Midcourse Review

HEALTHY PEOPLE 2010

Arthritis, Osteoporosis, and Chronic Back Conditions

2

Co-Lead Agencies:

Centers for Disease Control and Prevention
National Institutes of Health

Contents

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

Introduction*

Doctor-diagnosed arthritis affected 21 percent of all adults on average in 2003–05.[1] Eight percent of persons aged 18 to 44 years, 29 percent of persons aged 45 to 64 years, and 50 percent of persons aged 65 years and older had doctor-diagnosed arthritis during 2003–05.[1] The rate for arthritis was higher among women than men and higher among the white non-Hispanic and black non-Hispanic populations than among the Hispanic population and persons of two or more races.[2]

Osteoporosis, based on a person's bone mineral density of the thigh bone, is found in about 10 percent of persons aged 50 years and older in the United States. Women are at higher risk for the disease, with about 16 percent of women at risk, compared with 3 percent of men.[3] Risk also increases with age; 19.0 percent, 32.5 percent, and 50.5 percent of women aged 65 to 74 years, 75 to 84 years, and 85 years and older, respectively, are at risk.[4]

Back pain is a common health problem that can range from a dull, constant ache to a sudden, sharp pain that can leave a person incapacitated. It can come on suddenly—from an accident, a fall, or lifting something too heavy—or it can develop slowly as the result of age-related changes to the spine. Back pain affects an estimated 8 out of 10 people at some point in their lifetime. Age, fitness level, diet, heredity, race and ethnicity, the presence of other diseases, and occupational risk factors contribute to back pain risk.[5]

Measures of preventing disability among persons with arthritis include those relating to pain, limitations, counseling, employment, early diagnosis, and education. Since the beginning of the decade, several health initiatives have been implemented to address these measures among persons with arthritis. Through technical support, including but not limited to scientific information and health communication, these initiatives strive to raise awareness, encourage and assess State activities, and expand the use of evidence-based interventions in arthritis education and physical activity. Since 1999, 36 State health departments have received support and technical assistance.[6] Other campaigns have promoted underused arthritis interventions and public awareness about arthritis-related disability and its costs for individuals, select populations, and the broader society.[7]

Prevention approaches and measures apply to other objectives in this focus area as well. For example, a measure of preventing disability among persons with chronic back conditions is reducing activity limitations in this population.[8, 9, 10, 11] For persons with osteoporosis, one way to prevent the effects of the illness is through diagnosis and treatment to reduce the number of hip and vertebral fractures, thereby preserving the individual's mobility, functionality, and independence.[12]

---

* Unless otherwise noted, data referenced in this focus area come from Healthy People 2010 and can be located at http://wonder.cdc.gov/data2010. See the section on DATA2010 in the Technical Appendix for more information.

A primary focus of the arthritis, osteoporosis, and chronic back condition objectives is the elimination of health disparities. While substantial disparities have been identified for specific arthritis and musculoskeletal diseases and conditions, the reasons for these disparities are still largely unknown.

Modifications to Objectives and Subobjectives

The following discussion highlights the modifications, including changes, additions, and deletions, to this focus area's objectives and subobjectives as a result of the midcourse review.

Several objectives became measurable and were revised at the midcourse review. Mean days without severe pain (2-1) became measurable and was revised from "increase the mean number of days without severe pain among adults who have chronic joint symptoms" to "reduce the mean level of joint pain among adults with doctor-diagnosed arthritis." Activity limitations due to arthritis (2-2) was revised from "reduce the proportion of adults with chronic joint symptoms who experience a limitation in activity due to arthritis" to "reduce the proportion of adults with doctor-diagnosed arthritis who experience a limitation in activity due to arthritis or joint symptoms." Personal care limitations (2-3) was revised from "reduce the proportion of all adults with chronic joint symptoms who have difficulty in performing two or more personal care activities, thereby preserving independence" to "reduce the proportion of adults with doctor-diagnosed arthritis who have difficulty in performing two or more personal care activities, thereby preserving independence." Objective 2-4 became measurable and was revised from "increase the proportion of adults aged 18 years and older with arthritis who seek help in coping if they experience personal and emotional problems" to "increase the proportion of adults with doctor-diagnosed arthritis who receive health care provider counseling." In addition, subobjectives were added to objective 2-4 to track nondrug, nonsurgical interventions: "health care provider counseling for weight reduction among overweight and obese persons (2-4a)" and "health care provider counseling for physical activity and exercise (2-4b)." Subobjectives were added to objective 2-5 to track the general measure of "unemployment rate among adults with doctor-diagnosed arthritis" (2-5a) and "adults with doctor-diagnosed arthritis who are limited in their ability to work for pay due to arthritis (2-5b)."

