

# *Healthy People 2000 Review 1994*



**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
Public Health Service  
Centers for Disease Control and Prevention  
National Center for Health Statistics



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Dear *Healthy People 2000 Review, 1994* recipient:

Enclosed is the *Healthy People 2000 Review, 1994*, the third annual overview of progress toward the *Healthy People 2000* objectives. This report presents the latest tracking data for all 300 original objectives and 223 special population subobjectives, utilizing up-to-date tables, graphics, and narratives describing progress toward the national year 2000 targets.

Please note that this report does **not** contain the changes and additions that resulted from the midcourse review of *Healthy People 2000*. The new and modified objectives are included in the midcourse revisions document, *Healthy People 2000 Midcourse Revisions and 1995 Additions*, published separately. The tracking data for the new and modified objectives will be included in the *Healthy People 2000 Review, 1995*.

Up-to-date tracking data for the objectives and subobjectives can be accessed through the DATA2000 Monitoring System, a component of CDC WONDER/PC, the Centers for Disease Control and Prevention's on-line public health information system; call customer support at 404-332-4569. You can find additional sources of information on the national *Healthy People 2000* data by contacting the Data Dissemination Branch: 6525 Belcrest Road, Room 1064, Hyattsville, MD 20782; telephone: 301-436-8500; e-mail: [nchsquery@nch10a.em.cdc.gov](mailto:nchsquery@nch10a.em.cdc.gov); or on the Internet through the CDC/NCHS Home Page: <http://www.cdc.gov/nchswww/nchshome.htm>.

Sincerely yours,

A handwritten signature in cursive script that reads "Jacob J. Feldman".

Jacob J. Feldman, Ph.D.  
Associate Director  
National Center for Health Statistics



# *Healthy People 2000 Review 1994*

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
Public Health Service  
Centers for Disease Control and Prevention  
National Center for Health Statistics

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# Preface

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The *Healthy People 2000 Review, 1994*, third in a series of profiles tracking the year 2000 objectives, is submitted by the Secretary of Health and Human Services to the Congress of the United States in compliance with the Health Services and Centers Amendments of 1978. This report was compiled by the National Center for Health Statistics, Centers for Disease Control and Prevention (CDC). The National Committee on Vital and Health Statistics, the Office of Disease Prevention and Health Promotion, and lead agencies for the year 2000 objectives served in a review capacity.

*Healthy People 2000 Review* continues the series of annual profiles of the Nation's health as an integral part of the Department's disease prevention and health promotion initiative for the year 2000. This initiative was unveiled in September 1990 by the Secretary of the U.S. Department of Health and Human Services with the release of *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. This publication will provide annual tracking data, if available, for objectives and subobjectives in all priority areas throughout the decade.

# Acknowledgments

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Overall responsibility for planning and coordinating the content of this volume rested with the Division of Health Promotion Statistics, National Center for Health Statistics, under the general direction of Mary Anne Freedman and Richard J. Klein.

The production of the *Healthy People 2000 Review* was accomplished by several working teams under the guidance of Kathleen M. Turczyn and Richard J. Klein. Team members included Susan E. Schober, Fred Seitz, Christine M. Plepys, Cheryl V. Rose, Jean Williams, Gail R. Jones, Richard J. Klein, and Kathleen M. Turczyn. Additional programming assistance was provided by Patricia A. Knapp, Idly I. Shannon, and Mitchell B. Pierre.

Publications management and editorial review were provided by Gail V. Johnson. Text and tables were composed by Annette F. Facemire. Printing was managed by Joan D. Burton. Graphics were produced by Sarah M. Hinkle under the direction of Stephen L. Sloan.

Publication of *Healthy People 2000 Review* would not have been possible without the contributions of Debbie Maiese and Debbie Rothstein of the Office of Disease Prevention and Health Promotion and many staff members throughout the National Center for Health Statistics and numerous other agencies. These people gave generously of their time and knowledge; their cooperation and assistance are gratefully acknowledged.

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## Symbols

- Data not available
  - . . . Category not applicable
  - Quantity zero
  - 0.0 Quantity more than zero but less than 0.05
  - \* Figure does not meet standard of reliability or precision
-

# Introduction

## Background

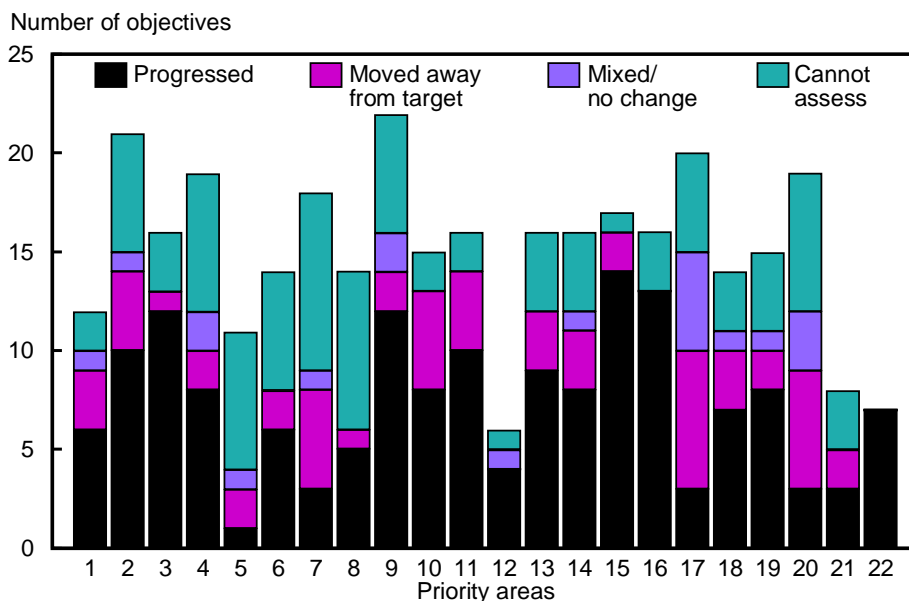
*Healthy People 2000: National Health Promotion and Disease Prevention Objectives* (1) is a statement of national opportunities. This prevention initiative presents a national strategy for significantly improving the health of the American people over the decade of the 1990's through modification of the lifestyle and environmental factors that are major determinants of chronic disease and disability. It provides a framework to significantly reduce preventable death and disability, to enhance quality of life, and to reduce disparities in the health status of various population groups within our society.

*Healthy People 2000* defines three broad goals: to increase the span of healthy life for Americans, to reduce health disparities among Americans, and to achieve access to preventive services for all Americans. The objectives are organized into 22 priority areas. For each of these priority areas, a U.S. Public Health Service agency is designated to coordinate activities directed toward attaining the objectives (see appendix table I).

There are 300 unduplicated main objectives. Since some priority areas share identical objectives, there is a total of 332 objectives including the duplicates. Subobjectives for minorities and other special populations were established to address health disparities. These population groups include people with low incomes, people who are members of some racial or ethnic minority groups, and people with disabilities (1). There are 223 unduplicated special population targets; 284 with duplicates. Thus, there are a total of 523 unduplicated health promotion and disease prevention objectives and subobjectives for the year 2000; 616 including duplicate listings.

The Public Health Service (PHS) periodically reviews progress toward the year 2000 objectives for specific priority areas or special population groups. Summaries of these reviews are published in *Public Health Service Progress Review Reports on Healthy People 2000* (2). The *Healthy People 2000 Review* series, which began with *Healthy People 2000 Review, 1992*, (3) presents an overview of the current

**Figure 1. Healthy People 2000 objectives: Summary of progress by priority area**



Priority area	Met/progressed	Moved away from target	Mixed/no change	Cannot assess	Total objectives
1	6	3	1	2	12
2	10	2	1	8	21
3	12	1	0	3	16
4	8	2	2	7	19
5	1	2	1	7	11
6	6	2	0	6	14
7	3	5	1	9	18
8	5	1	0	8	14
9	12	2	2	6	22
10	8	5	0	2	15
11	10	4	0	2	16
12	4	0	1	1	6
13	9	3	0	4	16
14	8	3	1	4	16
15	14	2	0	1	17
16	13	0	0	3	16
17	3	7	5	5	20
18	7	3	1	3	14
19	8	2	1	4	15
20	3	6	3	7	19
21	3	2	0	3	8
22	7	0	0	0	7

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics.

status of progress toward all of the year 2000 objectives. The 1994 *Review* reports on the objectives as published in the 1990 *Healthy People 2000* (1) and contains the most recent national data available as of January 31, 1995. These data, which include revisions, supersede data published in *Healthy People 2000*, previous progress review reports, and all other earlier publications containing national data on the year 2000 objectives with the exception of the

September 1994 publication, *Draft for Public Review and Comment: Healthy People 2000 National Health Promotion and Disease Prevention Objectives* (4).

In 1994, the PHS undertook a midcourse review of the *Healthy People 2000* objectives. As a result of this review, a number of changes have been made to the objectives. These include adding new objectives and special population subobjectives, modifying existing objectives, and making baseline

and target revisions. The new and modified objectives, to be published this year in *Healthy People 2000 Midcourse Review and 1995 Revisions* (5), will be included next year in *Healthy People 2000 Review, 1995* (see section on Midcourse Review and 1995 Revisions).

## Summary of Progress

Movement either toward or away from the target is determined by the direction of the change between the baseline (the revised baseline, if applicable) and the most recent data point. Some of these changes are relatively small and may be within what could be expected on the basis of sampling or random variation. For objectives with more than one measure ("compound" objectives), if data show trends in different directions, progress is labeled as "mixed." For compound objectives with partial data, progress is determined by the direction of the measure(s) with data (for example, objective 12.1). Finally, a few objectives are very broad in scope and tracking data are not available; in these cases the subobjectives are being used to track progress (for example, objective 17.14).

The following summary of progress is based on the 300 unduplicated objectives. Four years into the decade, 8 percent of the objectives have surpassed the year 2000 targets. Progress toward the targets has been made on another 41 percent of the objectives, and 16 percent show movement away from the targets. Data for 4 percent of the objectives show mixed results and 3 percent show no change from the baseline. Sixty-four objectives (21 percent) have baseline data but have no new data with which to evaluate progress. Baselines have yet to be obtained for 23 objectives (8 percent). Figure 1 shows the progress of the objectives by priority area.

## Midcourse Review and 1995 Revisions

The midcourse review was announced in October 1993 at the *Healthy People 2000* Consortium meeting. PHS work groups met to consider new data, new information, and new science that had become available since the release of *Healthy People 2000* in 1990. The result of these deliberations was a draft of the proposed

midcourse revisions (4). The final document, *Healthy People 2000 Midcourse Review and 1995 Revisions* (5), will be published this year.

The midcourse publication is a mid-decade status report on the three goals and the original 300 objectives of *Healthy People 2000*. State action as well as private and voluntary sector action on the objectives will be included. A revised Summary List of Objectives will be published that includes the baseline and target revisions, new special population subobjectives, modifications to existing objectives to make them more measurable or understandable, and the new objectives.

Baseline revisions and reconsideration of targets: In the course of incorporating 1990 census data, identifying specific data sources, and operationalizing data definitions for each objective, the National Center for Health Statistics (NCHS) identified more than 100 objectives for which the baseline data specified in *Healthy People 2000* required revision (see appendix section on revised baselines). PHS published new targets for selected amended baselines in September 1994 for public comment (4). Target revisions were also proposed in some areas where the target had already been met and was being made more challenging.

Additional subobjectives: A second part of this midcourse review involves adding special population targets where new data have become available that show increased health risk or disparity between the total population and people with disabilities; people with low incomes; or people in age, gender, racial, or ethnic minority groups. New minority subobjective targets seek to narrow the gap with the total population.

Modified and new objectives: Third and fourth categories of revisions involve changes to the language of existing objectives or the addition of new objectives to fill gaps that have become apparent in the original list of objectives.

## Organization and Scope of This Review

This *Review* is organized into three major sections. The introductory section includes a brief history of *Healthy People 2000*, a summary of the progress of the year 2000 objectives, and a discussion of the upcoming *Healthy*

*People 2000 Midcourse Review and 1995 Revisions*.

The second section consists of 22 chapters, one for each *Healthy People 2000* priority area. Each chapter contains a summary data table, a text discussion of specific data issues, a chart representing one of the priority area objectives, and the full text of the objectives in that priority area.

The text for each chapter includes a brief discussion of the public health significance of the priority area, data highlights, a summary of the overall status of the objectives, and data issues that may not be apparent from the summary table or the text of the objective—such as proxy measures, differing tracking systems, and operational definitions.

Most charts show the movement of one of the priority area objectives toward or away from the objective target. Some show the latest data for population groups that were targeted because of especially high risk of disease, injury, or disability. In some cases, charts were chosen because data were available; the choice does not confer more relative importance to any of the objectives depicted.

An appendix and four appendix tables compose the third section. The appendix presents and discusses several major, cross-cutting data issues involved in the monitoring of the objectives and subobjectives. Table I lists the priority area PHS lead agencies; table II displays the cause-of-death categories used for the *Healthy People 2000* mortality objectives; table III shows trends in the Health Status Indicators developed for objective 22.1; and table IV presents the latest available Health Status Indicators data for racial and Hispanic-origin population groups.

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and disease prevention objectives: Midcourse revisions. Washington: Public Health Service. September 1994.

5. U.S. Department of Health and Human Services. Healthy people 2000 midcourse review and 1995 revisions. Washington: Public Health Service. In press.

# Priority Area 1 Physical Activity and Fitness

## Background

Physical activity has been demonstrated to have protective effects for several chronic diseases, including coronary heart disease, hypertension, noninsulin-dependent diabetes mellitus, osteoporosis, colon cancer, and depression and anxiety (1). On average, physically active people outlive those who are inactive (2). Regular physical activity can also help to maintain the functional independence of older adults and enhance the quality of life for people of all ages (3).

## Data Summary

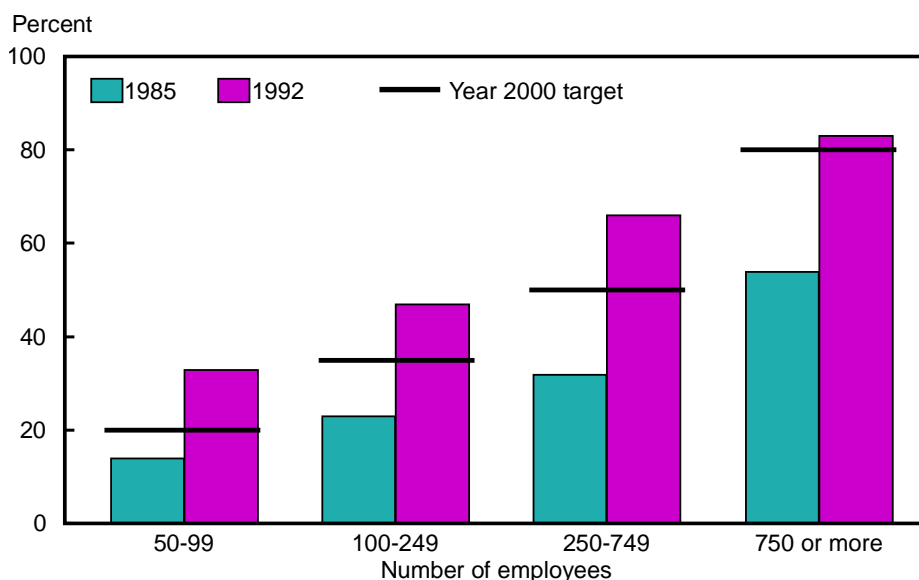
### Highlights

Coronary heart disease death rates (objective 1.1) continue to decline for both the total population and for the black population. Overweight prevalence (1.2) has increased, moving further away from the target for the total population and for all special population subobjectives. Data from 1988–91 for adolescents and adults indicate that the prevalence of overweight has increased substantially since the 1976–80 baseline. Physical activity (1.3, 1.4, 1.6) has been increasing, as well as the proportion of students in grades 9–12 who exercise for 20 minutes 3–5 times per week (1.9). However, participation in daily school physical education (1.8) has been decreasing for students in grades 9–12. The proportion of worksites offering employer-sponsored physical activity and fitness programs (1.10) has increased substantially.

### Summary of Progress

Of the 12 physical activity and fitness objectives, 1 has surpassed the target (1.10), 5 show progress toward the year 2000 targets (1.1, 1.3, 1.4, 1.6, and 1.9), while 3 are moving away from the targets (1.2, 1.7, and 1.8). Data for one objective (1.5) show no change, and data to update progress for two objectives (1.11 and 1.12) are not yet available.

**Figure 2. Worksites offering employer-sponsored physical activity and fitness programs: United States, 1985 and 1992, and year 2000 targets for objective 1.10**



	1985	1992	Year 2000 target
50-99 . . . . .	14	33	20
100-249 . . . . .	23	47	35
250-749 . . . . .	32	66	50
750 and over . . . . .	54	83	80

SOURCE: Office of the Assistant Secretary for Health, Office of Disease Prevention and Health Promotion, National Survey of Worksite Health Promotion Activities.

### Data Issues

#### Definitions

Physical activity and fitness as a recognized risk factor for health outcomes is a relatively new concept, contributing to present difficulties in tracking some objectives. Calculations vary from simple counts (for example, weight-training 3 or more times a week) to complex formulas (for example, calculating average kilocalories expended per kilogram per day) (4). The intent of objective 1.3 (light to moderate physical activity) is to generate calorie-burning activity from a health standpoint by emphasizing the importance of regular physical activity that can be sustained throughout the lifespan. The sum of all physical activities performed at least 30 minutes per occasion 5 or more or 7 or more times a week regardless of the intensity has been defined as measuring this objective. To measure the proportion of adults performing vigorous physical activity (1.4), the predicted maximum

cardiorespiratory capacity was estimated using age-sex-based regression equations and then multiplying by 50 percent (see Note with the text of objective 1.4). Then all the activities that were performed for at least 20 minutes that had a kilocalorie value that was equal to or greater than that 50 percent level were counted (5,6). The estimated number of people who exercise vigorously were respondents who performed these activities 3 or more times per week. Overweight (objective 1.2) for adults is defined as a body mass index (BMI) at or above the sex-specific 85th percentile of the 1976–80 NHANES II reference population 20–29 years of age. For adolescents, overweight is the sex- and age-specific 85th percentile from NHANES II (see Note with the text of objective 1.2).

#### Comparability of Data Sources

Overweight (objective 1.2) is being tracked with two main data sources. The primary data source is the National Health and Nutrition Examination

Survey (NHANES), which provided baseline data for most of the overweight objectives and the 1988–91 updates. These data are derived from measured height and weight. Interim estimates shown in an earlier publication (7), 1993 updates for Hispanic females and American Indians/Alaska Natives, and all data for people with disabilities are derived from the National Health Interview Survey (NHIS). These estimates are based on self-reported heights and weights and are not comparable to the actual measured height and weight data from NHANES. Trends from the NHIS that are based on self-reported measures also show a steady increase in prevalence of overweight; this increase is, however, different in magnitude from that observed in data derived from measured height and weight.

The baseline data source for objective 1.3 (light to moderate physical activity) was the Behavioral Risk Factor Surveillance System; because this objective is being tracked with the NHIS and 1985 data were available from this survey, the baseline has been revised to reflect the estimates from the 1985 NHIS. The method of measuring the objective has also been modified from that used in the baseline measure, although the revised estimate did not differ for people exercising 5 or more times per week. Although data from the NHIS were used for all 3 years (1985, 1990, and 1991), the questionnaire changed in 1991. Databases were made as similar as possible before the estimates were made, involving limiting the age group to 18–74 years (to correspond to the 1985 and 1990 surveys), and limiting the specific activities listed to those asked in all 3 years.

Data for objective 1.12, clinician counseling about physical activity, were obtained from two different surveys, making statements about trends problematic. The 1988 baseline of 30 percent from the American College of Physicians (ACP) survey was a random stratified sample of ACP members drawn from 21 geographic regions yielding an initial sample of 1,251 internists. The response rate was 75 percent. The sampling frame for internists in the 1992 Primary Care Provider Surveys (PCPS) also contained a random stratified sample of ACP members, but was drawn from four geographic regions with oversampling of

female members, yielding an initial sample of 1,200 internists.

### Proxy Measures

Objectives 1.4, 1.6, 1.8, and 1.9 for children and adolescents are tracked with the Youth Risk Behavior Survey (YRBS) for students in grades 9–12.

Regular performance of physical activities that enhance and maintain muscular strength, muscular endurance, and flexibility (1.6) generally requires participation in a variety of physical activities as not all activities will satisfy all three factors. However, scoring parameters for strength, endurance, and flexibility are not yet available. Until research into these areas can provide such measures, for adults this objective will be tracked using data on an activity that increases muscular strength only—weight lifting. The 1991 data shown for students in grades 9–12 are based on self-reported participation in stretching exercises or strengthening exercises that were done 4 or more days per week.

Objective 1.7 is to increase to at least 50 percent the proportion of overweight people who use sound dietary practices combined with regular physical activity to attain appropriate body weight. Respondents who reported they were overweight and were currently trying to lose weight or control their weight by eating fewer calories and exercising more were included for this objective. However, an assessment of the quality of dietary practices has not yet been coupled with a measure of regular physical activity. The 1985 questionnaire asked respondents specifically if they were eating fewer calories to lose weight and if they were increasing their physical activity to lose weight. In 1991 and 1993, eating fewer calories and exercising more were among a list of 10 possible methods of losing weight in response to the question, “Are you currently doing any of these things to control your weight?” Respondents were asked this question if they reported they were trying to lose weight or stay about the same. Objective 1.9 targets time spent in school physical education classes devoted to activities that may be readily carried into adulthood because their performance requires only one or two people (such as swimming, bicycling, jogging, and racquet sports). The proxy measure for this objective is the percent of class time spent in actual physical activity.

The data used to track this objective are not comparable. The 1983 baseline data show the percent of physical education class time spent being physically active for all students. The YRBS updates, for students in grades 9–12, show the percent who exercised 20 or more minutes in physical education class 3–5 times a week.

### Data Availability

Updates for the physical activity objectives (1.3, 1.4, 1.5, and 1.6) will be available in early 1996 from the 1994 NHIS. Updates from the School Health Policies and Programs Study will be available in late 1995 to update the school physical education objectives (1.8 and 1.9).

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**Table 1. Physical activity and fitness objective status**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>1.1 Coronary heart disease deaths (age adjusted per 100,000)</b> . . . . .	135	<sup>1</sup> No change	114	---	100
a. Blacks (age adjusted per 100,000) . . . . .	163	<sup>1</sup> 168	151	---	115
<b>1.2 Overweight prevalence</b> (Based on measured height and weight unless otherwise indicated)					
Adults 20–74 years . . . . .	<sup>2</sup> 26%	...	<sup>3,4</sup> 34%	---	20%
Males . . . . .	<sup>2</sup> 24%	...	<sup>3,5</sup> 32%	---	...
Females . . . . .	<sup>2</sup> 27%	...	<sup>3,6</sup> 35%	---	...
Adolescents 12–19 years . . . . .	<sup>2</sup> 15%	...	<sup>3</sup> 21%	---	15%
a. Low-income females 20–74 years . . . . .	<sup>2</sup> 37%	...	---	---	25%
b. Black females 20–74 years . . . . .	<sup>2</sup> 44%	...	<sup>3,7</sup> 48%	---	30%
c. Hispanic females 20–74 years . . . . .	---	...	---	---	25%
Hispanic females 20–74 years (self-reported) . . . . .	...	<sup>8,9</sup> 27%	<sup>9,10</sup> 32%	<sup>9,10</sup> 27%	...
Mexican-American females . . . . .	<sup>11</sup> 39%	...	<sup>3,12</sup> 47%	---	...
Cuban females . . . . .	<sup>11</sup> 34%	...	---	---	...
Puerto Rican females . . . . .	<sup>11</sup> 37%	...	---	---	...
d. American Indians/Alaska Natives 20 years and over . . . . .	<sup>13</sup> 29–75%	...	<sup>9</sup> 36%	<sup>9</sup> 48%	30%
e. People with disabilities 20 years and over . . . . .	<sup>8,9</sup> 36%	...	<sup>9</sup> 37%	<sup>9</sup> 38%	25%
f. Females with high blood pressure 20–74 years . . . . .	<sup>2</sup> 50%	...	---	---	41%
g. Males with high blood pressure 20–74 years . . . . .	<sup>2</sup> 39%	...	---	---	35%
<b>1.3 Moderate physical activity</b>					
People 6 years and over . . . . .	---	...	---	---	30%
People 18 years and over					
5 or more times per week . . . . .	<sup>8</sup> 22%	<sup>8,14</sup> No change	<sup>15</sup> 24%	---	...
7 or more times per week . . . . .	<sup>8</sup> 12%	<sup>8,14</sup> 16%	<sup>15</sup> 17%	---	...
<b>1.4 Vigorous physical activity</b>					
Children and adolescents 6–17 years . . . . .	---	...	---	---	75%
Children and adolescents 10–17 years . . . . .	<sup>16</sup> 66%	...	---	---	...
Students in grades 9–12 . . . . .	---	...	<sup>17</sup> 37%	66%	...
People 18 years and over . . . . .	<sup>8</sup> 12%	...	<sup>15</sup> 14%	---	20%
a. Lower-income people 18 years and over (annual family income less than \$20,000) . . . . .	<sup>8</sup> 7%	...	<sup>15</sup> 13%	---	12%
<b>1.5 Sedentary lifestyle</b>					
People 6 years and over . . . . .	---	...	---	---	15%
People 18 years and over . . . . .	<sup>8</sup> 24%	...	<sup>15</sup> 24%	---	15%
a. People 65 years and over . . . . .	<sup>8</sup> 43%	...	<sup>15</sup> 29%	---	22%
b. People with disabilities . . . . .	<sup>8</sup> 35%	...	<sup>15</sup> 30%	---	20%
c. Lower-income people (annual family income less than \$20,000) . . . . .	<sup>8</sup> 32%	...	<sup>15</sup> 32%	---	17%
<b>1.6 Muscular strength, endurance, and flexibility</b>					
People 6 years and over . . . . .	---	...	---	---	40%
Students in grades 9–12					
Stretching 4 or more times per week . . . . .	...	<sup>15</sup> 43%	---	55%	...
Strengthening 4 or more times per week . . . . .	...	<sup>15</sup> 37%	---	52%	...
Weightlifting					
People 18–64 years . . . . .	...	<sup>17</sup> 11%	<sup>15</sup> 16%	---	...
<b>1.7 Weight loss practices among overweight people 12 years and over</b> . . . . .	---	...	---	---	50%
Overweight females 18 years and over . . . . .	<sup>8</sup> 30%	...	<sup>15</sup> 22%	19%	...
Overweight males 18 years and over . . . . .	<sup>8</sup> 25%	...	<sup>15</sup> 19%	17%	...
<b>1.8 Daily school physical education</b>					
Students in grades 1–12 . . . . .	<sup>18</sup> 36%	...	---	---	50%
Students in grades 9–12 . . . . .	---	...	<sup>15</sup> 42%	34%	...
<b>1.9 School physical education quality</b>					
All students . . . . .	<sup>19</sup> 27%	...	---	---	50%
Students in grades 9–12 . . . . .	---	...	<sup>17,20</sup> 33%	<sup>20</sup> 43%	...



**Table 1. Physical activity and fitness objective status—Con.**

Objective	1987 baseline				Target 2000
	Original	Revised	1992	1993	
<b>1.10 Worksite fitness programs</b>					
50–99 employees . . . . .	<sup>8</sup> 14%	...	33%	---	20%
100–249 employees . . . . .	<sup>8</sup> 23%	...	47%	---	35%
250–749 employees . . . . .	<sup>8</sup> 32%	...	66%	---	50%
750 and more employees . . . . .	<sup>8</sup> 54%	...	83%	---	80%
<b>1.11 Community fitness facilities</b>					
Hiking, biking, and fitness trail miles . . . . .	<sup>21</sup> 1 per 71,000 people	...	---	---	1 per 10,000 people
Public swimming pools . . . . .	<sup>21</sup> 1 per 53,000 people	...	---	---	1 per 25,000 people
Acres of park and recreation open space . . . . .	<sup>21</sup> 1.8 per 1,000 people	...	---	---	4 per 1,000 people
<b>1.12 Clinician counseling about physical activity</b>					
Percent of sedentary patients . . . . .	<sup>22</sup> 30%	...	---	---	50%
Percent of clinicians routinely providing services to 81–100% of patients					
Inquiry about exercise habits					
Pediaticians . . . . .	...	<sup>23</sup> 16%	---	---	...
Nurse practitioners . . . . .	...	<sup>23</sup> 30%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>23</sup> 14%	---	---	...
Internists . . . . .	...	<sup>23</sup> 40%	---	---	...
Family practitioners . . . . .	...	<sup>23</sup> 19%	---	---	...
Formulation of an exercise plan					
Pediaticians . . . . .	...	<sup>23</sup> 16%	---	---	...
Nurse practitioners . . . . .	...	<sup>23</sup> 14%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>23</sup> 13%	---	---	...
Internists . . . . .	...	<sup>23</sup> 25%	---	---	...
Family practitioners . . . . .	...	<sup>23</sup> 18%	---	---	...

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>2</sup>1976–80 data.

<sup>3</sup>1988–91 data.

<sup>4</sup>33 percent for ages 20 years and over.

<sup>5</sup>31 percent for ages 20 years and over.

<sup>6</sup>35 percent for ages 20 years and over.

<sup>7</sup>49 percent for ages 20 years and over.

<sup>8</sup>1985 data.

<sup>9</sup>Estimate derived from self-reported height and weight.

<sup>10</sup>Ages 20 years and over.

<sup>11</sup>1982–84 data.

<sup>12</sup>47 percent for ages 20 years and over.

<sup>13</sup>1984–88 data for different tribes.

<sup>14</sup>Data source has been changed and data have been revised to reflect updated methodology.

<sup>15</sup>1991 data.

<sup>16</sup>1984 data.

<sup>17</sup>1990 data.

<sup>18</sup>1984–86 data.

<sup>19</sup>1983 data.

<sup>20</sup>Percent who exercised 20 or more minutes in physical education class 3–5 times per week.

<sup>21</sup>1986 data.

<sup>22</sup>1988 data.

<sup>23</sup>1992 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

1.1\*, 1.1a\*—National Vital Statistics System, CDC, NCHS.

1.2\*, 1.2b\*—National Health and Nutrition Examination Survey, CDC, NCHS.

1.2a\*—Baseline: National Health and Nutrition Examination Survey, CDC, NCHS.

Updates: National Health Interview Survey, CDC, NCHS.

1.2c\*—Baseline and updates for Hispanics: National Health Interview Survey, CDC, NCHS.

Baseline for Mexican Americans, Cubans, Puerto Ricans: Hispanic Health and Nutrition Examination Survey, CDC, NCHS.

Updates for Mexican Americans: National Health and Nutrition Examination Survey, CDC, NCHS.

- 1.2d\*—Baseline: Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Updates: National Health Interview Survey, CDC, NCHS.
- 1.2e\*—National Health Interview Survey, CDC, NCHS.
- 1.2f,g\*—National Health and Nutrition Examination Survey, CDC, NCHS.
- 1.3\*—Original baseline: Behavioral Risk Factor Surveillance System, CDC, NCCDPHP. Revised baseline and updates: National Health Interview Survey, CDC, NCHS.
- 1.4—Baseline: For ages 10–17, National Children and Youth Fitness Study I, OASH, ODPHP. Updates for grades 9–12: Youth Risk Behavior Survey, CDC, NCCDPHP. Updates for ages 18 and over: National Health Interview Survey, CDC, NCHS.
- 1.4a—National Health Interview Survey, CDC, NCHS.
- 1.5, 1.5a–c—National Health Interview Survey, CDC, NCHS.
- 1.6—Baseline for students in grades 9–12: Youth Risk Behavior Survey, CDC, NCCDPHP. Baseline and updates for people 18–64: National Health Interview Survey, CDC, NCHS.
- 1.7\*—National Health Interview Survey, CDC, NCHS.
- 1.8—Baseline for grades 5–12: National Children and Youth Fitness Study I, OASH, ODPHP. Baseline for grades 1–4: National Children and Youth Fitness Study II, OASH, ODPHP. Update: Youth Risk Behavior Survey, CDC, NCCDPHP.
- 1.9—Baseline: Siedentop D. Developing Teaching Skills in Physical Education. Palo Alto, Ca. Mayfield. 1983. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.
- 1.10—National Survey of Worksite Health Promotion Activities, OASH, ODPHP.
- 1.11—Baseline: McDonald BL and Cordell HK. Local Opportunities for Americans: Final Report of the Municipal and County Park and Recreation Study, Alexandria, Va.: National Recreation and Park Association. 1988.
- 1.12—Baseline: 1988 American College of Physicians Membership Survey of Prevention Practices in Adult Medicine. Updates: Primary Care Provider Surveys, OASH, ODPHP.

\*Duplicate objective.

# Physical Activity and Fitness Objectives

**1.1\*:** Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

Duplicate objectives: 2.1, 3.1, and 15.1

**1.1a\*:** Reduce coronary heart disease deaths among blacks to no more than 115 per 100,000.

Duplicate objectives: 2.1a, 3.1a, and 15.1a

**1.2\*:** Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12–19.

*NOTE: For people aged 20 and older, overweight is defined as body mass index (BMI) equal to or greater than 27.8 for men and 27.3 for women. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males aged 12–14, 24.3 for males aged 15–17, 25.8 for males aged 18–19, 23.4 for females aged 12–14, 24.8 for females aged 15–17, and 25.7 for females aged 18–19. The values for adolescents are the modified age- and sex-specific 85th percentile values of the 1976–80 National Health and Nutrition Examination Survey (NHANES II). BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.*

Duplicate objectives: 2.3, 15.10, and 17.12

**1.2a\*:** Reduce overweight to a prevalence of no more than 25 percent among low-income women aged 20 and older.

Duplicate objectives: 2.3a, 15.10a, and 17.12a

**1.2b\*:** Reduce overweight to a prevalence of no more than 30 percent among black women aged 20 and older.

Duplicate objectives: 2.3b, 15.10b, and 17.12b

**1.2c\*:** Reduce overweight to a prevalence of no more than 25

percent among Hispanic women aged 20 and older.

Duplicate objectives: 2.3c, 15.10c, and 17.12c

**1.2d\*:** Reduce overweight to a prevalence of no more than 30 percent among American Indians and Alaska Natives.

Duplicate objectives: 2.3d, 15.10d, and 17.12d

**1.2e\*:** Reduce overweight to a prevalence of no more than 25 percent among people with disabilities.

Duplicate objectives: 2.3e, 15.10e, and 17.12e

**1.2f\*:** Reduce overweight to a prevalence of no more than 41 percent among women with high blood pressure.

Duplicate objectives: 2.3f, 15.10f, and 17.12f

**1.2g\*:** Reduce overweight to a prevalence of no more than 35 percent among men with high blood pressure.

Duplicate objectives: 2.3g, 15.10g, and 17.12g

**1.3\*:** Increase to at least 30 percent the proportion of people aged 6 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day.

*NOTE: Light to moderate physical activity is activity that requires sustained, rhythmic muscular movements, is at least equivalent to sustained walking, and is performed at less than 60 percent of maximum heart rate for age. Maximum heart rate equals roughly 220 beats per minute minus age. Examples may includewalking, swimming, cycling, and dancing; gardening and yardwork; various domestic and occupational activities; and games and other childhood pursuits.*

Duplicate objectives: 15.11 and 17.13

**1.4:** Increase to at least 20 percent the proportion of people aged 18 and older and to at least 75 percent the proportion of children and adolescents aged 6–17 who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness 3 or more days per week for 20

or more minutes per occasion.

*NOTE: Vigorous physical activities are rhythmic, repetitive physical activities that use large muscle groups at 60 percent or more of maximum heart rate for age. An exercise heart rate of 60 percent of maximum heart rate for age is about 50 percent of maximal cardiorespiratory capacity and is sufficient for cardiorespiratory conditioning. Maximum heart rate equals roughly 220 beats per minute minus age.*

**1.4a:** Increase to at least 12 percent the proportion of lower-income people aged 18 and older (annual family income less than \$20,000) who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.

**1.5:** Reduce to no more than 15 percent the proportion of people aged 6 and older who engage in no leisure-time physical activity.

*NOTE: For this objective, people with disabilities are people who report any limitation in activity due to chronic conditions.*

**1.5a:** Reduce to no more than 22 percent the proportion of people aged 65 and older who engage in no leisure-time physical activity.

**1.5b:** Reduce to no more than 20 percent the proportion of people with disabilities who engage in no leisure-time physical activity.

**1.5c:** Reduce to no more than 17 percent the proportion of lower-income people aged 18 and older (annual family income less than \$20,000) who engage in no leisure-time physical activity.

**1.6:** Increase to at least 40 percent the proportion of people aged 6 and older who regularly perform physical activities that enhance and maintain muscular strength, muscular endurance, and flexibility.

**1.7\*:** Increase to at least 50 percent the proportion of overweight people aged 12 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight.

Duplicate objective: 2.7

**1.8:** Increase to at least 50 percent the proportion of children and adolescents in 1st–12th grade who participate in daily school physical education.

**1.9:** Increase to at least 50 percent the proportion of school physical education class time that students spend being physically active, preferably engaged in lifetime physical activities.

*NOTE: Lifetime activities are activities that may be readily carried into adulthood because they generally need only one or two people. Examples include swimming, bicycling, jogging, and racquet sports. Also counted as lifetime activities are vigorous social activities such as dancing. Competitive group sports and activities typically played only by young children such as group games are excluded.*

**1.10:** Increase the proportion of worksites offering employer-sponsored physical activity and fitness programs as follows:

Worksites with— 2000 target (percent)

50–99 employees	20
100–249 employees	35
250–749 employees	50
750 or more employees	80

**1.11:** Increase community availability and accessibility of physical activity and fitness facilities as follows:

Hiking, biking, and fitness trail miles: 1 per 10,000 people

Public swimming pools: 1 per 25,000 people

Acres of park and recreation open space: 4 per 1,000 people (250 people per managed acre)

**1.12:** Increase to at least 50 percent the proportion of primary care providers who routinely assess and counsel their patients regarding the frequency, duration, type, and intensity of each patient's physical activity practices.

\*Duplicate objective.

## Priority Area 2 Nutrition

### Background

Dietary factors contribute substantially to preventable illness and premature death in the United States. For the majority of adults who do not smoke and do not drink excessively, what they eat is the most significant controllable risk factor affecting their long-term health (1). Five major causes of death are associated with dietary factors: coronary heart disease, some types of cancer, stroke, noninsulin-dependent diabetes mellitus, and coronary artery disease (2). In general, once-prevalent nutrient deficiencies have been replaced by excesses and imbalances of other food components in the diet. Undernutrition still occurs in some groups of people, however, including those who are isolated or economically deprived.

### Data Summary

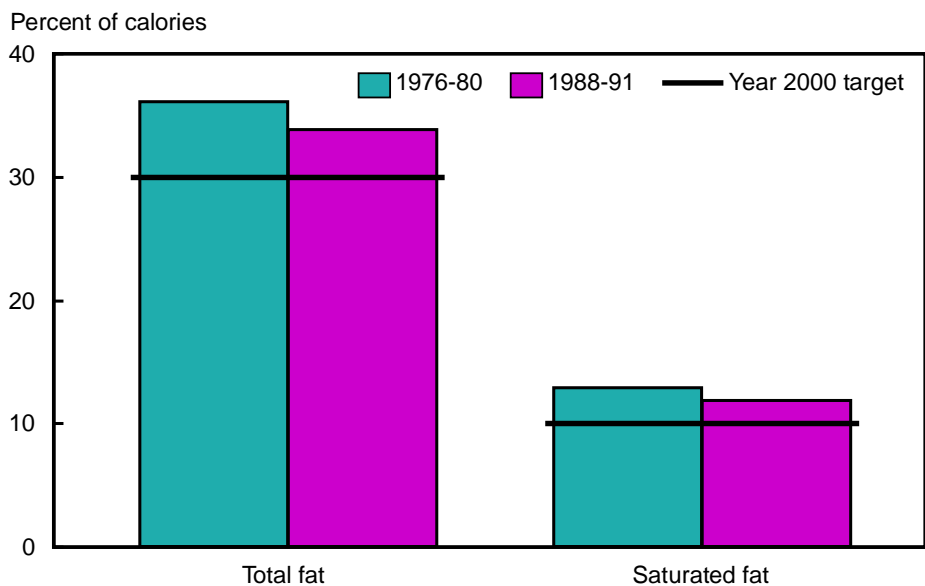
#### Highlights

Overweight prevalence (2.3) has increased for the total population and for all special population subobjectives. Data from 1988–91 for adolescents and adults indicate that the prevalence of overweight has increased substantially since the 1976–80 baseline. In relation to increased overweight prevalence, overweight adults who use exercise or diet to lose weight (2.7) have decreased. There has been an improvement in a number of nutrition objectives. Coronary heart disease mortality (2.1) continues to decline, although the decline is less marked among the black population. More processed foods have useful and informative nutrition labeling (2.14) and an increased proportion of restaurants are offering low-fat and low-calorie selections (2.16). Additionally, the proportion of worksites with 50 or more employees that offer nutrition education and/or weight management programs for employees has increased (2.20).

#### Summary of Progress

Of the 21 objectives in this area, two objectives (2.4 and 2.15) have surpassed the target. Progress toward the targets has been made on eight

**Figure 3. Average dietary fat intake for persons 2 years of age and over: United States, 1976–80 and 1988–91, and year 2000 targets for objective 2.5**



	1976–80	1988–91	Year 2000 target
Total fat . . . . .	36	34	30
Saturated fat . . . . .	13	12	10

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey.

objectives (2.1, 2.2, 2.5, 2.11, 2.13, 2.14, 2.16, and 2.20). Two objectives moved away from the target: 2.3 and 2.7. Progress has been mixed for one objective (2.8), seven objectives have no new data (2.6, 2.9, 2.10, 2.12, 2.18, 2.19, and 2.21), and one objective has new baseline data (2.17).

#### Data Issues

#### Definitions

Overweight (2.3) for adults is defined as a body mass index (BMI) at or above the sex-specific 85th percentile of the 1976–80 NHANES II reference population 20–29 years of age. For adolescents, overweight is the sex- and age-specific 85th percentile from NHANES II (see Note with the text of objective 2.3).

Objective 2.12 addresses feeding practices that prevent baby bottle tooth decay. The measure used to establish a baseline for this objective for the total population and for caregivers with less than a high school education (2.12a)

was for children 6–23 months old. The preventive feeding practices are either that the child no longer uses a bottle, never used a bottle, or if the child still uses a bottle, that no bottle was given at bedtime (excluding bottles with plain water) during the past 2 weeks.

#### Data Source Description

Growth retardation among low-income children (2.4) is tracked by the Pediatric Nutrition Surveillance System (PedNSS). The number of participating States and Indian tribes has varied from year to year. The fluctuations in coverage could affect the comparability of estimates.

#### Comparability of Data Sources

Overweight (2.3) is being tracked with two main data sources. The primary data source is the National Health and Nutrition Examination Survey (NHANES), which provided baseline data for most of the overweight objectives and the 1988–91 updates. These data are derived from measured height and weight. Interim estimates

shown in an earlier publication (3), 1993 updates for Hispanic females and American Indians/Alaska Natives, and all data for people with disabilities are derived from the National Health Interview Survey (NHIS). These estimates are based on self-reported heights and weights and are not comparable to the actual measured data from NHANES. Trends from the NHIS based on self-reported measures also show a steady increase in prevalence of overweight; this increase is, however, different in magnitude from that observed in the data derived from measured height and weight.

For the use of food labels by adults (2.13) the 1988 baseline measure and 1990 update are from the Health and Diet Survey, Food and Drug Administration. After giving a description of food labels, respondents were asked if they read food labels. The 1991 and 1993 updates from the NHIS asked respondents how often they read food labels for calories, fat and/or cholesterol content. Respondents answering “always,” “often,” or “sometimes” were considered to be making nutritious food selections using the food labels.

### Proxy Measures

Objective 2.7 is to increase to at least 50 percent the proportion of overweight people who use sound dietary practices combined with regular physical activity to attain appropriate body weight. Respondents who reported they were overweight and were currently trying to lose weight or control their weight by eating fewer calories and exercising more were included for this objective. However, an assessment of the quality of dietary practices has not yet been coupled with a measure of regular physical activity. The 1985 questionnaire asked respondents specifically if they were eating fewer calories to lose weight and if they were increasing their physical activity to lose weight. In 1991 and 1993, eating fewer calories and exercising more were among a list of 10 possible methods of losing weight in response to the question, “Are you currently doing any of these things to control your weight?” Respondents were asked this question if they reported they were trying to lose weight or stay about the same.

### Data availability

Objective 2.19 (nutrition education in schools) will be updated in late 1995 by the School Health Policies and Programs Study, CDC.

### References

1. U.S. Department of Health and Human Services. The Surgeon General's report on nutrition and health. Washington: Public Health Service. 1988.
2. U.S. Department of Health and Human Services. Healthy people 2000: National health promotion and disease prevention objectives. Washington: Public Health Service. 1991.
3. National Center for Health Statistics. Healthy people 2000 review, 1992. Hyattsville, Maryland: Public Health Service. 1993.

