Arthritis, Osteoporosis, and Chronic Back Conditions

CHAPTER 2

Co-Lead Agencies

Centers for Disease Control and Prevention
National Institutes of Health

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GOAL:

Prevent illness and disability related to arthritis and other rheumatic conditions, osteoporosis, and chronic back conditions.

The objectives in this chapter measure the prevention of illness and disability related to arthritis, osteoporosis, and chronic back conditions. The **arthritis** objectives track a variety of pain, function, and intervention measures. The **osteoporosis** objectives track bone mineral density, a measure of the major risk factor for fractures. Hospitalizations for osteoporosis-related vertebral fractures are also monitored. Activity limitation due to **chronic back conditions** is used to measure the effects of chronic back pain.

All Healthy People tracking data quoted in this chapter, along with technical information and Operational Definitions for each objective, can be found in the Healthy People 2010 database, DATA2010, available from http://wonder.cdc.gov/data2010/.

More information about this focus area can be found in the following publications:

- *Healthy People 2010: Understanding and Improving Health*, available from http://www.healthypeople.gov/2010/Document/tableofcontents.htm#under.
- *Healthy People 2010 Midcourse Review*, available from http://www.healthypeople.gov/2010/data/midcourse/html/default.htm#FocusAreas.

Highlights

- Some progress was made for objectives in this Focus Area during the past decade [1]. Twenty-three percent of the Arthritis, Osteoporosis, and Chronic Back Conditions objectives with data to measure progress moved toward or achieved their Healthy People 2010 targets (Figure 2-1). However, statistically significant health disparities of 100% or more were observed among education and income groups (Figure 2-2), as discussed below [2].

Arthritis

- The proportion of overweight and obese adults aged 18 and over with arthritis who received counseling for weight reduction (objective 2-4a) increased 17.1% between 2002 and 2006, from 35% to 41% (age adjusted), moving toward the Healthy People 2010 target of 46%.
- Statistically significant disparities of 100% or more were observed in the unemployment rate among adults with arthritis (objective 2-5a).
  - Among education groups, persons with at least some college education had the lowest (best) unemployment rate among persons with arthritis aged 25–64, 27% (age adjusted) in 2008, whereas the rate for persons with less than a high school education was 61% (age adjusted). The rate for the population with less than a high school education was nearly two and a half times the best group rate [2].
  - Among income groups, the middle/high-income population had the lowest (best) unemployment rate among persons aged 18–64 with arthritis, 23% (age adjusted) in 2008, whereas the poor and near-poor populations had rates of 69% and 51% (age adjusted), respectively. The rate for the poor population was three times the best group rate (that for the middle/high-income population), whereas the rate for the near-poor population was more than twice the best rate [2].
- Statistically significant disparities of 100% or more were also observed in the effect of arthritis on paid work among adults with arthritis (objective 2-5b).

- Among education groups, persons with at least some college education had the lowest (best) rate of effect of arthritis on paid work among persons with arthritis aged 25–64, 25% (age adjusted) in 2006. The rate for persons with less than a high school education was 53% (age adjusted), more than twice the best group rate [2].
- Among income groups, the middle/high-income population had the lowest (best) rate of effect of arthritis on paid work among persons with arthritis aged 18–64, 24% (age adjusted) in 2006. The poor population had a rate of 58% (age adjusted), almost two and a half times the best group rate [2].

› Activity limitations due to arthritis (objective 2-2) varied by geographic area. In 2007, the states of Connecticut, Delaware, Hawaii, Illinois, Iowa, New Jersey, North Dakota, Pennsylvania, Rhode Island, Virginia, Utah, and Wyoming had rates that met or exceeded the Healthy People 2010 target. Alabama, Alaska, Georgia, Kentucky, Tennessee, and West Virginia had the highest rates (Figure 2-3).

Osteoporosis

› The prevalence of osteoporosis among adults aged 50 and over (objective 2-9) declined 50.0% between 1988–94 and 2005–08, from 12% to 6% (age adjusted), exceeding the Healthy People 2010 target of 10%.