Racial differences in total knee replacement (2-6) became measurable and was revised from "eliminate racial disparities in the rate of total knee replacements" to "eliminate racial disparities in the rate of total knee replacements among persons aged 65 years and older." Seeing a health care provider (2-7) became measurable and was revised from "increase the proportion of adults who have seen a health care provider for their chronic joint symptoms" to "increase the proportion of adults with chronic joint symptoms who have seen a health care provider for their symptoms." Arthritis education (2-8) became measurable and was revised from "increase the proportion of persons with arthritis who had effective, evidence-based arthritis education as an integral part of the management of their condition" to "increase the proportion of adults with doctor-diagnosed arthritis who have had effective, evidence-based arthritis education as an integral part of the management of their condition."

Progress Toward Healthy People 2010 Targets

The following discussion highlights objectives that met or exceeded their 2010 targets; moved toward the targets, demonstrated no change, or moved away from the targets; and those that lacked data to assess progress. Progress is illustrated in the Progress Quotient bar chart (see Figure 2-1), which displays the percent of targeted change achieved for objectives and subobjectives with sufficient data to assess progress.

In the first half of the decade, no objectives met their targets, but progress could be assessed for all but two. Six objectives and subobjectives moved toward their targets, two objectives remained the same, and three objectives and subobjectives moved away from their targets.

Objectives that met or exceeded their targets. No objectives in this focus area met or exceeded their targets.

Objectives that moved toward their targets. Six objectives and subobjectives moved toward their targets: activity limitations due to arthritis (2-2), counseling of adults with arthritis for weight reduction (2-4a) and exercise (2-4b), effect of arthritis on paid work (2-5b), hospitalization for vertebral fractures (2-10), and activity limitations due to chronic back conditions (2-11).

Although hospitalizations for vertebral fractures (2-10) approached its 2010 target of 14.0 hospitalizations per 100,000 adults in 2001, the rate subsequently increased to near the baseline. The rate declined from 17.5 per 10,000 adults in 1998 to 14.1 per 10,000 adults in 2001. However, in 2002, the rate rose to 17.4 per 10,000 adults—moving away from the target. At the midcourse review, objective 2-10 achieved 3 percent of the targeted change. The cause of the rate increase from 2001 to 2002 may be due to a 55 percent increase in the rate among one segment of the population, specifically persons aged 85 years and older. It is not clear whether this single year increase was an anomaly or the beginning of a trend.

Activity limitations for chronic back conditions (2-11) moved toward the 2010 target, achieving 43 percent of the targeted change. Between 1997 and 2000, activity limitations declined from 32 to 26 persons per 1,000 persons aged 18 years and older. The rate increased to 29 persons per 1,000 persons aged 18 years and older in 2001 and remained at that level through 2003.

Objectives that demonstrated no change. Mean level of joint pain (2-1) and arthritis education (2-8) showed no change toward or away from their targets.

Objectives that moved away from their targets. Personal care limitations (2-3), unemployment among adults aged 18 to 64 years with arthritis (2-5a), and persons with chronic joint symptoms seeing a health care provider (2-7) moved away from their targets.

Objectives that could not be assessed. Racial differences in total knee replacement (2-6) and cases of osteoporosis (2-9) lacked data to assess progress at the time of the midcourse review. Data to assess progress are expected by the end of the decade.

Progress Toward Elimination of Health Disparities

The following discussion highlights progress toward the elimination of health disparities. The disparities are illustrated in the Disparities Table (see Figure 2-2), which displays information about disparities among select populations for which data were available for assessment.

Disparities exist for many of the arthritis, osteoporosis, and chronic back conditions objectives. In a comparison of disparities among racial and ethnic populations, the white non-Hispanic population had the best rates for activity limitations due to arthritis (2-2), unemployment rate (2-5a), and effect of arthritis on paid work (2-5b). The white population had the best rate for racial differences in total knee replacement (2-6). The black non-Hispanic population had the best rates for counseling adults with arthritis for weight reduction (2-4a) and exercise (2-4b). The Asian population had the best rate for

mean level of joint pain (2-1). The Hispanic population had the best rates for activity limitations due to chronic back conditions (2-11).

In a comparison of disparities among females and males, women had better rates than men for counseling of adults with arthritis for weight reduction (2-4a) and exercise (2-4b), and for seeing a health care provider (2-7). Men had a better rate than women for unemployment rate (2-5a).

Among populations by education, persons with at least some college had the best rates for mean level of joint pain (2-1), activity limitations due to arthritis (2-2), counseling for adults with arthritis for exercise (2-4b), unemployment rate (2-5a), effect of arthritis on paid work (2-5b), seeing a health care provider (2-7), cases of osteoporosis (2-9), and activity limitations due to chronic back pain conditions (2-11).

In a comparison of disparities among populations by income, the middle/high-income population had the best rates for most of the objectives and subobjectives, including mean level of joint pain (2-1), activity limitations due to arthritis (2-2), unemployment rate (2-5a), effect of arthritis on paid work (2-5b), and activity limitations due to chronic back conditions (2-11). The poor population had the best rate for counseling adults with arthritis for weight reduction (2-4a).