**Table 2. Nutrition objective status**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>2.1 Coronary heart disease deaths (age adjusted per 100,000)</b> . . . . .	135	<sup>1</sup> No change	114	---	100
a. Blacks (age adjusted per 100,000) . . . . .	163	<sup>1</sup> 168	151	---	115
<b>2.2 Cancer deaths (age adjusted per 100,000)</b> . . . . .	133	<sup>1</sup> 134	133	<sup>2</sup> 133	130
<b>2.3 Overweight prevalence</b> (Based on measured height and weight unless otherwise indicated)					
Adults 20–74 years . . . . .	<sup>3</sup> 26%	...	<sup>4,5</sup> 34%	---	20%
Males . . . . .	<sup>3</sup> 24%	...	<sup>4,6</sup> 32%	---	...
Females . . . . .	<sup>3</sup> 27%	...	<sup>4,7</sup> 35%	---	...
Adolescents 12–19 years . . . . .	<sup>3</sup> 15%	...	<sup>4</sup> 21%	---	15%
a. Low-income females 20–74 years . . . . .	<sup>3</sup> 37%	...	---	---	25%
b. Black females 20–74 years . . . . .	<sup>3</sup> 44%	...	<sup>4,8</sup> 48%	---	30%
c. Hispanic females 20–74 years . . . . .	---	...	---	---	25%
Hispanic females 20–74 years (self-reported) . . . . .	...	<sup>9,10</sup> 27%	<sup>10,11</sup> 32%	<sup>10,11</sup> 27%	...
Mexican-American females . . . . .	<sup>12</sup> 39%	...	<sup>4,13</sup> 47%	---	...
Cuban females . . . . .	<sup>12</sup> 34%	...	---	---	...
Puerto Rican females . . . . .	<sup>12</sup> 37%	...	---	---	...
d. American Indians/Alaska Natives 20 years and over . . . . .	<sup>14</sup> 29–75%	...	<sup>10</sup> 36%	<sup>10</sup> 48%	30%
e. People with disabilities 20 years and over . . . . .	<sup>9,10</sup> 36%	...	<sup>10</sup> 37%	<sup>10</sup> 38%	25%
f. Females with high blood pressure 20–74 years . . . . .	<sup>3</sup> 50%	...	---	---	41%
g. Males with high blood pressure 20–74 years . . . . .	<sup>3</sup> 39%	...	---	---	35%
<b>2.4 Growth retardation among low-income children 5 years and under</b> . . . . .	<sup>15</sup> 16%	<sup>16</sup> 11%	8%	---	10%
a. Low-income black children under 1 year . . . . .	<sup>15</sup> 15%	...	15%	---	10%
b. Low-income Hispanic children under 1 year . . . . .	<sup>15</sup> 13%	...	8%	---	10%
c. Low-income Hispanic children 1 year . . . . .	<sup>15</sup> 16%	...	9%	---	10%
d. Low-income Asian/Pacific Islander children 1 year . . . . .	<sup>15</sup> 14%	...	12%	---	10%
e. Low-income Asian/Pacific Islander children age 2–4 years . . . . .	<sup>15</sup> 16%	...	11%	---	10%
<b>2.5 Average dietary fat intake among people 2 years and over</b>					
National Health and Nutrition Examination Survey					
Percent of calories from total fat . . . . .	<sup>3,17</sup> 36%	<sup>3,18</sup> 36%	434%	---	30%
Percent of calories from saturated fat . . . . .	<sup>3,17</sup> 13%	<sup>3,18</sup> 13%	412%	---	10%
Continuing Survey of Food Intakes by Individuals					
Percent of calories from total fat . . . . .	<sup>9,19</sup> 36%	<sup>20</sup> 34%	---	---	30%
Percent of calories from saturated fat . . . . .	<sup>9,19</sup> 13%	<sup>20</sup> 12%	---	---	10%
<b>2.6 Average daily intake of vegetables, fruits, and grain products</b>					
Vegetables and fruits (number of servings)					
People 20 years and over . . . . .	...	<sup>21</sup> 4.0	---	---	5.0
Males					
20–39 years . . . . .	...	<sup>21</sup> 4.1	---	---	...
40–59 years . . . . .	...	<sup>21</sup> 4.3	---	---	...
60 years and over . . . . .	...	<sup>21</sup> 4.4	---	---	...
Females					
20–39 years . . . . .	...	<sup>21</sup> 3.4	---	---	...
40–59 years . . . . .	...	<sup>21</sup> 4.0	---	---	...
60 years and over . . . . .	...	<sup>21</sup> 3.9	---	---	...
19–50 years . . . . .	<sup>9,22</sup> 2.5	...	---	---	...
Grain products					
People 20 years and over . . . . .	---	...	---	---	6.0
Females 19–50 years . . . . .	<sup>9,22</sup> 3.0	...	---	---	...

**Table 2. Nutrition objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>2.7 Weight loss practices among overweight people 12 years and over . . . .</b>	---	...	---	---	50%
Overweight females 18 years and over . . . . .	<sup>9</sup> 30%	...	<sup>23</sup> 22%	19%	...
Overweight males 18 years and over . . . . .	<sup>9</sup> 25%	...	<sup>23</sup> 19%	17%	...
<b>2.8 Foods rich in calcium (percent who consume)</b>					
3 or more servings daily					
People 12–24 years . . . . .	...	<sup>21,24</sup> 15%	---	---	50%
Males 19–24 years . . . . .	<sup>24,25</sup> 14%	...	<sup>21,24</sup> 14%	---	...
Females 19–24 years . . . . .	<sup>24,25</sup> 7%	...	<sup>21,24</sup> 7%	---	...
Pregnant and lactating females . . . . .	<sup>24,25</sup> 24%	...	<sup>21,24</sup> 16%	---	50%
2 or more servings daily					
People 25 years and over . . . . .	...	<sup>21,24</sup> 19%	---	---	50%
Males 25–50 years . . . . .	<sup>24,25</sup> 23%	...	<sup>21,24</sup> 23%	---	...
Females 25–50 years . . . . .	<sup>24,25</sup> 15%	...	<sup>21,24</sup> 16%	---	...
<b>2.9 Salt and sodium intake</b>					
Prepare foods without adding salt . . . . .	<sup>9</sup> 54%	<sup>21</sup> 43%	---	---	65%
Adults who avoid using salt at table . . . . .	<sup>9</sup> 68%	<sup>20</sup> 60%	---	---	80%
Adults who regularly purchase foods lower in sodium . . . . .	<sup>15</sup> 20%	...	---	---	40%
<b>2.10 Iron deficiency</b>					
Children 1–4 years . . . . .	---	...	---	---	3%
Children 1–2 years . . . . .	<sup>3</sup> 9%	...	---	---	3%
Children 3–4 years . . . . .	<sup>3</sup> 4%	...	---	---	3%
Females of childbearing age (20–44 years) . . . . .	<sup>3</sup> 5%	...	---	---	3%
Iron deficiency prevalence					
a. Low-income children 1–2 years . . . . .	<sup>3</sup> 21%	...	---	---	10%
b. Low-income children 3–4 years . . . . .	<sup>3</sup> 10%	...	---	---	5%
c. Low-income females 20–44 years . . . . .	<sup>3</sup> 8%	...	---	---	4%
Anemia prevalence					
d. Alaska Native children 1–5 years . . . . .	<sup>26</sup> 22–28%	...	<sup>27</sup> 31%	---	10%
e. Black, low-income pregnant females 15–44 years (third trimester) . . . . .	<sup>15</sup> 41%	...	43%	---	20%
<b>2.11 Breastfeeding</b>					
During early postpartum period <sup>28</sup> . . . . .	<sup>15</sup> 54%	...	54%	56%	75%
a. Low-income mothers . . . . .	<sup>15</sup> 32%	...	35%	38%	75%
b. Black mothers . . . . .	<sup>15</sup> 25%	...	28%	31%	75%
c. Hispanic mothers . . . . .	<sup>15</sup> 51%	...	52%	56%	75%
d. American Indian/Alaska Native mothers . . . . .	<sup>15</sup> 47%	...	53%	51%	75%
At age 5–6 months . . . . .	<sup>15</sup> 21%	...	20%	21%	50%
a. Low-income mothers . . . . .	<sup>15</sup> 9%	...	9%	10%	50%
b. Black mothers . . . . .	<sup>15</sup> 8%	...	9%	9%	50%
c. Hispanic mothers . . . . .	<sup>15</sup> 16%	...	17%	18%	50%
d. American Indian/Alaska Native mothers . . . . .	<sup>15</sup> 28%	...	24%	28%	50%
<b>2.12 Baby bottle tooth decay</b>					
Parents and caregivers who use preventive feeding practices . . . . .	...	<sup>23</sup> 55%	---	---	75%
a. Parent and caregivers with less than high school education . . . . .	...	<sup>23</sup> 36%	---	---	65%
b. American Indian/Alaska Native parents and caregivers . . . . .	---	...	---	---	65%
<b>2.13 Use of food labels</b> . . . . .	<sup>15</sup> 74%	...	<sup>29</sup> 76%	---	85%
Read food labels for calories, fat, and/or cholesterol content . . . . .	...	<sup>23</sup> 64%	---	66%	...
<b>2.14 Informative nutrition labeling</b>					
Processed/package foods . . . . .	<sup>15</sup> 60%	...	<sup>23</sup> 66%	---	100%
Fresh produce . . . . .	---	...	---	---	40%
Fresh seafood . . . . .	---	...	---	---	40%
Fresh meat/poultry . . . . .	---	...	---	---	40%
Carry-away foods . . . . .	---	...	---	---	40%
<b>2.15 Availability of reduced-fat processed foods</b> . . . . .	<sup>30</sup> 2,500	...	<sup>23</sup> 5,618	---	5,000
<b>2.16 Low-fat, low-calorie, restaurant food choices</b> . . . . .	<sup>31</sup> 70%	...	<sup>29</sup> 75%	---	90%



**Table 2. Nutrition objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>2.17 Nutritious school and child care food services</b> . . . . .	---	...	---	---	90%
School lunches consistent with Dietary Guidelines for:					
Total fat . . . . .	...	<sup>32</sup> 21%	---	---	...
Saturated fat . . . . .	...	<sup>32</sup> Less than 1%	---	---	...
School breakfasts consistent with Dietary Guidelines for:					
Total fat . . . . .	...	<sup>32</sup> 44%	---	---	...
Saturated fat . . . . .	...	<sup>32</sup> 4%	---	---	...
<b>2.18 Home-delivered meals for older adults</b> . . . . .	...	<sup>23</sup> 7%	---	---	80%
<b>2.19 Nutrition education in schools</b> . . . . .	...	<sup>29</sup> 60%	---	---	75%
<b>2.20 Worksite nutrition/weight management programs</b>					
Nutrition education . . . . .	<sup>9</sup> 17%	...	31%	---	50%
Weight control . . . . .	<sup>9</sup> 15%	...	24%	---	50%
Nutrition education and/or weight control . . . . .	---	...	37%	---	50%
<b>2.21 Nutrition assessment, counseling, and referral by clinicians</b> . . . . .	<sup>15</sup> 40–50%	...	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about diet/nutrition					
Pediatricians . . . . .	...	<sup>32</sup> 53%	---	---	...
Nurses . . . . .	...	<sup>32</sup> 46%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>32</sup> 15%	---	---	...
Internists . . . . .	...	<sup>32</sup> 36%	---	---	...
Family physicians . . . . .	...	<sup>32</sup> 19%	---	---	...
Formulation of a diet/nutrition plan . . . . .					
Pediatricians . . . . .	...	<sup>32</sup> 31%	---	---	...
Nurses . . . . .	...	<sup>32</sup> 31%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>32</sup> 19%	---	---	...
Internists . . . . .	...	<sup>32</sup> 33%	---	---	...
Family physicians . . . . .	...	<sup>32</sup> 24%	---	---	...

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>2</sup>Provisional data.

<sup>3</sup>1976–80 data.

<sup>4</sup>1988–91 data.

<sup>5</sup>33 percent for ages 20 years and over.

<sup>6</sup>31 percent for ages 20 years and over.

<sup>7</sup>35 percent for ages 20 years and over.

<sup>8</sup>49 percent for ages 20 years and over.

<sup>9</sup>1985 data.

<sup>10</sup>Estimate derived from self-reported height and weight.

<sup>11</sup>Ages 20 years and over.

<sup>12</sup>1982–84 data.

<sup>13</sup>47 percent for ages 20 years and over.

<sup>14</sup>1984–88 data for different tribes.

<sup>15</sup>1988 data.

<sup>16</sup>Revised baseline to reflect low-income children 5 years and under.

<sup>17</sup>Ages 20–74 years.

<sup>18</sup>Up to 74 years

<sup>19</sup>Females 19–50 years.

<sup>20</sup>1989–91 data based on one-day intake.

<sup>21</sup>1989–90 data.

<sup>22</sup>Excludes fruits, vegetables, and grain products from many mixed dishes.

<sup>23</sup>1991 data.

<sup>24</sup>Excludes milk and milk products from many mixed dishes.

<sup>25</sup>1985–86 data.

<sup>26</sup>1983–85 data from three American Indian communities.

<sup>27</sup>Low-income children.

<sup>28</sup>Breastfed in hospital.

<sup>29</sup>1990 data.

<sup>30</sup>1986 data.

<sup>31</sup>1989 data.

<sup>32</sup>1992 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

- 2.1\*, 2.1a\*—National Vital Statistics System, CDC, NCHS.
- 2.2\*—National Vital Statistics System, CDC, NCHS.
- 2.3\*, 2.3b\*—National Health and Nutrition Examination Survey, CDC, NCHS.
- 2.3a\*—National Health and Nutrition Examination Survey, CDC, NCHS.
- 2.3c\*—Baseline and updates for Hispanics: National Health Interview Survey, CDC, NCHS. Baseline for Mexican Americans, Cubans, Puerto Ricans: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates for Mexican Americans: National Health and Nutrition Examination Survey, CDC, NCHS.
- 2.3d\*—Baseline: Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Updates: National Health Interview Survey, CDC, NCHS.
- 2.3e\*—National Health Interview Survey, CDC, NCHS.
- 2.3f,g\*—National Health and Nutrition Examination Survey, CDC, NCHS.
- 2.4, 2.4a–e— Pediatric Nutrition Surveillance System, CDC, NCCDPHP.
- 2.5\*—1976–80 Baselines and 1988–91 updates: National Health and Nutrition Examination Survey, CDC, NCHS. 1985 Original and 1989–91 revised baselines: Continuing Survey of Food Intakes by Individuals, USDA.
- 2.6\*—Baseline: Continuing Survey of Food Intakes by Individuals, USDA.
- 2.7\*—National Health Interview Survey, CDC, NCHS.
- 2.8—Continuing Survey of Food Intakes by Individuals, USDA.
- 2.9—1985 Original baseline and revised baselines: Continuing Survey of Food Intakes by Individuals, USDA. 1988 Baseline: Health and Diet Survey, FDA.
- 2.10, 2.10a–c—National Health and Nutrition Examination Survey, CDC, NCHS.
- 2.10d—Baseline: Survey of American Indians/Alaska Natives, CDC and Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Updates: Pediatric Nutrition Surveillance System, CDC, NCCDPHP.
- 2.10e—Pregnancy Nutrition Surveillance System, CDC, NCCDPHP.
- 2.11\*, 2.11a—Ross Laboratories Mothers Survey.
- 2.11d—Pediatric Nutrition Surveillance System, CDC, NCCDPHP.
- 2.12\*, 2.12a\*—National Health Interview Survey, CDC, NCHS.
- 2.13—1988 Baseline and 1990 update: Health and Diet Survey, FDA. 1991 Baseline and 1993 update: National Health Interview Survey, CDC, NCHS.
- 2.14—Baseline and 1991 update: Food Label and Package Survey, FDA.
- 2.15—Nielsen Company National Scantrack.
- 2.16—Survey of Chain Operators, National Restaurant Association.
- 2.17—School Nutrition Dietary Assessment Study, USDA.
- 2.18—National Health Interview Survey, CDC, NCHS.
- 2.19—National Survey of School Health Education Activities, CDC, NCCDPHP.
- 2.20—National Survey of Worksite Health Promotion Activities, OASH, ODPHP.
- 2.21—1988 Baseline: Lewis CE. Disease prevention and health promotion practices of primary care physicians in the United States. *Am J Prev Med* 4:9–16. 1988. 1992 Baseline: Primary Care Provider Surveys, OASH, ODPHP.

\*Duplicate objective.

# Nutrition Objectives

**2.1\***: Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

Duplicate objectives: 1.1, 3.1, and 15.1

**2.1a\***: Reduce coronary heart disease deaths among blacks to no more than 115 per 100,000 people.

Duplicate objectives: 1.1a, 3.1a, and 15.1a

**2.2\***: Reverse the rise in cancer deaths to achieve a rate of no more than 130 per 100,000 people.

*NOTE: In its publications, the National Cancer Institute age adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target value for this objective would be 175 per 100,000.*

Duplicate objective: 16.1

**2.3\***: Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12–19.

*NOTE: For people aged 20 and older, overweight is defined as body mass index (BMI) equal to or greater than 27.8 for men and 27.3 for women. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males aged 12–14, 24.3 for males aged 15–17, 25.8 for males aged 18–19, 23.4 for females aged 12–14, 24.8 for females aged 15–17, and 25.7 for females aged 18–19. The values for adolescents are the modified age- and sex-specific 85th percentile values of the 1976–80 National Health and Nutrition Examination Survey (NHANES II). BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.*

Duplicate objectives: 1.2, 15.10, and 17.12

**2.3a\***: Reduce overweight to a prevalence of no more than 25 percent among low-income women aged 20 and older.

Duplicate objectives: 1.2a, 15.10a, and 17.12a

**2.3b\***: Reduce overweight to a prevalence of no more than 30 percent among black women aged 20 and older.

Duplicate objectives: 1.2b, 15.10b, and 17.12b

**2.3c\***: Reduce overweight to a prevalence of no more than 25 percent among Hispanic women aged 20 and older.

Duplicate objectives: 1.2c, 15.10c, and 17.12c

**2.3d\***: Reduce overweight to a prevalence of no more than 30 percent among American Indians and Alaska Natives.

Duplicate objectives: 1.2d, 15.10d, and 17.12d

**2.3e\***: Reduce overweight to a prevalence of no more than 25 percent among people with disabilities.

Duplicate objectives: 1.2e, 15.10e, and 17.12e

**2.3f\***: Reduce overweight to a prevalence of no more than 41 percent among women with high blood pressure.

Duplicate objectives: 1.2f, 15.10f, and 17.12f

**2.3g\***: Reduce overweight to a prevalence of no more than 35 percent among men with high blood pressure.

Duplicate objectives: 1.2g, 15.10g, and 17.12g

**2.4**: Reduce growth retardation among low-income children aged 5 and younger to less than 10 percent.

*NOTE: Growth retardation is defined as height-for-age below the fifth percentile of children in the National Center for Health Statistics' reference population.*

**2.4a**: Reduce growth retardation among low-income black children younger than age 1 to less than 10 percent.

**2.4b**: Reduce growth retardation among low-income Hispanic children younger than age 1 to less than 10 percent.

**2.4c**: Reduce growth retardation among low-income Hispanic

children aged 1 to less than 10 percent.

**2.4d**: Reduce growth retardation among low-income Asian and Pacific Islander children aged 1 to less than 10 percent.

**2.4e**: Reduce growth retardation among low-income Asian and Pacific Islander children aged 2–4 to less than 10 percent.

**2.5\***: Reduce dietary fat intake to an average of 30 percent of calories or less and average saturated fat intake to less than 10 percent of calories among people aged 2 and older.

Duplicate objectives: 15.9 and 16.7

**2.6\***: Increase complex carbohydrate and fiber-containing foods in the diets of adults to five or more daily servings for vegetables (including legumes) and fruits, and to six or more daily servings for grain products.

Duplicate objective: 16.8

**2.7\***: Increase to at least 50 percent the proportion of overweight people aged 12 and older who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight.

Duplicate objective: 1.7

**2.8**: Increase calcium intake so at least 50 percent of youth aged 12–24 and 50 percent of pregnant and lactating women consume three or more servings daily of foods rich in calcium, and at least 50 percent of people aged 25 and older consume two or more servings daily.

*NOTE: The number of servings of foods rich in calcium is based on milk and milk products. A serving is considered to be 1 cup of skim milk or its equivalent in calcium (302 mg). The number of servings in this objective will generally provide approximately three-fourths of the 1989 Recommended Dietary Allowance (RDA) of calcium. The RDA is 1200 mg for people aged 12 through 24 years, 800 mg for people aged 25 and older, and 1200 mg for pregnant and lactating women.*

**2.9**: Decrease salt and sodium intake so at least 65 percent of home meal preparers prepare foods without adding salt, at least 80 percent of people avoid using salt at the table, and at least 40 percent of adults regularly purchase foods modified or lower in sodium.

**2.10:** Reduce iron deficiency to less than 3 percent among children aged 1 through 4 and among women of childbearing age.

*NOTE: Iron deficiency is defined as having abnormal results for two or more of the following tests: mean corpuscular volume, erythrocyte protoporphryn, and transferrin saturation. Anemia is used as an index of iron deficiency. Anemia among Alaska Native children and among pregnant women in the third trimester was defined as hemoglobin less than 11 gm/dL or hematocrit less than 33 percent. For children and pregnant women, hematology is adjusted for altitude. In pregnant and non-pregnant women, hematology is also adjusted for smoking status. The above prevalences of iron deficiency and anemia may be due to inadequate dietary iron intakes or to inflammatory conditions and infections. For anemia, genetics may also be a factor.*

**2.10a:** Reduce iron deficiency to less than 10 percent among low-income children aged 1–2.

**2.10b:** Reduce iron deficiency to less than 5 percent among low-income children aged 3–4.

**2.10c:** Reduce iron deficiency to less than 4 percent among low-income women of childbearing age.

**2.10d:** Reduce the prevalence of anemia to less than 10 percent among Alaska Native children aged 1–5.

**2.10e:** Reduce the prevalence of anemia to less than 20 percent among black, low-income pregnant women (third trimester).

**2.11\*:** Increase to at least 75 percent the proportion of mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9

**2.11a\*:** Increase to at least 75 percent the proportion of low-income mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9a

**2.11b\*:** Increase to at least 75 percent the proportion of black mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9b

**2.11c\*:** Increase to at least 75 percent the proportion of Hispanic mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9c

**2.11d\*:** Increase to at least 75 percent the proportion of American Indian and Alaska Native mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 14.9d

**2.12\*:** Increase to at least 75 percent the proportion of parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 13.11

**2.12a\*:** Increase to at least 65 percent the proportion of parents and caregivers with less than a high school education who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 13.11a

**2.12b\*:** Increase to at least 65 percent the proportion of American Indian and Alaska Native parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 13.11b

**2.13:** Increase to at least 85 percent the proportion of people aged 18 and older who use food labels to make nutritious food selections.

**2.14:** Achieve useful and informative nutrition labeling for virtually all processed foods and at least 40 percent of fresh meats, poultry, fish, fruits, vegetables, baked goods, and ready-to-eat carry-away foods.

**2.15:** Increase to at least 5,000 brand

items the availability of processed food products that are reduced in fat and saturated fat.

*NOTE: A brand item is defined as a particular flavor and/or size of a specific brand and is typically the consumer unit of purchase.*

**2.16:** Increase to at least 90 percent the proportion of restaurants and institutional food service operations that offer identifiable low-fat, low-calorie food choices, consistent with the Dietary Guidelines for Americans.

**2.17:** Increase to at least 90 percent the proportion of school lunch and breakfast services and child care food services with menus that are consistent with the nutrition principles in the Dietary Guidelines for Americans.

**2.18:** Increase to at least 80 percent the receipt of home food services by people aged 65 and older who have difficulty in preparing their own meals or are otherwise in need of home-delivered meals.

**2.19:** Increase to at least 75 percent the proportion of the Nation's schools that provide nutrition education from preschool–12th grade, preferably as part of quality school health education.

**2.20:** Increase to at least 50 percent the proportion of worksites with 50 or more employees that offer nutrition education and/or weight management programs for employees.

**2.21:** Increase to at least 75 percent the proportion of primary care providers who provide nutrition assessment and counseling and/or referral to qualified nutritionists or dietitians.

# Priority Area 3 Tobacco

## Background

Tobacco use is responsible for approximately one of every five deaths in the United States and is the single most important preventable cause of death and disease in our society (1,2). Cigarette smoking accounts for approximately 400,000 deaths yearly (2), including 21 percent of all coronary heart disease deaths, 87 percent of all lung cancer deaths, and 82 percent of all deaths from chronic obstructive pulmonary disease (1). Smoking is responsible for more than 5 million years of potential life lost each year (2). About one-half of all regular smokers will eventually be killed by their habit (3).

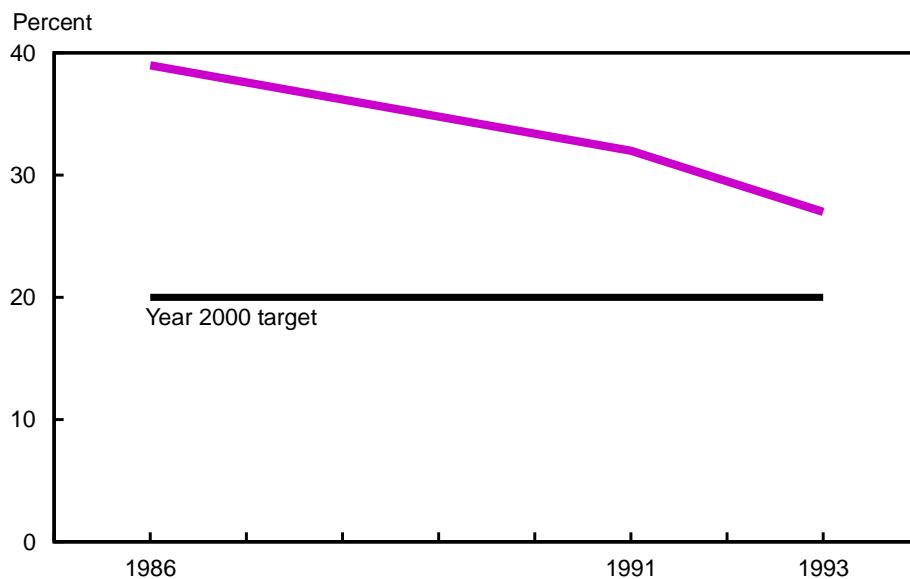
Smoking contributes substantially to chronic morbidity and disability as well. In 1993, smoking-related illnesses cost the Nation \$50 billion in health care costs (4). In 1990, estimated indirect losses due to smoking were approximately \$47 billion (5). Cigarette smoking during pregnancy accounts for 17–26 percent of low-birthweight babies (6). Passive or involuntary smoking also causes disease, including lung cancer in healthy nonsmokers and respiratory problems in young children and infants (7). The prevalence of smoking remains disproportionately high among blue-collar workers, military personnel, and American Indians and Alaska Natives.

## Data Summary

### Highlights

Recent data show some progress toward achieving the objectives in the tobacco priority area. Coronary heart disease mortality (3.1) is declining for the total population; however, the decline is slower among black persons. Until 1991, the trend for lung cancer mortality (3.2) had been rising at a rate that would surpass the target. The rate actually declined in 1991 for the first time in at least 50 years and continued to decline in 1992. Chronic obstructive lung disease mortality (3.3) declined in 1992 but rose again in 1993. The rate of rise since 1987 indicates that if this rate

**Figure 4. Proportion of children 6 years and under who are regularly exposed to tobacco smoke at home: United States, 1986, 1991, 1993, and year 2000 targets for objective 3.8**



	1986	1991	1993	Year 2000 target
Children 6 years and under . . . .	39	32	27	20

SOURCE: Baseline: Centers for Disease Control and Prevention, National Center for Disease Prevention and Health Promotion, Adult Use of Tobacco Survey; Updates: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

continues to slow, the objective will be met. Cigarette smoking prevalence (3.4) has declined since the 1987 baseline. As measured by smoking among people 20–24 years of age, smoking initiation by children and adolescents (3.5) has decreased slightly. Smoking by high school seniors, however, has been essentially unchanged since 1987 (8). Smoking cessation attempts among the general public have increased slightly (3.6) but they have decreased among pregnant women (3.7). Recent data show a decline in the proportion of children exposed to tobacco smoke in the home (3.8) and in the use of smokeless tobacco (3.9). There has been an increase in the number of States restricting and/or regulating smoking (3.12). All States have enacted laws prohibiting the sale and distribution of tobacco products to youth under 18 years of age (3.13); however, these laws are often not enforced (9).

## Summary of Progress

One objective (3.13) has met the target. Data for 11 objectives (3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.8, 3.9, 3.11, 3.12, and 3.14) show improvements toward the year 2000 targets. Cessation of smoking during pregnancy (3.7) is moving away from the target. Data beyond baseline were not available for three objectives (3.10, 3.15, and 3.16).

## Data Issues

### Definitions

Beginning in 1992 the definition of current smoker (3.4) was modified to specifically include persons who smoked only “some days.” Prior to 1992, a current smoker was defined by the questions “Have you ever smoked 100 cigarettes in your lifetime?” and “Do you smoke now?” In 1992, data were collected and analyzed for half the respondents using these smoking questions and for the other half of

respondents using a revised smoking question: “Do you smoke everyday, some days, or not at all?” The 1992 estimate combines data collected using both sets of questions. The 1993 estimate is based completely on the revised definition, which is considered a more complete estimate of smoking prevalence. The effect of the new definition is a small increase in the number of smokers.

The baseline for objective 3.7 (cessation of cigarette smoking early in pregnancy, with abstinence throughout pregnancy) is from a 1986 telephone interview of white women selected from the respondents to the 1985 National Health Interview Survey (NHIS) (10). Beginning with 1991, progress toward the target is being tracked using periodic supplements to the NHIS. The 1985 and 1991 surveys used different definitions for smoking before pregnancy and for the duration of quitting during pregnancy. The 1991 measure, focused on women who quit during the first trimester, is closer to the objective, but not comparable to the 1985 baseline that counted women who quit any time during pregnancy.

For objective 3.8 (children’s exposure to tobacco smoke at home), the definition of regular exposure is defined as the occurrence of tobacco smoking anywhere in the home on more than 3 days each week.

### Comparability of Data Sources

Information on objective 3.9 (smokeless tobacco use by males 12–24 years of age) is tracked by a combination of two surveys. Males 12–17 years of age are tracked by the National Household Survey on Drug Abuse (NHSDA). In this survey smokeless tobacco use is defined as any use of snuff or chewing tobacco in the preceding month. For males 18–24 years of age information is obtained from the NHIS. The NHIS defines a smokeless tobacco user as someone who has used either snuff or chewing tobacco at least 20 times and who currently uses either of these substances every day or some days. Information for males 18–25 years of age is also available from the NHSDA using the same definition as for the younger age group. According to the NHSDA, smokeless tobacco use among males 18–24 years shows a similar downward trend to that observed from the NHIS. The smokeless tobacco use prevalence estimate from NHSDA is

higher than the NHIS estimate (11.7 percent compared with 8.2 percent in 1992). Differences between the NHSDA and the NHIS may be due to differences in the definition of smokeless tobacco use between the two surveys and/or methodological differences in survey administration (written answer sheets in the NHSDA and verbal responses in the NHIS).

### Proxy Measures

The proportion of people 20–24 years of age who currently smoke cigarettes is used as a proxy measure for initiation of cigarette smoking by children and youth (objective 3.5).

### Data Availability

Data for objective 3.10 (tobacco-use prevention education) will be available in late 1995 from the School Health Policies and Programs Study, CDC.

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**Table 3. Tobacco objective status**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>3.1 Coronary heart disease deaths (age adjusted per 100,000)</b> . . . . .	135	<sup>1</sup> No change	114	---	100
a. Blacks (age adjusted per 100,000) . . . . .	163	<sup>1</sup> 168	151	---	115
<b>3.2 Slow the rise in lung cancer deaths (age adjusted per 100,000)</b> . . . . .	37.9	<sup>1</sup> 38.5	39.3	---	42
<b>3.3 Slow the rise in chronic obstructive pulmonary disease deaths (age adjusted per 100,000)</b> . . . . .	18.7	<sup>1</sup> 18.9	19.9	<sup>2</sup> 21.3	25
<b>3.4 Cigarette smoking prevalence</b>					
People 20 years and over . . . . .	29%	...	27%	25%	15%
Males . . . . .	32%	...	29%	28%	...
Females . . . . .	27%	...	25%	23%	...
a. People with high school education or less 20 years and over . . . . .	34%	...	32%	30%	20%
b. Blue-collar workers 20 years and over . . . . .	36%	...	37%	34%	20%
c. Military personnel . . . . .	<sup>3</sup> 42%	...	35%	---	20%
d. Blacks 20 years and over . . . . .	34%	...	29%	27%	18%
e. Hispanics 20 years and over . . . . .	<sup>4</sup> 33%	...	21%	20%	18%
f. American Indians/Alaska Natives . . . . .	<sup>5</sup> 42–70%	...	40%	39%	20%
g. Southeast Asian males . . . . .	<sup>6</sup> 55%	...	---	---	20%
h. Females of reproductive age (18–44 years) . . . . .	29%	...	28%	26%	12%
i. Pregnant females . . . . .	<sup>7</sup> 25%	...	<sup>8</sup> 20%	20%	10%
j. Females who use oral contraceptives . . . . .	<sup>9</sup> 36%	...	<sup>3</sup> 26%	---	10%
<b>3.5 Smoking initiation by children and adolescents</b> . . . . .	30%	...	28%	27%	15%
a. Lower socioeconomic status people 20–24 years . . . . .	40%	...	38%	38%	18%
<b>3.6 Smoking cessation attempts</b> . . . . .	<sup>10</sup> 34%	...	37%	38%	50%
<b>3.7 Smoking cessation during pregnancy</b> . . . . .	<sup>10</sup> 39%	...	<sup>8</sup> 31%	---	60%
a. Females with less than a high school education . . . . .	<sup>10,11</sup> 28%	...	<sup>8</sup> 21%	---	45%
<b>3.8 Children's exposure to smoke at home</b> . . . . .	<sup>10</sup> 39%	...	<sup>8</sup> 32%	27%	20%
<b>3.9 Smokeless tobacco use</b>					
Males 12–17 years . . . . .	<sup>3</sup> 6.6%	...	4.8%	3.9%	4%
Males 18–24 years . . . . .	8.9%	...	8.2%	7.8%	4%
a. American Indian/Alaska Native people 18–24 years . . . . .	<sup>12</sup> 18–64%	...	<sup>13</sup> 7.3%	---	10%
<b>3.10 Tobacco-use prevention education and tobacco-free schools</b>					
Tobacco-free schools . . . . .	<sup>3</sup> 17%	...	---	---	100%
Tobacco-use prevention curricula					
High school level . . . . .	<sup>3</sup> 78%	...	---	---	100%
Middle school . . . . .	<sup>3</sup> 81%	...	---	---	100%
Elementary school . . . . .	<sup>3</sup> 75%	...	---	---	100%
<b>3.11 Worksite smoking policies</b> . . . . .	---	...	---	---	75%
50 or more employees . . . . .	<sup>7</sup> 27%	...	59%	---	...
Medium and large companies . . . . .	54%	...	<sup>8</sup> 85%	---	...
<b>3.12 Clean indoor air laws</b>					
Number of States with laws restricting smoking in public places . . . . .	<sup>3,14</sup> 43	...	<sup>14</sup> 45	<sup>14,15</sup> 49	<sup>14</sup> 51
Number of States with restricted smoking in public workplaces . . . . .	<sup>3</sup> 31	...	<sup>14</sup> 37	<sup>14,15</sup> 41	<sup>14</sup> 51
Number of States with laws regulating smoking in private and public worksites . . . . .	<sup>3</sup> 13	...	<sup>14</sup> 16	<sup>14,15</sup> 20	<sup>14</sup> 51
<b>3.13 Laws prohibiting tobacco products sale and distribution to children under 18 years</b> . . . . .	<sup>16</sup> 44	...	<sup>8,14</sup> 49	<sup>14,15</sup> 51	<sup>14</sup> 51
<b>3.14 Number of States with plans to reduce tobacco use</b> . . . . .	<sup>17</sup> 12	...	24	<sup>14,15</sup> 42	<sup>14</sup> 51
<b>3.15 Tobacco product advertising and promotion to youth</b> . . . . .	<sup>16</sup> Minimal restrictions	...	---	---	Eliminate or severely restrict

**Table 3. Tobacco objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>3.16 Cessation counseling and followup by clinicians</b>					
Primary care . . . . .	<sup>9,18</sup> 52%	...	---	---	75%
Oral health care . . . . .	<sup>9,19</sup> 35%	...	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about tobacco use					
Pediatricians . . . . .	...	<sup>20</sup> 33%	---	---	...
Nurse practitioners . . . . .	...	<sup>20</sup> 51%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>20</sup> 49%	---	---	...
Internists . . . . .	...	<sup>20</sup> 75%	---	---	...
Family practitioners . . . . .	...	<sup>20</sup> 59%	---	---	...
Discussion of strategies to quit smoking					
Pediatricians . . . . .	...	<sup>20</sup> 19%	---	---	...
Nurse practitioners . . . . .	...	<sup>20</sup> 20%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>20</sup> 28%	---	---	...
Internists . . . . .	...	<sup>20</sup> 50%	---	---	...
Family practitioners . . . . .	...	<sup>20</sup> 43%	---	---	...

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>2</sup>Provisional data.

<sup>3</sup>1988 data.

<sup>4</sup>1982–84 data.

<sup>5</sup>1979–87 data.

<sup>6</sup>1984–88 data.

<sup>7</sup>1985 data.

<sup>8</sup>1991 data.

<sup>9</sup>1983 data.

<sup>10</sup>1986 data.

<sup>11</sup>Baseline for white females 20–44 years.

<sup>12</sup>1986–87 data.

<sup>13</sup>Relative standard error greater than 30 percent, which results in variable estimates.

<sup>14</sup>Includes the District of Columbia.

<sup>15</sup>1994 data.

<sup>16</sup>1990 data.

<sup>17</sup>1989 data.

<sup>18</sup>Counseling more than 75 percent of smoking patients.

<sup>19</sup>Counseling at least 75 percent of smoking patients.

<sup>20</sup>1992 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

3.1\*, 3.1a\*—National Vital Statistics System, CDC, NCHS.

3.2\*—National Vital Statistics System, CDC, NCHS.

3.3—National Vital Statistics System, CDC, NCHS.

3.4\*, 3.4a,b,d,h\*—National Health Interview Survey, CDC, NCHS.

3.4c\*—Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel, DOD, OASD.

3.4e\*—Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates: National Health Interview Survey, CDC, NCHS.

3.4f\*—Baseline: CDC, 1987. Updates: National Health Interview Survey, CDC, NCHS.

3.4g\*—Baseline: Local Surveys. Update: Jenkins CH. Cancer risks and prevention practices among Vietnamese refugees. *Western J of Med* 153:34–9. 1990.

3.4i\*—Baseline: National Health Interview Survey, CDC, NCHS. 1991 Update: National Health Interview Survey, CDC, NCHS. 1993 Update: National Health and Pregnancy Survey, NIH, NIDA.

3.4j\*—Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.

3.5, 3.5a—National Health Interview Survey, CDC, NCHS.

3.6—Baseline: Adult Use of Tobacco Survey, CDC, NCCDPHP. Updates: National Health Interview Survey, CDC, NCHS.

3.7, 3.7a—National Health Interview Survey, CDC, NCHS.

3.8—Baseline: Adult Use of Tobacco Survey, CDC, NCCDPHP. Updates: National Health Interview Survey, CDC, NCHS.

3.9—For males 18–24 years of age, National Health Interview Survey, CDC, NCHS. For males 12–17 years of age, National Household Survey on Drug Abuse, SAMHSA.

3.9a—Baseline: National Medical Expenditure Survey of American Indians/Alaska Natives, PHS, NCHSR. Updates: National Health Interview Survey, CDC, NCHS.

3.10—Baseline: National Survey of School Districts' Nonsmoking Policies, NSBA, ACS, ALA, and AHA.

3.11—For worksites with 50 or more employees: National Survey of Worksite Health Promotion Activities, OASH, ODPHP. For medium and large companies: Nationwide Survey on Smoking in the Workplace, CDC, OSH; Bureau of National Affairs; American Society for Personnel Administration.

3.12—Baseline: State Legislative Action on Tobacco Issues, PHF. Updates: Office on Smoking and Health Legislative Tracking, CDC, NCCDPHP.



- 3.13—Baseline: Association of State and Territorial Health Officials Reporting System: Cancer and Cardiovascular Diseases Survey, PHF. Updates: Office on Smoking and Health Legislative Tracking, CDC, NCCDPHP.
- 3.14—Baseline: Association of State and Territorial Health Officials Survey of State Tobacco Prevention and Control Activities, PHF. Updates: Office on Smoking and Health Legislative Tracking, CDC, NCCDPHP.
- 3.15—Federal Trade Commission data reported by Office on Smoking and Health, CDC, NCCDPHP.
- 3.16—Baseline for internists: Wells, et al. Physicians Practice Study, AJPB 76:1009–13. 1986. Baseline for dentists: Secker-Walker, et al. Statewide Survey of Dentists' Smoking Cessation Advice. JADA 118:37–40. 1989. 1992 Baseline: Primary Care Provider Surveys, OASH, ODPHP.

\*Duplicate objective.

# Tobacco Objectives

**3.1\***: Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

Duplicate objectives: 1.1, 2.1, and 15.1

**3.1a\***: Reduce coronary heart disease deaths among blacks to no more than 115 per 100,000 people.

Duplicate objectives: 1.1a, 2.1a, and 15.1a

**3.2\***: Slow the rise in lung cancer deaths to achieve a rate of no more than 42 per 100,000 people.

*NOTE: In its publications, the National Cancer Institute age adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target value for this objective would be 53 per 100,000.*

Duplicate objective: 16.2

**3.3**: Slow the rise in deaths from chronic obstructive pulmonary disease to achieve a rate of no more than 25 per 100,000 people.

*NOTE: Deaths from chronic obstructive pulmonary disease include deaths due to chronic bronchitis, emphysema, asthma, and other chronic obstructive pulmonary diseases and allied conditions.*

**3.4\***: Reduce cigarette smoking to a prevalence of no more than 15 percent among people aged 20 and older.

Duplicate objectives: 15.12 and 16.6

**3.4a\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among people with a high school education or less aged 20 and older.

Duplicate objectives: 15.12a and 16.6a

**3.4b\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among blue-collar workers aged 20 and older.

Duplicate objectives: 15.12b and 16.6b

**3.4c\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among military personnel.

Duplicate objectives: 15.12c and 16.6c

**3.4d\***: Reduce cigarette smoking to a prevalence of no more than 18 percent among blacks aged 20 and older.

Duplicate objectives: 15.12d and 16.6d

**3.4e\***: Reduce cigarette smoking to a prevalence of no more than 18 percent among Hispanics aged 20 and older.

Duplicate objectives: 15.12e and 16.6e

**3.4f\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among American Indians and Alaska Natives.

Duplicate objectives: 15.12f and 16.6f

**3.4g\***: Reduce cigarette smoking to a prevalence of no more than 20 percent among Southeast Asian men.

Duplicate objectives: 15.12g and 16.6g

**3.4h\***: Reduce cigarette smoking to a prevalence of no more than 12 percent among women of reproductive age.

Duplicate objectives: 15.12h and 16.6h

**3.4i\***: Reduce cigarette smoking to a prevalence of no more than 10 percent among pregnant women.

Duplicate objectives: 15.12i and 16.6i

**3.4j\***: Reduce cigarette smoking to a prevalence of no more than 10 percent among women who use oral contraceptives.

Duplicate objectives: 15.12j and 16.6j

**3.5**: Reduce the initiation of cigarette smoking by children and youth so that no more than 15 percent have become regular cigarette smokers by age 20.

**3.5a**: Reduce the initiation of cigarette smoking by lower socioeconomic status youth so that no more than 18 percent have become regular cigarette smokers by age 20.

**3.6**: Increase to at least 50 percent the proportion of cigarette smokers aged 18 and older who stopped smoking cigarettes for at least one day during the preceding year.

**3.7**: Increase smoking cessation during pregnancy so that at least 60 percent of women who are cigarette smokers at the time they become pregnant quit smoking early in pregnancy and maintain abstinence for the remainder of their pregnancy.

**3.7a**: Increase smoking cessation during pregnancy so that at least 45

percent of women with less than a high school education who are cigarette smokers at the time they become pregnant quit smoking early in pregnancy and maintain abstinence for the remainder of their pregnancy.

**3.8**: Reduce to no more than 20 percent the proportion of children aged 6 and younger who are regularly exposed to tobacco smoke at home.

*NOTE: Regular exposure to tobacco smoke at home is defined as the occurrence of tobacco smoking anywhere in the home on more than three days each week.*

**3.9**: Reduce smokeless tobacco use by males aged 12–24 to a prevalence of no more than 4 percent.

*NOTE: For males aged 12–17, a smokeless tobacco user is someone who has used snuff or chewing tobacco in the preceding month. For males aged 18–24, a smokeless tobacco user is someone who has used either snuff or chewing tobacco at least 20 times and who currently uses snuff or chewing tobacco.*

**3.9a**: Reduce smokeless tobacco use by American Indian and Alaska Native youth to a prevalence of no more than 10 percent.

**3.10**: Establish tobacco-free environments and include tobacco-use prevention in the curricula of all elementary, middle, and secondary schools, preferably as part of quality school health education.

**3.11**: Increase to at least 75 percent the proportion of worksites with a formal smoking policy that prohibits or severely restricts smoking at the workplace.

**3.12**: Enact in 50 States comprehensive laws on clean indoor air that prohibit or strictly limit smoking in the workplace and enclosed public places (including health care facilities, schools, and public transportation).

**3.13**: Enact and enforce in 50 States laws prohibiting the sale and distribution of tobacco products to youth younger than age 19.

*NOTE: Model legislation proposed by the Department of Health and Human Services (DHHS) recommends licensure of tobacco vendors, civil money penalties and license suspension or*

*revocation for violations, and a ban on cigarette vending machines.*

**3.14:** Increase to 50 the number of States with plans to reduce tobacco use, especially among youth.

**3.15:** Eliminate or severely restrict all forms of tobacco product advertising and promotion to which youth younger than age 18 are likely to be exposed.

**3.16:** Increase to at least 75 percent the proportion of primary care and oral health care providers who routinely advise cessation and provide assistance and followup for all of their tobacco-using patients.

\*Duplicate objective.