Chronic Back Conditions

› Statistically significant disparities of 100% or more were observed for activity limitations among adults aged 18 and over with chronic back conditions (objective 2-11).

- Among racial and ethnic populations, the Hispanic or Latino population had the lowest (best) rate of activity limitations among adults with chronic back conditions, 26% (age adjusted) in 2008. Persons of two or more races had a rate of 80% (age adjusted), more than three times the best group rate [2].
- Among education groups, persons aged 25 and over with at least some college had the lowest (best) rate of activity limitations among adults with chronic back conditions, 27% (age adjusted) in 2008. The rate for persons with less than a high school education was 56% (age adjusted), more than twice the best group rate [2].
- Among income groups, the middle/high-income population had the lowest (best) rate of activity limitations among adults with chronic back conditions, 22% (age adjusted) in 2008, whereas the rates for the poor and near-poor populations were 72% and 49% (age adjusted), respectively. The rate for the poor population was nearly three and a half times the best group rate (that for the middle/high-income population), whereas the rate for the near-poor population was more than twice the best group rate [2].

Summary of Progress

› Figure 2-1 presents a quantitative assessment of progress in achieving the Healthy People 2010 objectives for Arthritis, Osteoporosis, and Chronic Back Conditions [1]. Data to measure progress toward target attainment were available for all 13 objectives, although most objectives were only monitored over 4 to 6 years. Of these:

- One objective (2-9) exceeded the Healthy People 2010 target.
- Two objectives moved toward their targets. A statistically significant difference between the baseline and the final data points was observed for one of these objectives (2-4a); no significant difference was observed for the second objective (2-11).
- Three objectives (2-1, 2-4b, and 2-8) showed no change.
- Seven objectives moved away from their targets. A statistically significant difference between the baseline and the final data points was observed for two of these objectives (2-6 and 2-10). No significant differences were observed for the remaining five objectives (2-2, 2-3, 2-5a and b, and 2-7).

› Figure 2-2 displays health disparities in Arthritis, Osteoporosis, and Chronic Back Conditions from the best group rate for each characteristic at the most recent data point [2]. It also displays changes in disparities from baseline to the most recent data point [3].

- Of the seven objectives with statistically significant racial and ethnic health disparities of 10% or more, the non-Hispanic white population had the best rate for three objectives (2-5b, 2-6, and 2-7). The Hispanic or Latino population had the best rate for two objectives (2-4b and 2-11); and the Asian (objective 2-1) and non-Hispanic black (objective 2-4a) populations had the best rate for one objective each.
- Females had better rates than males for three of the four objectives with statistically significant health disparities of 10% or more by sex (objectives 2-4a, 2-4b, and 2-7). Males had a better rate than females for the fourth objective (2-5a).

- Persons with at least some college education had the best rate for all five of the objectives with statistically significant health disparities of 10% or more by education level (objectives 2-1, 2-2, 2-5a and b, and 2-11).
- Persons with middle/high incomes had the best rate for five of the six objectives with statistically significant health disparities of 10% or more by income (objectives 2-1, 2-2, 2-5a and b, and 2-11). The poor and near-poor populations both had the best rate for the sixth objective (2-4a).
- Health disparities of 100% or more were observed for three objectives: the unemployment rate among adults with arthritis (objective 2-5a), the effect of arthritis on paid work among adults with arthritis (objective 2-5b), and activity limitations due to chronic back conditions (objective 2-11). These disparities are discussed in the Highlights, above.

Transition to Healthy People 2020

For Healthy People 2020, the focus of the Arthritis, Osteoporosis, and Chronic Back Conditions Topic Area has been expanded to include more arthritis-specific activity limitations and other health outcomes associated with arthritis and osteoporosis. Consistent with Healthy People 2010, the primary goal of the Healthy People 2020 objectives is to prevent illness and disability related to arthritis and other rheumatic conditions, osteoporosis, and chronic back conditions. See HealthyPeople.gov for a complete list of Healthy People 2020 topics and objectives.

The Healthy People 2020 Arthritis, Osteoporosis, and Chronic Back Conditions Topic Area objectives can be grouped into four sections:

- Arthritis-related pain and impact
- Arthritis health system interventions
- Osteoporosis
- Chronic back conditions.

