Healthy People 2010 snapshot for the Asian population: Progress toward targets, size of disparities, and changes in disparities

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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 or Pacific Islander, 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/healthy_people/hp2010/hp2010_snapshots.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 Asian or Pacific Islander 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 Asian or Pacific Islander population had the *"best"* rate.

- Number and types of objectives for which the Asian or Pacific Islander 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 Asian or Pacific Islander 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 rate 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. For example, a recent analysis indicates that as a result of misclassification of race on death certificates for the years 1999-2001, the total age adjusted death rate for the Asian or Pacific Islander population was underestimated by 6% (3).

In 1997 the Office of Management and Budget issued new standards for the collection and tabulation of information on race and ethnicity for Federal data sources. These standards call for separating the earlier category "Asian or Pacific Islander" into two new categories, "Asian" and "Native Hawaiian or Other Pacific Islander." Some federal data sources have implemented these new standards; however, the transition is not complete and the standards do not apply to non-Federal sources. Data for about half of the objectives included in this report are for the Asian or Pacific Islander population. Native Hawaiians and Other Pacific Islanders comprise a small proportion of the Asian or Pacific Islander population. Information concerning objectives tracked Asians and for Asian or Pacific Islanders is combined in this report. In the interests of brevity, the term Asian is employed in this report. Data for the category, Native Hawaiian or Other Pacific Islander, are discussed on page 21.

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 188 population-based objectives with at least one data point for the Asian 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, 147 of the objectives with data for the Asian 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 Asian group rate and the "best" group rate among the other racial and ethnic groups was calculated for 188 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 Asian 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 Asian 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 (145 objectives) than the number of objectives used to measure disparity at a single point in time (188 objectives). When measures of variability were available, the significance of changes in disparity was tested. Increases or decreases in disparity that were less than 10 percentage points or more 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 145 objectives with the data required to assess both progress toward targets and changes in disparity for the Asian population. Objectives where the target was met at the baseline (15 objectives) were excluded from the analysis, decreasing the number of objectives analyzed to 130 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 cases of tuberculosis 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.
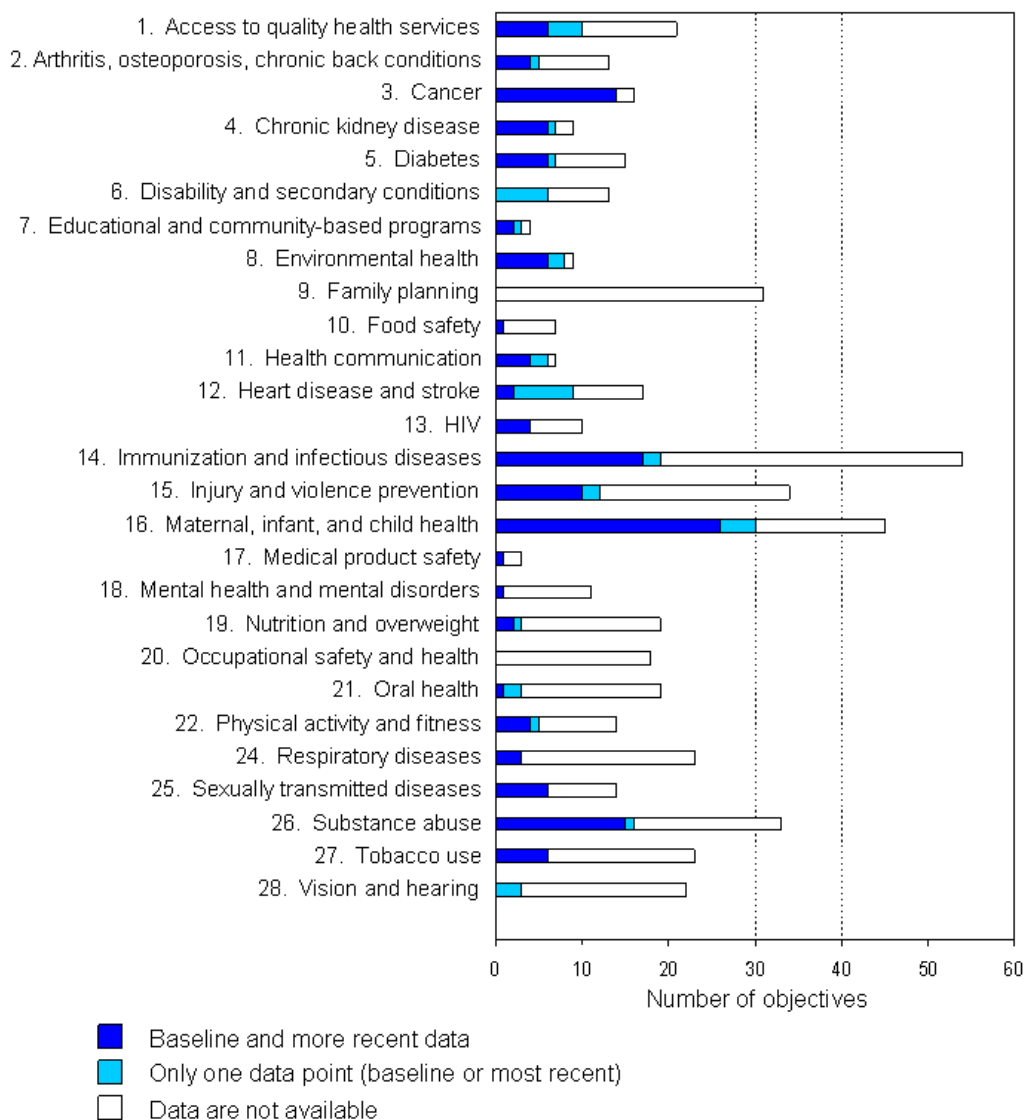
Limitations