# Priority Area 4 Alcohol and Other Drugs

## Background

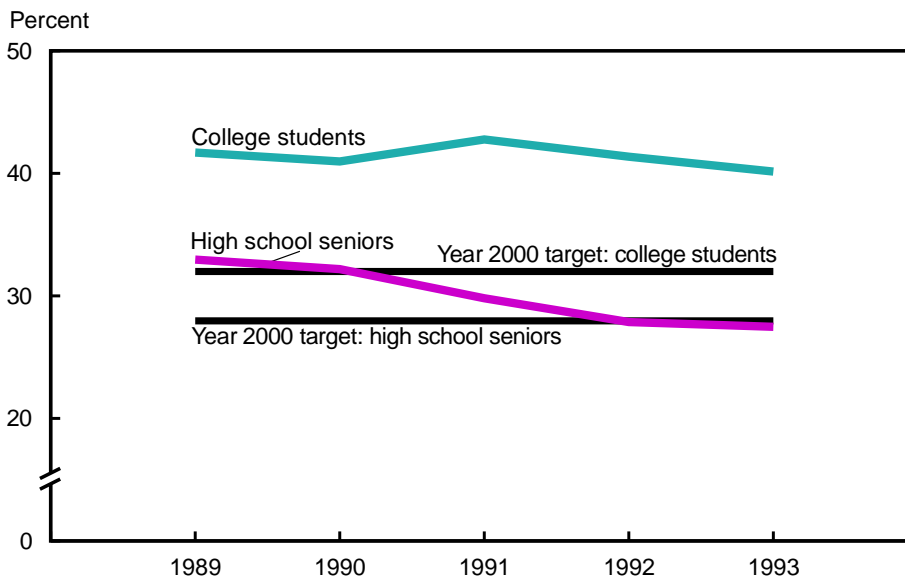
Large numbers of Americans have misused alcohol and used illicit drugs; these behaviors can have serious health and social consequences. Alcohol is associated with motor vehicle crashes and fatal intentional injuries such as suicides and homicides (1). Alcohol is the principal contributor to cirrhosis, the 11th leading cause of death in the United States in 1992 (2). Heavy alcohol use is very common among young people; 28 percent of high school seniors and 41 percent of college students had five or more drinks on one occasion in the previous 2-week period in 1992 (3,4). Intravenous drug users and their sexual partners are at high risk of infection with the human immunodeficiency virus, the eighth leading cause of death in 1992 (2). The 1992 National Household Survey on Drug Abuse estimated that 17.4 million Americans had used marijuana in the past year and approximately 5 million had used cocaine at least once in the past year (5).

## Data Summary

### Highlights

Alcohol-related motor vehicle crash death rates (objective 4.1) have declined markedly since 1987 and have surpassed the year 2000 targets specified for the total population and special population subgroups. These gains are attributed in part to the passage of license revocation legislation in 37 States (objective 4.15) and legislation to lower blood alcohol concentration tolerance levels to 0.08 percent in 11 States. Trends for other indicators of alcohol misuse, such as cirrhosis deaths (4.2), alcohol use in the past month by children and adolescents (4.6), heavy drinking by high school seniors and college students (4.7), and per capita alcohol consumption have also declined from baseline measures. Heavy drinking by high school students has declined to the level targeted by the objective; however, the decline among college students is more modest.

**Figure 5. Heavy drinking in past 2 weeks by high school seniors and college students: United States, 1989–93, and year 2000 targets for objective 4.7**



	1989	1990	1991	1992	1993	Year 2000 target
High school seniors . . . . .	33.0	32.2	29.8	27.9	27.5	28
College students . . . . .	41.7	41.0	42.8	41.4	40.2	32

SOURCE: National Institutes of Health, National Institute on Drug Abuse, Monitoring the Future (High School Senior Survey).

Marijuana use in the last month among 12–17 year olds, after declining over a 3-year period, increased markedly between 1992 and 1993 (objective 4.6). Among people 18–25 years old, the decline in the proportion who used marijuana in the past month leveled off in 1992 and 1993. These trends are supported by data for objectives 4.9 and 4.10, which show a decline in the proportion of high school seniors who perceive social disapproval of occasional use of marijuana and physical and psychological harm from regular use of marijuana.

### Summary of Progress

Data to assess trends toward the year 2000 targets are available for 12 out of 19 objectives in this priority area. The target for objective 4.1 has been surpassed. Progress toward targets is shown for seven objectives (4.2, 4.6, 4.7, 4.8, 4.9, 4.11, and 4.15). Trends are moving away from targets for two objectives (4.3 and 4.4). Mixed results are shown for objectives 4.5 and 4.10.

Data beyond baseline are not available for four objectives (4.13, 4.14, 4.18, 4.19). Three objectives have no baseline data (4.12, 4.16, 4.17).

### Data Issues

### Definitions

All deaths attributed to chronic liver disease and cirrhosis (whether or not they are specified as alcohol-related) are tracked in objective 4.2 as an indicator of abusive alcohol consumption. The entries on death certificates are not specific enough to identify all alcohol-related liver disease deaths. Estimates of the proportion of the total chronic liver disease and cirrhosis deaths that are alcohol-related range from 41 to 95 percent (6).

Data from the National Vital Statistics System are used to track drug-related deaths (objective 4.3). Although the objective discusses drug-related deaths, it is tracked by a category of deaths that is more

accurately called “drug-induced deaths.” The category includes deaths whose underlying cause was drug dependence, nondependent use of drugs, and poisoning from drugs, all of which may include medically prescribed drugs. It excludes unintentional injuries, homicides, and other causes indirectly related to drug use. See table B for a list of specific ICD–9 codes.

6. National Institute on Alcohol Abuse and Alcoholism. County alcohol problem indicators 1979–85 (U.S. Alcohol Epidemiologic Data Reference Manual, vol 3, 3d ed.) Washington: U.S. Department of Health and Human Services. 1991.

## Data Source Description

Alcohol-related motor vehicle crashes (4.1) are tracked using data from the Department of Transportation’s Fatal Accident Reporting System (FARS). The FARS supplements death certificate data with information on the circumstances of the death to determine whether the death was alcohol related. The National Vital Statistics System does not specify alcohol-related motor vehicle crashes.

## Comparability of Data Sources

The National Household Survey on Drug Abuse is used to measure objective 4.6 regarding substance use among adolescents and young people. Beginning in 1991, the survey was expanded to include college students living in residence halls. Thus, results for people 18–25 years old for marijuana and cocaine use and people 18–20 years old for alcohol use are not directly comparable to measures from previous years.

## References

1. Perrine M, Peck R, Fell J. Epidemiologic perspectives on drunk driving. In Surgeon General’s workshop on drunk driving: Background papers. Washington: U.S. Department of Health and Human Services. 1989.
2. National Center for Health Statistics. Advance report of final mortality statistics, 1992. Monthly vital statistics report, vol 43 no 6, suppl. Hyattsville, Maryland: Public Health Service. 1994.
3. National Institute on Drug Abuse. National survey results on drug use from the Monitoring the Future Study, 1975–93; vol 1. Secondary school students. NIH 94–3809. 1994.
4. National Institute on Drug Abuse. National survey results on drug use from the Monitoring the Future Study, 1975–93; vol 2. College students and young adults. NIH 94–3810. 1994.
5. National Institute on Drug Abuse. National Household Survey on Drug Abuse: Population estimates, 1992. Washington: U.S. Department of Health and Human Services. 1993.

**Table 4. Alcohol and other drugs objective status**

Objective	1987 baseline				Target 2000
	Original	Revised	1992	1993	
<b>4.1 Alcohol-related motor vehicle deaths (per 100,000)</b>	9.8	...	6.9	6.8	8.5
a. American Indian/Alaska Native males	52.2	<sup>1</sup> 40.4	<sup>2</sup> 35.6	<sup>3</sup> 32.9	44.8
b. People 15–24 years	21.5	...	14.1	13.6	18.0
<b>4.2 Cirrhosis deaths (age adjusted per 100,000)</b>	9.1	<sup>4</sup> 9.2	8.0	<sup>5</sup> 7.8	6.0
a. Black males	22.0	<sup>4</sup> 22.6	17.2	---	12.0
b. American Indians/Alaska Natives	25.9	<sup>4</sup> 20.5	21.6	---	13.0
<b>4.3 Drug-related deaths (age adjusted per 100,000)</b>	3.8	<sup>4</sup> No change	4.3	---	3.0
<b>4.4 Drug abuse-related emergency room visits (per 100,000)</b>	...	<sup>6</sup> 175.8	191.4	203.9	140.6
<b>4.5 Average age of first use (adolescents 12–17 years)</b>					
Cigarettes	<sup>2</sup> 11.6	...	11.5	11.7	12.6
Alcohol	<sup>2</sup> 13.1	...	12.6	12.9	14.1
Marijuana	<sup>2</sup> 13.4	...	13.5	13.9	14.4
<b>4.6 Use in past month by adolescents and young adults</b>					
Alcohol					
12–17 years	<sup>2</sup> 25.2%	...	15.7%	18.0%	12.6%
18–20 years	<sup>2</sup> 57.9%	...	50.3%	49.9%	29.0%
Marijuana					
12–17 years	<sup>2</sup> 6.4%	...	4.0%	4.9%	3.2%
18–25 years	<sup>2</sup> 15.5%	...	11.0%	11.1%	7.8%
Cocaine					
12–17 years	<sup>2</sup> 1.1%	...	0.3%	0.4%	0.6%
18–25 years	<sup>2</sup> 4.5%	...	1.8%	0.5%	2.3%
<b>4.7 Heavy drinking in past 2 weeks</b>					
High school seniors	<sup>3</sup> 33.0%	...	<sup>7</sup> 27.5%	<sup>8</sup> 28.2%	28.0%
College students	<sup>3</sup> 41.7%	...	41.4%	40.2%	32.0%
<b>4.8 Alcohol consumption (gallons per capita)</b>	2.54	...	<sup>5</sup> 2.31	---	2.0
<b>4.9 Perception of social disapproval by high school seniors</b>					
Heavy use of alcohol	<sup>3</sup> 56.4%	...	60.8%	58.5%	70.0%
Occasional use of marijuana	<sup>3</sup> 71.1%	...	79.2%	73.8%	85.0%
Trying cocaine once or twice	<sup>3</sup> 88.9%	...	92.2%	91.1%	95.0%
<b>4.10 Perception of harm by high school seniors</b>					
Heavy use of alcohol	<sup>3</sup> 44.0%	...	<sup>7</sup> 48.3%	<sup>8</sup> 46.5%	70.0%
Regular use of marijuana	<sup>3</sup> 77.5%	...	<sup>7</sup> 72.5%	<sup>8</sup> 65.0%	90.0%
Trying cocaine once or twice	<sup>3</sup> 54.9%	...	<sup>7</sup> 57.6%	<sup>8</sup> 57.2%	80.0%
<b>4.11 Anabolic steroid use</b>					
Male high school seniors	<sup>3</sup> 4.7%	...	3.5%	3.5%	3.0%
<b>4.12 Number of States with access to treatment programs</b>	---	...	---	---	50
<b>4.13 Alcohol and drug education in schools</b>	---	...	---	---	100%
Provided students with some instruction	63%	...	---	---	...
Provided students with counseling	39%	...	---	---	...
Referred students for clinical assessments	23%	...	---	---	...
<b>4.14 Worksite alcohol and drug policies</b>					
Alcohol	...	<sup>9</sup> 88%	---	---	60%
Other drugs	...	<sup>9</sup> 89%	---	---	60%
<b>4.15 Number of States with administrative license suspension/revocation laws</b>	<sup>10,11</sup> 28	...	<sup>7,11</sup> 34	<sup>8,11</sup> 37	<sup>8</sup> 50
<b>4.16 Number of States with policies to reduce minors' access to alcohol</b>	---	...	---	---	50
<b>4.17 Number of States with restrictions on promotion of alcohol to children and adolescents</b>	---	...	---	---	20
<b>4.18 Number of States with 0.04 alcohol concentration tolerance levels</b>	<sup>10</sup>	...	---	---	50
Number of States with 0.00 alcohol concentration tolerance levels	<sup>10</sup>	...	---	---	50

**Table 4. Alcohol and other drugs objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>4.19 Screening, counseling, and referral by clinicians</b> . . . . .	---	...	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about alcohol consumption (12 years and over)					
Pediatricians . . . . .	...	<sup>9</sup> 29%	---	---	...
Nurse practitioners . . . . .	...	<sup>9</sup> 45%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>9</sup> 34%	---	---	...
Internists . . . . .	...	<sup>9</sup> 63%	---	---	...
Family physicians . . . . .	...	<sup>9</sup> 39%	---	---	...
Inquiry about other drug use					
Pediatricians . . . . .	...	<sup>9</sup> 28%	---	---	...
Nurse practitioners . . . . .	...	<sup>9</sup> 43%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>9</sup> 32%	---	---	...
Internists . . . . .	...	<sup>9</sup> 34%	---	---	...
Family physicians . . . . .	...	<sup>9</sup> 23%	---	---	...
Referral to alcohol treatment					
Pediatricians . . . . .	...	<sup>9</sup> 26%	---	---	...
Nurse practitioners . . . . .	...	<sup>9</sup> 19%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>9</sup> 24%	---	---	...
Internists . . . . .	...	<sup>9</sup> 33%	---	---	...
Family physicians . . . . .	...	<sup>9</sup> 28%	---	---	...
Referral to drug abuse treatment					
Pediatricians . . . . .	...	<sup>9</sup> 32%	---	---	...
Nurse practitioners . . . . .	...	<sup>9</sup> 19%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>9</sup> 28%	---	---	...
Internists . . . . .	...	<sup>9</sup> 35%	---	---	...
Family physicians . . . . .	...	<sup>9</sup> 28%	---	---	...

<sup>1</sup>Data have been revised to include the entire U.S. American Indian/Alaska Native population; see appendix.

<sup>2</sup>1988 data.

<sup>3</sup>1989 data.

<sup>4</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>5</sup>Provisional data.

<sup>6</sup>1991 data.

<sup>7</sup>1993 data.

<sup>8</sup>1994 data.

<sup>9</sup>1992 data.

<sup>10</sup>1990 data.

<sup>11</sup>Includes the District of Columbia.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

4.1, 4.1a–b—Fatal Accident Reporting System, NHTSA.

4.2, 4.2a—National Vital Statistics System, CDC, NCHS.

4.2b—Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division.

4.3—National Vital Statistics System, CDC, NCHS.

4.4—Drug Abuse Warning Network, SAMHSA, OAS.

4.5—National Household Survey of Drug Abuse, SAMHSA, OAS.

4.6—National Household Survey of Drug Abuse, SAMHSA, OAS.

4.7—Monitoring the Future (High School Senior Survey), NIH, NIDA.

4.8—Alcohol Epidemiology Data System, NIH, NIAAA.

4.9—Monitoring the Future (High School Senior Survey), NIH, NIDA.

4.10—Monitoring the Future (High School Senior Survey), NIH, NIDA.

4.11—Monitoring the Future (High School Senior Survey), NIH, NIDA.

4.13—Baseline: Report to Congress and the White House on the Nature and Effectiveness of Federal, State, and Local Drug Prevention Education Programs. U.S. Department of Education. 1987.

4.14—National Survey of Worksite Health Promotion Activities, OASH, ODPHP.

4.15—Office of Alcohol and State Programs, NHTSA.

4.18—Office of Alcohol and State Programs, NHTSA.

4.19—Primary Care Provider Surveys, OASH, ODPHP.

# Alcohol and Other Drugs Objectives

**4.1:** Reduce deaths caused by alcohol-related motor vehicle crashes to no more than 8.5 per 100,000 people.

**4.1a:** Reduce deaths among American Indian and Alaska Native men caused by alcohol-related motor vehicle crashes to no more than 44.8 per 100,000.

**4.1b:** Reduce deaths among people aged 15–24 caused by alcohol-related motor vehicle crashes to no more than 18 per 100,000.

**4.2:** Reduce cirrhosis deaths to no more than 6 per 100,000 people.

**4.2a:** Reduce cirrhosis deaths among black men to no more than 12 per 100,000.

**4.2b:** Reduce cirrhosis deaths among American Indians and Alaska Natives to no more than 13 per 100,000.

**4.3:** Reduce drug-related deaths to no more than 3 per 100,000 people.

**4.4:** Reduce drug abuse-related hospital emergency department visits by at least 20 percent.

**4.5:** Increase by at least 1 year the average age of first use of cigarettes, alcohol, and marijuana by adolescents aged 12–17.

**4.6:** Reduce the proportion of young people who have used alcohol, marijuana, and cocaine in the past month, as follows:

Substance and age	2000 target (percent)
<b>Alcohol:</b>	
12–17 years	12.6
18–20 years	29.0
<b>Marijuana:</b>	
12–17 years	3.2
18–25 years	7.8
<b>Cocaine:</b>	
12–17 years	0.6
18–25 years	2.3

**4.7:** Reduce the proportion of high school seniors and college students engaging in recent occasions of heavy drinking of alcoholic beverages to no more than 28 percent of high school

seniors and 32 percent of college students.

*NOTE: Recent heavy drinking is defined as having five or more drinks on one occasion in the previous 2-week period as monitored by self-reports.*

**4.8:** Reduce alcohol consumption by people aged 14 and older to an annual average of no more than 2 gallons of ethanol per person.

**4.9:** Increase the proportion of high school seniors who perceive social disapproval associated with the heavy use of alcohol, occasional use of marijuana, and experimentation with cocaine, as follows:

	2000 target (percent)
Heavy use of alcohol	70
Occasional use of marijuana	85
Trying cocaine once or twice	95

*NOTE: Heavy drinking is defined as having five or more drinks once or twice each weekend.*

**4.10:** Increase the proportion of high school seniors who associate risk of physical or psychological harm with the heavy use of alcohol, regular use of marijuana, and experimentation with cocaine, as follows:

Heavy use of alcohol	70
Regular use of marijuana	90
Trying cocaine once or twice	80

*NOTE: Heavy drinking is defined as having five or more drinks once or twice each weekend.*

**4.11:** Reduce to no more than 3 percent the proportion of male high school seniors who use anabolic steroids.

**4.12:** Establish and monitor in 50 States comprehensive plans to ensure access to alcohol and drug treatment programs for traditionally underserved people.

**4.13:** Provide to children in all school districts and private schools primary and secondary school educational programs on alcohol and other drugs, preferably as part of quality school health education.

**4.14:** Extend adoption of alcohol and drug policies for the work environment to at least 60 percent of worksites with 50 or more employees.

**4.15:** Extend to 50 States administrative driver's license suspension/revocation laws or programs of equal effectiveness for people determined to have been

driving under the influence of intoxicants.

**4.16:** Increase to 50 the number of States that have enacted and enforce policies, beyond those in existence in 1989, to reduce access to alcoholic beverages by minors.

**4.17:** Increase to at least 20 the number of States that have enacted statutes to restrict promotion of alcoholic beverages that are focused principally on young audiences.

**4.18:** Extend to 50 States legal blood alcohol concentration tolerance levels of .04 percent for motor vehicle drivers aged 21 and older and .00 percent for those younger than age 21.

**4.19:** Increase to at least 75 percent the proportion of primary care providers who screen for alcohol and other drug use problems and provide counseling and referral as needed.



# Priority Area 5 Family Planning

## Background

The formation and growth of families have significant public health and sociopsychological impact on society and individuals (1). Family planning, defined as the process of establishing the preferred number and spacing of children in one's family and selecting the means by which this is achieved, presupposes the importance of both family and planning (2). Problems attendant to poor family planning exact serious health and social costs. Low birthweight (3), high rates of infant mortality (4), and inadequate family support (5) are some of the consequences of poor family planning. Recent research suggests that educating young, potential parents about the financial, welfare, and social costs of pregnancy may improve decisionmaking, which may, in turn, reduce the likelihood of becoming pregnant (6). Innovations of this nature are important given that two-thirds of adolescents 17 years of age have engaged in sexual intercourse and the birth rate for women 15–17 years of age has generally increased since the early 80's. Of the 11 objectives in this priority area, 5 focus on the teenage population.

## Data Summary

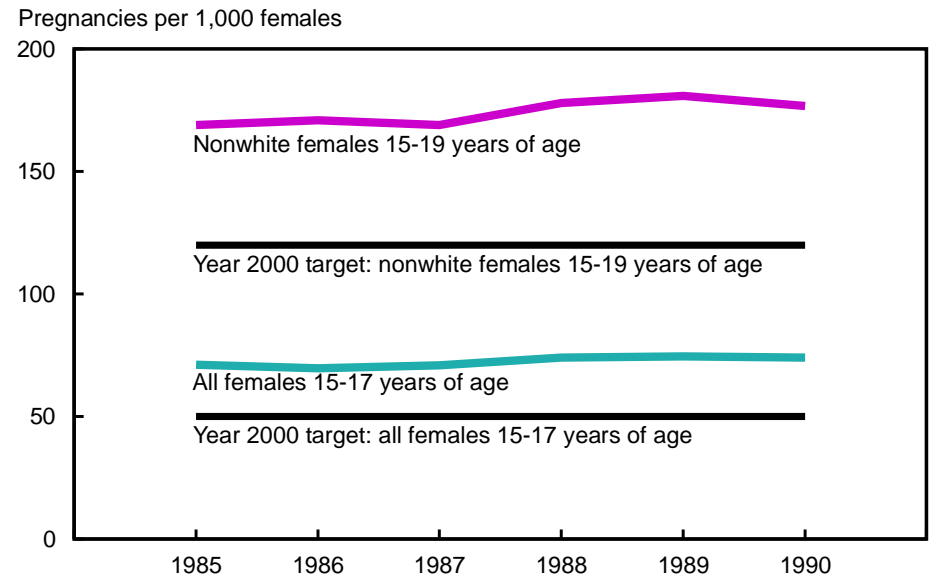
### Highlights

While the pregnancy rate (5.1) for females 15–17 years of age has increased by about 5 percent between 1985 and 1990, the abortion rate (a component of the pregnancy rate) has dropped by about 13 percent during the same time period (see Data Issues). Live births (another component of pregnancy) increased by 21 percent. The pregnancy rate for girls 10–14 years of age remained fairly stable during the same time period. Pregnancy rates for black adolescents 15–19 years of age also increased between 1985 and 1990; for Hispanic adolescents 15–19 years of age, pregnancy rates decreased between 1985 and 1988.

### Summary of Progress

Objective 5.5 (adolescent abstinence) showed some progress

**Figure 6. Adolescent pregnancies: United States, 1985–90, and year 2000 targets for objective 5.1**



	1985	1986	1987	1988	1989	1990	Year 2000 target
All females 15–17 years . . .	71.1	69.8	70.9	74.1	74.7	74.3	50
Nonwhite females 15–19 years . . . . .	169	171	169	178	181	177	120

SOURCES: Alan Guttmacher Institute, Abortion Provider Survey; Centers for Disease Control and Prevention, National Vital Statistics System; Centers for Disease Control and Prevention, National Survey of Family Growth.

NOTE: Over 75% of nonwhite females 15–19 years are black.

toward the year 2000 target. Progress for objective 5.6 (contraceptive use by sexually active adolescents) was mixed.

Objectives 5.1 (adolescent pregnancy) and 5.4 (adolescent postponement of sexual intercourse) have moved away from the targets.

Data were not available to update seven objectives (5.2, 5.3, 5.7, 5.8, 5.9, 5.10, and 5.11).

## Data Issues

### Data Source Description

Data for objective 5.1 (adolescent pregnancy) are based on three outcomes of pregnancy: live births, fetal losses, and abortions. Data on live births are collected annually through the National Vital Statistics System. Data on fetal losses come from the National Survey of Family Growth (NSFG), which is conducted at multiyear intervals; the most recent data available are from 1988.

Estimates of the number of abortions come from the Abortion Provider Survey, conducted by the Alan Guttmacher Institute (AGI). This is a biennial survey of clinics and other health facilities that perform abortions. Because the proportion of abortions performed in hospitals has declined and the number performed in physicians' offices has increased, AGI staff estimate that as many as one-half of the office-based abortions may be missed in the survey. The data from the Abortion Provider Survey are adjusted using demographic characteristics of women obtaining abortions (in States that report abortions to CDC) to produce national estimates. The diversity of sources and the variability of reporting intervals complicate tracking of this objective.

### Data Availability

The next updates for 5.2, 5.3, and 5.7 (females) will come from the NSFG, which is being administered in 1995 with data available in 1997. An update

for 5.8 will come from the 1994 National Health Interview Survey.

Baseline data for objective 5.9 (adoption information from pregnancy counselors) were obtained from a one-time survey.

An update for objective 5.11 (HIV clinic services) may be available in 1996.

## Data Comparability

Baseline data for females for objectives 5.4 (adolescent postponement of sexual intercourse), 5.5 (adolescent abstinence), and 5.6 (contraception use) came from the NSFG. Baseline data for males for objectives 5.4 and 5.5 came from the National Survey of Adolescent Males (NSAM). While both surveys will be repeated in the future, the present updates are provided by the Youth Risk Behavior Survey (YRBS) and are not directly comparable to the baseline. The YRBS surveys adolescents in schools and reports data by grade rather than age. The NSFG and the NSAM survey adolescents in and not in school. Data from the 1992 National Health Interview Survey suggest that sexual intercourse is more common and condom use is less common among out-of-school youth 14–19 years of age, than among in-school youth in the same age group. However, estimates for in-school youth were very close to those for the total youth population (7). For objective 5.4, 1993 data are for 10th and 12th grade students; earlier data are for 15-year-old and 17-year-old students.

7. Centers for Disease Control and Prevention. Health risk behaviors among adolescents who do and do not attend school: United States, 1992. *MMWR* 43:129–32. 1994.

## References

1. Billy JOG, et al. Final report: Effects of sexual activity on social and psychological development. Seattle. 1986.
2. U.S. Department of Health and Human Services. Healthy people 2000: National health promotion and disease prevention objectives. Washington: Public Health Service. 1991.
3. Institute of Medicine, NAS. Preventing low birthweight. Washington. 1985.
4. Centers for Disease Control and Prevention. Infant mortality marital status of mother United States, 1983. *MMWR* 39(30):521–2. 1990.
5. U.S. Congress. House select committee on children, youth, and families. U.S. children and their families: Current conditions and recent trends. Washington. 1989.
6. Jarman, BJ. Enhancing social and life skills: Preventing pregnancy among middle school students. Presentation at What Works Conference. University of Indiana. Nov. 1994.

**Table 5. Family planning objective status**

Objective	1988 baseline		1992	1993	Target 2000
	Original	Revised			
<b>5.1 Adolescent pregnancy</b>					
Pregnancies (per 1,000) <sup>1</sup>					
Females 17 years and under	---	...	---	---	50
Females 10–14 years	...	<sup>2</sup> 3.6	<sup>3</sup> 3.2	---	...
Females 15–17 years	<sup>2</sup> 71.1	...	<sup>3</sup> 74.3	---	...
Live births (per 1,000)					
Females 10–14 years	...	<sup>2</sup> 1.2	<sup>4</sup> 1.4	---	...
Females 15–17 years	...	<sup>2</sup> 31.0	<sup>4</sup> 38.7	---	...
Abortions (per 1,000)					
Females 10–14 years	...	<sup>2</sup> 2.0	<sup>3</sup> 1.5	---	...
Females 15–17 years	...	<sup>2</sup> 30.6	<sup>3</sup> 26.5	---	...
Fetal losses (per 1,000) <sup>5</sup>					
Females 10–14 years	...	<sup>2</sup> 0.4	<sup>3</sup> 0.3	---	...
Females 15–17 years	...	<sup>2</sup> 9.4	<sup>3</sup> 10.3	---	...
a. Pregnancies, black adolescents (per 1,000) <sup>6</sup>					
Females 15–19 years	<sup>2</sup> 186	<sup>2</sup> 169	<sup>3</sup> 177	---	120
Females 15–17 years	...	<sup>2</sup> 134	<sup>7</sup> 140	---	...
Live births (per 1,000)					
Females 15–19 years	...	<sup>2</sup> 85	<sup>4</sup> 98	---	...
Females 15–17 years	...	<sup>2</sup> 63	<sup>4</sup> 70	---	...
Abortions (per 1,000)					
Females 15–19 years	...	<sup>2</sup> 70	<sup>3</sup> 67	---	...
Females 15–17 years	...	<sup>2</sup> 53	<sup>7</sup> 53	---	...
Fetal losses (per 1,000)					
Females 15–19 years	...	<sup>2</sup> 14	<sup>3</sup> 14	---	...
Females 15–17 years	...	<sup>2</sup> 18	<sup>7</sup> 19	---	...
b. Pregnancies, Hispanic adolescents (per 1,000)					
Females 15–19 years	<sup>2</sup> 158	<sup>2</sup> 143	<sup>7</sup> 138.2	---	105
Live births (per 1,000)					
Females 15–19 years	...	<sup>2</sup> 80	<sup>4</sup> 107	---	...
Abortions (per 1,000)					
Females 15–19 years	...	<sup>2</sup> 50	<sup>8</sup> 45	---	...
Fetal losses (per 1,000)					
Females 15–19 years	...	<sup>2</sup> 13	<sup>8</sup> 13	---	...
<b>5.2 Unintended pregnancy</b>	56%	...	---	---	30%
a. Black females	78%	...	---	---	40%
<b>5.3 Infertility</b>					
Married couples with wives 15–44 years	7.9%	...	---	---	6.5%
a. Black couples	12.1%	...	---	---	9%
b. Hispanic couples	12.4%	...	---	---	9%
<b>5.4 Adolescents who ever had sexual intercourse</b>					
Adolescents 15 years					
Females	27%	...	---	<sup>9</sup> 45%	15%
Males	33%	...	---	<sup>9</sup> 47%	15%
Adolescents 17 years					
Females	50%	...	---	<sup>10</sup> 66%	40%
Males	66%	...	---	<sup>10</sup> 70%	40%
<b>5.5 Adolescent abstinence from sexual intercourse</b>					
Ever sexually active females 15–17 years	26%	<sup>11</sup> 23.6%	---	<sup>12</sup> 25%	40%
Ever sexually active males 15–17 years	...	33%	---	<sup>12</sup> 33%	40%

**Table 5. Family planning objective status—Con.**

Objective	1988 baseline		1992	1993	Target 2000
	Original	Revised			
<b>5.6 Contraception use by sexually active adolescents</b>					
Females 15–19 years					
First intercourse . . . . .	63%	...	---	---	90%
Recent intercourse . . . . .	78%	...	---	<sup>13</sup> 83%	90%
Oral contraception and condom use at most recent intercourse . . . . .	2%	...	---	---	90%
High school males					
Recent intercourse . . . . .	...	<sup>3</sup> 78%	---	<sup>13</sup> 84%	90%
Oral contraception and condom use at most recent intercourse . . . . .	...	<sup>3</sup> 2.3%	<sup>4</sup> 3.3%	---	90%
Males 17–19 years					
Condom and oral contraception use at last intercourse . . . . .	...	15%	<sup>14</sup> 14%	---	90%
<b>5.7 Failure of contraceptive method . . . . .</b>	<sup>15</sup> 10%	<sup>11</sup> 14%	---	---	5%
<b>5.8 Family discussion of human sexuality</b>					
People 13–18 years who have discussed sexuality with parents . . . . .	<sup>16</sup> 66%	...	---	---	85%
<b>5.9 Adoption information from pregnancy counselors . . . . .</b>	<sup>17</sup> 60%	...	---	---	90%
<b>5.10 Age-appropriate preconception counseling by clinicians . . . . .</b>	---	...	---	---	60%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about family planning (females, childbearing age)					
Pediatricians . . . . .	---	<sup>18</sup> 18%	---	---	...
Nurse practitioners . . . . .	---	<sup>18</sup> 53%	---	---	...
Obstetricians/gynecologists . . . . .	---	<sup>18</sup> 48%	---	---	...
Internists . . . . .	---	<sup>18</sup> 24%	---	---	...
Family physicians . . . . .	---	<sup>18</sup> 28%	---	---	...
Counseling about family planning					
Pediatricians . . . . .	---	<sup>18</sup> 36%	---	---	...
Nurse practitioners . . . . .	---	<sup>18</sup> 53%	---	---	...
Obstetricians/gynecologists . . . . .	---	<sup>18</sup> 65%	---	---	...
Internists . . . . .	---	<sup>18</sup> 26%	---	---	...
Family physicians . . . . .	---	<sup>18</sup> 36%	---	---	...
<b>5.11 Clinic services for HIV and other sexually transmitted diseases . . . . .</b>	---	...	---	---	50%
Family planning clinics . . . . .	<sup>19</sup> 40%	...	---	---	---

<sup>1</sup>Pregnancy rates are calculated from the number of births, fetal losses, and abortions.

<sup>2</sup>1985 data.

<sup>3</sup>1990 data.

<sup>4</sup>1991 data.

<sup>5</sup>Fetal losses are estimated to be 20% of births plus 10% of abortions.

<sup>6</sup>Adolescents other than white.

<sup>7</sup>1988 data.

<sup>8</sup>1987 data.

<sup>9</sup>Data are from 10th grade students.

<sup>10</sup>Data are from 12th grade students.

<sup>11</sup>Baseline was revised to reflect updated methodology.

<sup>12</sup>Proportion of high school students who have ever had sexual intercourse who did not have sexual intercourse during the preceding 3 months.

<sup>13</sup>Proportion of high school students who had sexual intercourse during the preceding 3 months.

<sup>14</sup>1990–91 data.

<sup>15</sup>1982 data.

<sup>16</sup>1986 data.

<sup>17</sup>1984 data.

<sup>18</sup>1992 data.

<sup>19</sup>1989 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

5.1, 5.1a, b—Abortion Provider Survey, Alan Guttmacher Institute; National Vital Statistics System, CDC, NCHS; National Survey of Family Growth, CDC, NCHS.

5.2, 5.2a—National Survey of Family Growth, CDC, NCHS.

5.3, 5.3a, b—National Survey of Family Growth, CDC, NCHS.

5.4\*—Baseline: National Survey of Family Growth, CDC, NCHS. National Survey of Adolescent Males, NIH, NICHD. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.

5.5—Baseline: National Survey of Family Growth, CDC, NCHS; National Survey of Adolescent Males, NIH, NICHD. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.

5.6—Baseline for females: National Survey of Family Growth, CDC, NCHS. Baseline for males: National Survey of Adolescent Males, NIH, NICHD. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.

- 5.7—Baseline (revised); National Survey of Family Growth, CDC, NCHS.
- 5.8—Baseline: Planned Parenthood Federation of America, Inc., 1986.
- 5.9—Baseline: Mech EB. Unpublished. 1984. Orientation of Pregnancy Counselors toward Adoption.
- 5.10\*—Primary Care Provider Surveys, OASH, ODPHP.
- 5.11\*—National Questionnaire on Provision of STD and HIV Services by Family Planning Clinics, PHS, OPA.

\*Duplicate objective.

# Family Planning Objectives

**5.1:** Reduce pregnancies among girls aged 17 and younger to no more than 50 per 1,000 adolescents.

*NOTE: For black and Hispanic adolescent girls, baseline data are unavailable for those aged 15–17. The targets for these two populations are based on data for women aged 15–19. If more complete data become available, a 35-percent reduction from baseline figures should be used as the target.*

**5.1a:** Reduce pregnancies among black adolescent girls aged 15–19 to no more than 120 per 1,000.

**5.1b:** Reduce pregnancies among Hispanic adolescent girls aged 15–19 to no more than 105 per 1,000.

**5.2:** Reduce to no more than 30 percent the proportion of all pregnancies that are unintended.

**5.2a:** Reduce to no more than 40 percent the proportion of all pregnancies among black women that are unintended.

**5.3:** Reduce the prevalence of infertility to no more than 6.5 percent.

*NOTE: Infertility is the failure of couples to conceive after 12 months of intercourse without contraception.*

**5.3a:** Reduce the prevalence of infertility among black women to no more than 9 percent.

**5.3b:** Reduce the prevalence of infertility among Hispanic couples to no more than 9 percent.

**5.4\*:** Reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15 percent by age 15 and no more than 40 percent by age 17.

Duplicate objectives: 18.3 and 19.9

**5.5:** Increase to at least 40 percent the proportion of ever sexually active adolescents aged 17 and younger who have abstained from sexual activity for the previous 3 months.

**5.6:** Increase to at least 90 percent the proportion of sexually active, unmarried people aged 19 and younger who use

contraception, especially combined method contraception that both effectively prevents pregnancy and provides barrier protection against disease.

**5.7:** Increase the effectiveness with which family planning methods are used, as measured by a decrease to no more than 5 percent in the proportion of couples experiencing pregnancy despite use of a contraceptive method.

**5.8:** Increase to at least 85 percent the proportion of people aged 10–18 who have discussed human sexuality, including values surrounding sexuality, with their parents and/or have received information through another parentally endorsed source, such as youth, school, or religious programs.

*NOTE: This objective, which supports family communication on a range of vital personal health issues, will be tracked using the National Health Interview Survey, a continuing, voluntary, national sample survey of adults who report on household characteristics including such items as illnesses, injuries, use of health services, and demographic characteristics.*

**5.9:** Increase to at least 90 percent the proportion of pregnancy counselors who offer positive, accurate information about adoption to their unmarried patients with unintended pregnancies.

*NOTE: Pregnancy counselors are any providers of health or social services who discuss the management or outcome of pregnancy with a woman after she has received a diagnosis of pregnancy.*

**5.10\*:** Increase to at least 60 percent the proportion of primary care providers who provide age-appropriate preconception care and counseling.

Duplicate objective: 14.12

**5.11\*:** Increase to at least 50 percent the proportion of family planning clinics, maternal and child health clinics, sexually transmitted disease clinics, tuberculosis clinics, drug treatment centers, and primary care clinics that screen, diagnose, treat, counsel, and provide (or refer for) partner notification services for HIV infection and bacterial sexually transmitted diseases (gonorrhea, syphilis, and Chlamydia).

Duplicate objectives: 18.13 and 19.11

\*Duplicate objective.

# Priority Area 6 Mental Health and Mental Disorders

## Background

Mental health refers to an individual's ability to negotiate the daily challenges and social interactions of life without experiencing undue emotional or behavioral incapacity. Mental health and mental disorders can be affected by numerous factors ranging from biologic and genetic vulnerabilities, to acute or chronic physical dysfunction, to environmental conditions and stresses.

In 1989, an estimated 3.3 million adults in the United States reported that they had a psychiatric disorder that interfered with one or more aspects of their daily life in the past year. Approximately 77 percent had sought help for their problem. Sixty-eight percent had used prescription medications and 23 percent had received government disability payments for their disorders (1).

Suicide, one of the most serious potential outcomes of mental disorder (2), continues to be the target of many programmatic initiatives. Youth suicide prevention has been the focus of both school and community programs (3).

## Data Summary

### Highlights

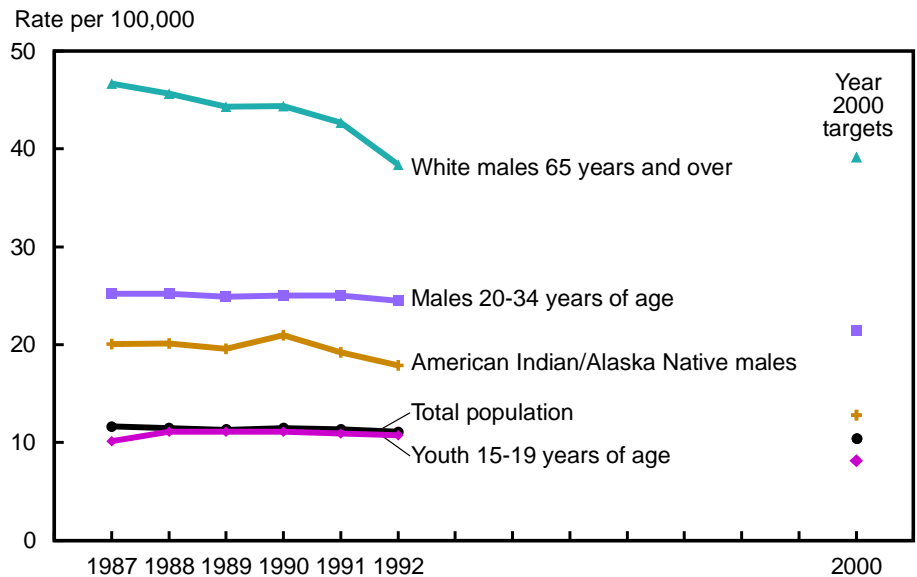
All 50 States are served by two national mental health clearinghouses (6.12), which are supported by grants from the Substance Abuse Mental Health Services Administration (SAMHSA). These clearinghouses have a mission to increase public awareness and access to mental health services.

The 1993 provisional data report a suicide rate of 11.2 per 100,000 for the total population; this has declined from the 1987 baseline level. Adolescent suicide rates have remained stable for the past 4 years, but are higher than the 1987 baseline. Injurious suicide attempts by adolescents (6.2) have increased.

### Summary of Progress

Six objectives (6.1, 6.5, 6.7, 6.8, 6.11, and 6.12) show progress toward the year 2000 targets. Two objectives

**Figure 7. Age-adjusted death rates for suicide: United States, 1987–92, and year 2000 targets for objective 6.1**



	1987	1988	1989	1990	1991	1992	Year 2000 target
Total population . . . . .	11.7	11.5	11.3	11.5	11.4	11.1	10.5
Youth 15–19 years . . . . .	10.2	11.1	11.1	11.1	11.0	10.8	8.2
Males 20–34 years . . . . .	25.2	25.2	24.9	25.1	25.1	24.5	21.4
White males 65 years and over . . . . .	46.7	45.7	44.3	44.4	42.7	38.4	39.2
American Indian/Alaska Native males . . . . .	20.1	20.2	19.6	21.0	19.2	17.9	12.8

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System; Indian Health Service, Office of Planning Evaluation and Legislation, Program Statistics Division.

(6.2 and 6.9) have moved away from the year 2000 targets. Six objectives (6.3, 6.4, 6.6, 6.10, 6.13, and 6.14) have no data beyond the baseline.

## Data Issues

### Definitions

Objective 6.1 (suicide deaths) is monitored using data from the National Vital Statistics System (NVSS). The data are compiled from death certificates submitted by the States. Differentiating suicide deaths from accidental deaths relies heavily on judgment by the medical legal officer (for example, coroner or medical examiner). A key element of this determination is the establishment of intent by the deceased. This determination may be based on information about prior suicide attempts, a statement or note by the deceased indicating their intent to commit suicide, or other clinical information (for

example, serious mental illness) (4).

Objective 6.2 (adolescent suicide attempts) is monitored with data from the Youth Risk Behavior Survey (YRBS), a school-based survey. Suicide attempts are self-reported and are limited to those that required medical attention in the last 12 months. Data from the 1992 National Health Interview Survey (NHIS) suggest that other types of violent behavior are higher among youth (14–19 years of age) not in school than those in school; the data for in-school youth were very close to estimates for the total population. The exclusion of adolescents not in-school may lead to an underestimate of the actual number (5). Reliance on self-report of suicide attempts that resulted in hospitalization without validation from medical sources may also affect the accuracy of estimates. However, a recent study by CDC indicates that estimates among in school youth are highly reliable (6).

The original baseline of 12 percent for objective 6.3 (child and adolescent mental disorders) was revised because of expansion in the diagnostic categories for child and adolescent mental illness. The revised baseline of 20 percent came from two 1988 studies reported in the *Archives of General Psychiatry* (7,8); updates may be available from a new catchment area study being developed by the National Institute of Mental Health (NIMH).

### **Comparability of Data Sources**

Baselines for objectives 6.4 (adult mental disorders) and 6.7 (treatment for depression) came from NIMH catchment area studies; updates will be available from the National Comorbidity Study, which used comparable methods—but a larger sample—to collect the data.

The baseline for 6.6 (use of community support) came from NIMH data; updates will come from the 1994 NHIS.

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8. Costello EJ, et al. Psychiatric disorders in pediatric primary care: Prevalence of risk factors. *Archives of General Psychiatry* 45: 1107–16. 1988.



**Table 6. Mental health and mental disorders objective status**

	Objective	1987 baseline			Target 2000	
		Original	Revised	1992		1993
<b>6.1</b>	<b>Suicide (age adjusted per 100,000)</b> . . . . .	11.7	<sup>1</sup> No change	11.1	<sup>2</sup> 11.2	10.5
	a. Adolescents 15–19 years (per 100,000) . . . . .	10.3	<sup>1</sup> 10.2	10.8	---	8.2
	b. Males 20–34 years (per 100,000) . . . . .	25.2	<sup>1</sup> No change	24.5	---	21.4
	c. White males 65 years and over (per 100,000) . . . . .	46.1	<sup>1</sup> 46.7	38.4	---	39.2
	d. American Indian/Alaska Native males (age adjusted per 100,000) . . . . .	15	<sup>3</sup> 20.1	17.9	---	12.8
<b>6.2</b>	<b>Suicide attempts among adolescents</b> . . . . .	...	<sup>4</sup> 2.1%	---	2.7%	1.8%
<b>6.3</b>	<b>Mental disorders</b>					
	Children and adolescents 18 years and under . . . . .	<sup>5</sup> 12%	<sup>6,7</sup> 20%	---	---	<sup>8</sup> 17%
<b>6.4</b>	<b>Mental disorders among adults</b> . . . . .	<sup>9</sup> 12.6%	...	---	---	10.7%
<b>6.5</b>	<b>Adverse health effects from stress</b> . . . . .	<sup>10</sup> 42.6%	<sup>7,10</sup> 44.2%	---	39.2%	35%
	a. People with disabilities . . . . .	<sup>10</sup> 53.5%	...	---	54.9%	40%
<b>6.6</b>	<b>Use of community support</b> . . . . .	<sup>11</sup> 15%	...	---	---	30%
<b>6.7</b>	<b>Treatment for depression</b> . . . . .	<sup>12</sup> 31%	...	<sup>13</sup> 36%	---	45%
<b>6.8</b>	<b>Seeking help with problems</b> . . . . .	<sup>10</sup> 11.1%	...	---	14.3%	20%
	a. People with disabilities . . . . .	<sup>10</sup> 14.7%	...	---	19.8%	30%
<b>6.9</b>	<b>Not taking steps to control stress</b> . . . . .	<sup>10</sup> 21%	<sup>7,10</sup> 24%	<sup>4</sup> 28%	---	5%
<b>6.10</b>	<b>Number of States with suicide prevention in jails</b> . . . . .	...	<sup>14</sup> 3	---	---	50
<b>6.11</b>	<b>Worksite stress management programs</b> . . . . .	<sup>10</sup> 26.6%	...	37.0%	---	40%
<b>6.12</b>	<b>Number of States with mutual help clearinghouses</b> . . . . .	<sup>5</sup> 9	...	8	<sup>15,16</sup> 50	25
<b>6.13</b>	<b>Clinician review of patients' mental functioning</b> . . . . .	---	...	---	---	50%
	Percent of clinicians routinely providing service to 81–100% of patients					
	Inquiry about cognitive functioning					
	Pediatricians . . . . .	...	...	---	---	...
	Nurse practitioners . . . . .	...	<sup>14</sup> 35%	---	---	...
	Obstetricians/Gynecologists . . . . .	...	<sup>14</sup> 9%	---	---	...
	Internists . . . . .	...	<sup>14</sup> 18%	---	---	...
	Family physicians . . . . .	...	<sup>14</sup> 7%	---	---	...
	Inquiry about emotional/behavioral functioning					
	Pediatricians . . . . .	...	...	---	---	...
	Nurse practitioners . . . . .	...	<sup>14</sup> 40%	---	---	...
	Obstetricians/Gynecologists . . . . .	...	<sup>14</sup> 12%	---	---	...
	Internists . . . . .	...	<sup>14</sup> 25%	---	---	...
	Family physicians . . . . .	...	<sup>14</sup> 13%	---	---	...
	Treatment/referral for cognitive problems					
	Pediatricians . . . . .	...	...	---	---	...
	Nurse practitioners . . . . .	...	<sup>14</sup> 20%	---	---	...
	Obstetricians/Gynecologists . . . . .	...	<sup>14</sup> 20%	---	---	...
	Internists . . . . .	...	<sup>14</sup> 27%	---	---	...
	Family physicians . . . . .	...	<sup>14</sup> 21%	---	---	...
	Treatment/referral for emotional/behavioral problems					
	Pediatricians . . . . .	...	...	---	---	...
	Nurse practitioners . . . . .	...	<sup>14</sup> 23%	---	---	...
	Obstetricians/Gynecologists . . . . .	...	<sup>14</sup> 23%	---	---	...
	Internists . . . . .	...	<sup>14</sup> 35%	---	---	...
	Family physicians . . . . .	...	<sup>14</sup> 27%	---	---	...
<b>6.14</b>	<b>Clinician review of childrens' mental functioning</b> . . . . .	---	...	---	---	75%
	Percent of clinicians routinely providing service to 81–100% of patients					
	Inquiry about cognitive functioning					
	Pediatricians . . . . .	...	<sup>14</sup> 62%	---	---	...
	Inquiry about emotional/behavioral functioning					
	Pediatricians . . . . .	...	<sup>14</sup> 47%	---	---	...
	Treatment/referral for cognitive problems					
	Pediatricians . . . . .	...	<sup>14</sup> 51%	---	---	...