The differences between the Healthy People 2010 objectives and those included in Healthy People 2020 are summarized below:

- The Healthy People 2020 Arthritis, Osteoporosis, and Chronic Back Condition Topic Area has a total of 18 objectives, whereas the Healthy People 2010 Focus Area had 13 objectives.
  - Eleven Healthy People 2010 objectives were retained "as is" [4]. Among adults with arthritis, retained objectives tracked joint pain (objective 2-1), activity limitations due to arthritis (objective 2-2), personal care limitations (objective 2-3), counseling for weight reduction (objective 2-4a), counseling for physical activity or exercise (objective 2-4b), unemployment (objective 2-5a), effect of arthritis on paid work (objective 2-5b), and arthritis education (objective 2-8). Other retained objectives include seeing a health care provider for chronic joint symptoms (objective 2-7), prevalence of osteoporosis (objective 2-9), and activity limitations due to chronic back conditions (objective 2-11).
  - Two Healthy People 2010 objectives were archived: racial disparity in total knee replacements (objective 2-6) and hospitalization for osteoporosis-associated vertebral fractures (objective 2-10) [5].
  - Two objectives (15-28a and b) that track hospitalizations for hip fractures among older adults (separately for females and males) were moved from the Healthy People 2010 Injury and Violence Prevention Focus Area to the Healthy People 2020 Arthritis, Osteoporosis, and Chronic Back Conditions Topic Area.
- Five new objectives were added to the Healthy People 2020 Arthritis, Osteoporosis, and Chronic Back Conditions Topic Area:
  - Four new objectives assess difficulty in performing specific joint-related activities among adults with arthritis: walking a quarter of a mile; walking up 10 steps without resting; stooping, bending or kneeling; and using fingers to grasp or handle small objects.
  - A new objective assesses serious psychosocial distress among adults with arthritis.

Appendix D, "A Crosswalk Between Objectives From Healthy People 2010 to Healthy People 2020," summarizes the changes between the two decades of objectives, reflecting new knowledge and direction for this area.

Data Considerations

Figure 2-3 (Activity Limitations due to Arthritis) presents state-level data from the Behavioral Risk Factor Surveillance System (BRFSS). National data for these objectives come from the National Health Interview Survey (NHIS) and are the basis for setting the targets. BRFSS data may not be comparable with the national data from NHIS.

Education and income are the primary measures of socioeconomic status in Healthy People 2010. Most data

systems used in Healthy People 2010 define income as a family's income before taxes. To facilitate comparisons among groups and over time, while adjusting for family size and for inflation, Healthy People 2010 categorizes income using the poverty thresholds developed by the Census Bureau. Thus, the three categories of family income that are primarily used are:

- Poor—below the Federal poverty level
- Near poor—100% to 199% of the Federal poverty level
- Middle/high income—200% or more of the Federal poverty level.

These categories may be overridden by considerations specific to the data system, in which case they are modified as appropriate. See *Healthy People 2010: General Data Issues*, referenced below.

In general, data on educational attainment are presented for persons aged 25 and over, consistent with guidance given by the Census Bureau. However, because of the requirements of the different data systems, the age groups used to calculate educational attainment for any specific objective may differ from the age groups used to report the data for other Healthy People 2010 objectives, as well as from select populations within the same objective. Therefore, the reader is urged to exercise caution in interpreting the data by educational attainment shown in the Health Disparities Table. See *Healthy People 2010: General Data Issues*, referenced below, for additional information.

Additional information on data issues is available from the following sources:

- All Healthy People 2010 tracking data can be found in the Healthy People 2010 database, DATA2010, available from http://wonder.cdc.gov/data2010/.
- Detailed information about the data and data sources used to support these objectives can be found in the Operational Definitions on the DATA 2010 website, available from http://wonder.cdc.gov/data2010/focusod.htm.
- More information on statistical issues related to Healthy People tracking and measurement can be found in the Technical Appendix and in *Healthy People 2010: General Data Issues*, which is available in the General Data Issues section of the NCHS Healthy People website under Healthy People 2010; see http://www.cdc.gov/nchs/healthy_people/hp2010/hp2010_data_issues.htm.