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, many of the objectives that have some race and ethnicity data do not have reliable data for the Asian or Pacific Islander population. 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

- *Twenty five of the 27 focus areas containing population-based objectives in HP2010 have data for the Asian population.*

Figure 1. Healthy People 2010 objectives with data for the Asian population by focus area[a, b]

Legend:
- Baseline and more recent data
- Only one data point (baseline or most recent)
- Data are not available

[a] Based on data in the Healthy People 2010 database, DATA 2010, as of August 2007.
[b] The Public Health Infrastructure focus area (23) does not include any population-based objectives.

Thirty-seven percent of the Healthy People 2010 population-based objectives had data for the Asian population. There were 188 objectives with at least one data point and 147 objectives with baseline data and at least one more recent data point. Two of the 27 HP2010 focus areas with
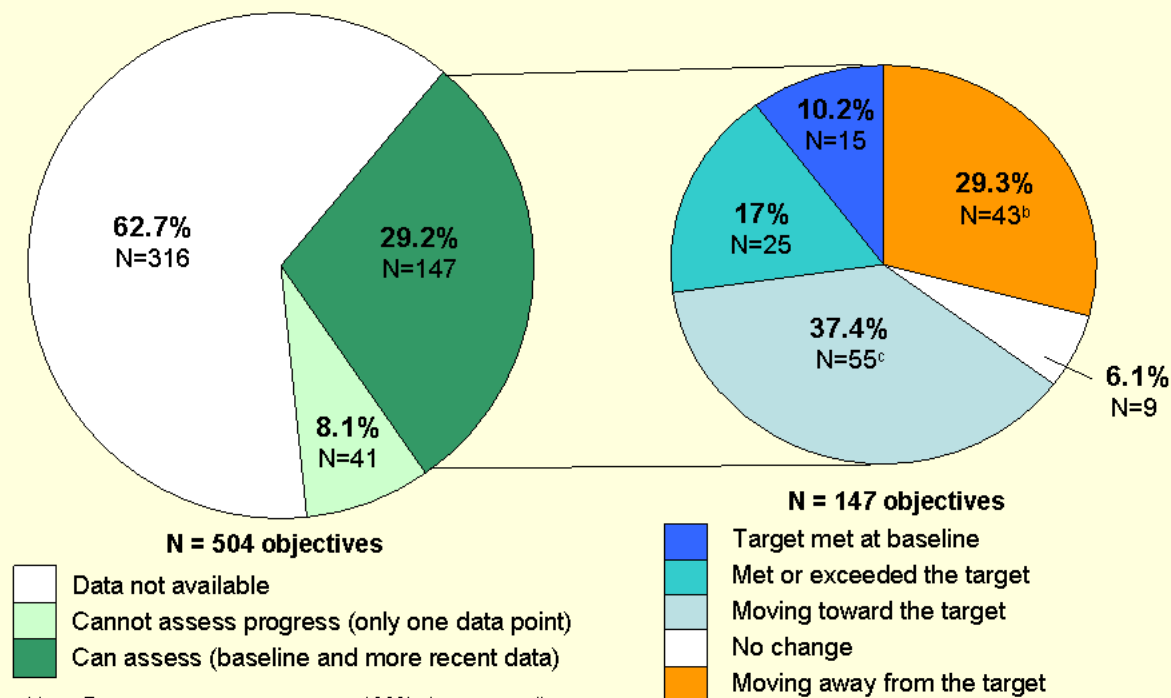
population-based objectives have no data for the Asian population: Family Planning and Occupational Safety and Health.

Eight Healthy People focus areas had data available for the Asian population for one third or less of the population-based objectives: Food Safety (14%), Medical Product Safety (33%), Mental Health and Mental Disorders (9%), Nutrition and Overweight (16%), Oral Health (16%), Respiratory Diseases (13%), Tobacco Use (26%), and Vision and Hearing (14%).

Seven focus areas had data for the Asian population for more than half of the focus area's objectives in Healthy People 2010: Cancer, Chronic Kidney Disease, Education and Community-based Programs, Environmental Health, Health Communication, Heart Disease and Stroke, and Maternal, Infant, and Child Health focus areas.