**Table 6. Mental health and mental disorders objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
Treatment/referral for emotional/behavioral problems					
Pediatricians . . . . .	...	<sup>14</sup> 45%	---	---	...
Inquiry about parent-child relationship					
Pediatricians . . . . .	...	<sup>14</sup> 55%	---	---	...
Nurse practitioners . . . . .	...	<sup>14</sup> 55%	---	---	...
Family physicians . . . . .	...	<sup>14</sup> 36%	---	---	...
Treatment/referral for parent-child interaction problems					
Pediatricians . . . . .	...	<sup>14</sup> 34%	---	---	...
Nurse practitioners . . . . .	...	<sup>14</sup> 24%	---	---	...
Family physicians . . . . .	...	<sup>14</sup> 29%	---	---	...

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>2</sup>Data are provisional.

<sup>3</sup>Data have been revised to include the entire U.S. American Indian/Alaska Native population; see appendix.

<sup>4</sup>1990 data.

<sup>5</sup>1989 data.

<sup>6</sup>1988 data.

<sup>7</sup>Data have been revised to reflect updated methodology.

<sup>8</sup>Target has been revised to reflect proportional reduction from revised baseline.

<sup>9</sup>1984 data.

<sup>10</sup>1985 data.

<sup>11</sup>1986 data.

<sup>12</sup>1982 data.

<sup>13</sup>1983 data.

<sup>14</sup>1992 data.

<sup>15</sup>1995 data.

<sup>16</sup>SAMHSA, DHHS, currently funds national clearinghouses which serve all 50 States.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

6.1\*, 6.1a-d\*—National Vital Statistics System, CDC, NCHS. Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division.

6.2\*—Youth Risk Behavior Survey, CDC, NCCDPHP.

6.3—Baseline (revised): Bird HR. Estimates of the prevalence of childhood maladjustment in a community survey in Puerto Rico. Archives of Gen Psychiatry 45:1120–26. 1988. Costello EJ, et al. Psychiatric disorders in pediatric primary care: Prevalence risk factors. Archives of Gen Psychiatry 45:1107–16. 1988.

6.4—Baseline: Epidemiologic Catchment Area Study, NIH, NIMH.

6.5, 6.5a—National Health Interview Survey, CDC, NCHS.

6.6—Baseline: National Institute of Mental Health Community Support Program Client Follow-Up Study, SAMHSA.

6.7—Baseline: Epidemiologic Catchment Area Study, NIH, NIMH.

6.8, 6.8a—National Health Interview Survey, CDC, NCHS.

6.9—Prevention Index, Rodale Press, Inc.

6.10\*—National Study of Jails, National Center on Institutions and Alternatives, CDC, NCIPC.

6.11—National Survey of Worksite Health Promotion Activities, OASH, ODPHP.

6.12—Baseline: National Council of Self-Help Clearinghouses and Public Health. Updates: National Network of Mutual Help Centers.

6.13—Primary Care Provider Surveys, OASH, ODPHP.

6.14—Primary Care Provider Surveys, OASH, ODPHP.

\*Duplicate objective.

# Mental Health and Mental Disorders Objectives

**6.1\*:** Reduce suicides to no more than 10.5 per 100,000 people.

Duplicate objective: 7.2

**6.1a\*:** Reduce suicides among youth aged 15–19 to no more than 8.2 per 100,000.

Duplicate objective: 7.2a

**6.1b\*:** Reduce suicides among men aged 20–34 to no more than 21.4 per 100,000.

Duplicate objective: 7.2b

**6.1c\*:** Reduce suicides among white men aged 65 and older to no more than 39.2 per 100,000.

Duplicate objective: 7.2c

**6.1d\*:** Reduce suicides among American Indian and Alaska Native men in Reservation States to no more than 12.8 per 100,000.

Duplicate objective: 7.2d

**6.2\*:** Reduce by 15 percent the incidence of injurious suicide attempts among adolescents aged 14–17.

Duplicate objective: 7.8

**6.3:** Reduce to less than 10 percent the prevalence of mental disorders among children and adolescents.

**6.4:** Reduce the prevalence of mental disorders (exclusive of substance abuse) among adults living in the community to less than 10.7 percent.

**6.5:** Reduce to less than 35 percent the proportion of people aged 18 and older who experienced adverse health effects from stress within the past year.

*NOTE: For this objective, people with disabilities are people who report any limitation in activity due to chronic conditions.*

**6.5a:** Reduce to less than 40 percent the proportion of people with disabilities who experienced adverse health effects from stress within the past year.

**6.6:** Increase to at least 30 percent the proportion of people aged 18 and older

with severe, persistent mental disorders who use community support programs.

**6.7:** Increase to at least 45 percent the proportion of people with major depressive disorders who obtain treatment.

**6.8:** Increase to at least 20 percent the proportion of people aged 18 and older who seek help in coping with personal and emotional problems.

**6.8a:** Increase to at least 30 percent the proportion of people with disabilities who seek help in coping with personal and emotional problems.

**6.9:** Decrease to no more than 5 percent the proportion of people aged 18 and older who report experiencing significant levels of stress who do not take steps to reduce or control their stress.

**6.10\*:** Increase to 50 the number of States with officially established protocols that engage mental health, alcohol and drug, and public health authorities with corrections authorities to facilitate identification and appropriate intervention to prevent suicide by jail inmates.

Duplicate objective: 7.18

**6.11:** Increase to at least 40 percent the proportion of worksites employing 50 or more people that provide programs to reduce employee stress.

**6.12:** Establish mutual help clearinghouses in at least 25 States.

**6.13:** Increase to at least 50 percent the proportion of primary care providers who routinely review with patients their patients' cognitive, emotional, and behavioral functioning and the resources available to deal with any problems that are identified.

**6.14:** Increase to at least 75 percent the proportion of providers of primary care for children who include assessment of cognitive, emotional, and parent-child functioning with appropriate counseling, referral, and followup, in their clinical practices.

\*Duplicate objective.

# Priority Area 7 Violent and Abusive Behavior

## Background

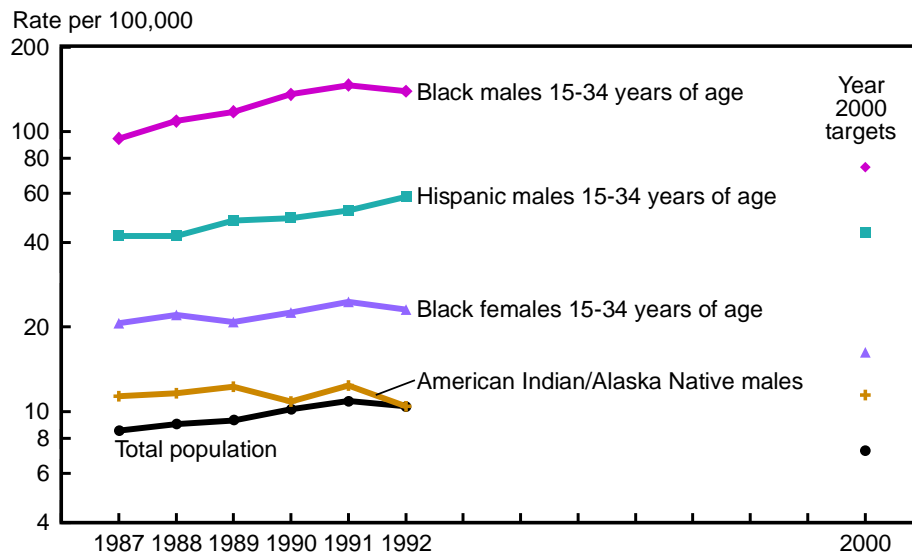
Violent and abusive behaviors continue to be major causes of death, injury, and stress in the United States. Suicide and homicide have resulted in over 50,000 deaths annually between 1985 and 1991 (1) and victims of violence have exceeded 2 million persons annually (2). Violence produces extensive physical costs and emotional consequences for society (3). The widespread nature of these consequences may indicate that violence has become a common part of social interaction in many domestic settings (4). It may also become a mode of behavior adopted by future generations raised in such settings (5). Firearms play a major role in both interpersonal and self-directed violence, especially among younger victims (6). Handguns are the primary means for the majority of this violence; they are used in 78 percent of all firearm crimes (7). While laws limiting access to firearms and mandatory sentences for felony firearm use appear to reduce and/or prevent violent injuries (8,9), a combined effort by law enforcement and public health services will be necessary to effectively address the problem of violence.

## Data Summary

### Highlights

Although the homicide rate (7.1) dropped 5 percent between 1991 and 1992 (from 10.8 per 100,000 to 10.3, its first decrease in nearly a decade), it remains 21 percent higher than the baseline. The homicide rate for black males also declined, but remains almost 50 percent higher than the baseline. Weapon-related deaths (7.3) declined by 3 percent during the same time period, but remain almost 11 percent above the baseline. Firearm deaths declined by nearly 2 percent, but remain about 15 percent higher than the baseline. Data on weapon carrying by adolescents (7.10) indicated a marked drop from the baseline, declining 14 percent between 1991 and 1993.

**Figure 8. Age-adjusted death rates for homicide: United States, 1987–92, and year 2000 targets for objective 7.1**



	1987	1988	1989	1990	1991	1992	Year 2000 target
Total population . . . . .	8.5	8.9	9.2	10.1	10.8	10.3	7.2
Black males 15–34 years . . .	91.1	104.9	113.2	130.5	140.8	134.2	72.4
Hispanic males 15–34 years . .	41.3	41.3	46.8	47.8	50.8	56.9	42.5
Black females 15–34 years . .	20.2	21.7	20.5	22.1	24.1	22.7	16.0
American Indian/Alaska Native males . . . . .	11.2	11.5	12.1	10.7	12.2	10.3	11.3

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System; Indian Health Service, Office of Planning Evaluation and Legislation, Program Statistics Division.

Rapes (7.7) also showed a dramatic drop and the year 2000 target was surpassed, but rape statistics are highly variable (see Data Issues). Injuries from assaults (7.6) also showed a slight decline between 1991 and 1992. Part of the decline in assault injuries may be associated with the decline in reported rapes (see Data Issues).

### Summary of Progress

Of the 18 objectives, 3 (7.2, 7.7, and 7.10) in this priority area progressed toward the year 2000 targets. The data for five objectives (7.1, 7.3, 7.6, 7.8, and 7.13) suggest movement away from the year 2000 target. There was no change in the incidence of physical fighting among adolescents (7.9) and there were no updates for four objectives (7.4, 7.5, 7.15, and 7.18). Five objectives (7.11, 7.12, 7.14, 7.16, and 7.17) remain without baselines.

## Data Issues

### Definitions

Objective 7.2 (suicide deaths) is monitored using data from the National Vital Statistics System (NVSS). The data are compiled from death certificates submitted by the States. Differentiating suicide deaths from accidental deaths relies heavily on judgment by the medical legal officer (for example, coroner or medical examiner). A key element of this determination is the establishment of intent by the deceased. This determination may be based on information about prior suicide attempts, a statement or note by the deceased indicating their intent to commit suicide, or other clinical information (for example, serious mental illness) (10).

Data for objectives 7.6 (assault injuries) and 7.7 (rape and attempted rape) come from the National Crime Survey, which provides self-reported

victimizations. The numbers of offenses reported in this survey generally exceed those reported to police and other law enforcement agencies. However, because of their personal nature, some offenses such as rape are also underreported in the crime survey (11). Assault injuries include completed rapes, attempted and completed robberies with injury, and completed aggravated and simple assaults with injury.

Data for objectives 7.8 (adolescent suicide attempts), 7.9 (physical fighting among adolescents), and 7.10 (weapon carrying) come from the school-based Youth Risk Behavior Survey (YRBS) and rely on student self-report. Suicide attempts are limited to those that occurred in the last 12 months and required medical attention. Data from the 1992 National Health Interview Survey (NHIS) indicate higher levels of weapon carrying and fighting among youth (14–19 years of age) not in school than among youth the same age in school, although the estimates for in-school youth were very close to the estimates for the total population (12). The NHIS did not include data on suicide attempts; the exclusion of adolescents not in school may produce underestimates of suicide attempts. The reliance on self-report without external validation of weapon carrying, suicide attempts, and fighting may affect the validity of these estimates, although a recent study by CDC indicated that the results are highly reliable (13).

## Data Availability

The 1994 NHIS included questions to provide baseline data for objective 7.11 (inappropriate storage of weapons). Additionally, CDC's National Center for Injury Prevention and Control has developed a survey to collect data on this objective; this survey was also fielded in 1994. The School Health Policies and Programs Survey (fielded in 1994) will provide baseline data for objective 7.16 (conflict resolution in schools).

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**Table 7. Violent and abusive behavior objective status**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>7.1 Homicide (age adjusted per 100,000)</b> . . . . .	8.5	<sup>1</sup> No change	10.3	---	7.2
a. Children 3 years and under (per 100,000) . . . . .	3.9	<sup>1</sup> No change	4.5	---	3.1
b. Spouses 15–34 years (per 100,000) . . . . .	1.7	...	<sup>2</sup> 1.5	---	1.4
c. Black males 15–34 years (per 100,000) . . . . .	90.5	<sup>1</sup> 91.1	134.2	---	72.4
d. Hispanic males 15–34 years (per 100,000) . . . . .	53.1	<sup>1</sup> 41.3	56.9	---	42.5
e. Black females 15–34 years (per 100,000) . . . . .	20.0	<sup>1</sup> 20.2	22.7	---	16.0
f. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	14.1	<sup>3</sup> 11.2	10.3	---	11.3
<b>7.2 Suicide (age adjusted per 100,000)</b> . . . . .	11.7	<sup>1</sup> No change	11.1	<sup>4</sup> 11.2	10.5
a. Adolescents 15–19 years (per 100,000) . . . . .	10.3	<sup>1</sup> 10.2	10.8	---	8.2
b. Males 20–34 years (per 100,000) . . . . .	25.2	<sup>1</sup> No change	24.5	---	21.4
c. White males 65 years and over (per 100,000) . . . . .	46.1	<sup>1</sup> 46.7	38.4	---	39.2
d. American Indian/Alaska Native males (age adjusted per 100,000) . . . . .	15	<sup>3</sup> 20.1	17.9	---	12.8
<b>7.3 Weapon-related violent deaths (age adjusted per 100,000)</b> . . . . .	14.8	<sup>1</sup> No change	16.4	---	12.6
Firearms (age adjusted per 100,000) . . . . .	12.9	<sup>1</sup> 13.0	14.9	---	...
Knives (age adjusted per 100,000) . . . . .	1.9	<sup>1</sup> 1.8	1.5	---	...
<b>7.4 Child abuse and neglect (per 1,000)</b> . . . . .	<sup>5</sup> 25.2	<sup>5,6</sup> 22.6	---	---	Less than 25.2
Incidence of types of maltreatment					
a. Physical abuse . . . . .	<sup>5</sup> 5.7	<sup>5,6</sup> 4.9	---	---	Less than 5.7
b. Sexual abuse . . . . .	<sup>5</sup> 2.5	<sup>5,6</sup> 2.1	---	---	Less than 2.5
c. Emotional abuse . . . . .	<sup>5</sup> 3.4	<sup>5,6</sup> 3.0	---	---	Less than 3.4
d. Neglect . . . . .	<sup>5</sup> 15.9	<sup>5,6</sup> 14.6	---	---	Less than 15.9
<b>7.5 Partner abuse (per 1,000)</b> . . . . .	<sup>7</sup> 30.0	...	---	---	27.0
<b>7.6 Assault injuries (per 1,000)</b> . . . . .	<sup>5</sup> 11.1	<sup>5,6</sup> 9.7	9.9	---	<sup>8</sup> 8.7
<b>7.7 Rape and attempted rape (per 100,000)</b> . . . . .	<sup>5</sup> 120	...	74	---	108
Incidence of rape and attempted rape					
a. Females 12–34 years . . . . .	<sup>5</sup> 250	...	<sup>9</sup> 206	---	225
<b>7.8 Suicide attempts among adolescents</b> . . . . .	...	<sup>9</sup> 2.1%	---	2.7%	1.8%
<b>7.9 Physical fighting among adolescents 14–17 years (incidents per 100 students per month)</b> . . . . .	...	<sup>10</sup> 137	---	137	110
<b>7.10 Weapon-carrying by adolescents 14–17 years (incidents per 100 students per month)</b> . . . . .	...	<sup>10</sup> 107	---	92	86
<b>7.11 Inappropriate storage of weapons</b> . . . . .	---	...	---	---	20% reduction
<b>7.12 Emergency room protocols for victims of violence</b> . . . . .	---	...	---	---	90%
<b>7.13 Number of States with child death review systems</b> . . . . .	...	<sup>10</sup> 33	32	---	45
<b>7.14 Number of States that followup abused children</b> . . . . .	---	...	---	---	30

**Table 7. Violent and abusive behavior objective status—Con.**

Objective	1987 baseline				Target 2000
	Original	Revised	1992	1993	
<b>7.15 Battered women turned away from shelters . . . . .</b>	40%	...	---	---	10%
<b>7.16 Conflict resolution education in schools . . . . .</b>	---	...	---	---	50%
<b>7.17 Comprehensive violence prevention programs . . . . .</b>	---	...	---	---	80%
<b>7.18 Number of States with suicide prevention in jails . . . . .</b>	...	<sup>11</sup> 3	---	---	50

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>2</sup>1989 data.

<sup>3</sup>Data have been revised to include the entire U.S. American Indian/Alaska Native population; see appendix.

<sup>4</sup>Data are provisional.

<sup>5</sup>1986 data.

<sup>6</sup>Baseline has been revised to reflect updated methodology.

<sup>7</sup>1985 data.

<sup>8</sup>Target has been revised to reflect reduction from revised baseline.

<sup>9</sup>1990 data.

<sup>10</sup>1991 data.

<sup>11</sup>1992 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

7.1, 7.1a–e— National Vital Statistics System, CDC, NCHS.

7.1f—Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division.

7.2\*, 7.2a–c\*—National Vital Statistics System, CDC, NCHS.

7.2d—Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division.

7.3—National Vital Statistics System, CDC, NCHS.

7.4, 7.4a–d— National Incidence of Child Abuse and Neglect Survey, Office of Human Development, NCCAN.

7.5—National Family Violence Survey, NIH, NIMH; National Crime Survey, Department of Justice, Bureau of Justice Statistics.

7.6—National Crime Survey, Department of Justice, Bureau of Justice Statistics.

7.7, 7.7a—National Crime Survey, Department of Justice, Bureau of Justice Statistics.

7.8\*—Youth Risk Behavior Survey, CDC, NCCDPHP.

7.9—Youth Risk Behavior Survey, CDC, NCCDPHP.

7.10—Youth Risk Behavior Survey, CDC, NCCDPHP.

7.13—Baseline: Annual 50 State Survey, National Committee for Prevention of Child Abuse. Update: National Incidence of Child Abuse and Neglect Survey, Office of Human Development, NCCAN.

7.15—Domestic Violence Statistical Survey, National Coalition Against Domestic Violence.

7.18\*—National Study of Jails, National Center on Institutions and Alternatives, CDC, NCIPC.

\*Duplicate objective.

# Violent and Abusive Behavior Objectives

**7.1:** Reduce homicides to no more than 7.2 per 100,000 people.

**7.1a:** Reduce homicides among children aged 3 and younger to no more than 3.1 per 100,000 children.

**7.1b:** Reduce homicides among spouses aged 15–34 to no more than 1.4 per 100,000.

**7.1c:** Reduce homicides among black men aged 15–34 to no more than 72.4 per 100,000.

**7.1d:** Reduce homicides among Hispanic men aged 15–34 to no more than 42.5 per 100,000.

**7.1e:** Reduce homicides among black women aged 15–34 to no more than 16.0 per 100,000.

**7.1f:** Reduce homicides among American Indians and Alaska Natives in Reservation States to no more than 11.3 per 100,000.

**7.2\*:** Reduce suicides to no more than 10.5 per 100,000 people.

Duplicate objective: 6.1

**7.2a\*:** Reduce suicides among youth aged 15–19 to no more than 8.2 per 100,000.

Duplicate objective: 6.1a

**7.2b\*:** Reduce suicides among men aged 20–34 to no more than 21.4 per 100,000.

Duplicate objective: 6.1b

**7.2c\*:** Reduce suicides among white men aged 65 and older to no more than 39.2 per 100,000.

Duplicate objective: 6.1c

**7.2d\*:** Reduce suicides among American Indian and Alaska Native men in Reservation States to no more than 12.8 per 100,000.

Duplicate objective: 6.1d

**7.3:** Reduce weapon-related violent deaths to no more than 12.6 per 100,000 people from major causes.

**7.4:** Reverse to less than 25.2 per 1,000 children the rising incidence of maltreatment of children younger than age 18.

**7.4a:** Reverse to less than 5.7 per 1,000 children the rising incidence of physical abuse of children younger than age 18.

**7.4b:** Reverse to less than 2.5 per 1,000 children the rising incidence of sexual abuse of children younger than age 18.

**7.4c:** Reverse to less than 3.4 per 1,000 children the rising incidence of emotional abuse of children younger than age 18.

**7.4d:** Reverse to less than 15.9 per 1,000 children the rising incidence of neglect of children younger than age 18.

**7.5:** Reduce physical abuse directed at women by male partners to no more than 27 per 1,000 couples.

**7.6:** Reduce assault injuries among people aged 12 and older to no more than 10 per 1,000.

**7.7:** Reduce rape and attempted rape of women aged 12 and older to no more than 108 per 100,000 women.

**7.7a:** Reduce rape and attempted rape of women aged 12–34 to no more than 225 per 100,000.

**7.8\*:** Reduce by 15 percent the incidence of injurious suicide attempts among adolescents aged 14–17.

Duplicate objective: 06.02

**7.9:** Reduce by 20 percent the incidence of physical fighting among adolescents aged 14–17.

**7.10:** Reduce by 20 percent the incidence of weapon-carrying by adolescents aged 14–17.

**7.11:** Reduce by 20 percent the proportion of people who possess weapons that are inappropriately stored and therefore dangerously available.

**7.12:** Extend protocols for routinely identifying, treating, and properly referring suicide attempters, victims of sexual assault, and victims of spouse, elder, and child abuse to at least 90 percent of hospital emergency departments.

**7.13:** Extend to at least 45 States implementation of unexplained child death review systems.

**7.14:** Increase to at least 30 the number of States in which at least 50 percent of children identified as neglected or

physically or sexually abused receive physical and mental evaluation with appropriate followup as a means of breaking the intergenerational cycle of abuse.

**7.15:** Reduce to less than 10 percent the proportion of battered women and their children turned away from emergency housing due to lack of space.

**7.16:** Increase to at least 50 percent the proportion of elementary and secondary schools that teach nonviolent conflict resolution skills, preferably as a part of quality school health education.

**7.17:** Extend coordinated, comprehensive violence prevention programs to at least 80 percent of local jurisdictions with populations over 100,000.

**7.18\*:** Increase to 50 the number of States with officially established protocols that engage mental health, alcohol and drug, and public health authorities with corrections authorities to facilitate identification and appropriate intervention to prevent suicide by jail inmates.

Duplicate objective: 6.10

\*Duplicate objective.



# Priority Area 8 Educational and Community-Based Programs

## Background

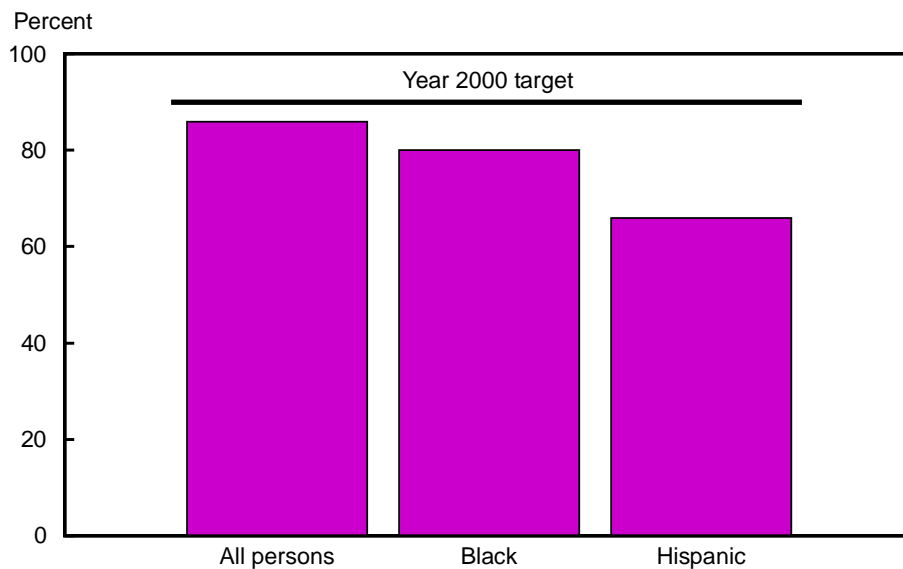
A supportive social environment may be one of the key factors in successfully changing behaviors that contribute to many of today's leading health threats. Consequently, leadership, collaboration, and initiatives at the community level are fundamental to progress. Educational and community-based interventions are designed to reach groups of people outside of traditional health care settings. Many of these intervention programs are located in specially targeted sites in the community; these programs are designed for people who come together in diverse settings, such as students within a school, employees at a worksite, or members of civic or religious groups that meet regularly. Other programs are best planned as community-wide health promotion initiatives to reach large numbers of people with intensive, highly visible, and more easily implemented interventions. While some community-based programs may address a single risk factor or prominent health problem, many programs are taking a more comprehensive, holistic approach to health and healthy communities. Community-based programs are increasingly recognizing the importance of addressing the social and physical environment in which behavior occurs and is reinforced.

## Data Summary

### Highlights

Although life expectancy increased in 1992, the average number of years of healthy life (8.1) decreased for the second consecutive year for the total population. Years of healthy life also decreased for black persons after remaining the same between 1990 and 1991. For people 65 years and older, the number of years of healthy life in 1992 is unchanged from the 1990 baseline. These decreases reflect a downturn in self-reported health-related quality of life.

**Figure 9. Percent of people 19–20 years of age completing high school: United States, 1993, and year 2000 targets for objective 8.2**



	1993	Year 2000 target
All persons . . . . .	86	90
Black . . . . .	80	90
Hispanic . . . . .	66	90

SOURCE: U.S. Bureau of the Census, Current Population Survey.

There have been considerable improvements in opportunities offering access to preschool children through organizations such as Head Start and Healthy Start (8.3), in the number of worksites offering health promotion activities (8.6), and in proportion of community hospitals offering patient education programs (8.12).

## Summary of Progress

Of the 14 Educational and Community-Based Programs objectives, 5 are progressing toward the year 2000 targets (objectives 8.2, 8.3, 8.6, 8.9, and 8.12), while 1 is moving away from the target (8.1). Baseline data for objective 8.4 will be available later in 1995; baseline data for 8.7, 8.8, and 8.13 will be available in 1996. New data will be available later in 1995 to update the baselines for objective 8.14. There are no new data to update the baseline for objective 8.5. Baselines for the remaining three objectives are not yet available.

## Data Issues

### Years of Healthy Life

The concept of increasing years of healthy life is one of the three *Healthy People 2000* goals and is included as an objective in three priority areas (8.1, 17.1, and 21.1). See the appendix for a discussion of years of healthy life.

### Data Source Descriptions

Objectives 8.2 (completion of high school) and 8.3 (preschool child development programs) and their targets are consistent with the National Education Goals for these areas. The data used to track these objectives come from the National Center for Education Statistics (NCES). The data for objective 8.2 include those who received high school diplomas as well as those who received alternative credentials, such as a General Education Development (GED) certificate. The educational attainment question on the Current

Population Survey, conducted by the U.S. Bureau of the Census, used to compute high school completion rates was reworded in 1992. Therefore, NCES advises caution when interpreting trends in high school completion.

### **Proxy Measures and Data Availability**

Objective 8.9 addresses the proportion of people 10 years of age and over who have discussed any of several health-related issues with family members in the last month. Progress is currently being measured by the percent of 9th–12th graders engaging in family discussions about HIV/AIDS. More complete data will be obtained from the 1994 National Health Interview Survey and will be available in early 1996. Similarly, objective 8.14, which focuses on the proportion of people served by local health departments, is being monitored by the proportion of health departments effectively carrying out the core functions of public health.

A survey to measure partnerships between network television affiliates and community health organizations (objective 8.13) has been developed by the Centers for Disease Control and Prevention. Data collection is scheduled to begin in late 1995.

Because of the process-oriented nature and the lack of consensus in adequately defining and measuring many of the objectives, this priority area poses a significant challenge to identifying or creating data sources to measure progress. A concerted effort will be made over the decade to locate complete data sources for those objectives that are only being partially measured as well as those without baseline data.

**Table 8. Educational and community-based programs objective status**

	Objective	Baseline			1993	Target 2000
		Original	Revised	1992		
<b>8.1</b>	<b>Years of healthy life</b> . . . . .	<sup>1</sup> 62.0	<sup>2,3</sup> 64.0	63.7	---	65
	a. Blacks . . . . .	<sup>1</sup> 56.0	<sup>2,3</sup> No change	55.6	---	60
	b. Hispanics . . . . .	<sup>1</sup> 62.0	<sup>2,3,4</sup> 64.8	<sup>4,5</sup> 64.0	---	65
	c. People 65 years and over <sup>6</sup> . . . . .	<sup>1</sup> 12.0	<sup>2,3</sup> 11.9	11.9	---	14
<b>8.2</b>	<b>Completion of high school</b>					
	People 19–20 years . . . . .	<sup>7</sup> 79%	<sup>2,3</sup> 83%	87%	86%	90%
<b>8.3</b>	<b>Preschool child development programs</b>					
	Eligible children 4 years afforded opportunity to enroll in Head Start . . . . .	<sup>2</sup> 47%	...	<sup>8</sup> 55%	---	100%
	Disabled children 3–5 years enrolled in preschool . . . . .	...	...	<sup>8</sup> 56%	---	100%
<b>8.4</b>	<b>Schools with quality school health education</b> . . . . .	---	...	---	---	75%
<b>8.5</b>	<b>Health promotion in postsecondary institutions</b>					
	Percent of higher education institutions offering health promotion activities . .	<sup>9</sup> 20%	...	---	---	50%
<b>8.6</b>	<b>Worksite health promotion activities</b>					
	Worksites with 50 or more employees . . . . .	<sup>10</sup> 65%	...	81%	---	85%
	Medium and large companies having a wellness program . . . . .	<sup>10</sup> 63%	...	---	---	...
<b>8.7</b>	<b>Hourly workers in health promotion activities</b> . . . . .	---	...	---	---	20%
<b>8.8</b>	<b>Health promotion programs for older adults</b> . . . . .	---	...	---	---	90%
<b>8.9</b>	<b>Family discussion of health issues—ages 10 years and over</b> . . . . .	---	...	---	---	75%
	Among students in grades 9–12 engaging in family discussion of HIV/AIDS . . . . .	...	<sup>11</sup> 54%	<sup>8</sup> 61%	---	75%
<b>8.10</b>	<b>Number of States with community health programs for 40 percent of the population</b> . . . . .	---	...	---	---	40%
<b>8.11</b>	<b>Counties with programs for racial/ethnic minority groups</b> . . . . .	---	...	---	---	50%
<b>8.12</b>	<b>Hospital-based patient education and community health promotion</b>					
	Patient education programs					
	Community hospitals . . . . .	<sup>12</sup> 66%	<sup>3,13</sup> 68%	<sup>2</sup> 86%	---	90%
	Health maintenance organizations . . . . .	---	...	---	---	90%
	Health education classes . . . . .	...	...	84%	---	...
	Nutrition counseling . . . . .	...	...	87%	---	...
	Smoking cessation classes . . . . .	...	...	67%	---	...
	Community health promotion					
	Community hospitals . . . . .	<sup>11</sup> 60%	...	<sup>2</sup> 77%	---	90%
<b>8.13</b>	<b>Television partnerships with community organizations for health promotion</b> . . . . .	---	...	---	---	75%
<b>8.14</b>	<b>Effective public health systems</b>					
	Local health departments reporting					
	Health assessment . . . . .	...	...	---	---	90%
	Behavioral risk assessment . . . . .	...	<sup>2</sup> 33%	---	---	...
	Morbidity data . . . . .	...	<sup>2</sup> 49%	---	---	...
	Reportable disease . . . . .	...	<sup>2</sup> 87%	---	---	...
	Vital records and statistics . . . . .	...	<sup>2</sup> 64%	---	---	...
	Surveillance chronic disease . . . . .	...	<sup>2</sup> 55%	---	---	...
	Surveillance communicable disease . . . . .	...	<sup>2</sup> 92%	---	---	...
	Policy development functions and services					
	Health code development and enforcement . . . . .	...	<sup>2</sup> 59%	---	---	...
	Health planning . . . . .	...	<sup>2</sup> 57%	---	---	...

**Table 8. Educational and community-based programs objective status—Con.**

Objective	Baseline		1992	1993	Target 2000
	Original	Revised			
Health assurance					
Health education . . . . .	...	<sup>2</sup> 74%	---	---	...
Child health . . . . .	...	<sup>2</sup> 84%	---	---	...
Immunizations . . . . .	...	<sup>2</sup> 92%	---	---	...
Prenatal care . . . . .	...	<sup>2</sup> 59%	---	---	...
Primary care . . . . .	...	<sup>2</sup> 22%	---	---	...

<sup>1</sup>1980 data.

<sup>2</sup>1990 data.

<sup>3</sup>Data have been revised to reflect updated methodology.

<sup>4</sup>Estimated based on preliminary data.

<sup>5</sup>Estimate derived from 1991–93 health status data and 1992 mortality data.

<sup>6</sup>Years of healthy life remaining at age 65.

<sup>7</sup>1989 data for people 20–21 years.

<sup>8</sup>1991 data.

<sup>9</sup>1989–90 data.

<sup>10</sup>1985 data.

<sup>11</sup>1989 data.

<sup>12</sup>1987 data.

<sup>13</sup>1988 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

8.1\*, 8.1a–c\*—National Health Interview Survey, CDC, NCHS; National Vital Statistics System, CDC, NCHS.

8.2—National Center for Education Statistics, National Education Goals Panel.

8.3—Head Start Bureau: Administration on Children, Youth, and Families; National Center for Education Statistics, National Education Goals Panel.

8.5—Health Promotion on Campus Survey and Directory, American College Health Association.

8.6—Baseline: Health Research Institute Biennial Survey, Health Research Institute. Baseline and Updates: National Survey of Worksite Health Promotion Activities, OASH, ODPHP.

8.9—Youth Risk Behavior Survey, CDC, NCCDPHP.

8.12—Annual Survey of Hospitals, American Hospital Association. HMO Industry Profile, Group Health Association of America, Inc.

8.14—National Profile of Local Health Departments, National Association of County Health Officials.

\*Duplicate objective.

# Educational and Community-Based Programs Objectives

**8.1\*:** Increase years of healthy life to at least 65 years.

*NOTE: Years of healthy life is a summary measure of health that combines mortality (quantity of life) and morbidity and disability (quality of life) into a single measure.*

Duplicate objectives: 17.1 and 21.1

**8.1a\*:** Increase years of healthy life among black persons to at least 60 years.

Duplicate objectives: 17.1a and 21.1a

**8.1b\*:** Increase years of healthy life among Hispanics to at least 65 years.

Duplicate objectives: 17.1b and 21.1b

**8.1c\*:** Increase years of healthy life among people aged 65 and older to at least 14 years remaining at age 65.

Duplicate objectives: 17.1c and 21.1c

**8.2:** Increase the high school graduation rate to at least 90 percent, thereby reducing risks for multiple problem behaviors and poor mental and physical health.

*NOTE: This objective and its target are consistent with the National Education Goal to increase high school graduation rates.*

**8.3:** Achieve for all disadvantaged children and children with disabilities access to high quality and developmentally appropriate preschool programs that help prepare children for school, thereby improving their prospects with regard to school performance, problem behaviors, and mental and physical health.

*NOTE: This objective and its target are consistent with the National Education Goal to increase school readiness and its objective to increase access to preschool programs for disadvantaged and disabled children.*

**8.4:** Increase to at least 75 percent the proportion of the Nation's elementary and secondary schools that provide planned and sequential

kindergarten–12th grade quality school health education.

**8.5:** Increase to at least 50 percent the proportion of postsecondary institutions with institution-wide health promotion programs for students, faculty, and staff.

**8.6:** Increase to at least 85 percent the proportion of workplaces with 50 or more employees that offer health promotion activities for their employees, preferably as part of a comprehensive employee health promotion program.

**8.7:** Increase to at least 20 percent the proportion of hourly workers who participate regularly in employer-sponsored health promotion activities.

**8.8:** Increase to at least 90 percent the proportion of people aged 65 and older who had the opportunity to participate during the preceding year in at least one organized health promotion program through a senior center, lifecare facility, or other community-based setting that serves older adults.

**8.9:** Increase to at least 75 percent the proportion of people aged 10 and older who have discussed issues related to nutrition, physical activity, sexual behavior, tobacco, alcohol, other drugs, or safety with family members on at least one occasion during the preceding month.

**8.10:** Establish community health promotion programs that separately or together address at least three of the Healthy People 2000 priorities and reach at least 40 percent of each State's population.

**8.11:** Increase to at least 50 percent the proportion of counties that have established culturally and linguistically appropriate community health promotion programs for racial and ethnic minority populations.

*NOTE: This objective will be tracked in counties in which a racial or ethnic group constitutes more than 10 percent of the population.*

**8.12:** Increase to at least 90 percent the proportion of hospitals, health maintenance organizations, and large group practices that provide patient education programs, and to at least 90 percent the proportion of community hospitals that offer community health promotion programs addressing the

priority health needs of their communities.

**8.13:** Increase to at least 75 percent the proportion of local television network affiliates in the top 20 television markets that have become partners with one or more community organizations around one of the health problems addressed by the Healthy People 2000 objectives.

**8.14:** Increase to at least 90 percent the proportion of people who are served by a local health department that is effectively carrying out the core functions of public health.

*NOTE: The core functions of public health have been defined as assessment, policy development, and assurance. Local health department refers to any local component of the public health system, defined as an administrative and service unit of local or State government concerned with health and carrying some responsibility for the health of a jurisdiction smaller than a State.*

\*Duplicate objective.

# Priority Area 9 Unintentional Injuries

## Background

Unintentional injuries are the fifth leading cause of death in the United States, accounting for nearly 87,000 deaths in 1992 (1). They are a major cause of disabilities and hospitalization and have significant impact on health care costs (2). For example, the National Highway Traffic Safety Administration estimated in 1987 that motor vehicle crashes alone cost the United States \$75 billion annually (3). However, recent efforts to reduce injuries show promise. Improvements in vehicle safety saved at least 90,000 lives between 1966 and 1982 (4). Safety belt laws save an estimated 3,600 lives each year (5). Child safety seats saved the lives of 1,300 infants and toddlers between 1982 and 1990 (6). Motorcycle helmets saved 5,000 lives between 1984 and 1990 (7). An additional 1,100 lives have been saved annually, since the passage and enforcement of laws limiting drinking to age 21 and over (8). The 22 objectives in this area focus on a wide range of mechanical, legislative, and educational means to reduce the occurrence of these events.

## Data Summary

### Highlights

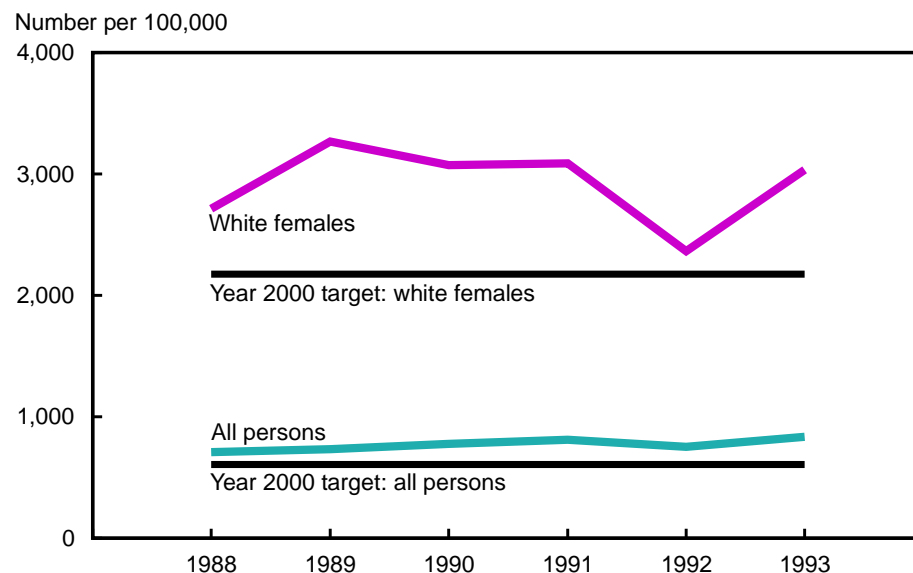
Although motor vehicle crash deaths (9.3) remained stable in 1993, these rates (with the exception of people over 70) are below the year 2000 targets. Forty-eight States have enacted laws requiring seat belt use (9.14) and actual usage (9.12) also increased slightly to 67 percent.

### Summary of Progress

Twelve objectives (9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.8, 9.9, 9.10, 9.12, 9.13, and 9.14) showed progress toward the year 2000 targets. Five of these objectives (9.2, 9.3, 9.8, 9.9, and 9.10), equaled or surpassed the year 2000 target.

Data for objectives 9.7 and 9.17 indicate movement away from the target, although the latter may be an

**Figure 10. Hip fractures among people 65 years and over: United States, 1988–93, and year 2000 targets for objective 9.7**



	1988	1989	1990	1991	1992	1993	Year 2000 target
All persons 65 years and over. . . .	714	734	776	814	757	841	607
White females 65 years and over. .	2,721	3,269	3,075	3,091	2,368	3,035	2,177

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

artifact of the change in the data source (see Data Issues). The number of States with laws requiring handgun design to protect children (9.15) remains zero and the number of States with linked emergency systems (9.22) remained at two.

No updates were available for four objectives (9.11, 9.16, 9.19, and 9.21). Baselines are still not available for objectives 9.18 and 9.20.

## Data Issues

### Data Definitions

Objective 9.2 (nonfatal unintentional injuries) is tracked with data from the National Hospital Discharge Survey (NHDS) maintained by the National Center for Health Statistics (NCHS). The ICD–9 codes designated for this objective include both unintentional and intentional injuries. The two types of injuries cannot be distinguished at the national level because, currently, only 14 States mandate the use of E–codes (external

causes) on hospital discharge forms. NCHS is working with States to increase the use of E–codes.

Objective 9.7 (hip fractures older adults) is also monitored with data from the NHDS. These rates are based on extremely small numbers and must be interpreted cautiously. Data on race are missing from approximately 17 percent of the cases; this tends to underestimate rates for the special population objective (9.7a white women over 85).

Objective 9.15 (handgun design) will remain difficult to measure because of problems in definition. Design features, such as trigger guards, are not uniform and have not been included in any existing or proposed gun legislation. Similarly, the criteria used to define linked emergency systems (objective 9.22) in the two States reporting are not universally accepted; refinement in the definition will be necessary prior to further monitoring of this objective.

The update for objective 9.17 (smoke detectors) is provided by the National Health Interview Survey and represents the proportion of people

living in apartments or condominiums who report having one or more smoke detectors and the proportion of people living in townhouses or single family homes who report having two or more smoke detectors. Findings from a survey conducted by the Consumer Product Safety Commission indicated that 57 percent of households had at least one functional smoke detector on each floor (9); this is close to the NHIS estimate. The baseline for this objective came from estimates provided by the U.S. Fire Administration.

### Data Source Description

Data for objective 9.3 (motor vehicle crash deaths) are crude rates from the Fatal Accident Reporting System (FARS). See the Introduction for a discussion of crude and age-adjusted rates and priority area 4 for a description of FARS. The rates for 9.3d (American Indian and Alaska Natives) are age-adjusted data from the National Vital Statistics System.