Notes

1. Displayed in the Progress Chart (Figure 2-1), the percent of targeted change achieved expresses the difference between the baseline and the final value relative to the initial difference between the baseline and the Healthy People 2010 target. As such, it is a relative measure of progress toward attaining the Healthy People 2010 target. See the Reader's Guide for more information. When standard errors were available, the difference between the baseline and the final value was tested at the 0.05 level of significance. See the Figure 2-1 footnotes, as well as the Technical Appendix, for more detail.
2. Information about disparities among select populations is shown in the Health Disparities Table (Figure 2-2). Disparity from the best group rate is defined as the percent difference between the best group rate and each of the other group rates for a characteristic. For example, racial and ethnic health disparities are measured as the percent difference between the best racial and ethnic group rate and each of the other racial and ethnic group rates. Similarly, disparities by sex are measured as the percent difference between the better group rate (e.g., female) and the rate for the other group (e.g., male). Some objectives are expressed in terms of favorable events or conditions that are to be increased, while others are expressed in terms of adverse events or conditions that are to be reduced. To facilitate comparison of health disparities across different objectives, disparity is measured only in terms of adverse events or conditions. For comparability across objectives, objectives that are expressed in terms of favorable events or conditions are re-expressed using the adverse event or condition for the purpose of computing disparity, but they are not otherwise restated or changed. For example, objective 1-1, to increase the proportion of persons with health insurance (e.g., 72% of the American Indian or Alaska Native population under age 65 had some form of health insurance in 2008), is expressed in terms of the percentage of persons without health insurance (e.g., 100% – 72% = 28%) of the American Indian or Alaska Native population under age 65 did not have any form of health insurance in 2008) when the disparity from the best group rate is calculated. See the Reader's Guide for more information. When standard errors were available, the difference between the best group rate and each of the other group rates was tested at the 0.05 level of significance. See the Figure 2-2 footnotes, as well as the Technical Appendix, for more detail.

3. The change in disparity is estimated by subtracting the disparity at baseline from the disparity at the most recent data point and, therefore, is expressed in percentage points. See the Reader's Guide for more information. When standard errors were available, the change in disparity was tested at the 0.05 level of significance. See the Figure 2-2 footnotes, as well as the Technical Appendix, for more detail.

4. As of the Healthy People 2020 launch, Healthy People 2020 objectives that were retained "as is" from Healthy People 2010 had no change in the numerator or denominator definitions, the data source(s), or the data collection methodology. These include objectives that were developmental in Healthy People 2010 and are developmental in Healthy People 2020, and for which no numerator information is available.

5. Archived objectives had at least one data point in Healthy People 2010 but were not carried forward into Healthy People 2020.

Comprehensive Summary of Objectives: Arthritis, Osteoporosis, and Chronic Back Conditions

Objective	Description	Data Source or Objective Status
2-1	Mean level of joint pain among adults with arthritis (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
2-2	Activity limitations due to arthritis (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
2-3	Personal care limitations in adults with arthritis (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
2-4a	Overweight and obese adults with arthritis who receive counseling for weight reduction (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
2-4b	Adults with arthritis who receive counseling for physical activity or exercise (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
2-5a	Unemployment rate among adults with arthritis (age adjusted, 18–64 years)	National Health Interview Survey (NHIS), CDC, NCHS.
2-5b	Effect of arthritis on paid work among adults with arthritis (age adjusted, 18–64 years)	National Health Interview Survey (NHIS), CDC, NCHS.
2-6	Racial disparity in total knee replacement (black vs. white, 65+ years)	Medicare data, CMS.
2-7	Adults with chronic joint symptoms who saw a health care provider for their symptoms (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
2-8	Arthritis education among adults with arthritis (age adjusted, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.
2-9	Prevalence of osteoporosis (age adjusted, 50+ years)	National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
2-10	Hospitalization for osteoporosis-associated vertebral fractures (age adjusted, per 10,000 population, 65+ years)	National Hospital Discharge Survey (NHDS), CDC, NCHS.
2-11	Activity limitations due to chronic back conditions (age adjusted, per 1,000 population, 18+ years)	National Health Interview Survey (NHIS), CDC, NCHS.