- *About two-thirds (65%) of the Healthy People 2010 population-based objectives with data for the Asian population had met or were moving toward their targets.*

Figure 2. Percent distribution of Healthy People 2010 objectives by categories of progress toward targets for the Asian population [a]

62.7% N=316

29.2% N=147

8.1% N=41

N = 504 objectives

- Data not available
- Cannot assess progress (only one data point)
- Can assess (baseline and more recent data)

10.2% N=15

17% N=25

37.4% N=55[c]

29.3% N=43[b]

6.1% N=9

N = 147 objectives

- Target met at baseline
- Met or exceeded the target
- Moving toward the target
- No change
- Moving away from the target

Note: Percentages may not sum to 100% due to rounding.
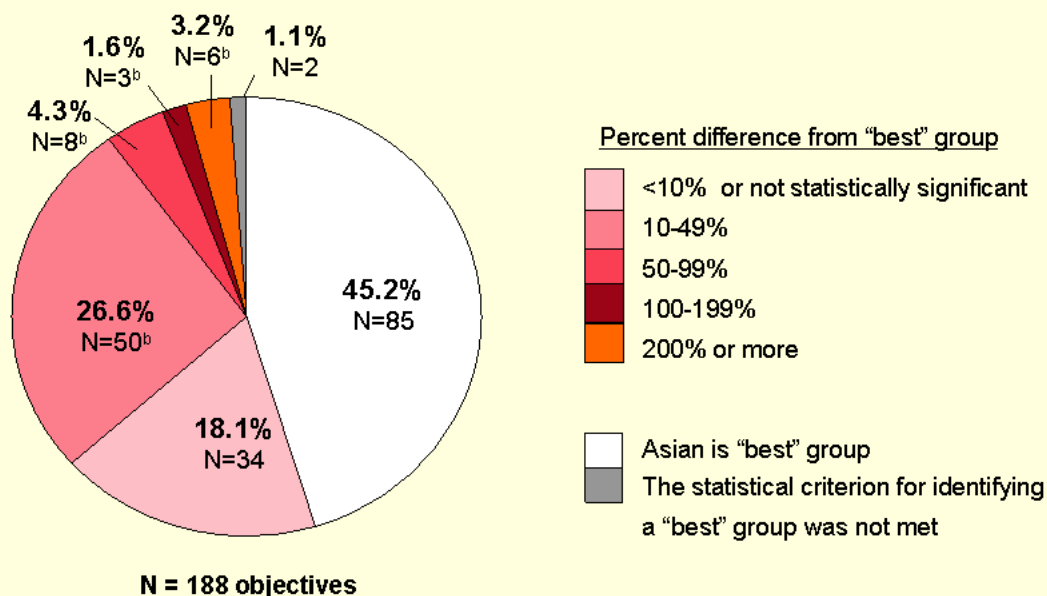[a] Based on data in the Healthy People 2010 database, DATA2010, as of August 2007.
[b] 43 objectives moved away from the target. The change was statistically significant for 10 objectives. The change was not significant for 28 objectives. Significance could not be tested for 5 objectives.
[c] 55 objectives moved toward the target. The improvement was statistically significant for 13 objectives. The change was not significant for 27 objectives. Significance could not be tested for 15 objectives.

There were 147 objectives that had both baseline and more recent data available for the Asian population. Of those objectives, 37% (n=55) were moving toward the HP2010 target, while 29% (n=43) were moving away from the HP2010 target. There was no change from baseline to the most recent data point for 9 objectives. Fifteen objectives (10%) met the target at baseline, while another 25 objectives met or exceeded the target at the most recent data point. Compared to the other racial and ethnic populations the Asian population had the largest percentage of objectives that met the target at baseline and the largest percentage of objectives that have already met or exceeded their targets (see Healthy People Statistical Note no. 26).

- *The Asian population had the best rate for 45% of the population-based objectives with data for the Asian population.*

Figure 3. Percent distribution of Healthy People 2010 objectives by size of disparity at most recent data point for the Asian population [a]

N = 188 objectives

[a] Based on data in the Healthy People 2010 database, DATA2010, as of August 2007.
[b] Includes objectives for which the disparity is statistically significant and objectives for which the disparity could not be tested. Differences that were >= 10% and not statistically significant are included in the "<10% or not statistically significant" category.

Data for the Asian population were available for 188 objectives. However, racial and ethnic disparities could not be assessed for 2 of the objectives, because the statistical criterion for identifying a best group rate was not met. The Asian population had the best rate for 45% (n=85) of the 188 objectives. Objectives where the Asian 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 18% of objectives.

Approximately 27% of the objectives (n=50) had rates for the Asian population that were 10-49% different from the best group rate, while only 5% of the objectives had rates that were *100 percent or more different* from the best group. A 100 percent difference means that the Asian rate was 2 times the best group rate. The 10 objectives with the largest disparity for the Asian population are identified in Table 2.