### Data Comparability

In 1991, data collection for objectives 9.12 (motor vehicle occupant protection systems) and 9.13 (helmet use by motorcyclists and bicyclists) was expanded from 19 metropolitan areas to all 50 States. The data collection methods (direct observation) are unchanged; however, data on child use of occupant restraints will no longer be reported.

### Data Availability

Data are not currently available to update four objectives (9.11, 9.16, 9.19, and 9.21). No system exists to provide ongoing monitoring of objective 9.11 (secondary disabilities from head and spinal cord injuries). Data from regional treatment centers for these disabilities may become available in the future, but the low incidence limits tracking of this objective. In addition, the regional treatment centers monitor the incidence of secondary disabilities from the time of the primary injury; the *Healthy People 2000* measure requires annual monitoring. Programming limitations have (so far) precluded annualized tallies of these events.

Data to update 9.16 (fire suppression system installations) are not currently available from the U.S. Fire Administration; alternative sources are being sought.

Baseline data have yet to be obtained for objectives 9.18 and 9.20. The School Health Programs and Policies Survey, currently in the field, will provide data for objective 9.18 (injury prevention instruction). Data for objective 9.20 (highway design standards) are being compiled by the Department of Transportation and should be available in 1997.

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**Table 9. Unintentional injuries objective status**

Objective	1987 baseline				Target 2000
	Original	Revised	1992	1993	
<b>9.1 Unintentional injury deaths (age adjusted per 100,000)</b> . . . . .	34.5	<sup>1</sup> 34.7	29.4	<sup>2</sup> 29.6	29.3
a. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	82.6	<sup>3</sup> 66.0	57.3	---	66.1
b. Black males (age adjusted per 100,000) . . . . .	64.9	<sup>1</sup> 68.0	56.7	---	51.9
c. White males (age adjusted per 100,000) . . . . .	53.6	<sup>1</sup> 49.8	41.9	---	42.9
<b>9.2 Unintentional injury hospitalizations (per 100,000)</b> . . . . .	<sup>4</sup> 887	<sup>4,5,6</sup> 832	<sup>6</sup> 714	<sup>6</sup> 699	754
<b>9.3 Motor vehicle crash-related deaths</b>					
Per 100 million vehicle miles traveled (VMT) . . . . .	2.4	...	1.8	1.8	1.9
(per 100,000) . . . . .	18.8	<sup>5</sup> 19.2	15.4	15.6	16.8
a. Children 14 years and under (per 100,000) . . . . .	6.2	...	4.8	4.8	5.5
b. People 15–24 years (per 100,000) . . . . .	36.9	...	28.0	28.6	33
c. People 70 years and over (per 100,000) . . . . .	22.6	...	21.9	22.9	20
d. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	46.8	<sup>3</sup> 37.7	32.0	---	39.2
e. Motorcyclist (per 100 million VMT) . . . . .	40.9	...	25.6	---	33.0
(per 100,000) . . . . .	1.7	...	0.9	0.9	1.5
f. Pedestrians (per 100,000) . . . . .	3.1	<sup>5</sup> 2.8	2.2	2.2	2.7
<b>9.4 Fall-related deaths (age adjusted per 100,000)</b> . . . . .	2.7	No change	2.5	---	2.3
a. People 65–84 years (per 100,000) . . . . .	18.0	<sup>1</sup> 18.1	17.6	---	14.4
b. People 85 years and over (per 100,000) . . . . .	131.2	<sup>1</sup> 133.0	147.3	---	105.0
c. Black males 30–69 years (per 100,000) . . . . .	8.0	<sup>1</sup> 8.1	5.3	---	5.6
<b>9.5 Drowning deaths (age adjusted per 100,000)</b> . . . . .	2.1	No change	1.6	---	1.3
a. Children aged 4 and under (per 100,000) . . . . .	4.2	<sup>1</sup> 4.3	3.2	---	2.3
b. Males 15–34 years (per 100,000) . . . . .	4.5	No change	3.4	---	2.5
c. Black males (age adjusted per 100,000) . . . . .	6.6	No change	4.1	---	3.6
<b>9.6 Residential fire deaths (age adjusted per 100,000)</b> . . . . .	1.5	<sup>1</sup> 1.7	1.4	---	1.2
a. Children 4 years and under (per 100,000) . . . . .	4.4	<sup>1</sup> 4.5	3.4	---	3.3
b. People 65 years and over (per 100,000) . . . . .	4.4	<sup>1</sup> 4.9	3.7	---	3.3
c. Black males (age adjusted per 100,000) . . . . .	5.7	<sup>1</sup> 6.4	4.9	---	4.3
d. Black females (age adjusted per 100,000) . . . . .	3.4	<sup>1</sup> 3.3	2.3	---	2.6
e. Residential fire deaths caused by smoking . . . . .	17%	<sup>5</sup> 26%	18%	16%	5%
<b>9.7 Hip fractures among adults 65 years and over (per 100,000)</b> . . . . .	<sup>4</sup> 714	...	757	841	607
a. White females 85 years and over . . . . .	<sup>4</sup> 2,721	...	2,368	3,035	2,177
<b>9.8 Nonfatal poisoning (per 100,000)</b> . . . . .	<sup>7</sup> 103	<sup>5,7</sup> 108	70	<sup>2</sup> 66	88
a. Among children 4 years and under . . . . .	<sup>7</sup> 650	<sup>5,7</sup> 648	626	<sup>2</sup> 584	520
<b>9.9 Nonfatal head injuries (per 100,000)</b> . . . . .	<sup>4</sup> 125	<sup>4,5</sup> 118	92	90	106
<b>9.10 Nonfatal spinal cord injuries (per 100,000)</b> . . . . .	<sup>4</sup> 5.9	<sup>4,5</sup> 5.3	3.6	4.7	5.0
a. Males . . . . .	<sup>4</sup> 8.9	<sup>4,5</sup> 9.6	4.8	6.7	7.1
<b>9.11 Secondary disabilities associated with head and spinal cord injuries</b>					
Head injuries (per 100,000) . . . . .	<sup>7</sup> 20.0	...	---	---	16.0
Spinal cord injuries (per 100,000) . . . . .	<sup>7</sup> 3.2	...	---	---	2.6
<b>9.12 Motor vehicle occupant protection systems</b> . . . . .	<sup>4</sup> 42%	...	<sup>8</sup> 66%	<sup>9</sup> 67%	85%
a. Children 4 years and under . . . . .	<sup>4</sup> 84%	...	---	---	95%
<b>9.13 Helmet use by motorcyclists and bicyclists</b>					
Motorcyclists . . . . .	<sup>4</sup> 60%	...	<sup>10</sup> 62%	---	80%
Bicyclists . . . . .	<sup>4</sup> 8%	...	<sup>10</sup> 5–10%	---	50%
<b>9.14 Safety belt and helmet use laws</b>					
Number of States with safety belt laws <sup>11</sup> . . . . .	1233	...	<sup>8</sup> 45	<sup>9</sup> 48	50
Number of States with motorcycle helmet use laws <sup>13</sup> . . . . .	1222	...	<sup>8</sup> 25	<sup>9</sup> 25	50
<b>9.15 Number of States with handgun design laws to protect children</b> . . . . .	120	...	<sup>14</sup> 0	---	50
<b>9.16 Fire suppression sprinkler installation (number of localities)</b> . . . . .	...	<sup>12</sup> 700	---	---	2,000
<b>9.17 Residences with smoke detectors</b> . . . . .	<sup>12</sup> 81%	...	---	<sup>15</sup> 66%	100%
<b>9.18 Injury prevention instruction in schools</b> . . . . .	---	...	---	---	50%



**Table 9. Unintentional injuries objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>9.19 Protective equipment in sporting and recreation event</b> . . . . .	---	...	---	---	100%
National Collegiate Athletic Association					
Football . . . . .	<sup>4</sup> Required	...	---	---	...
Hockey . . . . .	<sup>4</sup> Required	...	---	---	...
Lacrosse . . . . .	<sup>4</sup> Required	...	---	---	...
High school football . . . . .	<sup>4</sup> Required	...	---	---	...
Amateur boxing . . . . .	<sup>4</sup> Required	...	---	---	...
Amateur ice hockey . . . . .	<sup>4</sup> Required	...	---	---	...
<b>9.20 Number of States with design standards for roadway safety</b> . . . . .	---	...	---	---	30
<b>9.21 Injury prevention counseling by primary care providers</b> . . . . .	---	...	---	---	50%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about seat belt/child seat use					
Pediatricians . . . . .	...	<sup>16</sup> 45%	---	---	50%
Nurse practitioners . . . . .	...	<sup>16</sup> 29%	---	---	50%
Obstetricians/gynecologists . . . . .	...	<sup>16</sup> 6%	---	---	50%
Internists . . . . .	...	<sup>16</sup> 11%	---	---	50%
Family physicians . . . . .	...	<sup>16</sup> 16%	---	---	50%
Inquiry about hazards for falls in the home (65 years and over)					
Nurse practitioners . . . . .	...	<sup>16</sup> 15%	---	---	50%
Internists . . . . .	...	<sup>16</sup> 10%	---	---	50%
Family physicians . . . . .	...	<sup>16</sup> 7%	---	---	50%
Advice about seat belt/child care seat use					
Pediatricians . . . . .	...	<sup>16</sup> 58%	---	---	50%
Nurse practitioners . . . . .	...	<sup>16</sup> 32%	---	---	50%
Obstetricians/gynecologists . . . . .	...	<sup>16</sup> 18%	---	---	50%
Internists . . . . .	...	<sup>16</sup> 15%	---	---	50%
Family physicians . . . . .	...	<sup>16</sup> 29%	---	---	50%
Advice about prevention of falls in the home (65 years and older)					
Nurse practitioners . . . . .	...	<sup>16</sup> 17%	---	---	50%
Internists . . . . .	...	<sup>16</sup> 17%	---	---	50%
Family physicians . . . . .	...	<sup>16</sup> 15%	---	---	50%
<b>9.22 Number of States with linked emergency medical services and trauma systems</b> . . . . .	2	...	<sup>12</sup> 2	---	50%

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>2</sup>Data are provisional.

<sup>3</sup>Data have been revised to include the entire U.S. American Indian/Alaska Native population; see appendix.

<sup>4</sup>1988 data.

<sup>5</sup>Data have been revised to reflect updated methodology.

<sup>6</sup>Data include intentional and unintentional injuries and injuries where the intent was not known.

<sup>7</sup>1986 data.

<sup>8</sup>1993 data.

<sup>9</sup>1994 data.

<sup>10</sup>1991 data.

<sup>11</sup>The District of Columbia and Puerto Rico also have safety belt laws.

<sup>12</sup>1989 data.

<sup>13</sup>The District of Columbia and Puerto Rico also have motorcycle helmet laws.

<sup>14</sup>1990 data.

<sup>15</sup>Data are from NHIS and represent the proportion of people living in apartments or condominiums who report having one or more smoke detectors and the proportion of people living in townhouses or single family homes who report having two or more smoke detectors.

<sup>16</sup>1992 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

9.1, 9.1a–c—National Vital Statistics System, CDC, NCHS.

9.2—National Hospital Discharge Survey, CDC, NCHS.

9.3, 9.3a–c,e,f—Fatal Accident Reporting System, DOT, NHTSA.

9.3d—Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division.

9.4, 9.4a–c— National Vital Statistics System, CDC, NCHS.

9.5, 9.5a–c— National Vital Statistics System, CDC, NCHS.

9.6, 9.6a–d— National Vital Statistics System, CDC, NCHS.

9.6e—National Fire Incident Reporting System, FEMA, U.S. Fire Administration.

- 9.7, 9.7a—National Hospital Discharge Survey, CDC, NCHS.
- 9.8, 9.8a—National Electronic Injury Surveillance System, Consumer Product Safety Commission, Directorate for Epidemiology.
- 9.9—National Hospital Discharge Survey, CDC, NCHS.
- 9.10, 9.10a—National Hospital Discharge Survey, CDC, NCHS.
- 9.11—National Head and Spinal Cord Injury Survey, NIH, NINCDS.
- 9.12, 9.12a— Baseline: 19 Cities Survey, DOT, NHTSA. Updates: Population weighted State surveys, DOT, NHTSA.
- 9.13—Baseline: 19 Cities Survey, DOT, NHTSA. Updates: Population weighted State surveys, DOT, NHTSA.
- 9.14—DOT, NHTSA.
- 9.15—CDC, NCIPC.
- 9.16—Baseline: Fire Suppression Sprinkler Codes, FEMA, U.S. Fire Administration.
- 9.17—Baseline: National Fire Incident Reporting System, FEMA, U.S. Fire Administration. Updates: National Health Interview Survey, CDC, NCHS.
- 9.19\*—CDC, NCPS, NIH, NIDR.
- 9.21—Primary Care Provider Surveys, OASH, ODPHP.
- 9.22—CDC, NCIPC.

\*Duplicate objective.

# Unintentional Injuries Objectives

**9.1:** Reduce deaths caused by unintentional injuries to no more than 29.3 per 100,000 people.

**9.1a:** Reduce deaths among American Indians and Alaska Natives caused by unintentional injuries to no more than 66.1 per 100,000 people.

**9.1b:** Reduce deaths among black males caused by unintentional injuries to no more than 51.9 per 100,000 people.

**9.1c:** Reduce deaths among white males caused by unintentional injuries to no more than 42.9 per 100,000.

**9.2:** Reduce nonfatal unintentional injuries so that hospitalizations for this condition are no more than 754 per 100,000 people.

**9.3:** Reduce deaths caused by motor vehicle crashes to no more than 1.9 per 100 million vehicle miles traveled and 16.8 per 100,000 people.

**9.3a:** Reduce deaths among children aged 14 and younger caused by motor vehicle crashes to no more than 5.5 per 100,000.

**9.3b:** Reduce deaths among youth aged 15–24 caused by motor vehicle crashes to no more than 33 per 100,000.

**9.3c:** Reduce deaths among people aged 70 and older caused by motor vehicle crashes to no more than 20 per 100,000.

**9.3d:** Reduce deaths among American Indians and Alaska Natives caused by motor vehicle crashes to no more than 39.2 per 100,000.

**9.3e:** Reduce deaths among motorcyclists caused by motor vehicle crashes to no more than 33 per 100 million vehicle miles traveled and 1.5 per 100,000.

**9.3f:** Reduce deaths among pedestrians caused by motor vehicle crashes to no more than 2.7 per 100,000.

**9.4:** Reduce deaths from falls and fall-related injuries to no more than 2.3 per 100,000 people.

**9.4a:** Reduce deaths among people aged 65–84 from falls and fall-related injuries to no more than 14.4 per 100,000.

**9.4b:** Reduce deaths among people aged 85 and older from falls and fall-related injuries to no more than 105 per 100,000.

**9.4c:** Reduce deaths among black men aged 30–69 from falls and fall-related injuries to no more than 5.6 per 100,000.

**9.5:** Reduce drowning deaths to no more than 1.3 per 100,000 people.

**9.5a:** Reduce drowning deaths among children aged 4 and younger to no more than 2.3 per 100,000.

**9.5b:** Reduce drowning deaths among men aged 15–34 to no more than 2.5 per 100,000.

**9.5c:** Reduce drowning deaths among black males to no more than 3.6 per 100,000.

**9.6:** Reduce residential fire deaths to no more than 1.2 per 100,000 people.

**9.6a:** Reduce residential fire deaths among children aged 4 and younger to no more than 3.3 per 100,000.

**9.6b:** Reduce residential fire deaths among people aged 65 and older to no more than 3.3 per 100,000.

**9.6c:** Reduce residential fire deaths among black males to no more than 4.3 per 100,000.

**9.6d:** Reduce residential fire deaths among black females to no more than 2.6 per 100,000.

**9.6e:** Reduce residential fire deaths from residential fires caused by smoking to no more than 5 percent.

**9.7:** Reduce hip fractures among people aged 65 and older so that hospitalizations for this condition are no more than 607 per 100,000 people.

**9.7a:** Reduce hip fractures among white women aged 85 and older so that hospitalizations for this condition are no more than 2,177 per 100,000.

**9.8:** Reduce nonfatal poisoning to no more than 88 emergency department treatments per 100,000 people.

**9.8a:** Reduce nonfatal poisoning among children aged 4 and younger to no more than 520 emergency department treatments per 100,000.

**9.9:** Reduce nonfatal head injuries so that hospitalizations for this condition are no more than 106 per 100,000 people.

**9.10:** Reduce nonfatal spinal cord injuries so that hospitalizations for this condition are no more than 5.0 per 100,000 people.

**9.10a:** Reduce nonfatal spinal cord injuries among males so that hospitalizations for this condition are no more than 7.1 per 100,000.

**9.11:** Reduce the incidence of secondary disabilities associated with injuries of the head and spinal cord to no more than 16 and 2.6 per 100,000 people, respectively.

*NOTE: Secondary disabilities are defined as those medical conditions secondary to traumatic head or spinal cord injury that impair independent and productive lifestyles.*

**9.12:** Increase use of occupant protection systems, such as safety belts, inflatable safety restraints, and child safety seats, to at least 85 percent of motor vehicle occupants.

**9.12a:** Increase use of occupant protection systems, such as safety belts, inflatable safety restraints, and child safety seats, to at least 95 percent of motor vehicle occupants aged 4 and younger.

**9.13:** Increase use of helmets to at least 80 percent of motorcyclists and at least 50 percent of bicyclists.

**9.14:** Extend to 50 States laws requiring safety belt and motorcycle helmet use for all ages.

**9.15:** Enact in 50 States laws requiring that new handguns be designed to minimize the likelihood of discharge by children.

**9.16:** Extend to 2,000 local jurisdictions the number whose codes address the installation of fire suppression sprinkler systems in those residences at highest risk for fires.

**9.17:** Increase the presence of functional smoke detectors to at least one on each habitable floor of all inhabited residential dwellings.

**9.18:** Provide academic instruction on injury prevention and control, preferably as part of quality school health education, in at least 50 percent of public school systems (grades K–12).

**9.19\*:** Extend requirement of the use of effective head, face, eye, and mouth protection to all organizations, agencies, and institutions sponsoring sporting and recreation events that pose risks of injury.

Duplicate objective: 13.16

**9.20:** Increase to at least 30 the number of States that have design standards for signs, signals, markings, lighting, and other characteristics of the roadway environment to improve the visual stimuli and protect the safety of older drivers and pedestrians.

**9.21:** Increase to at least 50 percent the proportion of primary care providers who routinely provide age appropriate counseling on safety precautions to prevent unintentional injury.

**9.22:** Extend to 50 States emergency medical service and trauma systems linking prehospital, hospital, and rehabilitation services in order to prevent trauma deaths and long-term disability.

\*Duplicate objective.

# Priority Area 10 Occupational Safety and Health

## Background

Work-related injuries and deaths decrease the quality of life and produce stress among the workers and their families (1). A recent study by the RAND Corporation estimated that in 1989 the costs associated with work-related injuries exceeded \$83 billion (2). While the human and financial costs of occupational injuries are extensive, efforts to reduce these injuries are often successful and cost effective (3,4).

## Data Summary

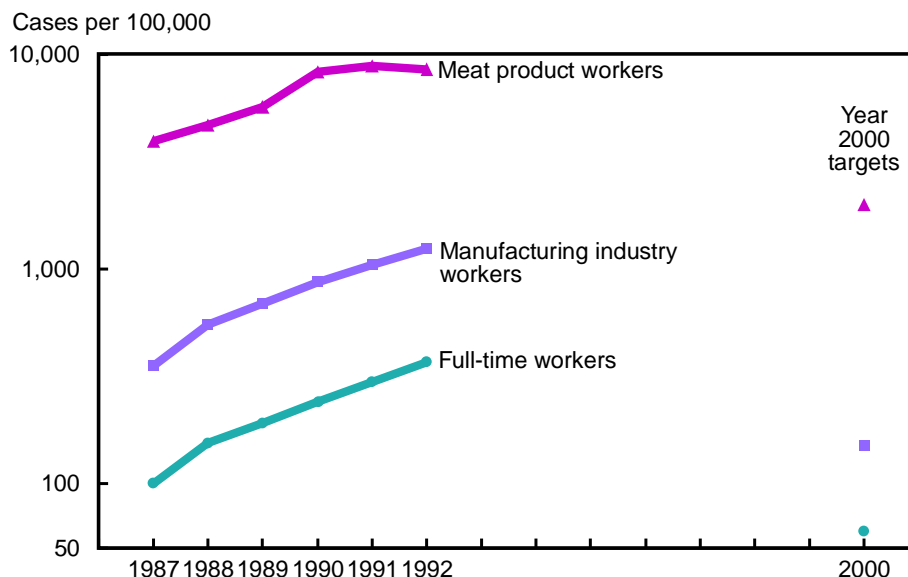
### Highlights

Although work-related deaths have declined slightly from a 1983–87 average of 6 per 100,000 workers to a rate of 5 in 1993, work-related injuries remain above the 1983–87 average of 7.7 per 100 (7.9 in 1993) (5). The leading cause of occupational deaths is motor vehicle accidents (6); reductions in this area are, in part, a consequence of increased legislation and enforcement of seat belt laws. Some specific professions (such as mining, construction, farming, and nursing) have higher levels of mortality and morbidity, due to physical and environmental demands (7). The revised reporting mechanism for occupation-related deaths is a more comprehensive method of data collection (see Data Issues), hence the decline in the death rate is particularly noteworthy. Many work-related deaths and injuries are among younger, newer workers, who may require safety training and other initiatives to further reduce work-related mortality and morbidity (8).

The rate of injuries related to repetitive trauma (10.3) have continued to increase from baseline levels. In 1992, 36 percent of these injuries, which resulted in lost work days, were attributable to carpal tunnel syndrome. Repetitive motion injuries affect workers in a broad range of occupations (9).

Data on work-related hepatitis infections (10.5) suggest that the year 2000 target has been surpassed; this

**Figure 11. Incidence of cumulative trauma disorders among full-time workers: United States, 1987–92, and year 2000 targets for objective 10.3**



	1987	1988	1989	1990	1991	1992	Year 2000 target
Full-time workers . . . . .	100	154	192	241	297	368	60
Manufacturing industry workers . . . . .	355	551	689	867	1,046	1,241	150
Meat product workers . . . . .	3,920	4,690	5,660	8,245	8,802	8,475	2,000

SOURCE: Department of Labor, Bureau of Labor Statistics, Annual Survey of Occupational Injuries and Illnesses.

apparent success is partially attributable to both the availability of the vaccine and widespread initiatives to get “at risk” workers vaccinated.

Data from the U.S. Air Force Hearing Conservation database show work related noise exposure over 85 decibels (10.7) at a prevalence above that targeted for the year 2000. The Air Force has an aggressive program to control noise exposure, and its estimates are probably lower than the national work force exposure, estimated by the National Institute for Occupational Safety and Health (NIOSH) as approximately 25 percent (10). Considerable effort is needed if the objective is to be achieved by the end of the decade.

### Summary of Progress

Data for 8 (10.1, 10.5, 10.6, 10.9, 10.10, 10.11, 10.13, and 10.14) of the 15 objectives in this priority area indicate progress toward the year 2000 targets. Two of these objectives (10.6

and 10.11) met or exceeded their targets when the baseline was established. Two others (10.5 and 10.14) have subsequently met or exceeded their targets. The data for five objectives (10.2, 10.3, 10.4, 10.7, and 10.8) indicate movement away from the targets. No updates were available for two objectives (10.12 and 10.15).

### Data Issues

#### Data Source Description

Since 1992, the data for objective 10.1 (work-related injury deaths) have come from the Census for Fatal Occupational Injuries (CFOI), Bureau of Labor Statistics (BLS). Prior to 1992, the data came from the Annual Survey on Occupational Injuries and Illnesses, BLS. The latter relied on a single data source to capture occupational fatalities, a survey of employer logs of occupational deaths in approximately 50,000 workplaces. The survey

undercounted occupational fatalities by as much as 60 percent (11). The CFOI uses a minimum of two data sources to identify occupational deaths. The primary sources are death certificates; State workers' compensation reports; coroner, medical examiner, or autopsy reports; and the Occupational Safety and Health Administration reports. The rates for 1993 were rounded to whole numbers by the Bureau of Labor Statistics. National Traumatic Occupational Fatalities data can also be used to monitor this objective.

The data used to report the status of objective 10.7 (occupational noise exposure) come from the U.S. Air Force Hearing Conservation database. The data report exposures for civilian and military employees in a wide range of industrial and service occupations. NIOSH is currently developing the Sentinel Event Notification System for Occupational Risk (SENSOR) and the Occupational Hearing Conservation database that will provide additional data to track this objective. Additional data for this objective may be available from the U.S. Army Hearing Conservation database. While monitoring systems to track the objective are still under development, NIOSH has developed guidelines and sponsored workshops designed to address this important occupational health issue. The 1993 update of objective 10.8 (occupational lead exposure) is a national estimate extrapolated from the 22 State registries that report adult blood lead levels.

### **Data Availability**

NIOSH is evaluating strategies to compile data on State exposure standards for occupational lung diseases (objective 10.11). However, the Federal Coal Mine Health and Safety Act of 1969 and the Occupational Safety and Health Act of 1970 established Federal standards that set exposure limits for all States and territories.

Data for objective 10.15 (screening for occupational health exposure) are obtained from the Primary Care Provider Surveys. NIOSH, the Indian Health Service, and the Health Resources and Services Administration are working together to develop an additional tracking mechanism for this objective.

### **Comparability of Data Sources**

The baseline for objective 10.9 (hepatitis immunizations) came from OSHA's Regulatory Impact Analysis; the updates are from CDC's National Center for Infectious Diseases. The baseline for objective 10.10 (State occupational health and safety plans) came from the Public Health Foundation's Unintentional Injuries Survey; the update is from NIOSH. For both objectives, the data may not be comparable and, thus, statements about trends should be made with caution.

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**Table 10. Occupational safety and health objective status**

Objective	1987 baseline				Target 2000
	Original	Revised	1992	1993	
<b>10.1 Work-related injury deaths (per 100,000)</b> . . . . .	<sup>1</sup> 6	...	5	5	4
a. Mine workers . . . . .	<sup>1</sup> 30.3	...	27	26	21
b. Construction workers . . . . .	<sup>1</sup> 25.0	...	14	14	17
c. Transportation workers . . . . .	<sup>1</sup> 15.2	...	13	13	10
d. Farm workers . . . . .	<sup>1</sup> 14.0	...	24	16	9.5
<b>10.2 Nonfatal work-related injuries (per 100)</b> . . . . .	17.7	...	8.3	7.9	6
a. Construction workers . . . . .	<sup>1</sup> 14.9	...	12.9	12.0	10
b. Nursing and personal care workers . . . . .	<sup>1</sup> 12.7	...	18.2	16.9	9
c. Farm workers . . . . .	<sup>1</sup> 12.4	...	11.0	10.9	8
d. Transportation workers . . . . .	18.3	...	8.8	9.1	6
e. Mine workers . . . . .	18.3	...	7.0	6.5	6
<b>10.3 Cumulative trauma disorders (per 100,000 full-time workers)</b> . . . . .	100	...	368	---	60
a. Manufacturing industry workers . . . . .	355	...	1,241	---	150
b. Meat product workers . . . . .	3,920	...	8,475	---	2,000
<b>10.4 Occupational skin disorders (per 100,000)</b> . . . . .	<sup>1</sup> 64	...	82	---	55
<b>10.5 Hepatitis B infections among occupationally exposed workers (number of cases)</b> . . . . .	6,200	<sup>2</sup> 3,090	1,973	727	1,250
<b>10.6 Worksite occupant protection system mandates</b> . . . . .	...	<sup>3</sup> 82.4%	---	---	75%
<b>10.7 Occupational noise exposure</b> . . . . .	---	<sup>4</sup> 516%	<sup>5</sup> 21.5%	<sup>5</sup> 19.9%	15%
<b>10.8 Occupational lead exposure</b> . . . . .	<sup>6</sup> 4,804	...	78,886	<sup>8</sup> 30,000	0
<b>10.9 Hepatitis B immunizations among occupationally exposed workers</b> . . . . .	...	<sup>4</sup> 37%	50%	<sup>9</sup> 71%	90%
<b>10.10 Number of States with occupational health and safety plans</b> . . . . .	<sup>4</sup> 10	...	23	---	50
<b>10.11 Number of States with occupational lung disease exposure standards</b> . . . . .	...	<sup>10</sup> 50	---	---	50
<b>10.12 Worksite health and safety programs</b> . . . . .	...	<sup>3</sup> 63.8%	---	---	70%
<b>10.13 Worksite back injury prevention and rehabilitation programs</b> . . . . .	<sup>11</sup> 28.6%	...	32.5%	---	50%
<b>10.14 Number of States with programs for small business safety and health</b> . . . . .	...	<sup>12</sup> 26	---	<sup>13</sup> 50	50
<b>10.15 Clinician assessment of occupational health exposures</b> . . . . .	---	...	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about work-related health risks (16 years and over)					
Pediatricians . . . . .	---	<sup>3</sup> 7%	---	---	75%
Nurse practitioners . . . . .	---	<sup>3</sup> 14%	---	---	75%
Obstetricians/gynecologists . . . . .	---	<sup>3</sup> 6%	---	---	75%
Internists . . . . .	---	<sup>3</sup> 14%	---	---	75%
Family physicians . . . . .	---	<sup>3</sup> 7%	---	---	75%
Counseling about work-related health risks					
Pediatricians . . . . .	---	<sup>3</sup> 8%	---	---	75%
Nurse practitioners . . . . .	---	<sup>3</sup> 10%	---	---	75%
Obstetricians/gynecologists . . . . .	---	<sup>3</sup> 10%	---	---	75%
Internists . . . . .	---	<sup>3</sup> 9%	---	---	75%
Family physicians . . . . .	---	<sup>3</sup> 8%	---	---	75%

<sup>1</sup>1983–87 average.

<sup>2</sup>Data have been revised to reflect updated methodology.

<sup>3</sup>1992 data.

<sup>4</sup>1989 data.

<sup>5</sup>Data represent a cross section of civilian and military employees.

<sup>6</sup>1988 data from seven States.

<sup>7</sup>Data from 16 States.

<sup>8</sup>Data are extrapolated from 22 States to produce a National estimate.

<sup>9</sup>1994 data.

<sup>10</sup>Pursuant to the enactment of the Federal Coal Mine Health and Safety Act of 1969 (PL91–173, amended by PL95–164) and the Occupational Safety and Health Act of 1970 (PL91–596), Federal Standards have been established for occupational exposure to airborne asbestos fibers, cotton dust, coal mine dust, and silica dust. These exposure limits apply in all 50 States and U.S. Territories.

<sup>11</sup>1985 data.

<sup>12</sup>1991 data.

<sup>13</sup>All States now have OSHA- or State-funded small business programs.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

- 10.1, 10.1a–d—Annual Survey of Occupational Injuries and Illnesses, DOL, BLS; Census of Fatal Occupational Injuries, DOL, BLS.
- 10.2, 10.2a,b—Annual Survey of Occupational Injuries and Illnesses, DOL, BLS.
- 10.3—Annual Survey of Occupational Injuries and Illnesses, DOL, BLS.
- 10.4—Annual Survey of Occupational Injuries and Illnesses, DOL, BLS.
- 10.5\*—Viral Hepatitis Surveillance System, CDC, NCID.
- 10.6—National Survey of Worksite Health Promotion Activities, OASH, ODPHP.
- 10.7—U.S. Air Force Hearing Conservation Database, DOD.
- 10.8—Adult Elevated Blood Lead Level Registries, CDC, NIOSH.
- 10.9\*—Baseline: Regulatory Impact Analysis of OSHA Final Rule on Occupational Exposure to Bloodborne Pathogens, DOL, OSHA, ORA.  
Updates: National Center for Infectious Diseases, CDC.
- 10.10—Baseline: Association of State and Territorial Health Officials Reporting System: Unintentional Injuries Survey, PHF. Updates: DOL, OSHA.
- 10.11—CDC, NIOSH.
- 10.12—National Survey of Worksite Health Promotion Activities, OASH, ODPHP.
- 10.13—National Survey of Worksite Health Promotion Activities, OASH, ODPHP.
- 10.14—CDC, NIOSH.
- 10.15—Primary Care Provider Surveys, OASH, ODPHP.

\*Duplicate objective.



# Occupational Safety and Health Objectives

**10.1:** Reduce deaths from work-related injuries to no more than 4 per 100,000 full-time workers.

**10.1a:** Reduce deaths among mine workers from work-related injuries to no more than 21 per 100,000 full-time workers.

**10.1b:** Reduce deaths among construction workers from work-related injuries to no more than 17 per 100,000 full-time workers.

**10.1c:** Reduce deaths among transportation workers from work-related injuries to no more than 10 per 100,000 full-time workers.

**10.1d:** Reduce deaths among farm workers from work-related injuries to no more than 9.5 per 100,000 full-time workers.

**10.2:** Reduce work-related injuries resulting in medical treatment, lost time from work, or restricted-work activity to no more than 6 cases per 100 full-time workers.

**10.2a:** Reduce work-related injuries among construction workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 10 cases per 100 full-time workers.

**10.2b:** Reduce work-related injuries among nursing and personal care workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 9 cases per 100 full-time workers.

**10.2c:** Reduce work-related injuries among farm workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 8 cases per 100 full-time workers.

**10.2d:** Reduce work-related injuries among transportation workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 6 cases per 100 full-time workers.

**10.2e:** Reduce work-related injuries among mine workers resulting in medical treatment, lost time from work, or restricted-work activity to no more than 6 cases per 100 full-time workers.

**10.3:** Reduce cumulative trauma disorders to an incidence of no more than 60 cases per 100,000 full-time workers.

**10.3a:** Reduce cumulative trauma disorders among manufacturing industry workers to an incidence of no more than 150 cases per 100,000 full-time workers.

**10.3b:** Reduce cumulative trauma disorders among meat product workers to an incidence of no more than 2,000 cases per 100,000 full-time workers.

**10.4:** Reduce occupational skin disorders or diseases to an incidence of no more than 55 per 100,000 full-time workers.

**10.5\*:** Reduce hepatitis B infections among occupationally exposed workers to an incidence of no more than 1,250 cases.

Duplicate objective: 20.3e

**10.6:** Increase to at least 75 percent the proportion of worksites with 50 or more employees that mandate employee use of occupant protection systems, such as seat belts, during all work-related motor vehicle travel.

**10.7:** Reduce to no more than 15 percent the proportion of workers exposed to average daily noise levels that exceed 85 dBA.

**10.8:** Eliminate exposures that result in workers having blood lead concentrations greater than 25 ug/dL of whole blood.

**10.9\*:** Increase hepatitis B immunization levels to 90 percent among occupationally exposed workers.

Duplicate objective: 20.11

**10.10:** Implement occupational safety and health plans in 50 States for the identification, management, and prevention of leading work-related diseases and injuries within the State.

**10.11:** Establish in 50 States exposure standards adequate to prevent the major occupational lung diseases to which their worker populations are exposed (byssinosis, asbestosis, coal workers'

pneumoconiosis, and silicosis).

**10.12:** Increase to at least 70 percent the proportion of worksites with 50 or more employees that have implemented programs on worker health and safety.

**10.13:** Increase to at least 50 percent the proportion of worksites with 50 or more employees that offer back injury prevention and rehabilitation programs.

**10.14:** Establish in 50 States either public health or labor department programs that provide consultation and assistance to small businesses to implement safety and health programs for their employees.

**10.15:** Increase to at least 75 percent the proportion of primary care providers who routinely elicit occupational health exposures as a part of patient history and provide relevant counseling.

\*Duplicate objective.

# Priority Area 11 Environmental Health

## Background

Environmental factors play a fundamental role in health and disease. One of the first public health interventions to control disease (cholera) succeeded through control of a contaminated public water supply (1). Despite a history of successes in environmental health, continued emphasis on sanitation, vector control, and pollution prevention is needed. Also needed is a greater understanding of the effects of toxic exposure on human health (2). The monitoring of public exposure to toxins and research into the relationship of toxic exposure to health and disease are important due to the increasing public and commercial use of potentially hazardous substances (3).

Research may clarify current ambiguity about exposure thresholds. Dioxin continues to be the focus of research (4), but lead has been shown to have toxic effects at even lower exposure levels than originally believed (5,6). Research will aid priority setting among environmental and public health interventions.

In addition to assessing and redressing the effects of pollution, research-based initiatives in manufacturing and marketing should reduce the introduction of waste into the environment (7).

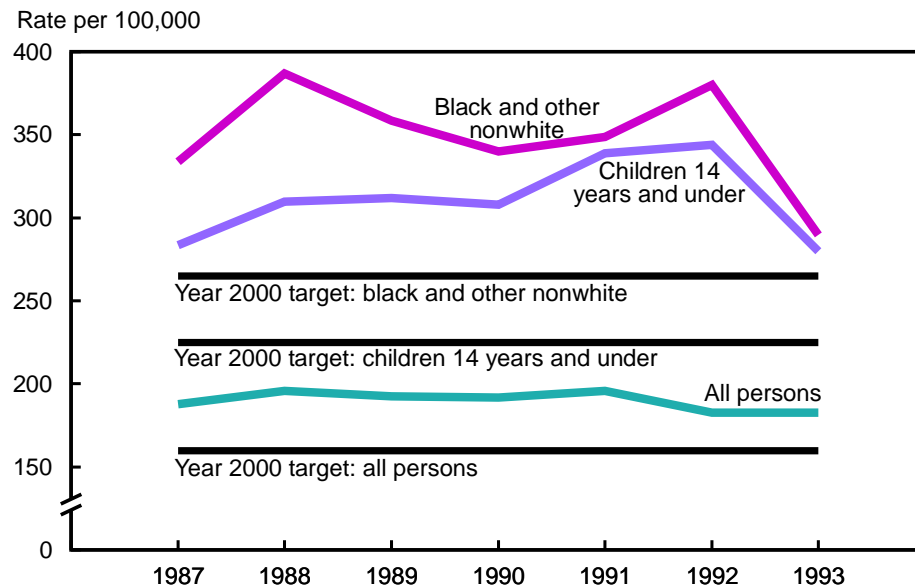
The 16 objectives in this priority area cover a broad range of exposure media, including air, water, and soil. They also address a variety of pollutants, such as radon, toxic chemicals, and lead.

## Data Summary

### Highlights

The prevalence of blood lead levels exceeding 15 and 25 micrograms per deciliter (objective 11.4) has dropped dramatically since the baselines were established for this objective. The data indicate that 53 percent of children 6 months–5 years had blood lead levels exceeding 15 micrograms per deciliter in 1984; this compares with less than 3 percent of children 1–5 years of age

**Figure 12. Rate of asthma hospitalizations: United States, 1987–93, and year 2000 targets for objective 11.1**



	1987	1988	1989	1990	1991	1992	1993	Year 2000 target
Total population . . . . .	188	196	193	192	196	183	183	160
Blacks and other nonwhites . . .	334	387	359	340	349	380	290	265
Children 14 years and under . . .	284	310	312	308	339	344	280	225

SOURCES: Centers for Disease Control and Prevention, National Hospital Discharge Survey.

during 1988–91. While there are slight differences in the methods used in the two surveys (see Data Issues), the data strongly support progress in reducing this environmental threat to children. Unfortunately, research has also identified that the health threat from lead may occur at even lower levels than those monitored by the year 2000 objectives (10 micrograms/deciliter)(6). Some of the decline in blood lead levels may be associated with declines in airborne lead (which is monitored in objective 11.5); additional reductions may be associated with efforts to educate the public about the risks from lead and to reduce lead levels in the home (6). The proportion of people who know what radon is and who reported testing their homes for radon (11.6) is nearly double that reported in 1990. While only a fraction of these homes exceed the level identified as dangerous by the Environmental Protection Agency (EPA) (four picocuries), a large proportion of these homeowners have taken measures to mitigate the effects. Both the greater awareness of radon and

the higher level of testing may in part be consequences of government sponsored education and testing programs (8).

## Summary of Progress

Of the 16 environmental health objectives, 10 showed some progress toward the year 2000 targets (11.1, 11.4, 11.5, 11.6, 11.7, 11.11, 11.12, 11.13, 11.15, and 11.16). The data for four objectives (11.3, 11.8, 11.9, and 11.10) indicate movement away from the targets. No updates were available for objectives 11.2 and 11.14 (see Data Issues).

## Data Issues

### Definitions

Data for objective 11.1 (asthma hospitalizations) come from the National Hospital Discharge Survey (NHDS) maintained by the National Center for Health Statistics (NCHS). Data for the survey are obtained from approximately

480 hospitals throughout the United States. Data on race (required for objective 11.1a asthma hospitalizations for blacks and nonwhites) are missing from roughly 17 percent of the discharge records in the survey; this omission may yield rates, which underestimate hospitalizations for this special population objective.

Data for 11.3 are from CDC's Waterborne Surveillance System, which compiles data from the States; reporting is voluntary. An outbreak may affect as few as two people and includes both disease and poisoning. Epidemiological evidence is used to link the outbreak to water as a cause.

The updates for 11.4 are from the National Health and Nutrition Examination Survey III (NHANES III), phase I (1988–91). The children tested in NHANES III were 1–5 years of age compared with 6 months–5 years of age from the 1984 baseline based on NHANES II (1976–80). Additionally, the special population was identified using the Bureau of Census Poverty Income Ratio, rather than a discrete family income level.

Data for 11.5 (air quality) are affected by a range of meteorological factors (for example, temperature and wind) and may vary considerably on an annual basis. The data are also limited by the fact that not all counties have monitoring stations. Individual exposure within counties varies greatly and health effects from poor air quality are mitigated by a wide range of individual factors (for example, personal sensitivity to pollutants, other health conditions, and use of health services). Additionally, health effects from some pollutants may occur at levels lower than those specified in the NAAQS.

Data for 11.7 (toxic agent release) are from the Toxic Release Inventory maintained by EPA. The inventory estimates of prior year releases are provided to EPA by industry. Industry periodically revises these estimates. Although these revisions are permitted under the Community Right to Know Act of 1986, they complicate monitoring of this objective. The *Healthy People 2000* baseline has been revised to reflect the industry revisions.

Although drinking water quality has improved, data for 11.9 (safe drinking water) have remained relatively unchanged for the past 5 years because of an increase in the number of maximum contaminant level (MCL)

standards used to define safe drinking water. In the past 2 years, compliance has also been based on reporting and treatment standards, as well as contaminants. Additionally, the proportions reported for this objective reflect the proportion of community water systems, rather than the proportion of the population (which is stated in the objective). Community water systems serve nearly 95 percent of the population; hence the proportion of the population served by the 68 percent of compliant systems reported in 1993 actually represents about 64 percent of the population.

### Comparability of Data Sources

Data for 11.10 (surface water) are reported biannually to EPA by the States. The data reported are based on "assessed waters" and do not represent all surface waters in the States. The locations tested may vary each year and preclude interpretation of the data as trends. Additionally, several States have adopted stricter standards since the 1988 baselines were established; this has produced an apparent increase in the proportion of impaired waters. The published *Healthy People 2000* baseline for this objective was revised to reflect the information reported by EPA.

### Proxy Data

Updates for 11.6 (radon testing) come from the National Health Interview Survey (NHIS) and currently represent the proportion of survey respondents who reported that they knew what radon was and had tested their home for radon; the objective calls for the proportion of homes that had been tested. The data for children in 1991 and 1993 represent the proportion of children 6 years of age and under in homes where the respondent reported testing for radon. The data on smokers for 1991 and 1993 were limited to those who reported smoking at home 4 or more days a week.

Data for 11.11 (lead paint testing) also come from the NHIS and represent the proportion of people who reported testing their homes for lead paint.

Updates for objective 11.15 (programs for recycling household and hazardous waste) are limited to programs for recycling household hazardous materials. The data include both permanent (year round) and

temporary (1 day) recycling programs, so trend data must be interpreted carefully.

### Data Availability

There will be no further updates for tracking disclosure of lead paint (objective 11.13) beyond 1991. Pending Federal regulations will require disclosure in all pre-1978 houses during sales or leasing.

The mechanism for tracking for objective 11.14 (health risks from hazardous waste sites) will be based on data from the Hazardous Substance Release/Health Effects Database (HAZDAT) system that is being developed by ATSDR. This system, when implemented, will show the proportion of sites with public health concerns or hazards where ATSDR recommendations have been implemented. The year 2000 target has been set at 100 percent.

The data for objective 11.16 (sentinel environmental diseases) are limited to plans related to childhood lead poisoning. Other sentinel diseases will be tracked as data become available.

### References

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4. Roberts L. Research news. October. 1991.
5. National Institute of Environmental Health Sciences. Symposium on lead blood pressure relationships, environmental health perspectives. Washington. 1988.
6. Department of Health and Human Services. Strategic plan for the elimination of childhood lead poisoning. Washington: Public Health Service. 1990.
7. Environmental Restoration and Waste Management Division. Environmentally conscious manufacturing. Washington: Department of Energy. 1992.
8. Gunderson L, et al. Geology of radon in the United States, Geological Society of America. 1994.