Some objectives and subobjectives demonstrated greater disparities than others. While the best groups for unemployment rate (2-5a) and effect of arthritis on paid work (2-5b) were generally consistent with those for other arthritis objectives, the disparities were particularly high (often 100 percent or more) for those with lower education and lower income. Progress toward eliminating disparities depends on raising awareness of the impact of arthritis and the availability of effective interventions that are currently underutilized in these populations.

Large disparities exist for activity limitations due to chronic back conditions (2-11). The Hispanic population had the best rate, and the rate of persons with two or more races was approximately 175 percent higher than the rate of the Hispanic population. Persons with less than a high school education had more than twice the rate of persons with at least some college education and 50 percent higher than the rate of high school graduates. The disparity between high school graduates and persons with at least some college increased by about 25 percentage points between 1997 and 2003. Among the poor and near-poor population groups, the rates for activity limitations were more than twice that of the middle/high-income population.

Opportunities and Challenges

A challenge of improving public health regarding arthritis, osteoporosis, and chronic back health is raising patient, health care provider, and public awareness of the impact these diseases have on quality of life and the availability of efficacious yet underutilized interventions. Prevention of these diseases and reduction of their impact on day-to-day functioning will require increased dissemination of accurate information about these conditions and further research.

Emerging Issues

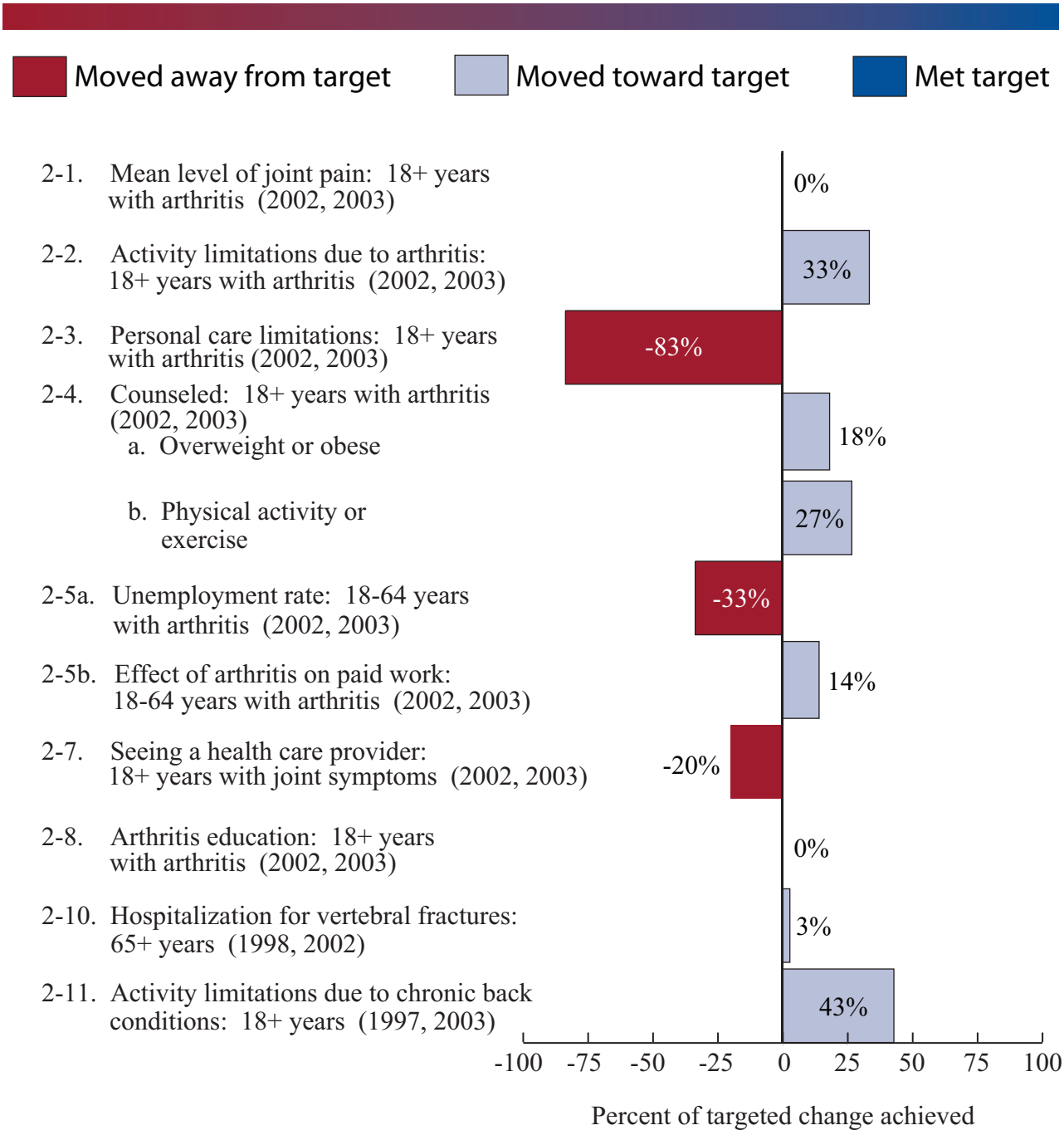
An increase in the overall number of cases of arthritis and osteoporosis is anticipated as the aging baby boomer generation approaches the peak years for these conditions.[13] With a growing proportion of the population affected by arthritis, general awareness of arthritis issues among the public, employers, and