- *The Asian population had the best rate for more than half of the objectives with data for the Asian population in the Injury and Violence Prevention focus area (FA-15), Maternal, Infant, and Child Health focus area (FA-16), and Substance Abuse focus area (FA-26).*

Table 1. *Healthy People 2010* **objectives for which the Asian population had the "best" rate at the most recent data point [a, b]**

Objective number	Objective	Most recent data year [a]
02-01	Mean level of joint pain: 18+ years with arthritis (2002, 2003)	2003
02-02	Activity limitations due to arthritis: 18+ years with arthritis[†]	2005
02-11	Activity limitations due to chronic back conditions: 18+ years[†]	2005
03-01	Overall cancer deaths	2004
03-03	Female breast cancer deaths	2004
03-04	Cervical cancer deaths	2004
03-05	Colorectal cancer deaths	2004
03-07	Prostate cancer deaths	2004
03-08	Melanoma cancer deaths[†]	2004
03-09b	Sun exposure and skin cancer: 18+ years	2005
04-02	Cardiovascular disease deaths: persons with chronic kidney failure	2004
04-04	Use of arteriovenous fistulas: hemodialysis patients 20+ years[†]	2001
04-05	Registration for kidney transplantation: kidney patients 20+ years	2004
05-03	Total cases of diabetes[†]	2005
05-05	Diabetes-related deaths	2003
05-11	Annual urinary microalbumin measurement: 65+ years with diabetes	2004
05-12	A1C test at least two times a year: 18+ years with diabetes[†]	2004
07-01	High school completion: 18-24 years[†]	2004
07-06	Employer-sponsored health promotion activities: employees 18+ years[†]	1998
07-12	Participation in community health promotion activities: 65+ years	1998
08-01d	Harmful air pollutants: Nitrogen dioxide	2004
08-01f	Harmful air pollutants: Lead	2004
08-18	Homes tested for radon	1998
12-01	Coronary heart disease (CHD) death rate	2004
12-15	Blood cholesterol screening within past 5 years: 18+ years	2003
13-01	New AIDS cases	2005
13-14	HIV-infection deaths[†]	2004
14-22c	Hepatitis B immunization: 3 doses, 19-35 months[†]	2005
14-22d	MMR immunization: 1 dose, 19-35 months[†]	2005

14-22e	Polio immunization: 3 doses, 19-35 months[†]	2005
14-22f	Varicella immunization: 1 dose, 19-35 months[†]	2005
15-03	Firearm-related deaths	2004
15-08	Deaths from poisoning	2004
15-09	Deaths from suffocation	2004
15-13	Deaths from unintentional injuries	2004
15-15a	Motor vehicle crash deaths	2004
15-25	Residential fire deaths[†]	2004
15-26a	Persons in residences with smoke alarms[†]	2003
15-32	Homicides	2004
15-37	Physical assault: 12+ years	2001
16-01a	Fetal deaths: 20+ weeks gestation	2004
16-01b	Perinatal deaths: 28 weeks gestation to < 7 days after birth	2004
16-01c	Infant deaths	2003
16-01d	Neonatal deaths	2003
16-01e	Postneonatal deaths	2003
16-01f	Infant deaths due to birth defects	2003
16-01g	Infant deaths due to congenital heart defects	2003
16-01h	Infant deaths due to sudden infant death syndrome[†]	2003
16-02a	Child deaths: 1-4 years	2004
16-02b	Child deaths: 5 to 9 years	2004
16-03a	Adolescent deaths: 10-14 years	2004
16-03b	Young adult deaths: 15-19 years	2004
16-03c	Young adult deaths: 20-24 years	2004
16-04	Maternal deaths[†]	2004
16-10b	Very low birth weight (VLBW) infants	2004
16-11a	Preterm births: < 37 weeks gestation	2004
16-11b	Preterm births: 32-36 weeks gestation	2004
16-11c	Preterm births: < 32 weeks gestation	2004
16-17c	Pregnant women abstaining from cigarette smoking during pregnancy: 15-44 years	2004
16-19a	Breastfeeding: early post partum period	2003
16-19b	Breastfeeding: at 6 months	2003
16-19c	Breastfeeding: at 1 year	2003
19-13	Anemia: low-income pregnant females, third trimester, 12-49 years	2003
19-18	Food security: U.S. households	2001-03
24-01d	Asthma deaths: 35-64 years[†]	2004
24-10	COPD deaths: 45+ years	2004
25-02a	Gonorrhea: new cases	2004
25-02b	Gonorrhea: new cases females 15-44 years	2004