**Table 11. Environmental health objective status**

Objective	1988 baseline		1992	1993	Target 2000
	Original	Revised			
<b>11.1 Asthma hospitalizations (per 100,000)</b> . . . . .	1188	...	183	183	160
a. Blacks and other nonwhites . . . . .	1334	...	380	290	265
b. Children 14 years and under . . . . .	1284	...	344	280	225
<b>11.2 Mental retardation (per 1,000 school-aged children)</b> . . . . .	2.7	...	---	---	2
<b>11.3 Waterborne diseases (number of outbreaks)</b> . . . . .	31	<sup>3</sup> 16	19	---	11
a. People served by community water systems . . . . .	13	<sup>3</sup> 4	5	---	6
<b>11.4 Blood lead levels exceeding 15 µg/dL</b> . . . . .	<sup>4</sup> 3 million	...	<sup>5,6</sup> 503,000	---	500,000
<b>Blood lead levels exceeding 25 µg/dL</b> . . . . .	<sup>4</sup> 234,000	...	<sup>5,6</sup> 93,000	---	0
a. Inner-city low-income black children					
Levels exceeding 15 ug/dL . . . . .	<sup>4</sup> 234,900	...	<sup>5,6</sup> 160,000	---	75,000
Levels exceeding 25 ug/dL . . . . .	<sup>4</sup> 36,700	...	<sup>5,6</sup> 15,000	---	0
<b>11.5 Proportion of people in counties that have not exceeded standards for air pollutants</b> . . . . .	49.7%	...	78.4%	76.5%	85%
Ozone . . . . .	53.6%	...	82.1%	79.5%	85%
Carbon monoxide . . . . .	87.8%	...	94.3%	95.4%	85%
Nitrogen dioxide . . . . .	96.6%	...	100%	100%	85%
Sulfur dioxide . . . . .	99.3%	...	100%	99.4%	85%
Particulates . . . . .	89.4%	...	89.6%	97.5%	85%
Lead . . . . .	99.3%	...	98.1%	97.8%	85%
<b>11.6 Radon testing</b> . . . . .	<sup>7</sup> Less than 5%	...	---	<sup>8</sup> 11.4%	40%
a. Homes with smokers and former smokers . . . . .	---	<sup>8,9</sup> 6.9%	---	<sup>10</sup> 10.3%	50%
b. Homes with children . . . . .	---	<sup>8,9</sup> 10.7%	---	<sup>11</sup> 13.8%	50%
<b>11.7 Toxic agent releases</b>					
DHHS list of carcinogens (billion pounds) . . . . .	0.32	<sup>12</sup> 0.36	0.21	0.19	0.24
ATSDR list of the most toxic chemicals (billion pounds)					
200 substances . . . . .	2.62	<sup>121</sup> 1.93	1.47	1.23	2.60
250 substances . . . . .	3.70	<sup>124</sup> 4.48	<sup>92</sup> 2.70	---	...
<b>11.8 Solid waste (average pounds per person per day)</b> . . . . .	4.0	...	<sup>13</sup> 4.3	---	3.6
<b>11.9 People receiving safe drinking water<sup>14</sup></b> . . . . .	74%	<sup>15</sup> 73%	72%	68%	85%
Number of Maximum Contaminant Level Standards in force . . . . .	...	31	98	81	...
<b>11.10 Impaired surface water</b> . . . . .	<sup>16</sup> 25%	...	---	---	15%
Rivers . . . . .	...	30%	38%	---	15%
Lakes . . . . .	...	27%	44%	---	15%
Estuaries . . . . .	...	29%	32%	---	15%
<b>11.11 Homes tested for lead-based paint</b> . . . . .	...	<sup>9,17</sup> 5%	---	<sup>17</sup> 9%	50%
<b>11.12 Number of States with construction standards to minimize radon concentrations</b> . . . . .	<sup>7</sup> 1	...	---	3	35
<b>11.13 Disclosure of lead and radon concentrations (number of States)</b>					
Disclosure of lead . . . . .	<sup>7</sup> 2	...	<sup>18</sup> ---	---	30
Disclosure of radon . . . . .	<sup>7</sup> 1	...	13	---	30
<b>11.14 Significant health risks from hazardous waste sites (Indicators)</b>					
Sites on list . . . . .	<sup>13,19</sup> 1,082	<sup>13,19</sup> 1,079	1,199	---	...
Health assessments conducted . . . . .	<sup>13,19</sup> 1,000	<sup>13,19</sup> 1,379	1,452	---	...
Sites with public health concerns/hazards . . . . .	...	<sup>13,19</sup> 250	283	---	...
Sites where ATSDR recommendation followed . . . . .	---	...	---	---	100%
<b>11.15 Counties with programs for recyclable materials and household hazardous waste</b> . . . . .	1850 programs in 41 States	...	---	---	75%
Permanent and temporary household hazardous waste recycling . . . . .	...	<sup>1</sup> 300	867	1,223	...
States with at least one program . . . . .	...	<sup>1</sup> 28	50	50	...

**Table 11. Environmental health objective status—Con.**

Objective	1988 baseline		1992	1993	Target 2000
	Original	Revised			
<b>11.16 Number of States that track sentinel environmental diseases</b>					
Plans established and monitored. . . . .	...	<sup>13</sup> 0	---	---	35
Federal law and funds. . . . .	...	<sup>13</sup> 0	<sup>20</sup> 8	<sup>21</sup> 10	---
State law and funds <sup>22</sup> . . . . .	...	<sup>13</sup> 29	31	---	---

<sup>1</sup>1987 data.

<sup>2</sup>1985–88 data.

<sup>3</sup>Original baselines were averages of the years 1971–88; revised baselines are from 1988.

<sup>4</sup>1984 data.

<sup>5</sup>1988–91 NHANES III phase I data for children 1–5 years.

<sup>6</sup>Includes non-Hispanic black children 1–5 years from families with poverty income ratio of less than 1.3 residing in central cities of standard metropolitan statistical areas.

<sup>7</sup>1989 data.

<sup>8</sup>Data represent the proportion of people who reported that they knew what radon was and had tested their homes for radon.

<sup>9</sup>1991 data.

<sup>10</sup>Data represent the proportion of people who reported that they smoked in their homes 4 or more days a week, knew what radon was, and had tested their homes for radon.

<sup>11</sup>Data represent the proportion of people who reported that they had children age 6 years or under, knew what radon was, and had tested their homes for radon.

<sup>12</sup>Baselines were revised to reflect updates from industry.

<sup>13</sup>1990 data.

<sup>14</sup>Data represent proportion of community water systems that meet standards; these systems served 95% of the U.S. population in 1993.

<sup>15</sup>Baseline was revised to correct for rounding error.

<sup>16</sup>Baseline was revised to reflect EPA reporting categories.

<sup>17</sup>Data represent the proportion of people with homes built before 1950 who report that their paint had been analyzed for lead content.

<sup>18</sup>By 1995, Federal regulation will require disclosure of lead-based paint in all pre-1978 housing during sales or leasing. Because of this pending legislation, there are no current tracking activities.

<sup>19</sup>Baselines were updated to reflect revised methodology.

<sup>20</sup>1993 data.

<sup>21</sup>1994 funded.

<sup>22</sup>Includes the District of Columbia.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

11.1, 11.1a,b—National Hospital Discharge Survey, CDC, NCHS.

11.2\*—Metropolitan Atlanta Developmental Disabilities Surveillance Program, CDC, NCEH.

11.3, 11.3a—Waterborne Surveillance System, CDC, NCEH.

11.4, 11.4a—National Health and Nutrition Examination Survey, CDC, NCHS.

11.5—National Air Quality and Emissions Trends Report, EPA, OAR, AIRS.

11.6, 11.6a,b—Baseline: EPA, OAR, Office of Radiation Programs. Updates: National Health Interview Survey, CDC, NCHS.

11.7—Toxic Chemical Release Inventory, EPA, OPPTS.

11.8—Characterization of Municipal Solid Waste in the United States, EPA, OSWER.

11.9—EPA Federal Reporting Data Base; EPA, Office of Ground Water and Drinking Water.

11.10—National Water Quality Inventory, EPA, Office of Water.

11.11—National Health Interview Survey, CDC, NCHS.

11.12—Environmental Law Institute.

11.13—Alliance to End Childhood Lead Poisoning, Environmental Law Institute.

11.14—National Priorities List, EPA, OSWER; HAZDAT, CDC, ATSDR.

11.15—Federal Environmental Progress and Challenges, EPA's Updates. Wastewatch Center.

11.16—CDC, NCEH.

\*Duplicate objective.

# Environmental Health Objectives

**11.1:** Reduce asthma morbidity, as measured by a reduction in asthma hospitalizations to no more than 160 per 100,000 people.

**11.1a:** Reduce asthma morbidity among blacks and other nonwhites, as measured by a reduction in asthma hospitalizations to no more than 265 per 100,000 people.

**11.1b:** Reduce asthma morbidity among children, as measured by a reduction in asthma hospitalizations to no more than 225 per 100,000 people.

**11.2\*:** Reduce the prevalence of serious mental retardation among school-aged children to no more than 2 per 1,000 children.

Duplicate objective: 17.8

**11.3:** Reduce outbreaks of waterborne disease from infectious agents and chemical poisoning to no more than 11 per year.

*NOTE: Community water systems are public or investor-owned water systems that serve large or small communities, subdivisions, or trailer parks with at least 15 service connections or 25 year-round residents.*

**11.3a:** Reduce outbreaks of waterborne disease from infectious agents and chemical poisoning among people served by community water systems to no more than 6 per year.

**11.4:** Reduce the prevalence of blood lead levels exceeding 15 ug/dL and 25 ug/dL among children aged 6 months–5 years to no more than 500,000 and zero, respectively.

**11.4a:** Reduce the prevalence of blood lead levels exceeding 15 ug/dL and 25 ug/dL among inner-city low-income black children (annual family income less than \$6,000 in 1984 dollars) to no more than 75,000 and zero, respectively.

**11.5:** Reduce human exposure to criteria air pollutants, as measured by an increase to at least 85 percent in the proportion of people who live in

counties that have not exceeded any Environmental Protection Agency standard for air quality in the previous 12 months.

*NOTE: An individual living in a county that exceeds an air quality standard may not actually be exposed to unhealthy air. Of all criteria air pollutants, ozone is the most likely to have fairly uniform concentrations throughout an area. Exposure to criteria air pollutants in ambient air. Due to weather fluctuations, multiyear averages may be the most appropriate way to monitor progress toward this objective.*

**11.6:** Increase to at least 40 percent the proportion of homes in which homeowners/occupants have tested for radon concentrations and that have either been found to pose minimal risk or have been modified to reduce risk to health.

**11.6a:** Increase to at least 50 percent the proportion of homes with smokers and former smokers in which homeowners/occupants have tested for radon concentrations and that have either been found to pose minimal risk or have been modified to reduce risk to health.

**11.6b:** Increase to at least 50 percent the proportion of homes with children in which homeowners/occupants have tested for radon concentrations and that have either been found to pose minimal risk or have been modified to reduce risk to health.

**11.7:** Reduce human exposure to toxic agents by confining total pounds of toxic agents released into the air, water, and soil each year to no more than: 0.24 billion pounds of those toxic agents included on the Department of Health and Human Services list of carcinogens. 2.6 billion pounds of those toxic agents included on the Agency for Toxic Substances and Disease Registry list of the most toxic chemicals.

**11.8:** Reduce human exposure to solid waste-related water, air, and soil contamination, as measured by a reduction in average pounds of municipal solid waste produced per person each day to no more than 3.6 pounds.

**11.9:** Increase to at least 85 percent the proportion of people who receive a supply of drinking water that meets the

safe drinking water standards established by the Environmental Protection Agency.

*NOTE: Safe drinking water standards are measured using Maximum Contaminant Level (MCL) standards set by the Environmental Protection Agency which define acceptable levels of contaminants. See objective 11.3 for definition of community water systems.*

**11.10:** Reduce potential risks to human health from surface water, as measured by a decrease to no more than 15 percent in the proportion of assessed rivers, lakes, and estuaries that do not support beneficial uses, such as fishing and swimming.

*NOTE: Designated beneficial uses, such as aquatic life support, contact recreation (swimming), and water supply, are designated by each State and approved by the Environmental Protection Agency. Support of beneficial use is a proxy measure of risk to human health, as many pollutants causing impaired water uses do not have human health effects (for example, siltation and impaired fish habitat).*

**11.11:** Perform testing for lead-based paint in at least 50 percent of homes built before 1950.

**11.12:** Expand to at least 35 the number of States in which at least 75 percent of local jurisdictions have adopted construction standards and techniques that minimize elevated indoor radon levels in those new building areas locally determined to have elevated radon levels.

*NOTE: Since construction codes are frequently adopted by local jurisdictions rather than States, progress toward this objective also may be tracked using the proportion of cities and counties that have adopted such construction standards.*

**11.13:** Increase to at least 30 the number of States requiring that prospective buyers be informed of the presence of lead-based paint and radon concentrations in all buildings offered for sale.

**11.14:** Eliminate significant health risks from National Priority List hazardous waste sites, as measured by performance of clean-up at these sites sufficient to eliminate immediate and significant health threats as specified in health assessments completed at all sites.

*NOTE: The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 required the Environmental Protection Agency to develop criteria for determining priorities among hazardous waste sites and to develop and maintain a list of these priority sites. The resulting list is called the National Priorities List (NPL).*

**11.15:** Establish programs for recyclable materials and household hazardous waste in at least 75 percent of counties.

**11.16:** Establish and monitor in at least 35 States plans to define and track sentinel environmental diseases.

*NOTE: Sentinel environmental diseases include lead poisoning, other heavy metal poisoning (e.g., cadmium, arsenic, and mercury), pesticide poisoning, carbon monoxide poisoning, heatstroke, hypothermia, acute chemical poisoning, methemoglobinemia, and respiratory diseases triggered by environmental factors (e.g., asthma).*

\*Duplicate objective.

# Priority Area 12 Food and Drug Safety

## Background

The development of systems to protect consumers from dangers posed by unapproved food additives, pesticides, food contaminants, and drugs has been a major public health accomplishment. Despite many effective food and drug safety procedures, this country still experiences outbreaks of foodborne diseases and incidents of therapeutic drug-related illness and death. Foodborne disease outbreaks sometimes result from failures in protective systems, but are more often the result of improper food handling. *Salmonella enteritidis*, *Campylobacter jejuni*, *Escherichia coli* 0157:H7, and *Listeria monocytogenes* are four of the most common foodborne pathogens in the United States, based on numbers of reported cases and the severity of illness. Children, the very old, and people with immunological deficiencies are at increased risk of infection and death resulting from infection.

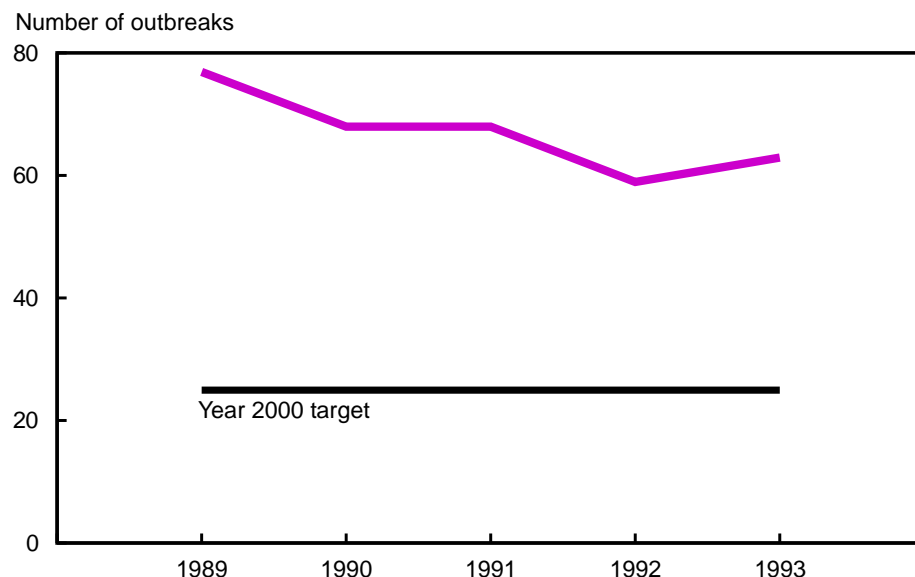
Older adults, who use more prescription and nonprescription medicines than younger people, are at increased risk of suffering adverse drug reactions. The physiological changes associated with increasing age and particular diseases and conditions may alter the effects of drugs. In addition, use of multiple medications increases the risk of an adverse outcome.

## Data Summary

### Highlights

Reported outbreaks of infections due to *Salmonella enteritidis* fell from 77 outbreaks in 1989 to 63 outbreaks in 1993 (objective 12.2). The incidence of infection caused by *Salmonella* species was 14 per 100,000 in 1992 and infections caused by *Listeria monocytogenes* was 0.44 per 100,000 in 1993, indicating that the targets have been surpassed for these components of objective 12.1. The number of food operations using the Food and Drug Administration model codes (12.4) increased slightly in 1994. Data from the National Association of Retail

**Figure 13. Outbreaks due to *Salmonella enteritidis*: United States, 1989–93, and year 2000 target for objective 12.2**



	1989	1990	1991	1992	1993	Year 2000 target
Outbreaks . . . . .	77	68	68	59	63	25

SOURCE: Centers for Disease Control and Prevention, Salmonella Surveillance System.

Druggists for objective 12.5 (pharmacies with linked systems) indicate that computer utilization by pharmacies has increased between 1989 and 1993.

### Summary of Progress

Four of the six food and drug safety objectives (12.1, 12.2, 12.4, and 12.5) show progress toward their respective targets. One objective shows mixed results (12.3) and one has no update with which to determine progress (12.6).

### Data Issues

#### Data Source Descriptions

Various surveillance systems of the Centers for Disease Control and Prevention (CDC), including the *Salmonella* Surveillance System, the *Campylobacter* Surveillance System, and the Bacterial Meningitis Surveillance System, are used to monitor progress for objectives 12.1 and 12.2. The *Salmonella* Surveillance System is a passive laboratory-based system that uses reports from 49 States, the Food and Drug Administration (FDA), and the Department of

Agriculture (USDA). This system measures the incidence of infection from *Salmonella* species (12.1) and the number of outbreaks caused by *Salmonella enteritidis* (12.2). Many factors, including the intensity of surveillance, the severity of the illness, access to medical care, and association with a recognized outbreak, affect whether the infection will be reported. Reporting is incomplete; the incidence of salmonellosis is substantially underreported.

The incidence of foodborne *Listeria monocytogenes*-induced infections is measured using the Bacterial Meningitis Surveillance System. This is an active, laboratory-based surveillance system conducted in six States; it counts all cases of bacterial meningitis and other invasive bacterial diseases caused by the five most common pathogens causing bacterial meningitis, including *Listeria monocytogenes*. The participating surveillance areas represent several regions throughout the country and a population of 33.5 million, 14 percent of the U.S. population.

The *Campylobacter* Surveillance System is a passive system that receives weekly reports of laboratory isolates of



*Campylobacter*. The number of participating States has increased each year. Surveillance mechanisms, including laboratory isolation procedures, vary from State to State.

### **Comparability of Data Sources**

Baseline data for refrigeration and cutting board practices (12.3) were obtained from the 1988 Diet-Health Knowledge Survey, USDA. Updates will be obtained using the Food Safety Survey, FDA.

### **Data Availability**

A surveillance system to track the incidence of *Escherichia coli* 0157:H7 is not available. Estimates of the incidence of cases of this disease are obtained from special studies (1,2). A survey of State public health laboratories conducted by CDC in 1989 demonstrated that *Escherichia coli* 0157:H7 has been detected in most areas of the United States (3). Laboratory methods varied from State to State; improved surveillance data are needed to determine trends in incidence.

### **References**

1. MacDonald KL, O'Leary MJ, Cohen ML, et al. *Escherichia coli* 0157:H7, an emerging gastrointestinal pathogen: Results of a one-year, prospective, population-based study. *JAMA* 259:3567-70. 1988.
2. Ostroff SM, Kobayashi JM, Lewis JH. Infections with *Escherichia coli* 0157:H7 in Washington State: The first year of statewide disease surveillance. *JAMA* 262:355-9. 1989.
3. Ostroff SM, Hopkins DP, Tauxe RV, et al. Surveillance of *Escherichia coli* 0157:H7 isolation and confirmation, United States, 1988. *MMWR* 40(SS-1):1-5. 1991.

**Table 12. Food and drug safety objective status**

Objective	1987 baseline				Target 2000
	Original	Revised	1992	1993	
<b>12.1 Foodborne infections (cases per 100,000)</b>					
<i>Salmonella species</i> . . . . .	18	...	14	---	16
<i>Campylobacter jejuni</i> . . . . .	50	...	---	---	25
<i>Escherichia coli</i> 0157:H7 . . . . .	8	...	---	---	4
<i>Listeria monocytogenes</i> . . . . .	0.7	...	0.45	0.44	0.5
<b>12.2 <i>Salmonella enteritidis</i> outbreaks</b> . . . . .	177	...	59	63	25
<b>12.3 Refrigeration and cutting board practices</b>					
For refrigeration of perishable foods . . . . .	<sup>2</sup> 70%	...	---	<sup>3</sup> 72%	75%
For washing cutting boards with soap . . . . .	<sup>2</sup> 66%	...	---	<sup>3</sup> 65%	75%
For washing utensils with soap . . . . .	<sup>2</sup> 55%	...	---	---	75%
<b>12.4 Food protection standards (proportion of States)</b>					
Institutional food operations currently using FDA's model codes . . . . .	<sup>4</sup> 20%	...	---	---	70%
Using the Food Code 1993 [formally Unicode]. . . . .	<sup>4</sup> 0%	...	---	<sup>5</sup> 2%	70%
<b>12.5 Pharmacies with linked systems</b> . . . . .	---	...	---	---	75%
Computer utilization by pharmacies . . . . .	<sup>1</sup> 85%	...	---	95%	...
<b>12.6 Providers reviewing medication for older patients</b> . . . . .	---	...	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients					
Maintenance of current medication list (65 years and over)					
Nurse practitioners . . . . .	...	<sup>6</sup> 63%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>6</sup> 64%	---	---	...
Internists . . . . .	...	<sup>6</sup> 84%	---	---	...
Family physicians . . . . .	...	<sup>6</sup> 70%	---	---	...
Review of medications when prescribing (65 years and over)					
Nurse practitioners . . . . .	...	<sup>6</sup> 55%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>6</sup> 60%	---	---	...
Internists . . . . .	...	<sup>6</sup> 77%	---	---	...
Family physicians . . . . .	...	<sup>6</sup> 63%	---	---	...

<sup>1</sup>1989 data.

<sup>2</sup>1988 data.

<sup>3</sup>1992–93 data.

<sup>4</sup>1990 data.

<sup>5</sup>1994 data.

<sup>6</sup>1992 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

12.1—Salmonella Surveillance System, CDC, NCID; Campylobacter Surveillance System, CDC, NCID; Bacterial Meningitis Surveillance System, CDC, NCID.

12.2—Salmonella Surveillance System, CDC, NCID.

12.3— Baseline: Diet-Health Knowledge Survey, USDA, ASFCS. Updates: Food Safety Survey, FDA.

12.4— Inspectional Standardization of Institutional Food Service Regulatory Officials, FDA, ORO. Listing of Confirmed Code Adoptions by Local, State, and National Jurisdictions, CFSAN, FDA.

12.5— National Association of Retail Druggists.

12.6— Primary Care Provider Surveys, OASH, ODPHP.

# Food and Drug Safety Objectives

**12.1:** Reduce infections caused by key foodborne pathogens to incidences of no more than:

Disease	2000 target (per 100,000)
Salmonella species	16
Campylobacter	25
<i>Escherichia coli</i> 0157:H7	4
Listeria monocytogenes	0.5

**12.2:** Reduce outbreaks of infections due to *Salmonella enteritidis* to fewer than 25 outbreaks yearly.

**12.3:** Increase to at least 75 percent the proportion of households in which principal food preparers routinely refrain from leaving perishable food out of the refrigerator for over 2 hours and wash cutting boards and utensils with soap after contact with raw meat and poultry.

**12.4:** Extend to at least 70 percent the proportion of States and territories that have implemented model food codes for institutional food operations and to at least 70 percent the proportion that have adopted the new uniform food protection code (“Unicode”) that sets recommended standards for regulation of all food operations.

**12.5:** Increase to at least 75 percent the proportion of pharmacies and other dispensers of prescription medications that use linked systems to provide alerts to potential adverse drug reactions among medications dispensed by different sources to individual patients.

**12.6:** Increase to at least 75 percent the proportion of primary care providers who routinely review with their patients aged 65 and older all prescribed and over-the-counter medicines taken by their patients each time a new medication is prescribed.

## References

1. Unpublished data. Telephone survey of Medicaid pharmacy program representatives. Health Care Financing Administration Medicaid Bureau. 1992.
2. MacDonald KL, O’Leary MJ, Cohen ML, et al. *Escherichia coli* 0157:H7, an emerging gastrointestinal pathogen: Results of a one-year, prospective, population-based study. *JAMA* 259:3567–70. 1988.

3. Ostroff SM, Kobayashi JM, Lewis JH. Infections with *Escherichia coli* 0157:H7 in Washington State: The first year of statewide disease surveillance. *JAMA* 262:355–9. 1989.

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# Priority Area 13 Oral Health

## Background

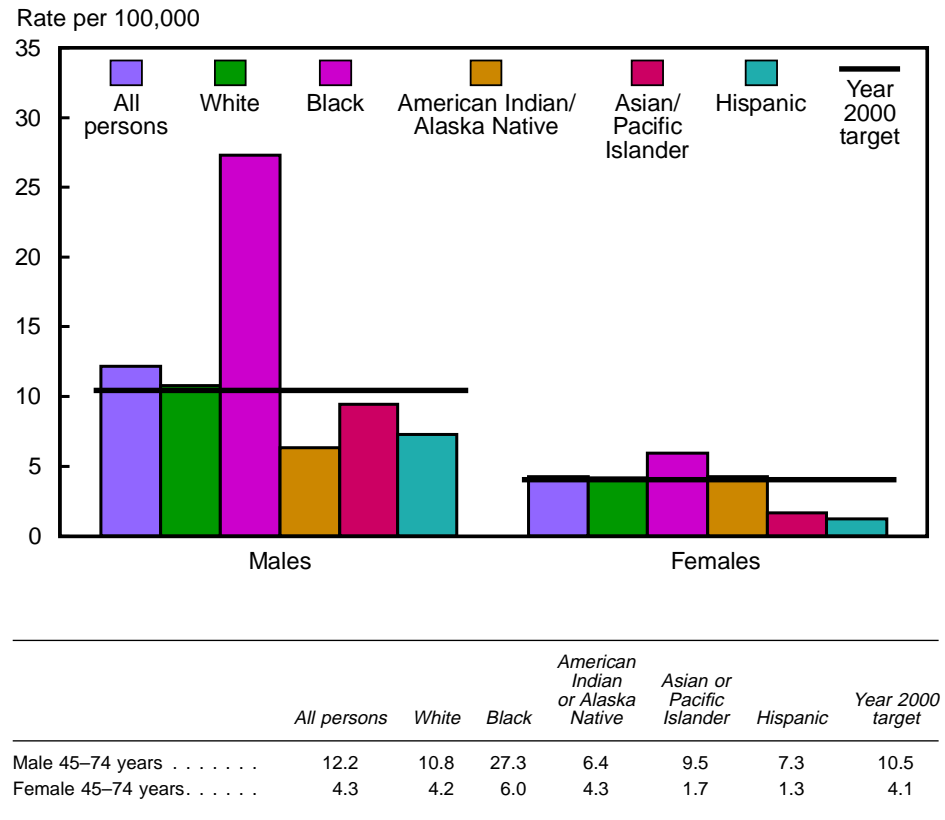
Oral diseases are among the most common health problems in the United States. The overall prevalence of dental caries among school-aged children has declined steadily since the 1940's, such that about one-half are caries free in their permanent teeth (1). Among people 40–44 years of age, an average of more than 30 tooth surfaces have been affected by decay (2). Periodontal diseases are also a chronic problem. For example, 40–50 percent of adults (2) and 60 percent of 15-year-olds experience gingival infections (1). Expenditures for dental care were \$39 billion in 1992 (3). In 1989 dental visits or problems resulted in 148 hours missed from work per 100 employed people, 117 hours missed from school per 100 school-aged children, and 17 days with restricted activity per 100 people among the total U.S. population (4).

## Data Summary

### Highlights

Recent data indicate progress toward achievement of oral health objectives. The prevalence of dental caries, particularly among 15-year-old adolescents (13.1), has declined. Complete tooth loss (13.4) is becoming less common in older adults. In 1986, the prevalence of complete tooth loss was 36 percent among people 65 years and over; prevalence declined to 30 percent in 1993. For older adults with low income (those with an annual family income of less than \$15,000), prevalence declined from 46 percent to 42 percent over the same time period. Oral cancer mortality rates (13.7) have decreased among men and women 45–74 years of age. The proportion of children who have protective sealants (13.8) has increased and is moving toward the year 2000 target. The proportion of adults who have seen a dentist in the last year has increased from 54 percent in 1989 to 61 percent in 1993, moving toward the year 2000 target (13.14).

**Figure 14. Death rates for oral cancer among males and females 45–74 years of age: United States, 1992, and year 2000 targets for objective 13.7**



SOURCE: Centers for Disease Control and Prevention, National Vital Statistics System.

## Summary of Progress

Data to assess trends toward the year 2000 targets are available for 12 out of 16 objectives in the oral health priority. Progress toward targets is shown for nine objectives (13.1, 13.3, 13.4, 13.6, 13.7, 13.8, 13.9, 13.14, and 13.15). Data show trends that are moving away from the target for three objectives (13.2, 13.5, and 13.12). Data beyond baseline are not available for four objectives in this priority area (13.10, 13.11, 13.13, and 13.16).

## Data Issues

### Definition

Objective 13.11 (duplicate 2.12) addresses feeding practices that prevent baby bottle tooth decay. The measure used to establish a baseline for this objective for the total population and for caregivers with less than a high school education (13.11a) is assessed for children 6–23 months old. The

preventive feeding practices are either that the child no longer uses a bottle, never used a bottle, or if the child still uses a bottle, that no bottle was given at bedtime (excluding bottles with plain water) during the past 2 weeks.

## Comparability of Data Sources

Changes in the National Health Interview Survey questions on oral health between 1989 and 1991 affect comparability of information on the proportion of 5-year-old children and adults 35 years of age and over who visited a dentist in the past 12 months (13.12 and 13.14, respectively). In 1986 and 1989, the question on dental visits in the past 12 months followed an introductory statement and questions about dental visits and problems in the past 2 weeks (5,6). The introduction and question on visits in the past 2 weeks were not included in the 1991 and 1993 surveys. These may have differentially affected recall about visits in the past 12 months. A second difference is that the proportion of people who had visited a

dentist in the past 12 months was based on a question about the interval since the last dental visit in the 1986 and 1989 surveys. In 1991 and 1993, this measure was obtained from a question about the number of visits to a dentist in the past year. Finally, in 1986 and 1989 oral health data for adults were obtained from a knowledgeable respondent who provided information for all people in the household. In 1991 and 1993, an adult sampled from each family provided information only for himself or herself and not others in the household. A knowledgeable adult provided information for children in all survey years.

## Proxy Measures

Nationally representative data on topical or systemic fluoride use among people not receiving optimally fluoridated public water are not readily obtainable (13.10). It is difficult to identify a national sample of people who are not served by a fluoridated water system. Survey interview methods are limited because many people cannot accurately state the fluoridation status of their water supply. For this reason, a proxy measure—the proportion of all U.S. residents who use fluoride—is used as the revised baseline and will be used to monitor progress toward achieving this objective. The original baseline showing use of fluoride products among people without fluoridated water was estimated from the 1989 NHIS data and information on water fluoridation patterns in the United States.

## References

1. National Institute of Dental Research. The oral health of United States children. The National Survey of Dental Caries in U.S. School Children, 1986–87. Bethesda, Maryland: U.S. Department of Health and Human Services. 1989.
2. National Institute of Dental Research. The oral health of United States adults. The National Survey of Oral Health in U.S. Employed Adults and Seniors: 1985–86. Bethesda, Maryland: U.S. Department of Health and Human Services. 1987.
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4. Gift HC, Reisine ST, Larach DC. The social impact of dental problems and visits. *Am J Public Health* 82:1663–8. 1992.
5. Jack SS, Bloom B. Use of dental services and dental health, United States, 1986. National Center for Health Statistics. *Vital Health Stat* 10(165). 1988.
6. Bloom B, Gift HC, Jack SS. Dental services and oral health; United States, 1989. National Center for Health Statistics. *Vital Health Stat* 10(183). 1992.

**Table 13. Oral health objective status**

Objective	1986–87 baseline		1992	1993	Target 2000
	Original	Revised			
<b>13.1 Dental caries</b>					
Children 6–8 years . . . . .	53%	<sup>1</sup> 54%	<sup>2</sup> 52%	---	35%
Adolescents 15 years . . . . .	78%	...	<sup>2</sup> 65%	---	60%
a. Children 6–8 years whose parents have less than high school education . . . . .	70%	...	<sup>2</sup> 61%	---	45%
b. American Indian/Alaska Native children 6–8 years					
Primary or permanent teeth . . . . .	---	...	<sup>3</sup> 88%	---	45%
Primary teeth . . . . .	<sup>4</sup> 92%	...	---	---	...
Permanent teeth . . . . .	<sup>4</sup> 52%	...	---	---	...
c. Black children 6–8 years . . . . .	61%	<sup>1</sup> 56%	<sup>2</sup> 48%	---	40%
d. American Indian/Alaska Native adolescents 15 years					
Permanent teeth . . . . .	<sup>4</sup> 93%	...	<sup>3</sup> 91%	---	70%
<b>13.2 Untreated dental caries</b>					
Children 6–8 years . . . . .	27%	<sup>1</sup> 28%	<sup>2</sup> 30%	---	20%
a. Children whose parents have less than a high school education . . . . .	43%	...	<sup>2</sup> 46%	---	30%
b. American Indian/Alaska Native children . . . . .	<sup>4</sup> 64%	...	<sup>3</sup> 72%	---	35%
c. Black children . . . . .	38%	<sup>1</sup> 36%	<sup>2</sup> 34%	---	25%
d. Hispanic children . . . . .	<sup>5</sup> 36%	...	<sup>2,6</sup> 50%	---	25%
Adolescents 15 years . . . . .	23%	<sup>1</sup> 24%	<sup>2</sup> 24%	---	15%
a. Adolescents whose parents have less than a high school education . . . . .	41%	...	<sup>2</sup> 27%	---	25%
b. American Indian/Alaska Native adolescents . . . . .	<sup>4</sup> 84%	...	<sup>3</sup> 61%	---	40%
c. Black adolescents . . . . .	38%	...	<sup>2</sup> 33%	---	20%
d. Hispanic adolescents . . . . .	<sup>5</sup> 31–47%	...	<sup>2,6</sup> 35%	---	25%
<b>13.3 No tooth loss</b>					
People 35–44 years . . . . .	<sup>7</sup> 31%	...	<sup>2</sup> 32%	---	45%
<b>13.4 Complete tooth loss</b>					
People 65 years and over . . . . .	<sup>8</sup> 36%	...	---	30%	20%
a. Low-income people (annual family income less than \$15,000) . . . . .	<sup>8</sup> 46%	...	---	42%	25%
Low-income people (annual family income below poverty level) . . . . .	...	...	---	<sup>9</sup> 48%	...
<b>13.5 Gingivitis</b>					
People 35–44 years . . . . .	<sup>7</sup> 42%	<sup>1</sup> 41%	<sup>2</sup> 59%	---	30%
a. Low-income people (annual family income less than \$12,000) . . . . .	<sup>7</sup> 50%	...	<sup>2</sup> 62%	---	35%
b. American Indians/Alaska Natives . . . . .	<sup>4</sup> 95%	...	<sup>3</sup> 96%	---	50%
c. Hispanics . . . . .	---	...	---	---	50%
Mexican Americans . . . . .	<sup>5</sup> 74%	...	<sup>2</sup> 71%	---	...
Cubans . . . . .	<sup>5</sup> 79%	...	---	---	...
Puerto Ricans . . . . .	<sup>5</sup> 82%	...	---	---	...
<b>13.6 Periodontal diseases</b>					
People 35–44 years . . . . .	<sup>7</sup> 24%	<sup>1</sup> 25%	<sup>2</sup> 21%	---	15%
<b>13.7 Oral cancer deaths</b>					
Males 45–74 years (per 100,000) . . . . .	<sup>10</sup> 12.1	<sup>10,11</sup> 13.6	12.2	---	10.5
Females 45–74 years (per 100,000) . . . . .	<sup>10</sup> 4.1	<sup>10,11</sup> 4.8	4.3	---	4.1
<b>13.8 Protective sealants</b>					
Children 8 years . . . . .	11%	...	<sup>2</sup> 21%	---	50%
Adolescents 14 years . . . . .	8%	...	<sup>2</sup> 28%	---	50%
<b>13.9 Water fluoridation</b>					
People served by optimally fluoridated water . . . . .	<sup>12</sup> 62%	<sup>12,13</sup> 61%	62%	---	75%
<b>13.10 Topical and systemic fluorides</b>					
People in nonfluoridated areas who use fluoride . . . . .	<sup>12</sup> 50%	...	---	---	85%
U.S.-wide data people using:					
Toothpaste containing fluoride . . . . .	...	<sup>8</sup> 94%	---	---	...
Fluoride mouthrinse					
Children and adolescents 6–17 years . . . . .	...	<sup>12</sup> 22.0%	---	---	...
People 18 years and over . . . . .	...	<sup>12</sup> 7.7%	---	---	...
Fluoride supplements					
Children and adolescents 2–16 years . . . . .	...	<sup>12</sup> 10.3%	---	---	...

**Table 13. Oral health objective status—Con.**

Objective	1986–87 baseline		1992	1993	Target 2000
	Original	Revised			
<b>13.11 Baby bottle tooth decay</b>					
Parents and caregivers who use preventive feeding practices . . . . .	...	<sup>3</sup> 55%	---	---	75%
a. Parents and caregivers with less than high school education . . . . .	...	<sup>3</sup> 36%	---	---	65%
b. American Indian/Alaska Native parents and caregivers . . . . .	---	...	---	---	65%
<b>13.12 Oral health screening, referral, and followup</b>					
Children 5 years who visited the dentist in the past year . . . . .	<sup>8</sup> 66%	...	<sup>3</sup> 63%	---	90%
<b>13.13 Oral health care at institutional facilities . . . . .</b>	---	...	---	---	100%
Nursing facilities . . . . .	<sup>14</sup> Required	...	---	---	...
Federal prisons . . . . .	---	...	---	---	...
Nonfederal prisons . . . . .	---	...	---	---	...
Juvenile homes . . . . .	---	...	---	---	...
Detention facilities . . . . .	---	...	---	---	...
<b>13.14 Regular dental visits</b>					
People 35 years and over . . . . .	<sup>8</sup> 54%	...	---	61%	70%
a. Edentulous people . . . . .	<sup>8</sup> 11%	...	---	17%	50%
b. People 65 years and over . . . . .	<sup>8</sup> 42%	...	---	51%	60%
<b>13.15 Oral health care for infants with cleft lip and/or palate</b>					
Number of States with systems for recording and referring infants with cleft lip and/or palates					
Systems to identify and refer . . . . .	<sup>12</sup> 25	<sup>1,12</sup> 11	---	23	40
Systems to identify infants . . . . .	...	<sup>12</sup> 25	---	34	40
Systems to refer for care . . . . .	...	<sup>12</sup> 20	---	31	40
Systems to identify, refer, and followup for care . . . . .	...	...	---	16	40
<b>13.16 Protective equipment in sporting and recreation events . . . . .</b>	---	...	---	---	100%
National Collegiate Athletic Association					
Football . . . . .	<sup>15</sup> Required	...	---	---	...
Hockey . . . . .	<sup>15</sup> Required	...	---	---	...
Lacrosse . . . . .	<sup>15</sup> Required	...	---	---	...
High school football . . . . .	<sup>15</sup> Required	...	---	---	...
Amateur boxing . . . . .	<sup>15</sup> Required	...	---	---	...
Amateur ice hockey . . . . .	<sup>15</sup> Required	...	---	---	...

<sup>1</sup>Data have been revised to reflect updated methodology.

<sup>2</sup>1988–91 data.

<sup>3</sup>1991 data.

<sup>4</sup>1983–84 data.

<sup>5</sup>1982–84 data.

<sup>6</sup>Data are for Mexican Americans.

<sup>7</sup>1985–86 data.

<sup>8</sup>1986 data.

<sup>9</sup>Data represent annual family income below poverty level; see appendix.

<sup>10</sup>1987 data.

<sup>11</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>12</sup>1989 data.

<sup>13</sup>Data have been revised. Original data were estimated based on preliminary analyses.

<sup>14</sup>1990 data.

<sup>15</sup>1988 data.

NOTE: Data include revisions and, therefore, may differ from those previously published in these reports and other publications.

Data Sources:

13.1, 13.1c— Baseline: National Survey of Dental Caries in U.S. School Children, 1986–1987, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.

13.1a—Baseline: North Carolina Oral Health School Survey, North Carolina Division of Dental Health, University of North Carolina School of Public Health. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.

13.1b,d—Baseline: Survey of Oral Health, 1983–1984, Indian Health Service, Dental Services Branch. Update: 1991 Oral Health Status and Treatment Needs Survey of American Indians/Alaska Natives, Indian Health Service, Dental Services Branch.

13.2, 13.2c— Baseline: National Survey of Dental Caries in U.S. School Children, 1986–1987, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.

13.2a—Baseline: North Carolina Oral Health School Survey, North Carolina Division of Dental Health, University of North Carolina School of Public Health. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.

13.2b—Baseline: Survey of Oral Health, 1983–1984, Indian Health Service, Dental Services Branch. Update: 1991 Oral Health Status and Treatment Needs Survey of American Indians/Alaska Natives, Indian Health Service, Dental Services Branch.

13.2d—Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.

13.3—Baseline: National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–86, NIH, NIDR.

13.4, 13.4a— National Health Interview Survey, CDC, NCHS.

13.5, 13.5a— Baseline: National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–1986, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.

13.5b—Baseline: Survey of Oral Health, 1983–1984, Indian Health Service, Dental Services Branch. Update: 1991 Oral Health Status and Treatment Needs Survey of American Indians/Alaska Natives, Indian Health Service, Dental Services Branch.

13.5c—Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.

13.6—Baseline: National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–1986, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.

13.7—National Vital Statistics System, CDC, NCHS.

13.8—Baseline: National Survey of Dental Caries in U.S. School Children, 1986–1987, NIH, NIDR. Update: National Health and Nutrition Examination Survey III, 1988–91, CDC, NCHS.

13.9—Annual Fluoridation Census, CDC, NCPS.

13.10—National Health Interview Survey, CDC, NCHS.

13.11\*, 13.11a\*—National Health Interview Survey, CDC, NCHS.

13.11b—Baseline: 1990 Baby Bottle Tooth Decay 5-Year Evaluation Report, Indian Health Service, Dental Services Branch.

13.12—National Health Interview Survey, CDC, NCHS.

13.13—Baseline: Health Care Financing Administration.

13.14—National Health Interview Survey, CDC, NCHS.

13.15—State Public Health Dentists Survey, Illinois State Health Department.

13.16\*—CDC, NCPS; NIH, NIDR.

\*Duplicate objective.



# Oral Health Objectives

**13.1:** Reduce dental caries (cavities) so that the proportion of children with one or more caries (in permanent or primary teeth) is no more than 35 percent among children aged 6–8 and no more than 60 percent among adolescents aged 15.

**13.1a:** Reduce dental caries (cavities) so that the proportion of children with one or more caries (in permanent or primary teeth) is no more than 45 percent among children aged 6–8 whose parents have less than a high school education.

**13.1b:** Reduce dental caries (cavities) so that the proportion of children with one or more caries (in permanent or primary teeth) is no more than 45 percent among American Indian and Alaska Native children aged 6–8.

**13.1c:** Reduce dental caries (cavities) so that the proportion of children with one or more caries (in permanent or primary teeth) is no more than 40 percent among black children aged 6–8.

**13.1d:** Reduce dental caries (cavities) so that the proportion of adolescents with one or more caries (in permanent teeth) is no more than 70 percent among American Indian and Alaska Native adolescents aged 15.

**13.2:** Reduce untreated dental caries so that the proportion of children with untreated caries (in permanent or primary teeth) is no more than 20 percent among children aged 6–8 and no more than 15 percent among adolescents aged 15.

**13.2a:** Reduce untreated dental caries so that the proportion of lower socioeconomic status children (those whose parents have less than a high school education) with untreated dental caries (in permanent or primary teeth) is no more than 30 percent among children aged 6–8 and no more than 25 percent among adolescents aged 15.

**13.2b:** Reduce untreated dental caries so that the proportion of

American Indian and Alaska Native children with untreated caries (in permanent or primary teeth) is no more than 35 percent among children aged 6–8 and no more than 40 percent among adolescents aged 15.

**13.2c:** Reduce untreated dental caries so that the proportion of black children with untreated caries (in permanent or primary teeth) is no more than 25 percent among children aged 6–8 and no more than 20 percent among adolescents aged 15.

**13.2d:** Reduce untreated dental caries so that the proportion of Hispanic children with untreated caries (in permanent or primary teeth) is no more than 25 percent among children aged 6–8 and no more than 25 percent among adolescents aged 15.

**13.3:** Increase to at least 45 percent the proportion of people aged 35–44 who have never lost a permanent tooth due to dental caries or periodontal diseases.

*NOTE: Never lost a permanent tooth is having 28 natural teeth exclusive of third molars.*

**13.4:** Reduce to no more than 20 percent the proportion of people aged 65 and older who have lost all of their natural teeth.

**13.4a:** Reduce to no more than 25 percent the proportion of low-income people (annual family income less than \$15,000) aged 65 and older who have lost all of their natural teeth.

**13.5:** Reduce the prevalence of gingivitis among people aged 35–44 to no more than 30 percent.

**13.5a:** Reduce the prevalence of gingivitis among low-income people (annual family income less than \$12,500) aged 35–44 to no more than 35 percent.

**13.5b:** Reduce the prevalence of gingivitis among American Indians and Alaska Natives aged 35–44 to no more than 50 percent.

**13.5c:** Reduce the prevalence of gingivitis among Hispanics aged 35–44 to no more than 50 percent.

**13.6:** Reduce destructive periodontal diseases to a prevalence of no more than

15 percent among people aged 35–44.

*NOTE: Destructive periodontal disease is one or more sites with 4 millimeters or greater loss of tooth attachment.*

**13.7:** Reduce deaths due to cancer of the oral cavity and pharynx to no more than 10.5 per 100,000 men aged 45–74 and 4.1 per 100,000 women aged 45–74.

**13.8:** Increase to at least 50 percent the proportion of children who have received protective sealants on the occlusal (chewing) surfaces of permanent molar teeth.

*NOTE: Progress toward this objective will be monitored based on prevalence of sealants in children at ages 8 and 14, when first and second molars, respectively, are erupted.*

**13.9:** Increase to at least 75 percent the proportion of people served by community water systems providing optimal levels of fluoride.

*NOTE: Optimal levels of fluoride are determined by the mean maximum daily air temperature over a 5-year period and range between 0.7 and 1.2 parts of fluoride per 1 million parts of water (ppm).*

**13.10:** Increase use of professionally or self-administered topical or systemic (dietary) fluorides to at least 85 percent of people not receiving optimally fluoridated public water.