Figure 2-1. Progress Toward Target Attainment for Focus Area 2: Arthritis, Osteoporosis and Chronic Back Conditions

LEGEND — Moved away from target[1] | Moved toward target | Met or exceeded target

Objective	Percent of targeted change achieved[2] (0 25 50 75 100)	2010 Target	Baseline (Year)	Final (Year)	Baseline vs. Final: Difference[3]	Baseline vs. Final: Statistically Significant[4]	Baseline vs. Final: Percent Change[5]
2-1. Mean level of joint pain among adults with arthritis (age adjusted, 18+ years)	0.0%	5.3	5.6 (2002)	5.6 (2006)	0	No	0.0%
2-2. Activity limitations due to arthritis (age adjusted, 18+ years)		33%	36% (2002)	39% (2008)	3	No	8.3%
2-3. Personal care limitations in adults with arthritis (age adjusted, 18+ years)		1.5%	2.1% (2002)	2.7% (2008)	0.6	No	28.6%
2-4a. Overweight and obese adults with arthritis who receive counseling for weight reduction (age adjusted, 18+ years)	54.5%	46%	35% (2002)	41% (2006)	6	Yes	17.1%
2-4b. Adults with arthritis who receive counseling for physical activity or exercise (age adjusted, 18+ years)	0.0%	67%	52% (2002)	52% (2006)	0	No	0.0%
2-5a. Unemployment rate among adults with arthritis (age adjusted, 18–64 years)		27%	33% (2002)	35% (2008)	2	No	6.1%
2-5b. Effect of arthritis on paid work among adults with arthritis (age adjusted, 18–64 years)		23%	30% (2002)	33% (2006)	3	No	10.0%
2-6. Racial disparity in total knee replacement (black vs. white, 65+ years)		0.0%	-35.9% (2002)	-38.4% (2006)	-2.5	Yes	7.0%
2-7. Adults with chronic joint symptoms who saw a health care provider for their symptoms (age adjusted, 18+ years)		77%	73% (2002)	72% (2008)	-1	No	-1.4%
2-8. Arthritis education among adults with arthritis (age adjusted, 18+ years)	0.0%	13%	11% (2002)	11% (2006)	0	No	0.0%
2-9. Prevalence of osteoporosis (age adjusted, 50+ years)	300.0%	10%	12% (1988–94)	6% (2005–08)	-6	Yes	-50.0%
2-10. Hospitalization for osteoporosis-associated vertebral fractures (age adjusted, per 10,000 population, 65+ years)		14.0	17.5 (1998)	23.4 (2007)	5.9	Yes	33.7%
2-11. Activity limitations due to chronic back conditions (age adjusted, per 1,000 population, 18+ years)	14.3%	25	32 (1997)	31 (2008)	-1	No	-3.1%

Figure 2-1. Progress Toward Target Attainment for Focus Area 2: Arthritis, Osteoporosis and Chronic Back Conditions (continued)

NOTES

See the Reader's Guide for more information on how to read this figure. See DATA2010 at http://wonder.cdc.gov/data2010 for all Healthy People 2010 tracking data.

FOOTNOTES

[1] Movement away from target is not quantified using the percent of targeted change achieved. See Technical Appendix for more information.

[2] Percent of targeted change achieved = $\frac{\text{Final value} - \text{Baseline value}}{\text{Healthy People 2010 target} - \text{Baseline value}} \times 100.$

[3] Difference = Final value – Baseline value. Differences between percents (%) are measured in percentage points.

[4] When estimates of variability are available, the statistical significance of the difference between the final value and the baseline value is assessed at the 0.05 level. See Technical Appendix for more information.