25-03	Primary and secondary syphilis: new cases	2004
25-09	Congenital syphilis: new cases	2003
26-01a	Alcohol-related motor vehicle crash deaths	1998
26-02	Cirrhosis deaths	2004
26-03	Drug-induced deaths	2004
26-09b	Average age at first use of marijuana: 12-17 years	2003
26-10a	No alcohol or illicit drugs in the past 30 days: 12-17 years[†]	2003
26-10b	Used marijuana in the past 30 days: 12-17 years[†]	2003
26-10c	Used illicit drugs in the past 30 days: 18+ years[†]	2003
26-11c	Binge drinking in the past 30 days: 18+ years	2003
26-11d	Binge drinking in the past 30 days: 12-17 years[†]	2003
26-13a	Exceeded low-risk drinking guidelines in past year: females 21+ years	2001-02
26-13b	Exceeded low-risk drinking guidelines in past year: males 21+ years	2001-02
26-15	Inhalant use in the past year: 12-17 years[†]	2003
26-17b	Perception of risk of smoking marijuana once a month: 12-17 years	2003
27-01a	Cigarette smoking: 18+ years	2005
27-12	Worksite policies prohibiting smoking	2001-02

[a] Based on data in the Healthy People 2010 database, DATA2010, as of August 2007

[b] The Asian 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 available.

[†] The rate for the Asian 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 Asian population had the best rate among the racial and ethnic populations for 85 Healthy People 2010 objectives. The most well-represented focus areas are: Maternal, Infant, and Child Health focus area (FA-16) with 22 objectives, Substance Abuse focus area (FA-26) with 13 objectives, the Injury and Violence Prevention focus area (FA-15) with 9 objectives, and Cancer focus area (FA-3) with 7 objectives.

- *Objectives from the Immunization and Infectious Diseases focus area (FA-14) and Environmental Health focus area (FA-8) make up six of the ten largest health disparities between the Asian population and the group with the best rate.*

Table 2. Ten largest health disparities for the Asian population: *Healthy People 2010* **objectives** [a]

Rank	Objective	Most recent data year	"Best" group rate population	Asian rate	Percent difference from the "best" group rate	Number of cases in most recent data year	Estimated number of cases if "best" rate had been attained[§]
1	**14-11.** Tuberculosis (new cases per 100,000 population)	2005	1.3 White non-Hispanic	26.4	1930.8	3,265	160
2	**08-01c.** Harmful air pollutants: Carbon monoxide (Percent)	2004	3.7 Black non-Hispanic	16.6	348.6	1,704,082	380,000
3	**03-11a.** Pap test never received: females 18+ years (age adjusted percent)	2005	4.9 White non-Hispanic	21.3	334.7	746,488	172,000
4	**08-01b.** Harmful air pollutants: Particulate matter (Percent)	2004	5.8 Black non-Hispanic	22.4	286.2	2,298,929	595,000
5	**14-06.** Hepatitis A (new cases per 100,000 population)	2005	0.5 American Indian	1.7	240.0	218	65
6	**13-11.** No HIV testing: tuberculosis patients: 25-44 years (Percent)	2005	17.0 Black	51.0	200.0	Not available	Cannot be estimated
7	**08-01a.** Harmful air pollutants: Ozone (Percent)	2004	22.8 American Indian	67.1	194.3	6,870,038	2,334,000
8	**01-04b.** No source of ongoing care: < 18 years (age adjusted percent)	2005	3.0 White non-Hispanic	7.1	136.7*	186,137	78,700
9	**12-08.** No knowledge of stroke symptoms: 20+ years (age adjusted percent)	2001	18.3 White non-Hispanic	38.7	111.5*	1,819,478	860,000

10	**14-03a.** Hepatitis B: 19-24 years (cases per 100,000 population)	2005	1.8	3.5	94.4		
			American Indian			Not available	Cannot be estimated

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a   Based on data in the 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 Asian 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.
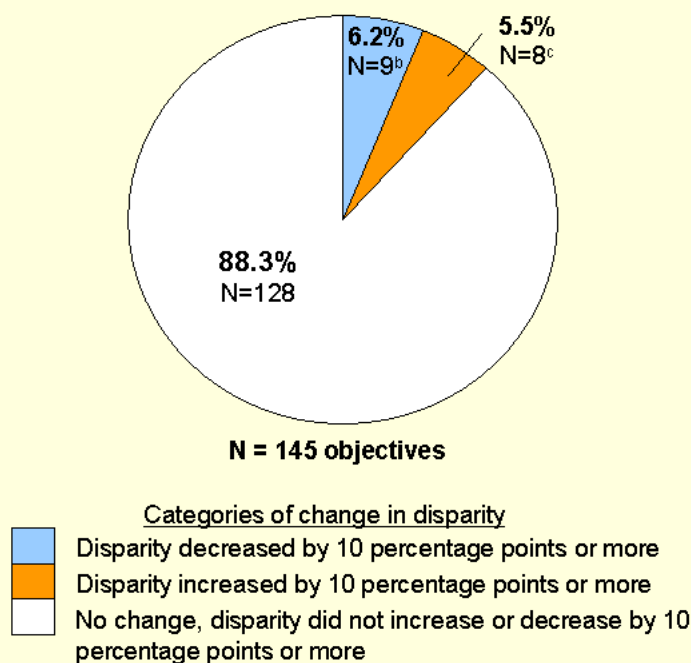

The ten largest health disparities between the Asian population and the group with the best rate included three objectives from the Immunization and Infectious Diseases focus area (FA-14), three objectives from the Environmental Health focus area (FA-8); one from the Cancer focus area (FA-3), one from the HIV focus area (FA-13), one from Access to Quality Health Services focus area (FA-1), and one objective from the Heart Disease and Stroke focus area (FA-12).