**13.11\*:** Increase to at least 75 percent the proportion of parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 2.12

**13.11a\*:** Increase to at least 65 percent the proportion of parents and caregivers with less than a high school education who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 2.12a

**13.11b\*:** Increase to at least 65 percent the proportion of American Indian and Alaska Native parents and caregivers who use feeding practices that prevent baby bottle tooth decay.

Duplicate objective: 2.12b

**13.12:** Increase to at least 90 percent the proportion of all children entering school programs for the first time who

have received an oral health screening, referral, and followup for necessary diagnostic, preventive, and treatment services.

*NOTE: School programs include Head Start, prekindergarten, kindergarten, and first grade.*

**13.13:** Extend to all long-term institutional facilities the requirement that oral examinations and services be provided no later than 90 days after entry into these facilities.

*NOTE: Long-term institutional facilities include nursing homes, prisons, juvenile homes, and detention facilities.*

**13.14:** Increase to at least 70 percent the proportion of people aged 35 and older using the oral health care system during each year.

**13.14a:** Increase to at least 50 percent the proportion of edentulous people using the oral health care system during each year.

**13.14b:** Increase to at least 60 percent the proportion of people aged 65 and older using the oral health care system during each year.

**13.15:** Increase to at least 40 the number of States that have an effective system for recording and referring infants with cleft lips and/or palates to craniofacial anomaly teams.

**13.16\*:** Extend requirement of the use of effective head, face, eye, and mouth protection to all organizations, agencies, and institutions sponsoring sporting and recreation events that pose risk of injury.

Duplicate objective: 9.19

\*Duplicate objective.

# Priority Area 14 Maternal and Infant Health

## Background

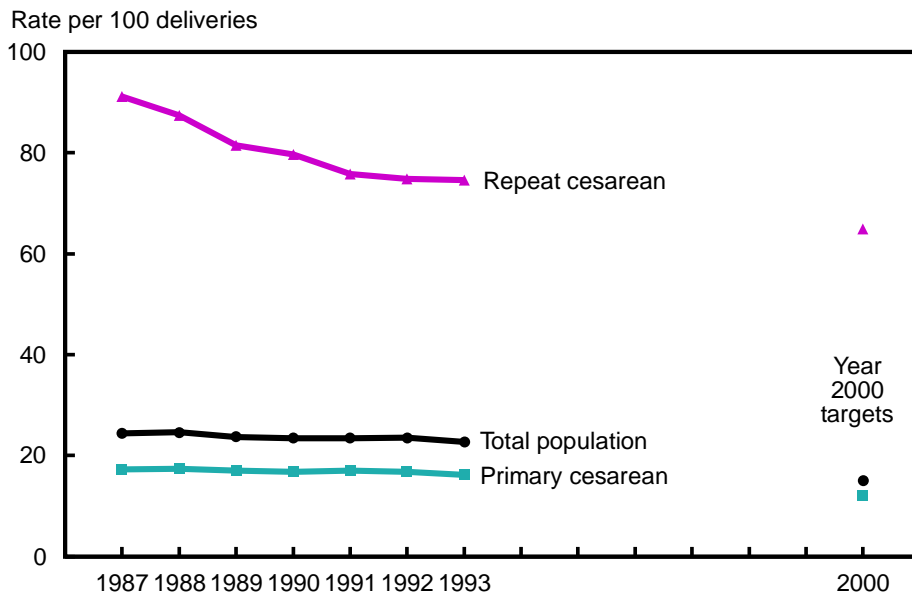
Improving the health of mothers and infants is a national challenge. More than 33,000 infants died before their first birthday in 1993 (1). Although the infant mortality rate in the United States continues to decline and has reached an all-time low, the decline has been more rapid for the white population than for the black population. The mortality rate for black infants is more than twice the rate for white infants, and there is evidence that this difference is increasing (2). In the past decade important measures of increased risk of infant death, such as incidence of low/very low birthweight and receipt of prenatal care, have shown little or no improvement (although receipt of prenatal care and low birthweight for black persons did show improvement in 1992). An expectant mother with no prenatal care is three times as likely to have a low- birthweight baby. Despite the importance of early prenatal care in protecting against low birthweight and infant mortality, nearly one of every four pregnant women receives no care in the first trimester of pregnancy (3). Further reductions in infant mortality and morbidity will require a focus on strategies to modify the behaviors and lifestyles that affect birth outcomes.

## Data Summary

### Highlights

Infant mortality (objective 14.1) declined sharply (4.5 percent) in 1992; provisional data indicate a further decline in 1993. Both infant mortality components (neonatal and postneonatal mortality—14.1d and 14.1g) also declined. However, the decline was not observed for all subgroups: in 1990 infant mortality increased for American Indian/Alaska Native (AI/AN) babies (14.1b). After a period of relatively little change, there were also recent improvements in some of the important infant health risk factors such as breastfeeding (14.9), prenatal care (14.11), low birthweight for blacks (14.5a), and smoking during pregnancy

**Figure 15. Cesarean delivery rates: United States, 1987–93, and year 2000 targets for objective 14.8**



	1987	1988	1989	1990	1991	1992	1993	Year 2000 target
Total population . . . . .	24.4	24.7	23.8	23.5	23.5	23.6	22.8	15
Primary cesarean . . . . .	17.4	17.5	17.1	16.8	17.1	16.8	16.3	12
Repeat cesarean . . . . .	91.2	87.4	81.5	79.6	75.8	74.9	74.6	65

SOURCE: Centers for Disease Control and Prevention, National Hospital Discharge Survey.

(14.10). Fetal mortality (14.2) and maternal mortality for black women (14.3a) showed small increases. The rate of hospitalizations for severe complications of pregnancy (14.7) has dropped dramatically and in 1993 equalled the year 2000 target.

### Summary of progress

Of the 16 Maternal and Infant Health objectives for the total population, 8 moved toward the year 2000 targets (objectives 14.1, 14.2, 14.6, 14.7, 14.8, 14.9, 14.11, and 14.15); three moved away from the targets (14.3, 14.4, and 14.5). Progress for objective 14.10 showed mixed results. Two objectives (14.14 and 14.16) have no baseline data. Data beyond baseline to update progress for the remaining two objectives (14.12 and 14.13) are not yet available.

### Data Issues

#### Definitions

In 1989 NCHS changed the method for tabulating race for live births,

assigning to the infant the race of mother rather than using the previous, more complicated algorithm for race of child. This change affects the natality data by race in this chapter. In addition, because live births comprise the denominator of infant (including neonatal and postneonatal), maternal mortality, and fetal death rates, these rates are also affected. These changes are described in greater detail in other NCHS publications (4,5). Quantitatively, the change in the basis for tabulating live births by race results in more births to the white population and fewer births to the black population and other races. Because of changes in the denominators, infant mortality rates (14.1), fetal death rates (14.2), and maternal mortality rates (14.3) under the new classification tend to be lower for white infants and higher for infants of other races than they would be when computed by the previous method. For characteristics of birth such as percent low birthweight (14.5) and percent receiving early care (14.11), the racial disparities tend to be larger when data are tabulated by race of mother rather than race of child.

The special target populations for racial subgroups in this priority area are being monitored with the “new” data by race of mother. Therefore, the original baselines (by race of child) for these racial subgroups were recomputed by race of mother to allow comparable trend comparisons.

Studies indicate that infant mortality for minorities other than blacks from the mortality files have been seriously underestimated (5). Therefore, infant mortality (objective 14.1) for AI/AN and for Puerto Ricans is being monitored through data from the Linked Infant Birth and Infant Death Files, which categorizes deaths by the race of mother as reported on the birth certificate.

### Comparability of Data Sources

Data on fetal alcohol syndrome (FAS—objective 14.4) are by year of birth. Cases received after the end of data year are assigned to year of the birth. Therefore, data for previous years include revisions and may differ from those previously published.

The increasing trend for FAS should be interpreted with caution. These data are obtained from the Birth Defects Monitoring Program (BMDP) from hospitals participating in the Commission on Professional and Hospital Activities (CPHA). The number of participating hospitals has declined substantially in recent years resulting in a decrease in the proportion of U.S. births covered by the BDMP. In 1981, 24 percent of all births (19 percent of black births) were covered compared with only 5 percent (and only 2 percent of black births) in 1993. As a result, the relatively small number of births in the BMDP may not be representative of all U.S. births. The increasing trend in FAS may also be a function of improved identification and reporting, rather than an actual increase in incidence of the condition.

The decreasing number of births in the BDMP has also made tracking FAS for AI/AN problematic (14.4a). In 1993 the BMDP contained only about 500 births (or 1 percent of AI/AN births) to AI/AN mothers, compared with 13 percent in 1981. As a result, FAS data beyond 1990 for AI/AN are considered unreliable and are not shown in the table. The Indian Health Service is exploring possible new sources for these data.

The data on substance use during pregnancy (14.10) come from multiple

sources. The 1985 baseline data on smoking are from the National Health Interview Survey and the 1988 baseline data on alcohol, cocaine, and marijuana comes from the National Maternal and Infant Health Survey. The 1992 update on tobacco comes from the information listed on the certificate of live birth and the 1993 updates on all substances are from the National Pregnancy and Health Survey. Although the estimates from these sources are relatively consistent, differences in methodology between the data systems suggest that changes over time be interpreted with caution.

### References

1. National Center for Health Statistics. Annual summary of births, marriages, divorces, and deaths, 1993. Monthly vital statistics report; vol 42 no 131. Hyattsville, Maryland. October. 1994.
2. National Center for Health Statistics. Advance report of final mortality statistics, 1992. Monthly vital statistics report; vol 43 no 6 suppl. Hyattsville, Maryland. December. 1994.
3. National Center for Health Statistics. Advance report of final natality statistics, 1992. Monthly vital statistics report; vol 43 no 5 suppl. Hyattsville, Maryland. October. 1994.
4. National Center for Health Statistics. Health, United States, 1992. Hyattsville, Maryland. 1993.
5. Hahn RA, Mulinare J, Teutsh SM. Inconsistencies in coding of race and ethnicity between birth and death in U.S. infants: A new look at infant mortality, 1983 through 1985. *JAMA* 267:259–63. 1992.

**Table 14. Maternal and infant health objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>14.1 Infant mortality (per 1,000 live births)</b>	10.1	...	8.5	18.3	7
a. Blacks	17.9	<sup>2</sup> 18.8	16.8	---	11
b. American Indians/Alaska Natives	<sup>3</sup> 12.5	<sup>2,3</sup> 13.4	<sup>4,5</sup> 13.1	---	8.5
c. Puerto Ricans	<sup>3</sup> 12.9	...	<sup>4,5</sup> 9.9	---	8
d. Neonatal mortality	6.5	...	5.4	<sup>1</sup> 5.4	4.5
e. Neonatal mortality among blacks	11.7	<sup>2</sup> 12.3	10.8	---	7
f. Neonatal mortality among Puerto Ricans	<sup>3</sup> 8.6	...	<sup>4,5</sup> 6.9	---	5.2
g. Postneonatal mortality	3.6	...	3.1	<sup>1</sup> 2.9	2.5
h. Postneonatal mortality among blacks	6.1	<sup>2</sup> 6.4	6.0	---	4
i. Postneonatal mortality among American Indians/Alaska Natives	<sup>3</sup> 6.5	<sup>2,3</sup> 7.0	<sup>4,5</sup> 7.0	---	4
j. Postneonatal mortality among Puerto Ricans	<sup>3</sup> 4.3	...	<sup>4,5</sup> 3.0	---	2.8
<b>14.2 Fetal deaths (per 1,000 live births plus fetal deaths)</b>	7.6	...	7.4	---	5
a. Blacks	12.8	<sup>2</sup> 13.1	13.3	---	7.5
<b>14.3 Maternal mortality (per 100,000 live births)</b>	6.6	...	7.8	---	3.3
a. Blacks	14.2	<sup>2</sup> 14.9	20.8	---	5
<b>14.4 Fetal alcohol syndrome (per 1,000 live births)</b>	0.22	...	0.52	0.67	0.12
a. American Indians/Alaska Natives	4.0	...	<sup>5</sup> 5.2	---	2.0
b. Blacks	0.8	...	2.3	5.4	0.4
<b>14.5 Low birthweight</b>	6.9%	...	7.1%	---	5%
Very low birthweight	1.2%	...	1.3%	---	1%
a. Low birthweight blacks	12.7%	<sup>2</sup> 13.0%	13.3%	---	9%
Very low birthweight blacks	2.7%	<sup>2</sup> 2.8%	3.0%	---	2%
<b>14.6 Recommended weight gain during pregnancy</b>	<sup>6</sup> 67%	<sup>6,7</sup> 68%	<sup>8</sup> 75%	---	85%
<b>14.7 Severe complications of pregnancy (per 100 deliveries)</b>	22	...	17	15	15
<b>14.8 Cesarean delivery (per 100 deliveries)</b>	24.4	...	23.6	22.8	15
a. Primary (first time) cesarean delivery	17.4	...	16.8	16.3	12
b. Repeat cesarean deliveries (among women with previous cesarean delivery)	91.2	...	74.9	74.6	65
<b>14.9 Breastfeeding</b>					
During early postpartum period	<sup>8</sup> 54%	...	54%	56%	75%
a. Low-income mothers	<sup>8</sup> 32%	...	35%	38%	75%
b. Black mothers	<sup>8</sup> 25%	...	28%	31%	75%
c. Hispanic mothers	<sup>8</sup> 51%	...	52%	56%	75%
d. American Indian/Alaska Native mothers	<sup>8</sup> 47%	...	53%	51%	75%
At age 5–6 months	<sup>8</sup> 21%	...	20%	21%	50%
a. Low-income mothers	<sup>8</sup> 9%	...	9%	10%	50%
b. Black mothers	<sup>8</sup> 8%	...	9%	9%	50%
c. Hispanic mothers	<sup>8</sup> 16%	...	17%	18%	50%
d. American Indian/Alaska Native mothers	<sup>8</sup> 28%	...	24%	28%	50%
<b>14.10 Abstinence from alcohol, tobacco, and illicit drugs during pregnancy</b>					
Tobacco	<sup>9</sup> 75%	<sup>8</sup> 78%	83%	80%	90%
Alcohol	...	<sup>8</sup> 79%	---	81%	Increase by 20%
Cocaine	...	<sup>8</sup> 99%	---	99%	Increase by 20%
Marijuana	...	<sup>8</sup> 98%	---	97%	Increase by 20%
<b>14.11 Prenatal care in the first trimester (percent of live births)</b>	76.0%	...	77.7%	---	90%
a. Blacks	61.1%	<sup>2</sup> 60.8%	63.9%	---	90%
b. American Indians/Alaska Natives	60.2%	<sup>2</sup> 57.6%	62.1%	---	90%
c. Hispanics	61.0%	...	64.2%	---	90%

**Table 14. Maternal and infant health objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>14.12 Age-appropriate preconception counseling by clinicians . . . . .</b>	---	...	---	---	60%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about family planning (females, childbearing ages)					
Pediatricians . . . . .	...	<sup>10</sup> 18%	---	---	...
Nurse practitioners . . . . .	...	<sup>10</sup> 53%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>10</sup> 48%	---	---	...
Internists . . . . .	...	<sup>10</sup> 24%	---	---	...
Family physicians . . . . .	...	<sup>10</sup> 28%	---	---	...
Counseling about family planning					
Pediatricians . . . . .	...	<sup>10</sup> 36%	---	---	...
Nurse practitioners . . . . .	...	<sup>10</sup> 53%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>10</sup> 65%	---	---	...
Internists . . . . .	...	<sup>10</sup> 26%	---	---	...
Family physicians . . . . .	...	<sup>10</sup> 36%	---	---	...
<b>14.13 Counseling on detection of fetal abnormalities . . . . .</b>	...	<sup>8</sup> 29%	---	---	90%
<b>14.14 Pregnant women and infants receiving risk-appropriate care . . . . .</b>	---	...	---	---	90%
<b>14.15 Newborn screening and treatment</b>					
Screened by State-sponsored programs for genetic disorders and other conditions . . . . .	---	...	---	---	95%
Testing positive for disease and receiving appropriate treatment . . . . .	---	...	---	---	90%
Sickle cell screening . . . . .	<sup>11</sup> 33%	...	<sup>12</sup> 89%	---	...
Black infants . . . . .	<sup>11</sup> 57%	...	<sup>13</sup> 77%	---	...
Galactosemia screening (38 States) . . . . .	70%	...	<sup>5</sup> 97%	---	...
Newborns diagnosed positive for sickle cell anemia receiving treatment . . . . .	---	...	<sup>5</sup> 95%	---	...
Newborns diagnosed positive for galactosemia receiving treatment . . . . .	---	...	<sup>5</sup> 100%	---	...
<b>14.16 Babies receiving primary care . . . . .</b>	---	...	---	---	90%

<sup>1</sup>Provisional data.

<sup>2</sup>Data have been revised to reflect the change in tabulating births from the race of the child to the race of the mother; see appendix.

<sup>3</sup>1984 data.

<sup>4</sup>Based on 48 States and DC.

<sup>5</sup>1990 data.

<sup>6</sup>1980 data for married females who had a full-term live birth and prenatal care.

<sup>7</sup>Data have been revised to reflect updated methodology.

<sup>8</sup>1988 data.

<sup>9</sup>1985 data.

<sup>10</sup>1992 data.

<sup>11</sup>Based on 20 States.

<sup>12</sup>Based on 43 States.

<sup>13</sup>Based on 9 States.

NOTE: Data may include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

14.1, 14.1a–j—National Vital Statistics System, CDC, NCHS.

14.2, 14.2a—National Vital Statistics System, CDC, NCHS.

14.3, 14.3a—National Vital Statistics System, CDC, NCHS.

14.4, 14.4a,b—Births Defects Monitoring System, CDC, NCEH.

14.5, 14.5a,b—National Vital Statistics System, CDC, NCHS.

14.6—Baseline: National Natality Survey, CDC, NCHS. Updates: National Maternal and Infant Health Survey, CDC, NCHS.

14.7—National Hospital Discharge Survey, CDC, NCHS.

14.8, 14.8a—National Hospital Discharge Survey, CDC, NCHS.

14.9\*, 14.9a\*—Ross Laboratories Mother Survey.

14.9d—Pediatric Nutrition Surveillance System, CDC, NCCDPHP.

14.10—1985 Baseline: National Health Interview Survey, CDC, NCHS. 1988 Baseline: National Maternal and Infant Health Survey, CDC, NCHS.

1992 Update: National Vital Statistics System, CDC, NCHS. 1993 Updates: National Pregnancy and Health Survey, NIH, NIDA.

14.11, a–c—National Vital Statistics System, CDC, NCHS.

14.12\*—Primary Care Provider Surveys, OASH, ODPHP.

14.13—College of American Pathologists. Foundation for Blood Research.

14.15—Council of Regional Networks for Genetic Services.

\*Duplicate objective.

# Maternal and Infant Health Objectives

**14.1:** Reduce the infant mortality rate to no more than 7 per 1,000 live births.

*NOTE: Infant mortality is deaths of infants under 1 year; neonatal mortality is deaths of infants under 28 days; and postneonatal mortality is deaths of infants aged 28 days up to 1 year.*

**14.1a:** Reduce the infant mortality rate among blacks to no more than 11 per 1,000 live births.

**14.1b:** Reduce the infant mortality rate among American Indians and Alaska Natives to no more than 8.5 per 1,000 live births.

**14.1c:** Reduce the infant mortality rate among Puerto Ricans to no more than 8 per 1,000 live births.

**14.1d:** Reduce the neonatal mortality rate to no more than 4.5 per 1,000 live births.

**14.1e:** Reduce the neonatal mortality rate among blacks to no more than 7 per 1,000 live births.

**14.1f:** Reduce the neonatal mortality rate among Puerto Ricans to no more than 5.2 per 1,000 live births.

**14.1g:** Reduce the postneonatal mortality rate to no more than 2.5 per 1,000 live births.

**14.1h:** Reduce the postneonatal mortality rate among blacks to no more than 4 per 1,000 live births.

**14.1i:** Reduce the postneonatal mortality rate among American Indians and Alaska Natives to no more than 4 per 1,000 live births.

**14.1j:** Reduce the postneonatal mortality rate among Puerto Ricans to no more than 2.8 per 1,000 live births.

**14.2:** Reduce the fetal death rate (20 or more weeks of gestation) to no more than 5 per 1,000 live births plus fetal deaths.

**14.2a:** Reduce the fetal death rate (20 or more weeks of gestation) among blacks to no more than 7.5 per 1,000 live births plus fetal deaths.

**14.3:** Reduce the maternal mortality rate to no more than 3.3 per 100,000 live births.

*NOTE: The objective uses the maternal mortality rate as defined by the National Center for Health Statistics. However, if other sources of maternal mortality data are used, a 50-percent reduction in maternal mortality is the intended target.*

**14.3a:** Reduce the maternal mortality rate among black women to no more than 5 per 100,000 live births.

**14.4:** Reduce the incidence of fetal alcohol syndrome to no more than 0.12 per 1,000 live births.

**14.4a:** Reduce the incidence of fetal alcohol syndrome among American Indians and Alaska Natives to no more than 2 per 1,000 live births.

**14.4b:** Reduce the incidence of fetal alcohol syndrome among blacks to no more than 0.4 per 1,000 live births.

**14.5:** Reduce low birthweight to an incidence of no more than 5 percent of live births and very low birthweight to no more than 1 percent of live births.

*NOTE: Low birthweight is weight at birth of less than 2,500 grams; very low birth weight is weight at birth of less than 1,500 grams.*

**14.5a:** Reduce low birthweight among blacks to an incidence of no more than 9 percent of live births and very low birthweight to no more than 2 percent of live births.

**14.6:** Increase to at least 85 percent the proportion of mothers who achieve the minimum recommended weight gain during their pregnancies.

*NOTE: Recommended weight gain is pregnancy weight gain recommended in the 1990 National Academy of Science's report, Nutrition During Pregnancy.*

**14.7:** Reduce severe complications of pregnancy to no more than 15 per 100 deliveries.

*NOTE: Severe complications of pregnancy is measured using hospitalizations due to pregnancy-related complications.*

**14.8:** Reduce the cesarean delivery rate to no more than 15 per 100 deliveries.

**14.8a:** Reduce the primary (first time) cesarean delivery rate to no more than 12 per 100 deliveries.

**14.8b:** Reduce the repeat cesarean delivery rate to no more than 65 per 100 deliveries among women who had a previous cesarean delivery.

**14.9\*:** Increase to at least 75 percent the proportion of mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11

**14.9a\*:** Increase to at least 75 percent the proportion of low-income mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11a

**14.9b\*:** Increase to at least 75 percent the proportion of black mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11b

**14.9c\*:** Increase to at least 75 percent the proportion of Hispanic mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11c

**14.9d\*:** Increase to at least 75 percent the proportion of American Indian and Alaska Native mothers who breastfeed their babies in the early postpartum period and to at least 50 percent the proportion who continue breastfeeding until their babies are 5 to 6 months old.

Duplicate objective: 2.11d

**14.10:** Increase abstinence from tobacco use by pregnant women to at least 90 percent and increase abstinence from alcohol, cocaine, and marijuana by pregnant women by at least 20 percent.

**14.11:** Increase to at least 90 percent the proportion of all pregnant women who

receive prenatal care in the first trimester of pregnancy.

**14.11a:** Increase to at least 90 percent the proportion of pregnant black women who receive prenatal care in the first trimester of pregnancy.

**14.11b:** Increase to at least 90 percent the proportion of pregnant American Indian and Alaska Native women who receive prenatal care in the first trimester of pregnancy.

**14.11c:** Increase to at least 90 percent the proportion of pregnant Hispanic women who receive prenatal care in the first trimester of pregnancy.

**14.12\*:** Increase to at least 60 percent the proportion of primary care providers who provide age-appropriate preconception care and counseling.

Duplicate objective: 5.10

**14.13:** Increase to at least 90 percent the proportion of women enrolled in prenatal care who are offered screening and counseling on prenatal detection of fetal abnormalities.

*NOTE: This objective will be measured by tracking use of maternal serum alpha-feto protein screening tests.*

**14.14:** Increase to at least 90 percent the proportion of pregnant women and infants who receive risk-appropriate care.

*NOTE: This objective will be measured by tracking the proportion of very low-birthweight infants (less than 1,500 grams) born in facilities covered by a neonatologist 24 hours a day.*

**14.15:** Increase to at least 95 percent the proportion of newborns screened by State-sponsored programs for genetic disorders and other disabling conditions and to 90 percent the proportion of newborns testing positive for disease who receive appropriate treatment.

**14.16:** Increase to at least 90 percent the proportion of babies aged 18 months and younger who receive recommended primary care services at the appropriate intervals.

\*Duplicate objective.



# Priority Area 15 Heart Disease and Stroke

## Background

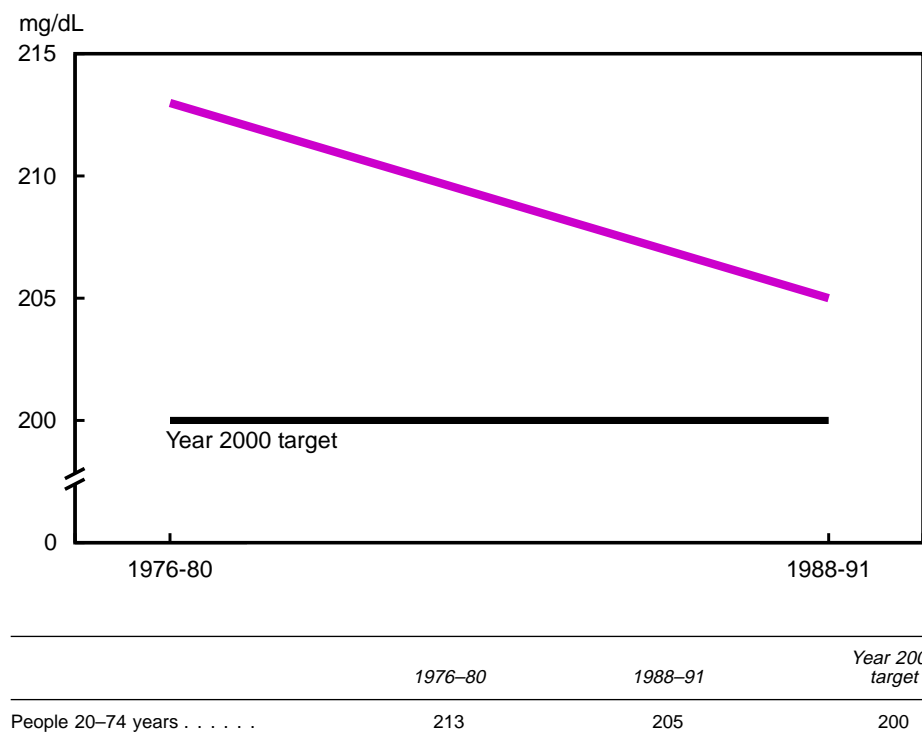
Over the past 20 years, the death rate for cardiovascular disease has declined dramatically: 46 percent for all cardiovascular disease, 51 percent for coronary heart disease, and 60 percent for stroke. Even so, cardiovascular diseases, primarily coronary heart disease and stroke, kill nearly as many Americans as all other diseases combined (1). Cardiovascular disease is also among the leading causes of disability (2). The major modifiable risk factors for cardiovascular disease are high blood pressure, high blood cholesterol, cigarette smoking, obesity, and physical inactivity. Another important risk factor is diabetes mellitus. According to the National Health and Nutrition Examination Survey (NHANES), the prevalence of high blood pressure has declined from 30 percent of adults (1976–80) to 24 percent (1988–91) over the past decade (3). Overall, black adults have a higher prevalence of high blood pressure than white adults. Approximately 52 million adults have high blood cholesterol requiring dietary intervention (4). Twenty-five percent of adults are current cigarette smokers (see Priority Area 3).

## Data Summary

### Highlights

A number of objectives in the heart disease and stroke priority area have shown progress. Mortality due to coronary heart disease (15.1) and stroke (15.2) declined from the 1987 baseline through 1992 in the population as a whole, as well as among black people. However, mortality for both causes of death among black people is higher and the decline in mortality over this period was not as substantial as that of the total population. The proportion of people taking action to control high blood pressure (15.5) and the proportion who know their blood pressure values (15.13) have increased. The mean serum cholesterol level has decreased (15.6) and there has been an increase in the

**Figure 16. Mean serum cholesterol levels for adults 20–74 years: United States, 1976–80 and 1988–91, and year 2000 target for objective 15.6**



SOURCE: Centers for Disease Control and Prevention, National Health and Nutrition Examination Survey.

proportion of the population who have their cholesterol measured (15.14). High blood cholesterol prevalence (15.7) has met the year 2000 target. Two objectives not showing progress are the rate of end-stage renal disease (15.3) and the proportion of overweight people (15.10), both of which are increasing.

### Summary of Progress

Of the 17 objectives in the heart disease and stroke priority area, 1 objective (15.7) has met the target, and data for 13 objectives show improvements toward meeting the year 2000 targets (15.1, 15.2, 15.4, 15.5, 15.6, 15.9, 15.11, 15.12, 15.13, 15.14, 15.15, 15.16, and 15.17). Two objectives show no progress (15.3 and 15.10) and one objective (15.8) has no update to measure progress.

### Data Issues

### Definitions

Objective 15.4 addresses the proportion of people with hypertension

whose blood pressure is under control. High blood pressure is defined as blood pressure greater than 140 mm Hg systolic and/or 90 mm Hg diastolic and/or taking antihypertensive medication. The estimates used to track this objective define control as using antihypertensive medication only and do not include other nonpharmacologic treatments such as weight loss, low sodium diets, and restriction of alcohol. The 1982–84 baseline originally published in *Healthy People 2000* (2) from the Seven States Study, representing the medians of data from selected States, is no longer used to track this objective.

Overweight (15.10) for adults is defined as a body mass index (BMI) at or above the sex-specific 85th percentile of the 1976–80 NHANES II reference population 20–29 years of age. For adolescents, overweight is the sex- and age-specific 85th percentile from NHANES II (see Note with the text of objective 15.10).

The intent of objective 15.11 (light to moderate physical activity) is to generate calorie-burning activity from a health standpoint by emphasizing the

importance of regular physical activity that can be sustained throughout the lifespan. The sum of all physical activities performed at least 30 minutes per occasion 5 or more or 7 or more times a week regardless of the intensity has been defined as measuring this objective.

Beginning in 1992 the definition of current smoker (15.12) was modified to specifically include persons who smoked only "some days." Prior to 1992, a current smoker was defined by the questions "Have you ever smoked 100 cigarettes in your lifetime?" and "Do you smoke now?" In 1992, data were collected and analyzed for one-half the respondents using these smoking questions and for the other one-half of respondents using a revised smoking question: "Do you smoke everyday, some days, or not at all?" The 1992 estimate combines data collected using both sets of questions. The 1993 estimate is based completely on the revised definition, which is considered a more complete estimate of smoking prevalence. The effect of the new definition is a small increase in the number of smokers.

Objective 15.15 seeks to increase the proportion of primary care providers who provide appropriate therapy for high blood cholesterol. This objective is being tracked by the median blood cholesterol level at initiation of diet and drug therapy. In 1990, 54 percent of physicians reported that they initiate diet therapy and 60 percent initiate drug therapy at these median levels.

### **Comparability of Data Sources**

Objective 15.5, to increase the proportion of people with hypertension who are taking action to control their blood pressure, is measured by self-reported data from the National Health Interview Survey (NHIS). In this survey, people with high blood pressure are defined as those who report that they have been told they have high blood pressure on two or more occasions by a doctor or health professional. These data are limited to the proportion of people with hypertension who are aware of their condition. The 1985 and 1990 questions are not comparable to the 1991 and 1993 questions. For the 1985 baseline and 1990 data, NHIS respondents reporting high blood pressure were asked if they were told to take blood pressure medication, diet to lose weight, cut down on salt, or

exercise. The proportion taking such action increased from 79 percent to 80 percent for the total population. In 1991 and 1993, the only actions asked about to reduce high blood pressure were taking medication or following doctor's advice to diet; the proportion increased from 71 percent to 72 percent among the total population.

Overweight (15.10) is being tracked with two main data sources. The primary data source is the National Health and Nutrition Examination Survey (NHANES), which provided baseline data for most of the overweight objectives and the 1988–91 updates. These data are derived from measured height and weight. Interim estimates shown in an earlier publication (5), 1993 updates for Hispanic females and American Indians/Alaska Natives, and all data for people with disabilities are derived from the National Health Interview Survey (NHIS). These estimates are based on self-reported heights and weights and are not comparable to the actual measured data from NHANES. Trends from the NHIS based on self-reported measures also show a steady increase in prevalence of overweight; this increase is, however, different in magnitude from that observed in data derived from measured height and weight.

The baseline data source for objective 15.11 (light to moderate physical activity) was the Behavioral Risk Factor Surveillance System; because this objective is being tracked with the NHIS and 1985 data were available from this survey, the baseline has been revised to reflect the estimates from the 1985 NHIS. The method of measuring the objective has also been modified from that used in the baseline measure, although the revised estimate did not differ for people exercising five or more times per week. Although data from the NHIS were used for all three years (1985, 1990, and 1991), the questionnaire changed in 1991. Databases were made as similar as possible before the estimates were made, involving limiting the age group to 18–74 years (to correspond to the 1985 and 1990 surveys), and limiting the specific activities listed to those asked in all three years.

Objective 15.13 addresses blood pressure screening and whether people know if their blood pressure is normal or high. Baseline data and 1990 updates show the proportion of people 18 years

of age and over who had their blood pressure measured within the preceding 2 years by a health professional or other trained observer and who were given the diastolic and systolic values of the measure. The 1991 and 1993 updates are the proportion of people 18 years and over who had their blood pressure checked and can state whether their blood pressure was high, low, borderline, or normal.

### **Data Availability**

Updates for objective 15.8, to increase the proportion of adults with high blood cholesterol who are aware of their condition and are taking action to reduce their blood cholesterol levels, will be obtained from the National Health and Nutrition Examination Survey (NHANES III). Updates for objective 15.11 (moderate physical activity) will be available in early 1996 from NHIS.

### **References**

1. National Center for Health Statistics. Health, United States, 1993. Hyattsville, Maryland: Public Health Service. 1994.
2. U.S. Department of Health and Human Services. Healthy people 2000: National health promotion and disease prevention objectives for the nation. Washington: Public Health Service. 1991.
3. Burt V, et al. Prevalence of hypertension in the U.S. adult population. *Hypertension* 25:305–13. 1995.
4. Sempos C, et al. Prevalence of high blood cholesterol among U.S. adults. *JAMA* 269:3009–14. 1993.
5. National Center for Health Statistics. Healthy people 2000 review, 1992. Hyattsville, Maryland: Public Health Service. 1993.

**Table 15. Heart disease and stroke objective status**

Objective	1987 baseline				Target 2000
	Original	Revised	1992	1993	
<b>15.1 Coronary heart disease deaths (age adjusted per 100,000)</b> . . . . .	135	<sup>1</sup> No change	114	---	100
a. Blacks (age adjusted per 100,000) . . . . .	163	<sup>1</sup> 168	151	---	115
<b>15.2 Stroke deaths (age adjusted per 100,000)</b> . . . . .	30.3	<sup>1</sup> 30.4	26.2	<sup>2</sup> 26.4	20.0
a. Blacks (age adjusted per 100,000) . . . . .	51.2	<sup>1</sup> 52.5	45.0	---	27.0
<b>15.3 End-stage renal disease (per 100,000)</b> . . . . .	13.9	<sup>3</sup> 14.4	<sup>4</sup> 18.4	---	13.0
a. Blacks . . . . .	32.4	<sup>3</sup> 34.0	<sup>4</sup> 43.0	---	30.0
<b>15.4 Controlled high blood pressure</b>					
People with high blood pressure 18 years and over . . . . .	<sup>5,6</sup> 11%	...	<sup>6,7</sup> 21%	---	50%
a. Males with high blood pressure . . . . .	<sup>5,6</sup> 6%	...	<sup>6,7</sup> 16%	---	40%
<b>15.5 Taking action to control blood pressure</b>					
People with high blood pressure 18 years and over					
Using medication, diet, low salt, and exercise . . . . .	<sup>8</sup> 79%	...	<sup>4</sup> 80%	---	90%
Using medication and diet . . . . .	---	...	<sup>9</sup> 71%	72%	...
a. White hypertensive males 18–34 years . . . . .	<sup>8</sup> 51%	...	<sup>9</sup> 34%	38%	80%
b. Black hypertensive males 18–34 years . . . . .	<sup>8</sup> 63%	...	<sup>9</sup> 41%	64%	80%
<b>15.6 Mean serum cholesterol level (mg/dL)</b>					
People 20–74 years . . . . .	<sup>5,10</sup> 213	...	<sup>7,10</sup> 205	---	200
Males 20–74 years . . . . .	<sup>5,10</sup> 211	...	<sup>7,10</sup> 205	---	...
Females 20–74 years . . . . .	<sup>5,10</sup> 215	...	<sup>7,10</sup> 205	---	...
<b>15.7 High blood cholesterol prevalence</b>					
People 20–74 years . . . . .	<sup>5,10</sup> 27%	...	<sup>7,10</sup> 20%	---	20%
Males 20–74 years . . . . .	<sup>5,10</sup> 25%	...	<sup>7,10</sup> 19%	---	...
Females 20–74 years . . . . .	<sup>5,10</sup> 29%	...	<sup>7,10</sup> 20%	---	...
<b>15.8 Awareness of high blood cholesterol condition</b>					
Adults with high blood cholesterol . . . . .	<sup>11</sup> 30%	...	---	---	60%
<b>15.9 Dietary fat intake among people 2 years and over</b>					
National Health and Nutrition Examination Survey					
Percent of calories from total fat . . . . .	<sup>5,6</sup> 36%	<sup>5,12</sup> 36%	<sup>7</sup> 34%	---	30%
Percent of calories from saturated fat . . . . .	<sup>5,6</sup> 13%	<sup>5,12</sup> 13%	<sup>7</sup> 12%	---	10%
Continuing Survey of Food Intakes by Individuals					
Percent of calories from total fat . . . . .	<sup>8,13</sup> 36%	<sup>14</sup> 34%	---	---	30%
Percent of calories from saturated fat . . . . .	<sup>8,13</sup> 13%	<sup>14</sup> 12%	---	---	10%
<b>15.10 Overweight prevalence</b>					
(Based on measured height and weight unless otherwise indicated)					
People 20–74 years . . . . .	<sup>5</sup> 26%	...	<sup>7,15</sup> 34%	---	20%
Males . . . . .	<sup>5</sup> 24%	...	<sup>7,16</sup> 32%	---	...
Females . . . . .	<sup>5</sup> 27%	...	<sup>7,17</sup> 35%	---	...
Adolescents 12–19 years . . . . .	<sup>5</sup> 15%	...	<sup>7</sup> 21%	---	15%
a. Low-income females 20–74 years . . . . .	<sup>5</sup> 37%	...	---	---	25%
b. Black females 20–74 years . . . . .	<sup>5</sup> 44%	...	<sup>7,18</sup> 48%	---	30%
c. Hispanic females 20–74 years . . . . .	---	...	---	---	25%
Hispanic females 20–74 years (self-reported) . . . . .	...	<sup>8,19</sup> 27%	<sup>19</sup> 32%	<sup>19</sup> 27%	...
Mexican-American females . . . . .	<sup>20</sup> 39%	...	<sup>7,21</sup> 47%	---	...
Cuban females . . . . .	<sup>20</sup> 34%	...	---	---	...
Puerto Rican females . . . . .	<sup>20</sup> 37%	...	---	---	...
d. American Indians/Alaska Natives . . . . .	<sup>22</sup> 29–75%	...	<sup>19</sup> 36%	<sup>19</sup> 48%	30%
e. People with disabilities 20 years and over . . . . .	<sup>8,19</sup> 36%	...	<sup>19</sup> 37%	<sup>19</sup> 38%	25%
f. Females with high blood pressure 20–74 years . . . . .	<sup>5</sup> 0%	...	---	---	41%
g. Males with high blood pressure 20–74 years . . . . .	<sup>5</sup> 39%	...	---	---	35%

**Table 15. Heart disease and stroke objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>15.11 Moderate physical activity</b>					
People 6 years and over . . . . .	---	...	---	---	30%
People 18 years and over 5 or more times per week . . . . .	<sup>8</sup> 22%	<sup>8,23</sup> No change	<sup>9</sup> 24%	---	...
7 or more times per week . . . . .	<sup>8</sup> 12%	<sup>8,23</sup> 16%	<sup>9</sup> 17%	---	...
<b>15.12 Cigarette smoking prevalence</b>					
People 20 years and over . . . . .	29%	...	27%	25%	15%
Males . . . . .	32%	...	29%	28%	...
Females . . . . .	27%	...	25%	23%	...
a. People with high school education or less 20 years and over . . . . .	34%	...	32%	30%	20%
b. Blue-collar workers 20 years and over . . . . .	36%	...	37%	34%	20%
c. Military personnel . . . . .	<sup>11</sup> 42%	...	35%	---	20%
d. Blacks 20 years and over . . . . .	34%	...	29%	27%	18%
e. Hispanics 20 years and over . . . . .	<sup>20</sup> 33%	...	21%	20%	18%
f. American Indians/Alaska Natives . . . . .	<sup>24</sup> 42–70%	...	40%	39%	20%
g. Southeast Asian males . . . . .	<sup>22</sup> 55%	...	---	---	20%
h. Females of reproductive age (18–44 years) . . . . .	29%	...	28%	26%	12%
i. Pregnant females . . . . .	<sup>8</sup> 25%	...	---	20%	10%
j. Females who use oral contraceptives . . . . .	<sup>25</sup> 36%	...	<sup>11</sup> 26%	---	10%
<b>15.13 Knowledge of blood pressure values</b>					
People given blood pressure values . . . . .	<sup>8</sup> 61%	...	<sup>4</sup> 76%	---	90%
People who can state blood pressure is high, low, or normal . . . . .	---	...	<sup>9</sup> 85%	85%	---
<b>15.14 Blood cholesterol checked in past 5 years</b>					
People 18 years and over . . . . .	---	<sup>26</sup> 60%	---	---	75%
Ever checked . . . . .	<sup>11</sup> 59%	...	<sup>9</sup> 63%	71%	...
Within past 2 years . . . . .	<sup>11</sup> 52%	...	<sup>9</sup> 50%	54%	...
<b>15.15 Primary care providers who provide appropriate therapy for high blood cholesterol</b>					
Median cholesterol level when diet therapy is initiated (mg/dL) . . . . .	...	<sup>11</sup> 240–259	<sup>4</sup> 200–219	---	...
Median cholesterol level when drug therapy is initiated (mg/dL) . . . . .	...	<sup>11</sup> 300–319	<sup>4</sup> 240–259	---	...
<b>15.16 Worksite blood pressure/cholesterol education programs</b>					
High blood pressure and/or cholesterol activity . . . . .	...	<sup>27</sup> 35%	---	---	50%
High blood pressure activity . . . . .	<sup>8</sup> 16.5%	...	29%	---	...
Nutrition education activity . . . . .	<sup>8</sup> 16.8%	...	31%	---	...
<b>15.17 Laboratory accuracy in cholesterol measurement</b>					
	<sup>8</sup> 53%	...	<sup>28</sup> 84%	---	90%

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>2</sup>Provisional data.

<sup>3</sup>Data have been revised. Original data were estimated based on preliminary analyses.

<sup>4</sup>1990 data.

<sup>5</sup>1976–80 data.

<sup>6</sup>People 20–74 years.

<sup>7</sup>1988–91 data.

<sup>8</sup>1985 data.

<sup>9</sup>1991 data.

<sup>10</sup>Crude rates.

<sup>11</sup>1988 data.

<sup>12</sup>Up to 74 years.

<sup>13</sup>Females 19–50 years.

<sup>14</sup>1989–91 data based on one-day intake.

<sup>15</sup>33 percent for people 20 years and over.

<sup>16</sup>31 percent for people 20 years and over.

<sup>17</sup>35 percent for people 20 years and over.

<sup>18</sup>49 percent for people 20 years and over.

<sup>19</sup>Estimate derived from self-reported height and weight.

<sup>20</sup>1982–84 data.

<sup>21</sup>47% for people 20 years and over.

<sup>22</sup>1984–88 data.

<sup>23</sup>Data source has been changed and data have been revised to reflect updated methodology.

<sup>24</sup>1979–87 data.

<sup>25</sup>1983 data

<sup>26</sup>1993 data

<sup>27</sup>1992 data.

<sup>28</sup>1987 data.

NOTE: Data may include revisions and, therefore, may differ from data previously published in these reports and other publications.

#### Data Sources:

15.1\*, 15.1a\*—National Vital Statistics System, CDC, NCHS.

15.2, 15.2a— National Vital Statistics System, CDC, NCHS.

15.3, 15.3a— End Stage Renal Disease Medicare Reimbursement Data, HCFA, Bureau of Data Management and Strategy.

15.4, 15.4a— National Health and Nutrition Examination Survey, CDC, NCHS.

15.5, 15.5a,b—National Health Interview Survey, CDC, NCHS.

15.6—National Health and Nutrition Examination Survey, CDC, NCHS.

15.7—National Health and Nutrition Examination Survey, CDC, NCHS.

15.8—Baseline: Health and Diet Survey, FDA.

15.9\*—1976–80 Baselines and 1988–91 update: National Health and Nutrition Examination Survey, CDC, NCHS. 1985 Original and 1989–91 revised baselines: Continuing Survey of Food Intakes by Individuals, USDA.

15.10\*, 15.10b\*—National Health and Nutrition Examination Survey, CDC, NCHS.

15.10a\*—Baseline: National Health and Nutrition Examination Survey, CDC, NCHS. Updates: National Health Interview Survey, CDC, NCHS.

15.10c\*—Baseline for Hispanics: National Health Interview Survey, CDC, NCHS. Baseline for Mexican Americans, Cubans, Puerto Ricans: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates for Mexican Americans: National Health and Nutrition Examination Survey, CDC, NCHS. Updates for Puerto Ricans: National Health Interview Survey.