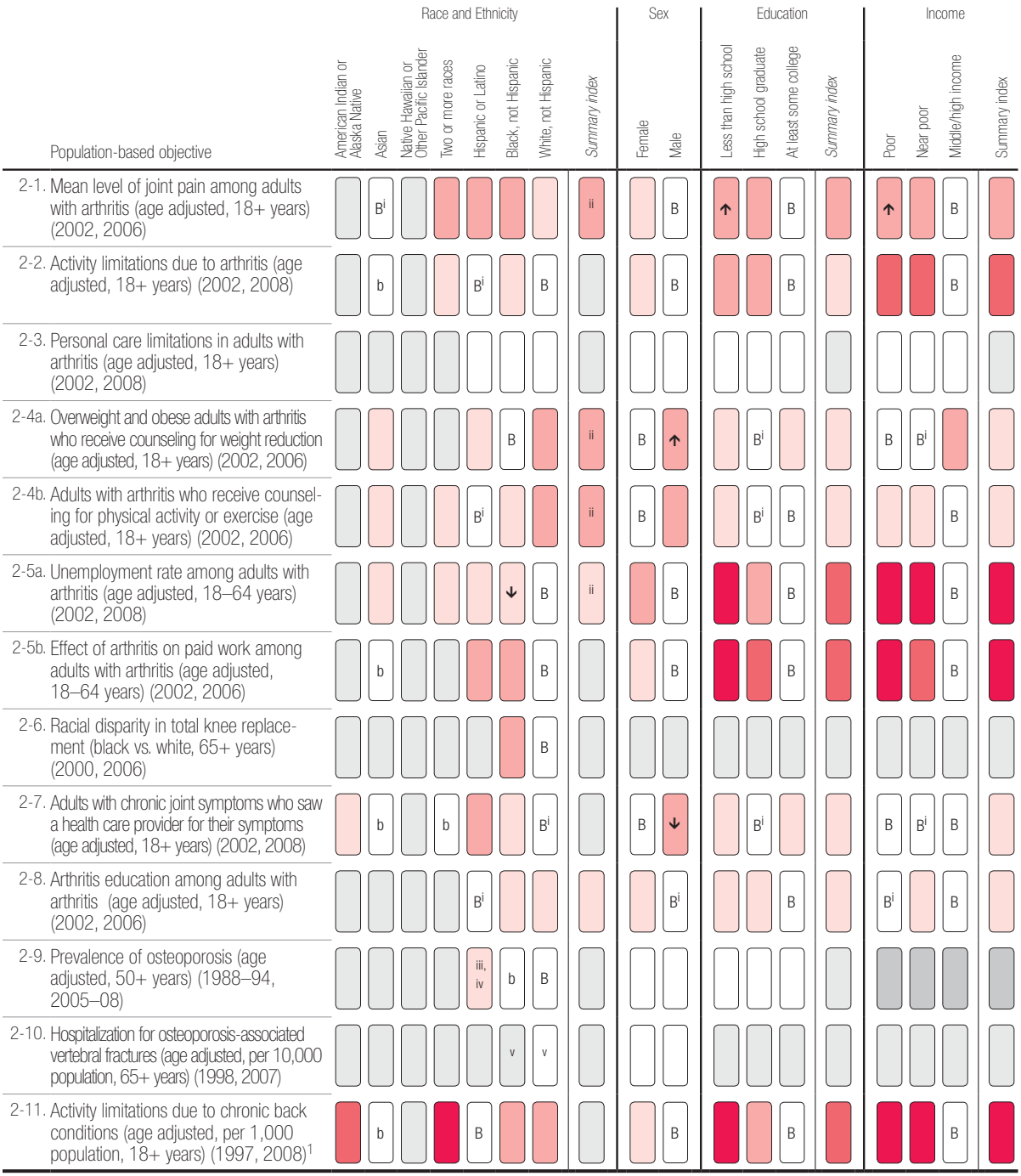
[5] Percent change = $\frac{\text{Final value} - \text{Baseline value}}{\text{Baseline value}} \times 100.$

DATA SOURCES

2-1–2-3. National Health Interview Survey (NHIS), CDC, NCHS.
2-4a–b. National Health Interview Survey (NHIS), CDC, NCHS.
2-5a–b. National Health Interview Survey (NHIS), CDC, NCHS.
2-6. Medicare data, CMS.
2-7–2-8. National Health Interview Survey (NHIS), CDC, NCHS.
2-9. National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
2-10. National Hospital Discharge Survey (NHDS), CDC, NCHS.
2-11. National Health Interview Survey (NHIS), CDC, NCHS.