health care insurers, including Medicare, may increase as well. Emerging issues in arthritis include the controversy over the use of nonsteroidal anti-inflammatory drugs and heart disease. While this controversy has raised the visibility of arthritis, at the same time it has limited the available pharmaceutical options for treating pain.[14] As the proportion of the population with arthritis increases, continuing efforts should support the development and availability of new and effective interventions.

Like other chronic diseases, such as diabetes and heart disease, arthritis benefits from behavioral, preventive interventions, including engaging in physical activity and maintaining a healthy weight. Health messaging that promotes the benefits of behavioral modifications, including physical activity and healthy weight, can emphasize the value in preventing arthritis as they do in preventing heart disease and diabetes. Furthermore, the growing recognition that these diseases do not necessarily occur in isolation, but together with other diseases, may promote collaboration and the leveraging of resources among researchers, communities, and programs addressing these chronic diseases.

Emerging osteoporosis-related issues have been highlighted by recent reports, including *Bone Health and Osteoporosis: A Report of the Surgeon General*.[15] Recent scientific findings that have called attention to the potentially negative health effects of menopausal hormone therapy may lead many women to reevaluate the use of hormone therapy in osteoporosis prevention.[16] Furthermore, while a decline in the use of estrogen hormone therapy may increase the rate for osteoporosis, increasing screening exams for osteoporosis and treatment for osteoporosis may help to mitigate this shift.[17]

Figure 2-1. Progress Quotient Chart for Focus Area 2: Arthritis, Osteoporosis, and Chronic Back Conditions



Notes: Tracking data for objectives 2-6 and 2-9 are unavailable.

Years in parentheses represent the baseline data year and the most recent data year used to compute the percent of the Healthy People 2010 target achieved.

$$\text{Percent of targeted change achieved} = \left(\frac{\text{Most recent value} - \text{baseline value}}{\text{Year 2010 target} - \text{baseline value}}\right) \times 100$$

Figure 2-2. 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.

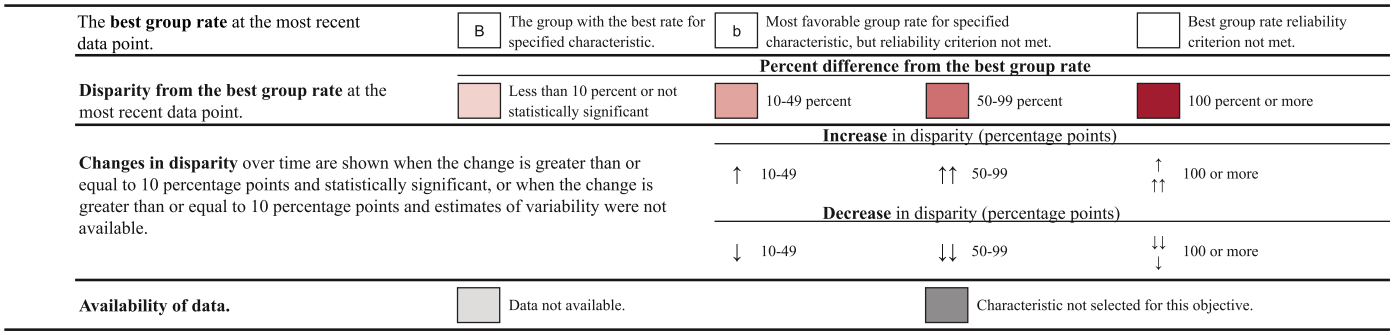
Population-based objectives	Race and ethnicity: American Indian or Alaska Native	Race and ethnicity: Asian	Race and ethnicity: Native Hawaiian or other Pacific Islander	Race and ethnicity: Two or more races	Race and ethnicity: Hispanic or Latino	Race and ethnicity: Black non-Hispanic	Race and ethnicity: White non-Hispanic	Race and ethnicity: Summary index	Gender: Female	Gender: Male	Education: Less than high school	Education: High school graduate	Education: At least some college	Education: Summary index	Income: Poor	Income: Near poor	Income: Middle/high income	Income: Summary index
2-1. Mean level of joint pain: 18+ years with arthritis (2002, 2003) *		B								B			B				B	
2-2. Activity limitations due to arthritis: 18+ years with arthritis (2002, 2003) *							B			B			B				B	
2-3. Personal care limitations: 18+ years with arthritis (2002, 2003) *																		
2-4a. Counseled about overweight and obesity: 18+ years with arthritis (2002, 2003) *						B			B				B		B			
2-4b. Counseled about physical activity or exercise: 18+ years with arthritis (2002, 2003) *				b		B			B				B			B		
2-5a. Unemployment rate: 18-64 years with arthritis (2002, 2003) *							B			B			B				B	
2-5b. Effect of arthritis on paid work: 18-64 years with arthritis (2002, 2003) *							B			B			B				B	
2-6. Racial differences in total knee replacement: 65+ years (2000) †						1	B[1]											
2-7. Seeing a health care provider: 18+ years with joint symptoms (2002, 2003) *				b		B			B				B				B	
2-8. Arthritis education: 18+ years with arthritis (2002, 2003) *					B				B				B			B		
2-9. Cases of osteoporosis: 50+ years (1988-94) *													B					
2-10. Hospitalization for vertebral fractures: 65+ years (1998, 2002) *							1											
2-11. Activity limitations due to chronic back conditions: 18+ years (1997, 2003) * [2]		b			B					B		↑	B				B	