The Asian population shares four of its largest disparities with the Hispanic or Latino population: New cases of tuberculosis (14-11), New cases of hepatitis A (14-06), Harmful air pollutants: Particulate matter (08-01b) and Carbon monoxide exposure (08-01c). 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.

Note that among the objectives with the largest relative disparities, the absolute number of persons affected varies considerably ranging from 218 cases of hepatitis A to almost 7 million persons with ozone exposure. The rate of tuberculosis was 26.4 cases per 100,000 in the Asian population and 1.3 cases per 100,000 in the non-Hispanic white population in 2005. This represented a 1,931 percent difference between the groups. If the Asian population had attained the same rate as the best racial and ethnic group (1.3 cases per 100,000) the total number of cases in the Asian population would have been 160. In actuality, the total number of cases in the Asian population was 3,265. Thus, the excess number of persons affected by tuberculosis as a result of the disparity was approximately 3,105. This demonstrates that a large relative disparity does not necessarily indicate that large numbers of persons are affected.

- *The disparity between the Asian population and the racial and ethnic group with the best rate decreased for 9 objectives and increased for 8 objectives while there was no change for 128 objectives.*

Figure 4. Percent distribution of Healthy People 2010 objectives by categories of change in disparity over time for the Asian population[a]

6.2% N=9[b]

5.5% N=8[c]

88.3% N=128

N = 145 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

[a] Based on data in the Healthy People 2010 database, DATA2010, as of August 2007.
[b] Disparity decreased by 10 percentage points or more for 9 objectives. The decrease was not statistically significant for 2 objectives. Significance could not be tested for 7 objectives.
[c] Disparity increased by 10 percentage points or more for 8 objectives. Significance could not be tested for 8 objectives.

The number of objectives with decreasing disparities is nearly equal to the number of objectives with increasing disparities. Disparities between the Asian population and the population with the best rate decreased for 9 objectives (6%) between the baseline and most recent data point. An increase in disparity was observed for 8 objectives (6%). There were no changes in disparity over time for 128 objectives (88%). The decrease in disparity was not statistically significant for two objectives; significance could not be tested for the remainder. Statistical significance could not be tested for the increases in disparity. Statistical significance could not be tested where measures of variability were not available.

- *Disparities between the Asian population and the racial and ethnic group with the best rate were reduced by 100 percentage point or more for 3 objectives in the Immunization and Infectious Diseases focus area (FA-14), one objective in the Environmental Health focus area (FA-8), and one objective in the Sexually Transmitted Diseases focus areas (FA-25).*

Table 3. ***Healthy People 2010*** **objectives with decreasing disparities between the Asian population and the group with the best rate [a]**

Objective number	Objective	Baseline data year	Most recent data year [a]
100 percentage point or more decrease in disparity			
8-01d.	Harmful air pollutants: Nitrogen dioxide [†]	1997	2004
14-03a.	Hepatitis B: 19-24 years [†]	1997	2005
14-03b.	Hepatitis B: 25-39 years [†]	1997	2005
14-03c.	Hepatitis B: 40+ years [†]	1997	2005
25-09.	Congenital syphilis [†]	1997	2003
10-49 percentage point decrease in disparity			
4-01.	End-stage renal disease *[¶]	1997	2002
4-07.	End-stage renal disease due to diabetes *[¶]	1997	2004
13-11.	HIV testing in TB patients: 25-44 years [†]	1998	2005
19-04.	Growth retardation: low-income, < 5 years [†]	1997	2003

[a] 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 Asian population for 9 objectives. Five objectives had a decrease in disparity of 100 percentage points or more. Four objectives demonstrated a decrease in disparity of 10-49 percentage points. Disparities between the Asian population and the racial and ethnic group with the best rate were reduced for 3 objectives in the Immunization and Infectious Diseases focus area (FA-14), 2 objectives in the Chronic Kidney Disease focus area (FA-4), for

one objective in the Environmental Health (FA-8), Sexually Transmitted Diseases (FA-25), HIV (FA-13), and Nutrition and Overweight (FA-19) focus areas.

