>
<td>Gonorrhea: New cases †</td>
<td>1997</td>
<td>2004</td>
</tr>
<tr>
<td>4-5.</td>
<td>Registration for kidney transplantation: kidney patients &lt;70 years †</td>
<td>1998</td>
<td>2004</td>
</tr>
<tr>
<td>8-1b.</td>
<td>Harmful air pollutants: Particulate matter † ‡</td>
<td>1997</td>
<td>2004</td>
</tr>
<tr>
<td>14-3c.</td>
<td>Hepatitis B: 40+ years †</td>
<td>1997</td>
<td>2005</td>
</tr>
<tr>
<td>14-12.</td>
<td>Curative therapy for tuberculosis † ‡</td>
<td>1996</td>
<td>2003</td>
</tr>
<tr>
<td>16-6a.</td>
<td>Prenatal care: first trimester * ‡</td>
<td>1998</td>
<td>2004</td>
</tr>
<tr>
<td>16-11a.</td>
<td>Preterm births: &lt; 37 weeks gestation * ‡</td>
<td>1998</td>
<td>2004</td>
</tr>
<tr>
<td>18-1.</td>
<td>Suicide * ‡</td>
<td>1999</td>
<td>2004</td>
</tr>
<tr>
<td>25-2b.</td>
<td>Gonorrhea: Females 15-44 years † ‡</td>
<td>2002</td>
<td>2004</td>
</tr>
</tbody>
</table>

* Based on the Healthy People 2010 database, DATA2010, as of August 2007.

* The change in disparity from the baseline to the most recent data value is statistically significant at the 0.05 level.

† Measures of variability were not available. The statistical significance of changes in disparity could not be tested.

‡ Objectives where the rate for the most recent data year was further away from the HP2010 target than the baseline.

Objectives from the Maternal, Infant, and Child Health focus area.

Disparities increased for the American Indian or Alaska Native population for 15 objectives. Disparities increased for two or more objectives in four focus areas: Maternal, Infant, and Child Health (3), Environmental Health (2), Immunizations and Infectious Diseases (2), and Sexually Transmitted Diseases (2).

Disparity increased by 100 percentage points or more for two objectives. Three objectives demonstrated an increase in disparity of 50-99 percentage points, while 10 objectives demonstrated an increase in disparity of 10-49 percentage points. Seven of the objectives showed a significant increase in disparity from the baseline to the most recent data point. Statistical significance could not be tested for the remaining eight objectives.

Gaps increased between the American Indian or Alaska Native group rate and the best group rate from baseline to the most recent data point for these objectives. For seven objectives, this
increase in disparity is also associated with movement toward the Healthy People 2010 target. Relative disparities increased for these objectives because the best group rate moved toward the target by a greater proportion than the rate for the American Indian or Alaska Native population.
Overall, the most frequent combination of progress and disparity for the American Indian or Alaska Native population was movement toward the target with no change in disparity (n=41).

Table 5. Number of Healthy People 2010 objectives by progress toward the target and change in disparity for the American Indian or Alaska Native populationa

<table>
<thead>
<tr>
<th>Progress toward the Healthy People 2010 target</th>
<th>Decreased 10 percentage points or more</th>
<th>No change †</th>
<th>Increased 10 percentage points or more</th>
<th>Best group rate at most recent data point ‡</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met or exceeded target</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Moved toward target †</td>
<td>10</td>
<td>41</td>
<td>7</td>
<td>5</td>
<td>63</td>
</tr>
<tr>
<td>No change or moved away from target §</td>
<td>4</td>
<td>27</td>
<td>8</td>
<td>4</td>
<td>43</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>69</td>
<td>15</td>
<td>13</td>
<td>114   &amp;</td>
</tr>
</tbody>
</table>

*a Based on Healthy People database, DATA2010, as of August 2007.

*b Changes in disparity are based on the percentage point change in the percent difference from the best group rate.

† The percent difference from the best group rate increased or decreased by less than 10 percentage points or larger changes were not statistically significant.

‡ If the American Indian or Alaska Native population became the best group rate through a reduction in disparity of 10 percentage points or more, the objective is counted in the first column, Decreased 10 percentage points or more. This occurred for three objectives.

§ The difference between the data value at the baseline and the year 2010 target decreased.

There were 114 objectives with data required to assess both progress toward targets and changes in disparity. Progress toward HP2010 targets does not necessarily entail a reduction in disparity (3). Among objectives moving toward the target, disparity decreased for ten objectives and increased for seven. The most frequent progress, disparity outcome in the American Indian or Alaska Native population was movement toward the target with no change in disparity (n=41).
Although the rate of new AIDS cases (13-1) increased from baseline to the most recent data point for both the American Indian or Alaska Native population and the group with the most favorable rate, the disparity has decreased.

The rate of new AIDS cases in persons aged 13 years and over, increased between 1998 and 2005. The Healthy People 2010 target of 1.0 new case per 100,000 population has not been reached for the American Indian or Alaska Native population with the most recent data point reaching 9.3 cases per 100,000. However, the disparity between the American Indian or Alaska Native group and the group with the best rate, Asians, decreased during this period. The percent difference between the American Indian or Alaska Native group and the best group was 138 percent at baseline (1998) and 116 percent at the most recent data point (2005). Both rates moved away from the HP2010 target but the relative disparity between the rates was lower at the most recent data point than it was at baseline. This occurred because the best group rate increased by a greater proportion than the rate for the American Indian or Alaska Native population. This example demonstrates that reductions in disparity can occur when rates are moving away from their HP2010 target.
SUMMARY

- Data for the American Indian or Alaska Native population were available for at least one time point for 160 of the 504 Healthy People 2010 population-based objectives (32%). Trend data for at least two points in time were available for 123 of the objectives.

- Between the baseline and the most recent data point, the American Indian or Alaska Native population moved toward the target for 52% (n=64) of the population-based objectives with trend data, while 33% (n=40) of the objectives moved away from the HP2010 target.

- Data to assess disparities between the American Indian or Alaska Native population and the best group rate were available for 160 objectives. The American Indian or Alaska Native population had the best rate for 16% (n=25) of those 160 objectives and had the best rate for one-third of the objectives with data for the American Indian or Alaska Native population in the Immunization and Infectious Diseases focus area (FA-14.)

- Objectives from the Maternal, Infant, and Child Health and Substance Abuse focus areas make up six of the ten largest health disparities between the American Indian or Alaska Native population and the group with the best rate.

- The change in disparity between the American Indian or Alaska Native population and the racial or ethnic population with the best group rate was categorized as no change (less that 10 percentage points and/or not statistically significant) for 74 percent or 122 of the objectives for which change in disparity between the baseline and most recent data point could be measured.

- The number of objectives with decreasing disparities (17 objectives) is nearly equal to the number of objectives with increasing disparities (15 objectives).

- Progress toward Healthy People 2010 targets and changes in disparity are independent. Overall, the most frequent combination of progress and disparity for the American Indian or Alaska Native population was movement toward the target with no change in disparity.

REFERENCES