Notes: Years in parentheses represent the baseline data year and the most recent data year (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 (for example, 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.

(continued)

Figure 2-2. *(continued)*



* The variability of best group rates was assessed, and disparities of ≥ 10% are statistically significant at the 0.05 level. Changes in disparity over time, noted with arrows, are statistically significant at the 0.05 level. See Technical Appendix.

† Measures of variability were not available. Thus, the variability of best group rates was not assessed, and the statistical significance of disparities and changes in disparity over time could not be tested. See Technical Appendix.

[1] Data include persons of Hispanic origin.

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

Objectives and Subobjectives for Focus Area 2: Arthritis, Osteoporosis, and Chronic Back Conditions

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

As a result of the Healthy People 2010 Midcourse Review, changes were made to the Healthy People 2010 objectives and subobjectives. These changes are specific to the following situations:

- Changes in the wording of an objective to more accurately describe what is being measured.
- Changes to reflect a different data source or new science.
- Changes resulting from the establishment of a baseline and a target (that is, when a formerly developmental objective or subobjective became measurable).
- Deletion of an objective or subobjective that lacked a data source.
- Correction of errors and omissions in *Healthy People 2010.*

Revised baselines and targets for measurable objectives and subobjectives do not fall into any of the above categories and, thus, are not considered a midcourse review change.[1]

When changes were made to an objective, three sections are displayed:

1. In the Original Objective section, the objective as published in *Healthy People 2010* in 2000 is shown.
2. In the Objective With Revisions section, strikethrough indicates text deleted, and underlining is used to show new text.
3. In the Revised Objective section, the objective appears as revised as a result of the midcourse review.

Details of the objectives and subobjectives in this focus area, including any changes made at the midcourse, appear on the following pages.

---

[1] See Technical Appendix for more information on baseline and target revisions.

Arthritis and Other Rheumatic Conditions

ORIGINAL OBJECTIVE

2-1. (Developmental) Increase the mean number of days without severe pain among adults who have chronic joint symptoms.

Potential data sources: Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP; National Health Interview Survey (NHIS), CDC, NCHS.

OBJECTIVE WITH REVISIONS

2-1. ~~(Developmental) Increase~~Reduce the mean level of joint ~~number of days without severe~~ pain among adults with doctor-diagnosed arthritis.

Target: 5.3 mean pain level.

Baseline: Based on a scale of 0 (no pain) to 10 (pain as bad as it can be), 5.6 was the mean pain level rating among adults aged 18 years and older with doctor-diagnosed arthritis in 2002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

~~Potential d~~Data sources: ~~Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP;~~ National Health Interview Survey (NHIS), CDC, NCHS.

REVISED OBJECTIVE

2-1. Reduce the mean level of joint pain among adults with doctor-diagnosed arthritis.

Target: 5.3 mean pain level.

Baseline: Based on a scale of 0 (no pain) to 10 (pain as bad as it can be), 5.6 was the mean pain level rating among adults aged 18 years and older with doctor-diagnosed arthritis in 2002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

ORIGINAL OBJECTIVE

2-2. Reduce the proportion of adults with chronic joint symptoms who experience a limitation in activity due to arthritis.

Target: 21 percent.

Baseline: 27 percent of adults aged 18 years and older with chronic joint symptoms experienced a limitation in activity due to arthritis in 1997 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

OBJECTIVE WITH REVISIONS

2-2. Reduce the proportion of adults with ~~chronic joint symptoms~~doctor-diagnosed arthritis who experience a limitation in activity due to arthritis or joint symptoms.

Target: ~~21~~33 percent.