There were two objectives where the rate for the most recent data year was further away from the target than the baseline rate but disparity between the Asian population and the group with the best rate decreased: End-stage renal disease (4-1) and End-stage renal disease due to diabetes (4-7). The best group rate for these objectives increased by a greater proportion than the rate for the Asian population. This resulted in a decrease in the relative difference between the Asian 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 Asian population and the racial and ethnic group with the best rate increased for four objectives in the Environmental Health (FA-8) focus area and for two objectives in the Immunization and Infectious Diseases focus area (FA-14) and in the Sexually Transmitted Diseases focus areas (FA-25).*

Table 4. *Healthy People 2010* **objectives with increasing disparities between the Asian population and the group with the best rate [a]**

Objective number	Objective	Baseline data year	Most recent data year [a]
	100 percentage point or more increase in disparity		
8-01c.	Harmful air pollutants: Carbon monoxide [†]	1997	2004
14-06.	Hepatitis A [†]	1997	2005
14-11.	Tuberculosis [†]	1998	2005
	50-99 percentage point increase in disparity		
8-01b.	Harmful air pollutants: Particulate matter [†]	1997	2004
	10-49 percentage point increase in disparity		
8-01a.	Harmful air pollutants: Ozone [†]	1997	2004
8-01e.	Harmful air pollutants: Sulfur dioxide [†]	1997	2004
25-01a.	Chlamydia: females 15-24 years attending family planning clinics [†¶]	1999	2004
25-01b.	Chlamydia: females 15-24 years attending STD clinics [†¶]	1999	2004

[a] 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 increased for the Asian population for 8 objectives. Disparities increased for two or more objectives in three focus areas: Environmental Health (4), Immunizations and Infectious Diseases (2), and Sexually Transmitted Diseases (2).

Disparity increased by 100 percentage points or more for three objectives. One objective demonstrated an increase in disparity of 50-99 percentage points, while 4 objectives

demonstrated an increase in disparity of 10-49 percentage points. Statistical significance could not be tested for any of the eight objectives.

Gaps increased between the Asian group rate and the best group rate from baseline to the most recent data point for these objectives. For two objectives in the Sexually Transmitted Diseases focus area (FA-25), this increase in disparity is also associated with movement away from the Healthy People 2010 target. Relative disparities increased for these objectives because the best group rate moved away from the target by a smaller proportion than the rate for the Asian population.

- *Overall, the most frequent combination of progress and disparity for the Asian population was movement toward the target with no change in disparity (n=27).*

Table 5. Number of Healthy People 2010 objectives by progress toward the target and change in disparity for the Asian population [a]

	Change in disparity [b]				
Progress toward the Healthy People 2010 target	Decreased 10 percentage points or more	No change [c]	Increased 10 percentage points or more	Best group rate at most recent data point[d]	**Total***
	(Number of objectives)				
Met or exceeded target	2	1	1	21	**25**
Moved toward target [e]	6	27	5	16	**54**
No change or moved away from target [f]	1	22	2	26	**51**
Total	**9**	**50**	**8**	**63**	130

* Fifteen objectives met or exceeded the target at baseline, they are not included in this table.

[a] Based on the Healthy People 2010 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.

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

[d] If the Asian population became the best group rate through a reduction in disparity, the objective is included in the first column of data on the left. This occurred for three objectives.
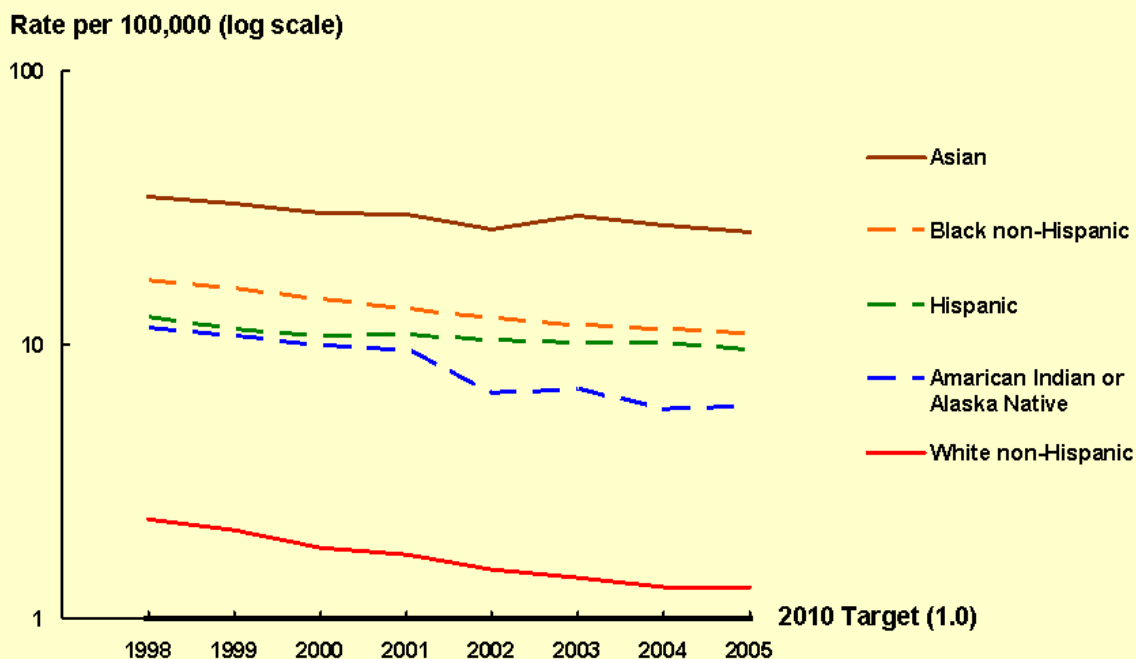
[e] The difference between the data value at the baseline and the year 2010 target decreased.