Figure 2-2. Health Disparities Table for Focus Area 2: Arthritis, Osteoporosis, and Chronic Back Conditions

Disparities from the best group rate for each characteristic at the most recent data point and changes in disparity from the baseline to the most recent data point.



NOTES

See DATA2010 at http://wonder.cdc.gov/data2010 for all Healthy People 2010 tracking data.

Years in parentheses represent the baseline and most recent data years (if available).

Disparity from the best group rate is defined as the percent difference between the best group rate and each of the other group rates for a characteristic (e.g., race and ethnicity). The summary index is the average of these percent differences for a characteristic. Change in disparity is estimated by subtracting the disparity at baseline from the disparity at the most recent data point. Change in the summary index is estimated by subtracting the summary index at baseline from the summary index at the most recent data point. See Technical Appendix for more information.

Figure 2-2. Health Disparities Table for Focus Area 2: Arthritis, Osteoporosis, and Chronic Back Conditions (continued)

Measures of variability were available for all objectives in this table. Thus, the variability of best group rates was assessed, and statistical significance was tested. Disparities of 10% or more are displayed when the differences from the best group rate are statistically significant at the 0.05 level. Changes in disparities over time are indicated by arrows when the changes are greater than or equal to 10 percentage points and are statistically significant at the 0.05 level. See Technical Appendix.

LEGEND

The "best" group rate at the most recent data point.

B — The group with the best rate for specified characteristic.

b — Most favorable group rate for specified characteristic, but reliability criterion not met.

Reliability criterion for best group rate not met, or data available for only one group.

Disparity from the best group rate at the most recent data point.

Percent difference from the best group rate

- Less than 10%, or difference not statistically significant (when estimates of variability are available).
- 10%–49%
- 50%–99%
- 100% or more

Changes in disparity over time are shown when: (a) disparities data are available at both baseline and most recent time points; (b) data are not for the group(s) indicated by "B" or "b" at either time point; and (c) the change is greater than or equal to 10 percentage points and statistically significant, or when the change is greater than or equal to 10 percentage points and estimates of variability were not available. See Technical Appendix.

Increase in disparity (percentage points)

- ↑ 10–49 points
- ↑↑ 50–99 points
- ↑↑↑ 100 points or more

Decrease in disparity (percentage points)

- ↓ 10–49 points
- ↓↓ 50–99 points
- ↓↓↓ 100 points or more

Availability of Data

- Data not available.
- Characteristic not selected for this objective.

FOOTNOTES

[1] Baseline data by race and ethnicity are for 1999.

[i] The group with the best rate at the most recent data point is different from the group with the best rate at baseline. Both rates met the reliability criterion. See Technical Appendix.

[ii] Change in the summary index cannot be assessed. See Technical Appendix.

[iii] Data are for Mexican American.

[iv] Reliability criterion for best group rate not met, or data available for only one group, at baseline. Change in disparity cannot be assessed. See Technical Appendix.