Baseline: ~~28~~ 36 percent of adults aged 18 years and older with doctor-diagnosed ~~chronic joint symptoms~~arthritis experienced a limitation in activity due to arthritis or joint symptoms in ~~1997~~ 2002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

REVISED OBJECTIVE

2-2. Reduce the proportion of adults with doctor-diagnosed arthritis who experience a limitation in activity due to arthritis or joint symptoms.

Target: 33 percent.

Baseline: 36 percent of adults aged 18 years and older with doctor-diagnosed arthritis experienced a limitation in activity due to arthritis or joint symptoms in 2002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

ORIGINAL OBJECTIVE

2-3. Reduce the proportion of all adults with chronic joint symptoms who have difficulty in performing two or more personal care activities, thereby preserving independence.

Target: 1.4 percent.

Baseline: 2.0 percent of adults aged 18 years and older with chronic joint symptoms experienced difficulty performing two or more personal care activities in 1997 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

OBJECTIVE WITH REVISIONS

2-3. Reduce the proportion of ~~all~~ adults with ~~chronic joint symptoms~~ doctor-diagnosed arthritis who have difficulty in performing two or more personal care activities, thereby preserving independence.

Target: 1.5~~4~~ percent.

Baseline: 2.0~~1~~ percent of adults aged 18 years and older with doctor-diagnosed arthritis had~~chronic joint symptoms experienced~~ difficulty performing two or more personal care activities in 2002 ~~in 1997~~ (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

REVISED OBJECTIVE

2-3. Reduce the proportion of adults with doctor-diagnosed arthritis who have difficulty in performing two or more personal care activities, thereby preserving independence.

Target: 1.5 percent.

Baseline: 2.1 percent of adults aged 18 years and older with doctor-diagnosed arthritis had difficulty performing two or more personal care activities in 2002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

ORIGINAL OBJECTIVE

2-4. (Developmental) Increase the proportion of adults aged 18 years and older with arthritis who seek help in coping if they experience personal and emotional problems.

Potential data sources: National Health Interview Survey (NHIS), CDC, NCHS; Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

OBJECTIVE WITH REVISIONS

2-4. ~~(Developmental)~~ Increase the proportion of adults with doctor-diagnosed arthritis who receive ~~the proportion of adults aged 18 years and older with arthritis who seek help in coping if they experience personal and emotional problems~~ health care provider counseling.

Target and baseline:

Objective	Increase the Proportion of Adults Aged 18 Years and Older With Doctor-Diagnosed Arthritis Who Receive Health Care Provider Counseling	2002 Baseline*	2010 Target
		Percent	
2-4a.	For weight reduction among overweight and obese persons	35	46
2-4b.	For physical activity or exercise	52	67

* Age adjusted to the year 2000 standard population.

Target setting method: Better than the best.

~~Potential d~~Data sources: National Health Interview Survey (NHIS), CDC, NCHS~~;~~ ~~Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.~~

REVISED OBJECTIVE

2-4. Increase the proportion of adults with doctor-diagnosed arthritis who receive health care provider counseling.

Target and baseline:

Objective	Increase the Proportion of Adults Aged 18 Years and Older With Doctor-Diagnosed Arthritis Who Receive Health Care Provider Counseling	2002 Baseline*	2010 Target
		Percent	
2-4a.	For weight reduction among overweight and obese persons	35	46
2-4b.	For physical activity or exercise	52	67

REVISED OBJECTIVE *(continued)*

* Age adjusted to the year 2000 standard population.

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

ORIGINAL OBJECTIVE

2-5. Increase the employment rate among adults with arthritis in the working-aged population.

Target: 78 percent.

Baseline: 67 percent of adults aged 18 to 64 years with arthritis were employed in the past week in 1997 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

OBJECTIVE WITH REVISIONS

2-5. ~~Increase~~Reduce the impact of doctor-diagnosed arthritis on employment ~~rate among adults with arthritis~~ in the working-aged population.

Target and baseline:

Objective	Reduction in the Impact of Doctor-Diagnosed Arthritis on Employment in the Working-Aged Population Aged 18 to 64 Years	2002 Baseline*	2010 Target
		Percent	
2-5a.	Reduction in the unemployment rate among adults with doctor-diagnosed arthritis	33	27
2-5b.	Reduction in the proportion of adults with doctor-diagnosed arthritis who are limited in their ability to work for pay due to arthritis	30	23

* Age adjusted to the year 2000 standard population.

~~**Target:** 78 percent.~~

~~**Baseline:** 67 percent of adults aged 18 to 64 years with arthritis were employed in the past week in 2002 (age adjusted to the year 2000 standard population).~~

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

REVISED OBJECTIVE

2-5. Reduce the impact of doctor-diagnosed arthritis on employment in the working-aged population.

Target and baseline:

Objective	Reduction in the Impact of Doctor-Diagnosed Arthritis on Employment in the Working-Aged Population Aged 18 to 64 Years	2002 Baseline*	2010 Target
		Percent	
2-5a.	Reduction in the unemployment rate among adults with doctor-diagnosed arthritis	33	27
2-5b.	Reduction in the proportion of adults with doctor-diagnosed arthritis who are limited in their ability to work for pay due to arthritis	30	23

* Age adjusted to the year 2000 standard population.