[f] There was no change in rates from the baseline to the most recent data point or the most recent data point was in the opposite direction from the target.

There were 130 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 (5). Among objectives moving toward the target, disparity decreased for six objectives and increased for five. The most frequent progress, disparity outcome in the Asian population was movement toward the target with no change in disparity (n = 27). The Asian population had the best rate for 63 objectives.

- *Although the rate of new tuberculosis cases (objective 14-11) decreased for all racial and ethnic groups between the baseline and most recent data point, the disparity for the Asian group relative to the best group increased during this interval.*

Figure 5. New cases of tuberculosis: United States, 1998-2005 [a]

Rate per 100,000 (log scale)

Legend:
- Asian
- Black non-Hispanic
- Hispanic
- American Indian or Alaska Native
- White non-Hispanic

2010 Target (1.0)

[a] Based on data in the Healthy People 2010 database, DATA2010, as of August 2007.

The rate of new tuberculosis cases decreased for all racial and ethnic groups between 1998 and 2005. However, the Healthy People 2010 target of 1.0 per 100,000 population was not achieved by any group. The disparity between the Asian population and the best racial and ethnic population (non-Hispanic white) increased during this period. The percent difference between the Asian rate and the non-Hispanic white rate was 1,404 percent at the baseline (1998) and 1,931 percent at the most recent data point (2005). The reason for the increase in the relative disparity was that the non-Hispanic white group moved toward the target by a greater proportion than the Asian group. This example demonstrates that progress toward a Healthy People 2010 target can be independent of reductions in disparities.

Data for the Native Hawaiian or Other Pacific Islander population

In August 2007, data were available for the Native Hawaiian or Other Pacific Islander population for 56 objectives. Data for the HP2010 baseline and for a more recent data point were available for 34 objectives; data were available either at the baseline or for a more recent data point for the remaining 22 objectives. Data were available for one or more objectives in 10 different focus areas, however, four focus areas accounted for most of the objectives:

> Eight objectives in the Environmental Health focus area (FA-8) based primarily on data from the Aerometric Information Retrieval System (Environmental Protection Agency).

> Ten objectives in the Immunization and Infectious Diseases focus area (FA-14) based primarily on data from the National Immunization Survey (Centers for Disease Control and Prevention),

> Eighteen objectives in the Maternal, Child, and Infant Health focus area (FA-16) based primarily on data from the National Vital Statistics System (Centers for Disease Control and Prevention), and

> Nine objectives in the Substance Abuse focus area (FA-26) based primarily on data from the National Survey on Drug Use and Health (Substance Abuse and Mental Health Services Administration).

A few observations can be made based on this limited number of objectives.

- The Native Hawaiian or Other Pacific Islander population had the most favorable rate among the racial and ethnic populations for 9 objectives, including:

> 8-01d. Persons exposed to nitrogen dioxide,

> 8-01f.   Persons exposed to lead,

> 16-09a. Cesarean births among women giving birth for the first time,

> 16-09b. Cesarean births among women with a prior cesarean birth.

- Among the 34 objectives with trend data, 17 objectives were moving away from the HP2010 target, 13 objectives were moving toward the target and there was no change for 4 objectives.

- The largest disparity among the objectives with data for the Native Hawaiian or Other Pacific Islander population was in the rate of new cases of tuberculosis (14-11).

- The rate of new cases of tuberculosis declined between the 1998 baseline and 2005, however, the best group rate declined by a greater proportion, resulting in an increase in disparity.

SUMMARY

- Data for the Asian population were available for at least one data point for 188 of the 504 Healthy People 2010 population-based objectives (37%). Trend data for at least two points in time were available for 147 of the objectives.

- Between the baseline and the most recent data point, the Asian population moved toward the target for 37% (n=55) of the population-based objectives with trend data, while 29% (n=43) of the objectives moved away from the HP2010 target.

- Data to assess disparities between the Asian population and the best group rate were available for 188 objectives. The Asian population had the best rate for 45% (n=85) of those 188 objectives and had the best rate for more than half of the objectives with data for the Asian population in the Injury and Violence Prevention (FA-15), Maternal, Infant, and Child Health (FA-16), and Substance Abuse (FA-26) focus areas.

- Objectives from the Immunization and Infectious Diseases (FA-14) and Environmental Health (FA-8) focus areas make up six of the ten largest health disparities between the Asian population and the group with the best rate.

- The change in disparity between the Asian population and the racial or ethnic population with the best group rate was categorized as no change (less than 10 percentage points and/or not statistically significant) for 88 percent of 145 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 (9 objectives) is nearly equal to the number of objectives with increasing disparities (8 objectives).

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

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