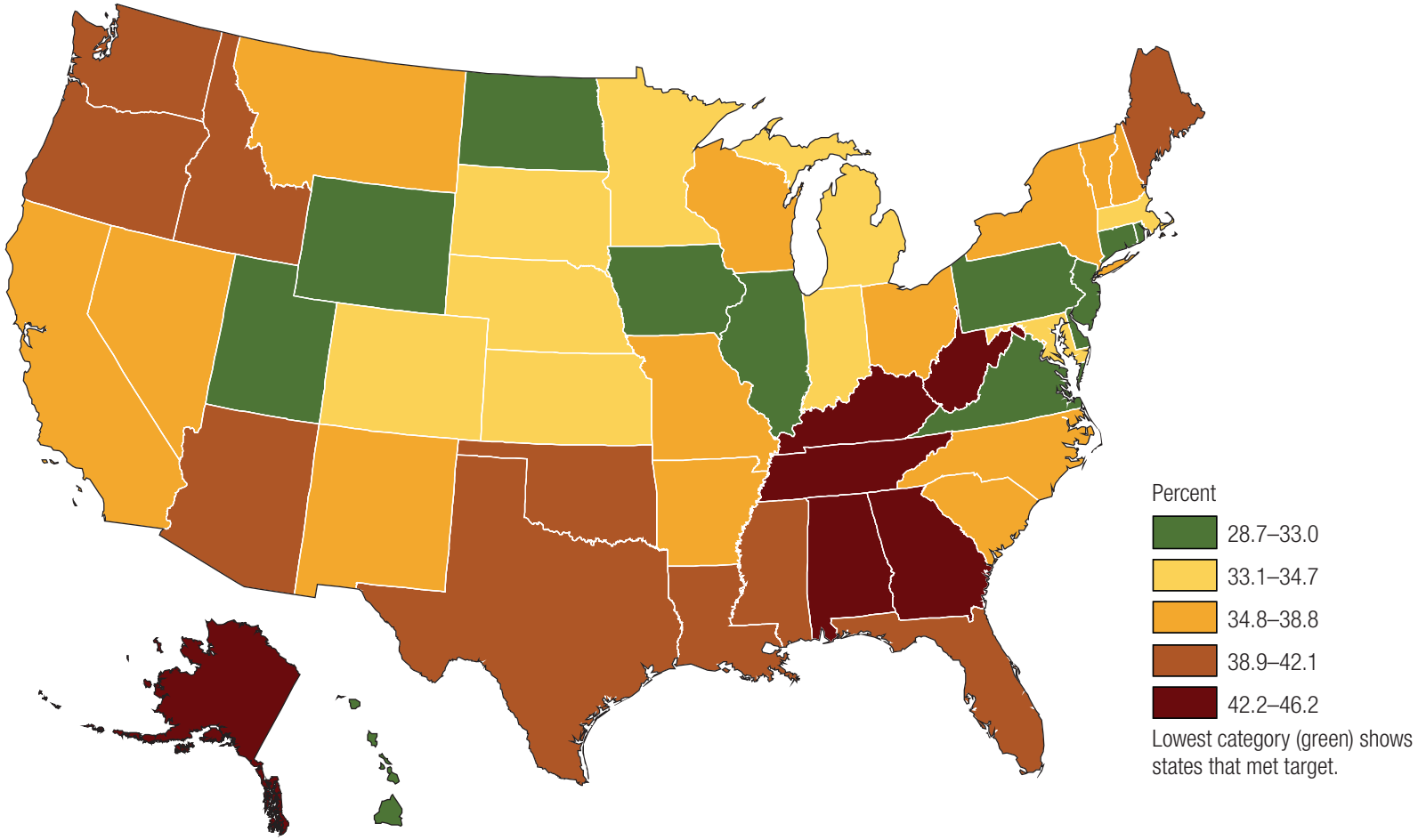
[v] Data include persons of Hispanic origin.

DATA SOURCES

2-1–2-3. National Health Interview Survey (NHIS), CDC, NCHS.
2-4a–b. National Health Interview Survey (NHIS), CDC, NCHS.
2-5a–b. National Health Interview Survey (NHIS), CDC, NCHS.
2-6. Medicare data, CMS.
2-7–2-8. National Health Interview Survey (NHIS), CDC, NCHS.
2-9. National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
2-10. National Hospital Discharge Survey (NHDS), CDC, NCHS.
2-11. National Health Interview Survey (NHIS), CDC, NCHS.

Figure 2-3. Activity Limitations due to Arthritis (Adults Aged 18+ With Diagnosed Arthritis), 2007

Healthy People 2010 objective 2-2 • Target = 33 percent



NOTES: Data are age adjusted to the 2000 standard population. The denominator for rates is adults aged 18 and over with doctor-diagnosed arthritis. Rates are displayed by a modified Jenks classification for U.S. states. National data for the objective come from the National Health Interview Survey (NHIS) and are the basis for setting the target. State data from BRFSS may not be comparable with national data from NHIS. The U.S. rate in 2007 from NHIS was 39.0%. The rate for all states combined from BRFSS in 2007 was 36.8%.

SOURCE: Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.