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

ORIGINAL OBJECTIVE

2-6. (Developmental) Eliminate racial disparities in the rate of total knee replacements.

Potential data sources: Medicare data, CMS; National Hospital Discharge Survey (NHDS), CDC, NCHS; Hospital Cost and Utilization Project (HCUP), AHRQ.

OBJECTIVE WITH REVISIONS

2-6. ~~(Developmental)~~ Eliminate racial disparities in the rate of total knee replacements among persons aged 65 years and older.

Target: 0 percent.

Baseline: In 2000, the rate for the white non-Hispanic population was 34 percent higher than the rate for the black non-Hispanic population.

Target setting method: Total elimination.

~~Potential d~~Data sources: Medicare Parts A and B, ~~Medicare data, HCFA; National Hospital Discharge Survey (NHDS), CDC, NCHS; Hospital Cost and Utilization Project (HCUP), AHRQ~~CMS.

REVISED OBJECTIVE

2-6. Eliminate racial disparities in the rate of total knee replacements among persons aged 65 years and older.

Target: 0 percent.

Baseline: In 2000, the rate for the white non-Hispanic population was 34 percent higher than the rate for the black non-Hispanic population.

Target setting method: Total elimination.

Data source: Medicare Parts A and B, CMS.

ORIGINAL OBJECTIVE

2-7. (Developmental) Increase the proportion of adults who have seen a health care provider for their chronic joint symptoms.

Potential data source: National Health Interview Survey (NHIS), CDC, NCHS.

OBJECTIVE WITH REVISIONS

2-7. ~~(Developmental)~~ Increase the proportion of adults with chronic joint symptoms who have seen a health care provider for their ~~chronic joint~~ symptoms.

Target: 61 percent.

Baseline: 56 percent of adults aged 18 years and older with chronic joint symptoms saw a health care provider for their symptoms in 2002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

~~Potential d~~Data source: National Health Interview Survey (NHIS), CDC, NCHS.

REVISED OBJECTIVE

2-7. Increase the proportion of adults with chronic joint symptoms who have seen a health care provider for their symptoms.

Target: 61 percent.

Baseline: 56 percent of adults aged 18 years and older with chronic joint symptoms saw a health care provider for their symptoms in 2002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

REVISED OBJECTIVE *(continued)*

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

ORIGINAL OBJECTIVE

2-8. (Developmental) Increase the proportion of persons with arthritis who have had effective, evidence-based arthritis education as an integral part of the management of their condition.

Potential data sources: National Health Interview Survey (NHIS), CDC, NCHS; Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

OBJECTIVE WITH REVISIONS

2-8. ~~(Developmental)~~ Increase the proportion of ~~persons~~ adults with doctor-diagnosed arthritis who have had effective, evidence-based arthritis education as an integral part of the management of their condition.

Target: 13 percent.

Baseline: 11 percent of adults aged 18 years and older with doctor-diagnosed arthritis had effective, evidence-based arthritis education as an integral part of the management of their condition in 2002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

~~Potential d~~Data sources: National Health Interview Survey (NHIS), CDC, NCHS; ~~Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP~~.

REVISED OBJECTIVE

2-8. Increase the proportion of adults with doctor-diagnosed arthritis who have had effective, evidence-based arthritis education as an integral part of the management of their condition.

Target: 13 percent.

Baseline: 11 percent of adults aged 18 years and older with doctor-diagnosed arthritis had effective, evidence-based arthritis education as an integral part of the management of their condition in 2002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

Osteoporosis

NO CHANGE IN OBJECTIVE

2-9. Reduce the proportion of adults with osteoporosis.

Target: 8 percent.

Baseline: 10 percent of adults aged 50 years and older had osteoporosis as measured by low total femur bone mineral density (BMD) in 1988–94 (age adjusted to the year 2000 standard population).

Target setting method: 20 percent improvement.

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

NO CHANGE IN OBJECTIVE

2-10. Reduce the proportion of adults who are hospitalized for vertebral fractures associated with osteoporosis.

Target: 14.0 hospitalizations per 10,000 adults aged 65 years and older.

Baseline: 17.5 hospitalizations per 10,000 adults aged 65 years and older were for vertebral fractures associated with osteoporosis in 1998 (age adjusted to the year 2000 standard population).

Target setting method: 20 percent improvement.

Data source: National Hospital Discharge Survey (NHDS), CDC, NCHS.

Chronic Back Conditions

NO CHANGE IN OBJECTIVE

2-11. Reduce activity limitation due to chronic back conditions.

Target: 25 adults per 1,000 population aged 18 years and older.

Baseline: 32 adults per 1,000 population aged 18 years and older experienced activity limitation due to chronic back conditions in 1997 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

References

[1] Hootman, J., et al. Prevalence of doctor-diagnosed arthritis and arthritis-attributable activity limitation—United States, 2003–2005. *Morbidity and Mortality Weekly Report* 55(40):1089–1092, 2006.

[2] Bolen, J., et al. Racial/ethnic differences in the prevalence and impact of doctor-diagnosed arthritis—United States, 2002. *Morbidity and Mortality Weekly Report* 54(5):119–123, 2005.

[3] Looker, A.C., et al. Prevalence of low femoral bone density in older U.S. adults from NHANES III. *Journal of Bone and Mineral Research* 12:1761–1768, 1997.

[4] Praemer, A., et al. *Musculoskeletal Conditions in the United States*. Rosemont, IL: American Academy of Orthopaedic Surgeons, 1999.

[5] National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS). *Back Pain, Handout on Health.* NIH Publication No. 05-5282. Bethesda, MD: U.S. Department of Health and Human Services (HHS), National Institutes of Health, NIAMS, 2005.

[6] More information available at www.cdc.gov/arthritis/state_coordinators/pdf/CSV-Executive-Summary.pdf; accessed October 31, 2006.

[7] Centers for Disease Control and Prevention. *Physical Activity. The Arthritis Pain Reliever*. More information available at www.cdc.gov/arthritis/campaigns/physical_activity/index.htm; accessed October 31, 2006.

[8] Niemisto, L., et al. A randomized trial of combined manipulation, stabilizing exercises, and physician consultation compared to physician consultation alone for chronic low back pain. *Spine* 28(19):2185–2191, 2003.

[9] Nordin, M., et al. Nonspecific lower-back pain: Surgical versus nonsurgical treatment. *Journal of Orthopaedic Surgery and Research* 443(2):156–167, 2006.

[10] Shen, F.H., et al. Nonsurgical management of acute and chronic low back pain. *Journal of American Academy of Orthopaedic Surgeons* 14(8):477–487, 2006.

[11] Van Tulder, M.W., et al. Outcome of non-invasive treatment modalities on back pain: An evidence-based review. *European Spine Journal* 15(Suppl 1):S64–S81, 2006.

[12] Cummings, S.R., and Melton, L.J., III. Epidemiology and outcomes of osteoporotic fractures. *Lancet* 359:1761–1767, 2002.

[13] Hootman, J.M., and Helmick, C.G. Projections of US prevalence of arthritis and associated activity limitations. *Arthritis and Rheumatism* 54(1):226–229, 2006.

[14] Olsen, N.J. Tailoring arthritis therapy in the wake of the NSAID crisis. *New England Journal of Medicine* 352(25):2578−2580, 2005. More information available at www.ncbi.nlm.nih.gov/entrez/utils/lofref.fcgi?itool=Abstract-def&PrId=3051&uid=15972863&db=pubmed&url=http://content.nejm.org/cgi/pmidlookup?view=short&pmid=15972863&promo=ONFLNS19; accessed October 31, 2006.

[15] HHS. *Bone Health and Osteoporosis: A Report of the Surgeon General.* Rockville, MD: HHS, Office of the Surgeon General, 2004.

[16] Buist, D.S., et al. Hormone therapy prescribing patterns in the United States. *Obstetrics and Gynecology* 104(5 Pt 1):1042–1050, 2004.

[17] Jaglal, S.B., et al. Population trends in BMD testing, treatment, and hip and wrist fracture rates: Are the hip fracture projections wrong? *Journal of Bone and Mineral Research* 20(6):898–905, 2005.

Related Objectives From Other Focus Areas

1. Access to Quality Health Services
1-3. Counseling about health behaviors

3. Cancer
3-10. Provider counseling about cancer prevention

6. Disability and Secondary Conditions
6-4. Social participation among adults with disabilities
6-5. Sufficient emotional support among adults with disabilities
6-8. Employment parity

7. Educational and Community-Based Programs
7-5. Worksite health promotion programs
7-6. Participation in employer-sponsored health promotion activities
7-10. Community health promotion programs
7-12. Older adult participation in community health promotion activities

15. Injury and Violence Prevention
15-28. Hip fractures

19. Nutrition and Overweight
19-1. Healthy weight in adults
19-2. Obesity in adults
19-11. Calcium intake
19-16. Worksite promotion of nutrition education and weight management
19-17. Nutrition counseling for medical conditions

20. Occupational Safety and Health
20-2. Work-related injuries
20-3. Overexertion or repetitive motion

22. Physical Activity and Fitness
22-1. No leisure-time physical activity
22-2. Moderate physical activity
22-3. Vigorous physical activity
22-4. Muscular strength and endurance
22-5. Flexibility
22-8. Physical education requirement in schools
22-10. Physical activity in physical education class

27. Tobacco Use

27-1. Adult tobacco use
27-5. Smoking cessation by adults
27-7. Smoking cessation by adolescents
27-17. Adolescent disapproval of smoking