15.10d\*—Baseline: Indian Health Service, Office of Planning, Evaluation, and Legislation, Program Statistics Division. Updates: National Health Interview Survey, CDC, NCHS.

15.10e\*—National Health Interview Survey, CDC, NCHS.

15.10f,g\*—National Health and Nutrition Examination Survey, CDC, NCHS.

15.11\*—Revised baseline and updates: National Health Interview Survey, CDC, NCHS. Original baseline: Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.

15.12\*, 15.12a\*—National Health Interview Survey, CDC, NCHS.

15.12c\*—Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel, DOD, OASD.

15.12e\*—Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates: National Health Interview Survey, CDC, NCHS.

15.12f\*—Baseline: CDC, 1987. Updates: National Health Interview Survey, CDC, NCHS.

15.12g\*—Baseline: Local Surveys. Update: Jenkins CH. Cancer risks and prevention practices among Vietnamese refugees. *Western J of Med* 153:34–9. 1990.

15.12i\*—Baseline: National Health Interview Survey, CDC, NCHS. 1991 Update: National Health Interview Survey, CDC, NCHS. 1993 Update: National Health and Pregnancy Survey, NIH, NIDA.

15.12j\*—Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.

15.13—National Health Interview Survey, CDC, NCHS.

15.14—Baseline: Health and Diet Survey, FDA. Update: National Health Interview Survey, CDC, NCHS.

15.15—Cholesterol Awareness Physicians Survey, NIH, NHLBI.

15.16—National Survey of Worksite Health Promotion Activities, OASH, ODPHP.

15.17—Comprehensive Chemistry Survey of Laboratories Using Enzymatic Methods, College of American Pathologists.

\*Duplicate objective.

# Heart Disease and Stroke Objectives

**15.1\***: Reduce coronary heart disease deaths to no more than 100 per 100,000 people.

Duplicate objectives: 1.1, 2.1, and 3.1

**15.1a\***: Reduce coronary heart disease deaths among blacks to no more than 115 per 100,000 people.

Duplicate objectives: 1.1a, 2.1a, and 3.1a

**15.2**: Reduce stroke deaths to no more than 20 per 100,000 people.

**15.2a**: Reduce stroke deaths among blacks to no more than 27 per 100,000.

**15.3**: Reverse the increase in end-stage renal disease (requiring maintenance dialysis or transplantation) to attain an incidence of no more than 13 per 100,000.

**15.3a**: Reverse the increase in end-stage renal disease (requiring maintenance dialysis or transplantation) among black persons to attain an incidence of no more than 30 per 100,000.

**15.4**: Increase to at least 50 percent the proportion of people with high blood pressure whose blood pressure is under control.

**\*\*NOTE**: People with high blood pressure have blood pressure equal to or greater than 140 mm Hg systolic and/or 90 mm Hg diastolic and/or take antihypertensive medication. Blood pressure control is defined as maintaining a blood pressure less than 140 mm Hg systolic and 90 mm Hg diastolic. Nonpharmacologic treatment (e.g., through weight loss, low sodium diets, or restriction of alcohol) is not included.

**15.4a**: Increase to at least 40 percent the proportion of men with high blood pressure whose blood pressure is under control.

**15.5**: Increase to at least 90 percent the proportion of people with high blood pressure who are taking action to help control their blood pressure.

**\*\*NOTE**: Self-reported data are used for this objective. People with high

blood pressure are defined as people who have been told that they have high blood pressure on two or more occasions by a doctor or other health professional. Actions to control blood pressure include taking medication, dieting to lose weight, cutting down on salt, and exercising.

**15.5a**: Increase to at least 80 percent the proportion of white hypertensive men aged 18–34 who are taking action to help control their blood pressure.

**15.5b**: Increase to at least 80 percent the proportion of black hypertensive men aged 18–34 who are taking action to help control their blood pressure.

**15.6**: Reduce the mean serum cholesterol level among adults to no more than 200 mg/dL.

**15.7**: Reduce the prevalence of blood cholesterol levels of 240 mg/dL or greater to no more than 20 percent among adults.

**15.8**: Increase to at least 60 percent the proportion of adults with high blood cholesterol who are aware of their condition and are taking action to reduce their blood cholesterol to recommended levels.

**NOTE**: “High blood cholesterol” means a level that requires diet and, if necessary, drug treatment. Actions to control high blood cholesterol include keeping medical appointments, making recommended dietary changes (e.g., reducing saturated fat, total fat, and dietary cholesterol), and, if necessary, taking prescribed medication.

**15.9\***: Reduce dietary fat intake to an average of 30 percent of calories or less and average saturated fat intake to less than 10 percent of calories among people aged 2 and older.

Duplicate objectives: 2.5 and 16.7

**15.10\***: Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12–19.

**NOTE**: For people aged 20 and older, overweight is defined as body mass index (BMI) equal to or greater than 27.8 for men and 27.3 for women. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males aged 12–14, 24.3 for males aged

15–17, 25.8 for males aged 18–19, 23.4 for females aged 12–14, 24.8 for females aged 15–17, and 25.7 for females aged 18–19. The values for adolescents are the age- and gender-specific 85th percentile values of the 1976–80 National Health and Nutrition Examination Survey (NHANES II), corrected for sample variation. BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.

Duplicate objectives: 1.2, 2.3, and 17.12

**15.10a\***: Reduce overweight to a prevalence of no more than 25 percent among low-income women aged 20 and older.

Duplicate objectives: 1.2a, 2.3a, and 17.12a

**15.10b\***: Reduce overweight to a prevalence of no more than 30 percent among black women aged 20 and older.

Duplicate objectives: 1.2b, 2.3b, and 17.12b

**15.10c\***: Reduce overweight to a prevalence of no more than 25 percent among Hispanic women aged 20 and older.

Duplicate objectives: 1.2c, 2.3c, and 17.12c

**15.10d\***: Reduce overweight to a prevalence of no more than 30 percent among American Indians and Alaska Natives.

Duplicate objectives: 1.2d, 2.3d, and 17.12d

**15.10e\***: Reduce overweight to a prevalence of no more than 25 percent among people with disabilities.

Duplicate objectives: 1.2e, 2.3e, and 17.12e

**15.10f\***: Reduce overweight to a prevalence of no more than 41 percent among women with high blood pressure aged 20 and older.

Duplicate objectives: 1.2f, 2.3f, and 17.12f

**15.10g\***: Reduce overweight to a prevalence of no more than 35 percent among men with high blood pressure aged 20 and older.

Duplicate objectives: 1.2g, 2.3g, and 17.12g

**15.11\*:** Increase to at least 30 percent the proportion of people aged 6 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day.

*NOTE: Light to moderate physical activity requires sustained, rhythmic muscular movements, is at least equivalent to sustained walking, and is performed at less than 60 percent of maximum heart rate for age. Maximum heart rate equals roughly 220 beats per minute minus age. Examples may include walking, swimming, cycling, dancing, gardening and yard work, various domestic and occupational activities, and games and other childhood pursuits.*

Duplicate objectives: 1.3 and 17.13

**15.12\*:** Reduce cigarette smoking to a prevalence of no more than 15 percent among people aged 20 and older.

Duplicate objectives: 3.4 and 16.6

**15.12a\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among people aged 20 and older with a high school education or less.

Duplicate objectives: 3.4a and 16.6a

**15.12b\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among blue-collar workers aged 20 and older.

Duplicate objectives: 3.4b and 16.6b

**15.12c\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among military personnel.

Duplicate objectives: 3.4c and 16.6c

**15.12d\*:** Reduce cigarette smoking to a prevalence of no more than 18 percent among blacks aged 20 and older.

Duplicate objectives: 3.4d and 16.6d

**15.12e\*:** Reduce cigarette smoking to a prevalence of no more than 18 percent among Hispanics aged 20 and older.

Duplicate objectives: 3.4e and 16.6e

**15.12f\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among American Indians and Alaska Natives.

Duplicate objectives: 3.4f and 16.6f

**15.12g\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among Southeast Asian men.

Duplicate objectives: 3.4g and 16.6g

**15.12h\*:** Reduce cigarette smoking to a prevalence of no more than 12 percent among women of reproductive age.

Duplicate objectives: 3.4h and 16.6h

**15.12i\*:** Reduce cigarette smoking to a prevalence of no more than 10 percent among pregnant women.

Duplicate objectives: 3.4i and 16.6i

**15.12j\*:** Reduce cigarette smoking to a prevalence of no more than 10 percent among women who use oral contraceptives.

Duplicate objectives: 3.4j and 16.6j

**15.13:** Increase to at least 90 percent the proportion of adults who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high.

*NOTE: A blood pressure measurement within the preceding 2 years refers to a measurement by a health professional or other trained observer.*

**15.14:** Increase to at least 75 percent the proportion of adults who have had their blood cholesterol checked within the preceding 5 years.

**15.15:** Increase to at least 75 percent the proportion of primary care providers who initiate diet and, if necessary, drug therapy at levels of blood cholesterol consistent with current management guidelines for patients with high blood cholesterol.

*NOTE: Current treatment recommendations are outlined in detail in the Report of the Expert Panel on the Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults, released by the National Cholesterol Education Program in 1987. Guidelines appropriate for children are currently being established. Treatment recommendations are likely to be refined over time. Thus, for the year 2000, "current" means whatever recommendations are then in effect.*

**15.16:** Increase to at least 50 percent the proportion of worksites with 50 or more

employees that offer high blood pressure and/or cholesterol education and control activities to their employees.

**15.17:** Increase to at least 90 percent the proportion of clinical laboratories that meet the recommended accuracy standard for cholesterol measurement.

\*Duplicate objective.

\*\*Updated from original note in *Healthy People 2000*.

# Priority Area 16 Cancer

## Background

Cancer is the second leading cause of death in the United States, accounting for nearly one out of every four deaths (1). It is estimated that 1,252,000 Americans will be diagnosed with cancer in 1995 and approximately 547,000 will die of cancer this year. These American Cancer Society estimates are based on an increase in the number of older Americans who are at higher risk for developing the disease; one-half of the cases occur in persons 67 years of age and over (2).

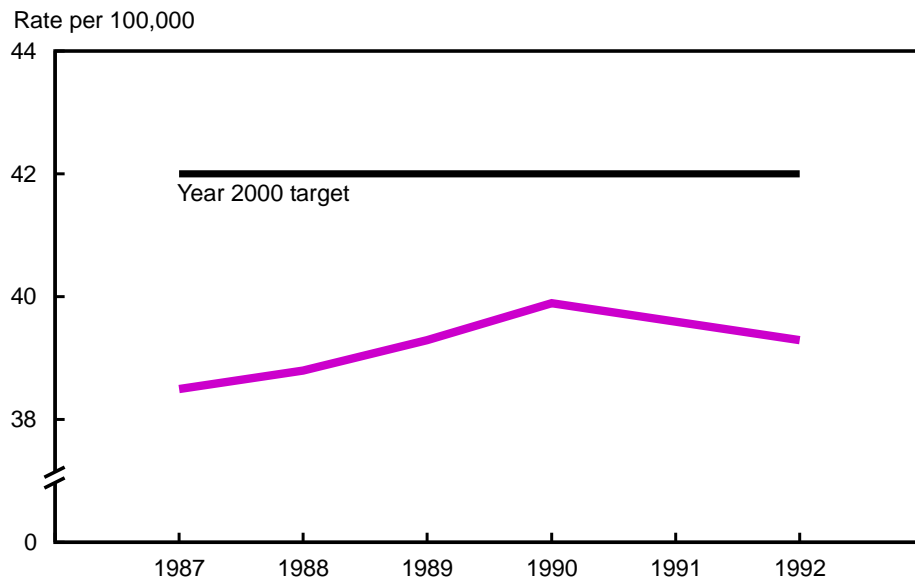
Although cancer remains a major health problem in the United States, there is evidence that the prospect of preventing and surviving cancer continues to improve. Specifically, perhaps as much as 50 percent or more of cancer incidence can be prevented through smoking cessation and changed dietary habits (3). The scientific evidence for smoking as a cause of cancer has been recognized for over 20 years. The evidence for diet has emerged over the past decade and has progressed to the extent that recommendations for prudent dietary changes can now be made.

## Data Summary

### Highlights

The objectives related to cancer mortality (16.1–16.5) improved or stayed constant in 1992. Until 1991, the trend for lung cancer mortality (16.2) had been rising at a rate that would surpass the target. The rate actually declined in 1991 for the first time in at least 50 years and again in 1992. Provisional data suggest that the decline in lung cancer mortality may have continued in 1993. The 1992 death rate for colorectal cancer (16.5) equalled the year 2000 target. Improvement was also observed in cancer risk factors such as smoking (16.6) and dietary fat intake (16.7). Data for 1993 indicate that substantial progress is being made in increasing the numbers of women receiving mammograms (16.11) and Pap tests (16.12).

**Figure 17. Age-adjusted death rates for lung cancer: United States, 1987–92, and year 2000 target for objective 16.2**



	1987	1988	1989	1990	1991	1992	Year 2000 target
All persons. . . . .	38.5	38.8	39.3	39.9	39.6	39.3	42

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Summary of progress

Progress toward the year 2000 targets has been made for a majority (13) of the 16 objectives (16.1, 16.2, 16.3, 16.4, 16.5, 16.6, 16.7, 16.10, 16.11, 16.12, 16.13, 16.14, and 16.16). It should be noted that in many cases the actual improvement is small. There were no new data available to update progress for objectives 16.8 and 16.9. Baseline data for 16.15 are expected to be available in late 1995 from the Health Care Financing Administration.

## Data Issues

### Age-Adjusted Death Rates

The death rates shown in objectives 16.1–16.5 are age adjusted to the 1940 U.S. population. (See Introduction for more information on age-adjusted rates.) The National Cancer Institute age adjusts cancer deaths to the 1970 U.S. population. When the 1970 standard population is used, the equivalent baseline, interim, and target rates are all somewhat higher than those generated using the 1940 population. However, the trends are very similar.

## Definitions

Beginning in 1992, the definition of current smoker (16.6) was modified to specifically include persons who smoked only “some days.” Prior to 1992, a current smoker was defined by the questions “Have you ever smoked 100 cigarettes in your lifetime?” and “Do you smoke now?” In 1992, data were collected for half the respondents using these smoking questions and for the other half of respondents using a revised smoking question: “Do you smoke everyday, some days, or not at all?” The 1992 estimate combines data collected using both sets of questions. The 1993 estimate is based completely on the revised definition, which is considered a more complete estimate of smoking prevalence. The effect of the new definition is a small increase in the number of smokers.

Pap test data (objective 16.12) from the NHIS include women without a uterine cervix. Data from the 1991 NHIS show that 81.5 percent of all women 18 years and over report having a uterine cervix (hysterectomy prevalence is 18.5 percent). For women



45 years and over, hysterectomy prevalence was 34 percent.

Two subobjectives in this chapter, 16.11b (mammograms) and 16.12d (Pap tests), target women with low income. Prior to 1993 these subobjectives were tracked with data for women with family incomes of less than \$10,000. Because of changes in the poverty level over time, beginning with 1993 these subobjectives are being tracked with data for women with family incomes below the Census poverty threshold (see appendix).

## References

1. National Center for Health Statistics. Advance report of final mortality statistics, 1992. Monthly vital statistics report; vol 43 no 6 suppl. Hyattsville, Maryland. December. 1994.
2. American Cancer Society, Cancer facts and figures, 1994. American Cancer Society, Inc. Atlanta, Georgia. 1994.
3. National Cancer Institute, Division of Cancer Prevention and Control. Fiscal Year 1994 Annual Report. Rockville, Maryland. 1994.

**Table 16. Cancer objective status**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>16.1 Cancer deaths (age adjusted per 100,000)</b> . . . . .	133	<sup>1</sup> 134	133	<sup>2</sup> 133	130
<b>16.2 Lung cancer deaths (age adjusted per 100,000)</b> . . . . .	37.9	<sup>1</sup> 38.5	39.3	---	42.0
<b>16.3 Female breast cancer deaths (age adjusted per 100,000)</b> . . . . .	22.9	<sup>1</sup> 23.0	21.9	<sup>2</sup> 21.6	20.6
<b>16.4 Cervical cancer deaths (age adjusted per 100,000)</b> . . . . .	2.8	<sup>1</sup> No change	2.7	---	1.3
<b>16.5 Colorectal cancer deaths (age adjusted per 100,000)</b> . . . . .	14.4	<sup>1</sup> 14.7	13.2	---	13.2
<b>16.6 Cigarette smoking prevalence</b>					
People 20 years and over . . . . .	29%	...	27%	25%	15%
Males . . . . .	32%	...	29%	28%	...
Females . . . . .	27%	...	25%	23%	...
a. People with high school education or less 20 years and over . . . . .	34%	...	32%	30%	20%
b. Blue-collar workers 20 years and over . . . . .	36%	...	37%	34%	20%
c. Military personnel . . . . .	<sup>3</sup> 42%	...	35%	---	20%
d. Blacks 20 years and over . . . . .	34%	...	29%	27%	18%
e. Hispanics 20 years and over . . . . .	<sup>4</sup> 33%	...	21%	20%	18%
f. American Indians/Alaska Natives . . . . .	<sup>5</sup> 42–70%	...	40%	39%	20%
g. Southeast Asian males . . . . .	<sup>6</sup> 55%	...	---	---	20%
h. Females of reproductive age (18–44 years) . . . . .	29%	...	28%	26%	12%
i. Pregnant females . . . . .	<sup>7</sup> 25%	...	---	20%	10%
j. Females who use oral contraceptives . . . . .	<sup>8</sup> 36%	...	<sup>3</sup> 26%	---	10%
<b>16.7 Dietary fat intake among people 2 years and over</b>					
National Health and Nutrition Examination Survey					
Percent of calories from total fat . . . . .	<sup>9,10</sup> 36%	<sup>10,11</sup> 36%	<sup>12</sup> 34%	---	30%
Percent of calories from saturated fat . . . . .	<sup>9,10</sup> 13%	<sup>10,11</sup> 13%	<sup>12</sup> 12%	---	10%
Continuing Survey of Food Intakes by Individuals					
Percent of calories from total fat . . . . .	<sup>7,13</sup> 36%	<sup>14</sup> 34%	---	---	30%
Percent of calories from saturated fat . . . . .	<sup>7,13</sup> 13%	<sup>14</sup> 12%	---	---	10%
<b>16.8 Daily intake of vegetables, fruits, and grain products</b>					
Adults (number of servings)					
Vegetables and fruits . . . . .	...	<sup>15</sup> 4.0	---	---	5
Males					
20–39 years . . . . .	...	<sup>15</sup> 4.1	---	---	...
40–59 years . . . . .	...	<sup>15</sup> 4.3	---	---	...
60 years and over . . . . .	...	<sup>15</sup> 4.4	---	---	...
Females					
20–39 years . . . . .	...	<sup>15</sup> 3.4	---	---	...
40–59 years . . . . .	...	<sup>15</sup> 4.0	---	---	...
60 years and over . . . . .	...	<sup>15</sup> 3.9	---	---	...
19–50 years . . . . .	<sup>7</sup> 2.5	...	---	---	...
Grain products					
Adults, all ages . . . . .	---	...	---	---	6.0
Females 19–50 years . . . . .	<sup>7</sup> 3.0	...	---	---	...
<b>16.9 Actions to reduce sun exposure</b>					
Among total population those very likely to . . . . .	...	...	---	---	60%
Limit sun exposure . . . . .	...	<sup>16</sup> 32%	---	---	...
Use sun screen . . . . .	...	<sup>16</sup> 29%	---	---	...
Wear protective clothing . . . . .	...	<sup>16</sup> 28%	---	---	...

**Table 16. Cancer objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>16.10 Tobacco, diet, and cancer screening and counseling by clinicians</b>					
Smoking patients . . . . .	17,18 <sup>52%</sup>	...	18,19 <sup>96%</sup>	---	75%
Digital rectal . . . . .	---	...	19 <sup>49%</sup>	---	...
Blood stool . . . . .	---	...	19 <sup>56%</sup>	---	...
Proctoscopic exam . . . . .	---	...	19 <sup>23%</sup>	---	...
Breast physical . . . . .	---	...	19 <sup>78%</sup>	---	...
Mammogram . . . . .	---	...	19 <sup>37%</sup>	---	...
Pap test . . . . .	---	...	19 <sup>55%</sup>	---	...
Percent of clinicians routinely providing service to 81–100% of patients					
Formulation of diet/nutrition plan					
Pediatricians . . . . .	...	16 <sup>31%</sup>	---	---	...
Nurse practitioners . . . . .	...	16 <sup>31%</sup>	---	---	...
Obstetricians/gynecologists . . . . .	...	16 <sup>19%</sup>	---	---	...
Internists . . . . .	...	16 <sup>33%</sup>	---	---	...
Family physicians . . . . .	...	16 <sup>24%</sup>	---	---	...
Discussion of strategies to quit smoking					
Pediatricians . . . . .	...	16 <sup>19%</sup>	---	---	...
Nurse practitioners . . . . .	...	16 <sup>20%</sup>	---	---	...
Obstetricians/gynecologists . . . . .	...	16 <sup>28%</sup>	---	---	...
Internists . . . . .	...	16 <sup>50%</sup>	---	---	...
Family physicians . . . . .	...	16 <sup>43%</sup>	---	---	...
<b>16.11 Breast examination and mammogram</b>					
Females 40 years and over (ever received) . . . . .	36%	...	66%	73%	80%
Females 50 years and over (preceding 1–2 years) . . . . .	25%	...	51%	55%	60%
Ever received					
a. Hispanic females 40 years and over . . . . .	20%	...	66%	64%	80%
b. Low-income females 40 years and over (annual family income less than \$10,000) <sup>20</sup> . . . . .	22%	...	47%	58%	80%
c. Females 40 years and over with less than high school education . . . . .	23%	...	50%	61%	80%
d. Females 70 years and over . . . . .	25%	...	55%	63%	80%
e. Black females 40 years and over . . . . .	28%	...	62%	69%	80%
Received within preceding 2 years					
a. Hispanic females 50 years and over . . . . .	18%	...	47%	47%	60%
b. Low-income females 50 years and over (annual family income less than \$10,000) <sup>20</sup> . . . . .	15%	...	32%	39%	60%
c. Females 50 years and over with less than high school education . . . . .	16%	...	35%	42%	60%
d. Females 70 years and over . . . . .	18%	...	39%	44%	60%
e. Black females 50 years and over . . . . .	19%	...	48%	54%	60%
<b>16.12 Pap test</b>					
Ever received . . . . .	21 <sup>88%</sup>	...	21 <sup>91%</sup>	21 <sup>95%</sup>	95%
Received within preceding 3 years . . . . .	21 <sup>75%</sup>	...	21 <sup>74%</sup>	21 <sup>78%</sup>	85%
Ever received					
a. Hispanic females 18 years and over . . . . .	21 <sup>75%</sup>	...	21 <sup>83%</sup>	21 <sup>88%</sup>	95%
b. Females 70 years and over . . . . .	21 <sup>76%</sup>	...	21 <sup>82%</sup>	21 <sup>91%</sup>	95%
c. Females 18 years and over with less than high school education . . . . .	21 <sup>79%</sup>	...	21 <sup>82%</sup>	21 <sup>91%</sup>	95%
d. Low-income females 18 years and over (annual family income less than \$10,000) <sup>20</sup> . . . . .	21 <sup>80%</sup>	...	21 <sup>86%</sup>	21 <sup>89%</sup>	95%
Received within preceding 3 years					
a. Hispanic females 18 years and over . . . . .	21 <sup>66%</sup>	...	21 <sup>74%</sup>	21 <sup>77%</sup>	80%
b. Females 70 years and over . . . . .	21 <sup>44%</sup>	...	21 <sup>46%</sup>	21 <sup>54%</sup>	70%
c. Females 18 years and over with less than high school education . . . . .	21 <sup>58%</sup>	...	21 <sup>58%</sup>	21 <sup>64%</sup>	75%
d. Low-income females 18 years and over (annual family income less than \$10,000) <sup>20</sup> . . . . .	21 <sup>64%</sup>	...	21 <sup>65%</sup>	21 <sup>71%</sup>	80%

**Table 16. Cancer objective status—Con.**

Objective	1987 baseline				Target 2000
	Original	Revised	1992	1993	
<b>16.13 Fecal occult blood test and proctosigmoidoscopy</b>					
Received fecal occult blood testing within preceding 2 years . . . . .	27%	...	30%	---	50%
Ever received proctosigmoidoscopy . . . . .	25%	...	33%	---	40%
People 65 years and over with routine checkup in past 2 years who had a fecal blood test . . . . .	---	...	<sup>22</sup> 36%	---	...
<b>16.14 Oral, skin, and digital rectal examinations</b>					
People 50 years and over (during past year) . . . . .	---	---	---	---	40%
Oral . . . . .	...	<sup>16</sup> 9%	---	---	...
Skin . . . . .	...	<sup>16</sup> 17%	---	---	...
Digital rectal . . . . .	27%	...	38%	---	...
<b>16.15 Pap test quality</b>					
Monitoring cytology laboratory . . . . .	---	...	---	---	100%
<b>16.16 Mammogram facilities certified by American College of Radiology . . . . .</b>	<sup>23</sup> 18–21%	...	64%	---	80%

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>2</sup>Provisional data.

<sup>3</sup>1988 data.

<sup>4</sup>1982–84 data.

<sup>5</sup>1979–87 data.

<sup>6</sup>1984–88 data.

<sup>7</sup>1985 data.

<sup>8</sup>1983 data.

<sup>9</sup>People 20–74 years.

<sup>10</sup>1976–80 data.

<sup>11</sup>For persons up to 74 years.

<sup>12</sup>1988–91 data.

<sup>13</sup>Data for females 19–50 years of age only.

<sup>14</sup>1989–91 data.

<sup>15</sup>1989 preliminary data.

<sup>16</sup>1992 data.

<sup>17</sup>1986 data.

<sup>18</sup>Data reflect tobacco screening and counseling only.

<sup>19</sup>1989 data.

<sup>20</sup>Beginning with 1993, data are for women with family incomes below the census poverty threshold; see appendix.

<sup>21</sup>Includes women without a uterine cervix.

<sup>22</sup>1991 data.

<sup>23</sup>1990 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

16.1\*—National Vital Statistics System, CDC, NCHS.

16.2\*—National Vital Statistics System, CDC, NCHS.

16.3—National Vital Statistics System, CDC, NCHS.

16.4—National Vital Statistics System, CDC, NCHS.

16.5—National Vital Statistics System, CDC, NCHS.

16.6\*, 16.6a, b, d, h\*—National Health Interview Survey, CDC, NCHS.

16.6c\*—Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel, DOD, OASD.

16.6e\*—Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates: National Health Interview Survey, CDC, NCHS.

16.6f\*—Baseline: CDC, 1987. Updates: National Health Interview Survey, CDC, NCHS.

16.6g\*—Baseline: Local Surveys. Update: Jenkins CH. Cancer risks and prevention practices among Vietnamese refugees. *Western J of Med* 153:34–9. 1990.

16.6i\*—Baseline: National Health Interview Survey, CDC, NCHS. 1991 Update: National Health Interview Survey, CDC, NCHS. 1993 Update: National Health and Pregnancy Survey, NIH, NIDA.

16.6j\*—Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.

16.7\*—1976–80 Baselines and 1989–91 update: National Health and Nutrition Examination Survey, CDC, NCHS. 1985 Original and 1989–91 revised baselines: Continuing Survey of Food Intakes by Individuals, USDA.

16.8\*—Baseline: Continuing Survey of Food Intakes by Individuals, USDA. Updates: National Health and Nutrition Examination Survey, CDC, NCHS.

16.9—National Health Interview Survey, CDC, NCHS.

16.10—1986 Baseline: Wells, et al. 1986. 1989 Updates: Survey of Physician's Attitudes and Practices in Early Cancer Detection, NCI. 1992 Baseline: Primary Care Provider Surveys, OASH, ODPHP.

16.11, 16.11a–d—National Health Interview Survey, CDC, NCHS.

16.12, 16.12a–d—National Health Interview Survey, CDC, NCHS.

16.13—National Health Interview Survey, CDC, NCHS.

16.14—National Health Interview Survey, CDC, NCHS.

16.16—American College of Radiology.

\*Duplicate objective.

# Cancer Objectives

**16.1\*:** Reverse the rise in cancer deaths to achieve a rate of no more than 130 per 100,000 people.

*NOTE: In its publications the National Cancer Institute age adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target value for this objective would be 175 per 100,000.*

Duplicate objective: 2.2

**16.2\*:** Slow the rise in lung cancer deaths to achieve a rate of no more than 42 per 100,000 people.

*NOTE: In its publications the National Cancer Institute age adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target value for this objective would be 53 per 100,000.*

Duplicate objective: 3.2

**16.3:** Reduce breast cancer deaths to no more than 20.6 per 100,000 women.

*NOTE: In its publications the National Cancer Institute age adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target value for this objective would be 25.2 per 100,000.*

**16.4:** Reduce deaths from cancer of the uterine cervix to no more than 1.3 per 100,000 women.

*NOTE: In its publications the National Cancer Institute age adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target value for this objective would be 1.5 per 100,000.*

**16.5:** Reduce colorectal cancer deaths to no more than 13.2 per 100,000 people.

*NOTE: In its publications the National Cancer Institute age adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target value for this objective would be 18.7 per 100,000.*

**16.6\*:** Reduce cigarette smoking to a prevalence of no more than 15 percent among people aged 20 and older.

Duplicate objectives: 3.4 and 15.12

**16.6a\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among people aged 20 and

older with a high school education or less.

Duplicate objectives: 3.4a and 15.12a

**16.6b\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among blue-collar workers aged 20 and older.

Duplicate objectives: 3.4b and 15.12b

**16.6c\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among military personnel.

Duplicate objectives: 3.4c and 15.12c

**16.6d\*:** Reduce cigarette smoking to a prevalence of no more than 18 percent among blacks aged 20 and older.

Duplicate objectives: 3.4d and 15.12d

**16.6e\*:** Reduce cigarette smoking to a prevalence of no more than 18 percent among Hispanics aged 20 and older.

Duplicate objectives: 3.4e and 15.12e

**16.6f\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among American Indians and Alaska Natives.

Duplicate objectives: 3.4f and 15.12f

**16.6g\*:** Reduce cigarette smoking to a prevalence of no more than 20 percent among Southeast Asian men.

Duplicate objectives: 3.4g and 15.12g

**16.6h\*:** Reduce cigarette smoking to a prevalence of no more than 12 percent among women of reproductive age.

Duplicate objectives: 3.4h and 15.12h

**16.6i\*:** Reduce cigarette smoking to a prevalence of no more than 10 percent among pregnant women.

Duplicate objectives: 3.4i and 15.12i

**16.6j\*:** Reduce cigarette smoking to a prevalence of no more than 10 percent among women who use oral contraceptives.

Duplicate objectives: 3.4j and 15.12j

**16.7\*:** Reduce dietary fat intake to an average of 30 percent of calories or less and average saturated fat intake to less than 10 percent of calories among people aged 2 and older.

*NOTE: The inclusion of a saturated fat*

*target in this objective should not be interpreted as evidence that reducing only saturated fat will reduce cancer risk. Epidemiologic and experimental animal studies suggest that the amount of fat consumed rather than the specific type of fat can influence the risk of some cancers.*

Duplicate objectives: 2.5 and 15.9

**16.8\*:** Increase complex carbohydrate and fiber-containing foods in the diets of adults to five or more daily servings for vegetables (including legumes) and fruits, and to six or more daily servings for grain products.

Duplicate objective: 2.6

**16.9:** Increase to at least 60 percent the proportion of people of all ages who limit sun exposure, use sunscreens and protective clothing when exposed to sunlight, and avoid artificial sources of ultraviolet light (e.g., sun lamps, tanning booths).

**16.10:** Increase to at least 75 percent the proportion of primary care providers who routinely counsel patients about tobacco-use cessation, diet modification, and cancer screening recommendations.

**16.11:** Increase to at least 80 percent the proportion of women aged 40 and older who have ever received a clinical breast examination and a mammogram, and to at least 60 percent those aged 50 and older who have received them within the preceding 1 to 2 years.

**16.11a:** Increase to at least 80 percent the proportion of Hispanic women aged 40 and older who have ever received a clinical breast examination and a mammogram, and to at least 60 percent those aged 50 and older who have received them within the preceding 1 to 2 years.

**16.11b:** Increase to at least 80 percent the proportion of low-income (annual family income less than \$10,000 ) women aged 40 and older who have ever received a clinical breast examination and a mammogram, and to at least 60 percent those aged 50 and older who have received them within the preceding 1 to 2 years.

**16.11c:** Increase to at least 80 percent the proportion of women with less than a high school education aged 40 and older who

have ever received a clinical breast examination and a mammogram, and to at least 60 percent those aged 50 and older who have received them within the preceding 1 to 2 years.

**16.11d:** Increase to at least 80 percent the proportion of women aged 70 and older who have ever received a clinical breast examination and a mammogram, and to at least 60 percent those who have received them within the preceding 1 to 2 years.

**16.11e:** Increase to at least 80 percent the proportion of black women aged 40 and older who have ever received a clinical breast examination and a mammogram, and to at least 60 percent those aged 50 and older who have received them within the preceding 1 to 2 years.

**16.12:** Increase to at least 95 percent the proportion of women aged 18 and older with uterine cervix who have ever received a Pap test, and to at least 85 percent those who received a Pap test within the preceding 1 to 3 years.

**16.12a:** Increase to at least 95 percent the proportion of Hispanic women aged 18 and older with uterine cervix who have ever received a Pap test, and to at least 80 percent those who received a Pap test within the preceding 1 to 3 years.

**16.12b:** Increase to at least 95 percent the proportion of women aged 70 and older with uterine cervix who have ever received a Pap test, and to at least 70 percent those who received a Pap test within the preceding 1 to 3 years.

**16.12c:** Increase to at least 95 percent the proportion of women aged 18 and older with less than a high school education with uterine cervix who have ever received a Pap test, and to at least 75 percent those who received a Pap test within the preceding 1 to 3 years.

**16.12d:** Increase to at least 95 percent the proportion of low-income women (annual family income less than \$10,000) aged 18 and older with uterine cervix who have ever received a Pap test, and to at least 80 percent those who

received a Pap test within the preceding 1 to 3 years.

**16.13:** Increase to at least 50 percent the proportion of people aged 50 and older who have received fecal occult blood testing within the preceding 1 to 2 years, and to at least 40 percent those who have ever received proctosigmoidoscopy.

**16.14:** Increase to at least 40 percent the proportion of people aged 50 and older visiting a primary care provider in the preceding year who have received oral, skin, and digital rectal examinations during one such visit.

**16.15:** Ensure that Pap tests meet quality standards by monitoring and certifying all cytology laboratories.

**16.16:** Ensure that mammograms meet quality standards by monitoring and certifying at least 80 percent of mammography facilities.

\*Duplicate objective.

# Priority Area 17 Diabetes and Chronic Disabling Conditions

## Background

Preventing unnecessary deaths is only one item on the public health agenda. The preservation of physical and mental function is also important. Quality, not merely quantity of life has become the issue. As the population of the United States grows older, the problems posed by chronic and disabling conditions increasingly demand the Nation's attention. Chronic and disabling conditions that significantly affect quality of life include diabetes, arthritis, deformities or orthopedic impairments, hearing and visual impairments, and mental retardation.

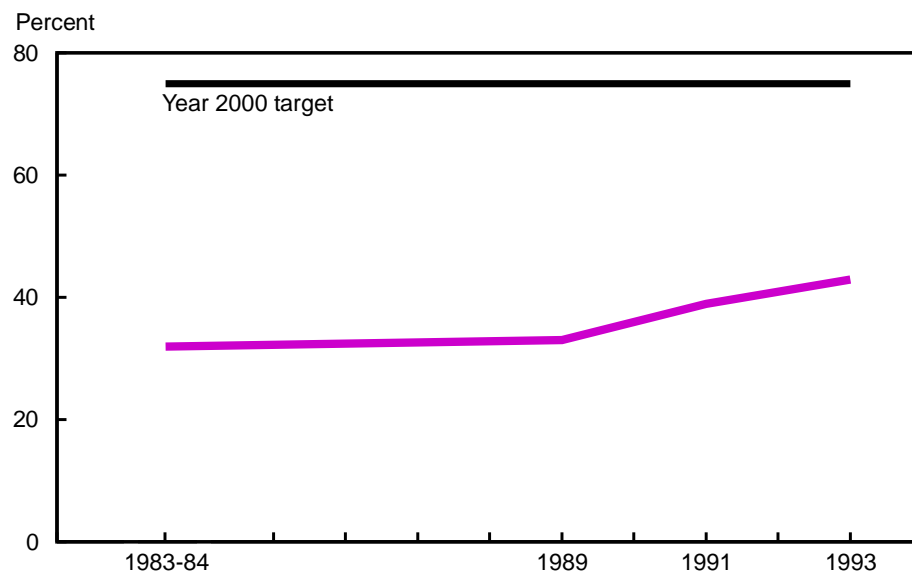
Disability, defined by a limitation of the ability to perform major activities caused by chronic health conditions and impairments, affected an increasing number of Americans (nearly 11 percent in 1993) (1). Over 30 million people have functional limitations that interfere with their daily activities, and over 10 million have limitations that prevent them from working, attending school, or maintaining a household. The underlying conditions most often responsible for these limitations are arthritis, heart disease, back conditions, lower extremity impairments, and intervertebral disc disorders (2). For those under 18 years of age, the most frequent causes of activity limitation are asthma, mental retardation, mental illness, and hearing and speech impairments.

## Data Summary

### Highlights

Several measures of chronic disability continued to increase in 1993. These included people limited in major activity due to chronic conditions (17.2), people limited in activity due to asthma (17.4), and back conditions (17.5), and people with significant hearing (17.6) and visual impairment (17.7). Although diabetes incidence has declined slightly from the baseline, prevalence (17.11) is

**Figure 18. Proportion of people with diabetes who have taken formal patient education: United States, 1983–93, and year 2000 target for objective 17.14a**



	1983–84	1989	1991	1993	Year 2000 target
People with diabetes . . . . .	32	33	39	43	75

SOURCES: Baseline: Halpern M. The Impact of Diabetes Education in Michigan. *Diabetes* 38(2) 151A, 1989; Updates: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

generally increasing. Data from the 1993 National Health Interview Survey indicate that the proportion of people with diabetes or asthma who have taken formal classes to learn how to manage their diseases (17.14) has increased.

## Summary of Progress

Data are available to assess progress for 15 out of the 20 objectives in this priority area. Three objectives (17.13, 17.14, and 17.19) are moving toward the year 2000 targets. Seven (17.1, 17.2, 17.4, 17.5, 17.6, 17.7, and 17.12) are moving away from the targets. People with self-care problems (17.3) showed no change for the noninstitutionalized population. Diabetes-related mortality (17.9) and earlier detection of significant hearing impairments (17.16) also showed no change. Results were mixed for objectives 17.10 and 17.11. For the remaining five objectives two have no baseline (17.18 and 17.20) and three have no data beyond the baseline to assess progress (17.8, 17.15, and 17.17).

Objective 17.19 calls for the voluntary establishment of policies or

programs for the hiring of people with disabilities. Since this objective was created, Congress has passed the Americans with Disabilities Act of 1990 (ADA) that prohibits all employers from discriminating against a “qualified disabled individual because of the disability in regard to job application procedures, hiring, advancement...” (3). Assuming full compliance with the ADA, this objective has been achieved via legislation.

## Data Issues

### Years of Healthy Life

The concept of increasing years of healthy life is one of the three *Healthy People 2000* goals, and is included as an objective in three priority areas (8.1, 17.1, and 21.1). See the appendix for a discussion of years of healthy life.

## Definitions

Subobjective 17.2a (limitation in major activity due to chronic conditions)

targets people with low income. Originally this subobjective was tracked with data for people with family incomes of less than \$10,000. Because of changes in the poverty level over time, data are also shown for people with family incomes below Census poverty threshold (see appendix).

Overweight (objective 17.12) for adults is defined as a body mass index (BMI) at or above the sex-specific 85th percentile of the 1976–80 NHANES II reference population 20–29 years of age. For adolescents, overweight is the sex- and age-specific 85th percentile from NHANES II (see Note with the text of objective 17.12).

### Data Source Description

Diabetes-related mortality data (17.9) are derived from the multiple-cause-of-death files. Data include all mentions of diabetes on the death certificate, whether as an underlying or contributing cause of death. In 1992 diabetes was more than 3 times as likely to be listed as contributing cause of death than as the underlying cause.

### Comparability of Data Sources

Overweight (objective 17.12) is being tracked with two main data sources. The primary data source is the National Health and Nutrition Examination Survey (NHANES), which provided baseline data for most of the overweight objectives and the 1988–91 updates. These data are derived from measured height and weight. Interim estimates shown in an earlier publication (4), 1993 updates for Hispanic females and American Indians/Alaska Natives, and all data for people with disabilities are derived from the National Health Interview Survey (NHIS). These estimates are based on self-reported heights and weights and are not comparable to the actual measured data from NHANES. Trends from the NHIS that are based on self-reported measures also show a steady increase in prevalence of overweight; this increase is, however, different in magnitude from that observed in the data derived from measured height and weight.

The baseline data source for objective 17.13 (light-to-moderate physical activity) was the Behavioral Risk Factor Surveillance System; because this objective will be tracked with the NHIS, and 1985 data were available from this survey, the baseline

has been revised to reflect the estimates from the 1985 NHIS. The method of measuring the objective has also been modified from that used in the baseline measure, although the revised estimate did not differ for people exercising five or more times per week. Although data from the NHIS were used for all 3 years (1985, 1990, and 1991), the questionnaire changed in 1991.

Databases were made as similar as possible before estimates were made, involving limiting the age group to 18–74 years (to correspond to the 1985 and 1990 surveys), and limiting the specific physical activities listed to those asked in all 3 years.

### Data Availability

The 1984–85 baseline figures for 17.3 were derived by combining estimates for the noninstitutionalized population from the National Health Interview Survey (NHIS) with data for the nursing home population from the National Nursing Home Survey. At the present time, only data for the noninstitutionalized population are available to update progress.

Baseline data on the proportion of perimenopausal women who have been counseled about the benefits and risks of estrogen replacement (17.18) will be available in early 1996 from the 1994 NHIS.

### References

1. National Center for Health Statistics. Unpublished data from the National Health Interview Survey. Hyattsville, Maryland.
2. LaPlante MP. Data on disability from the National Health Interview Survey, 1983–85. An Info Use Report. Washington: National Institute on Disability and Rehabilitation Research. 1988.
3. Americans with Disabilities Act of 1990. Public Law 101–336, 101st Congress. Washington: July 26, 1990.
4. National Center for Health Statistics. Healthy people 2000 review, 1992. Hyattsville, Maryland: Public Health Service. 1993.



**Table 17. Diabetes and chronic disabling conditions objective status**

Objective	1988 baseline		1992	1993	Target 2000
	Original	Revised			
<b>17.1 Years of healthy life</b>	162.0	2,364.0	63.7	---	65
a. Blacks	156.0	2,3No change	55.6	---	60
b. Hispanics	162.0	2,3,464.8	4,564.0	---	65
c. People 65 years and over <sup>6</sup>	112.0	2,311.9	11.9	---	14
<b>17.2 Limitation in major activity due to chronic conditions</b>	9.4%	...	10.3%	10.6%	8%
a. Low-income people (annual family income less than \$10,000)	18.9%	...	20.2%	20.9%	15%
Low-income people (annual family income below poverty threshold)	14.9%	...	16.2%	16.5%	...
b. American Indians/Alaska Natives	713.4%	...	812.6%	912.4%	11%
c. Blacks	11.2%	...	11.3%	12.6%	9%
<b>17.3 People with self-care problems (per 1,000)</b>					
People 65 years and over	10111	...	---	---	90
Noninstitutionalized population	1177	...	1277	---	...
a. People 85 years and over	10371	...	---	---	325
Noninstitutionalized population	11223	...	12204	---	...
<b>17.4 Percent of people with asthma with activity limitation</b>	1319.4%	...	821.8%	922.5%	10%
<b>17.5 Activity limitation due to chronic back conditions (per 1,000)</b>	1321.9	...	825.3	927.3	19.0
<b>17.6 Significant hearing impairment (per 1,000)</b>	1388.9	...	893.5	993.6	82.0
a. People 45 years and over	13203	...	8215.7	9213.2	180
<b>17.7 Significant visual impairment (per 1,000)</b>	1334.5	...	832.8	934.8	30.0
a. People 65 years and over	1387.7	...	879.8	987.4	70.0
<b>17.8 Mental retardation (per 1,000 school-aged children)</b>	142.7	...	---	---	2.0
<b>17.9 Diabetes-related deaths (age adjusted per 100,000)</b>	1238	12,15No change	38	---	34
a. Blacks (age adjusted per 100,000)	1165	12,1567	71	---	58
b. American Indians/Alaska Natives (age adjusted per 100,000)	1154	12,1546	57	---	48
<b>17.10 Diabetes-related complications</b>					
People with diabetes					
End-stage renal disease (ESRD)(per 1,000)	161.5	...	172.0	---	1.4
Blindness (per 1,000)	2.2	...	32.5	---	1.4
Lower extremity amputation (per 1,000)	168.2	...	7.8	7.3	4.9
Perinatal mortality (among infants of females with established diabetes)	5%	...	---	---	2%
Major congenital malformations	8%	...	---	---	4%
ESRD due to diabetes (per 1,000)					
a. Blacks with diabetes	182.2	...	173.1	---	2.0
b. American Indians/Alaska Natives with diabetes	182.1	...	34.2	194.4	1.9
Lower extremity amputations due to diabetes					
c. Blacks with diabetes (per 1,000)	2010.2	169.0	8.6	8.6	6.1
<b>17.11 Diabetes incidence and prevalence</b>					
Total population (per 1,000)					
Incidence of diabetes	132.9	2,13No change	82.4	92.8	2.5
Prevalence of diabetes	1328	2,13No change	828	930	25
Special populations—prevalence of diabetes (per 1,000)					
a. American Indians/Alaska Natives <sup>21</sup>	1669	...	67	70	62
b. Puerto Ricans (ages 20–74)	2255	...	---	---	49
c. Mexican Americans (ages 20–74)	2254	...	---	---	49
d. Cuban Americans (ages 20–74)	2236	...	---	---	32
e. Blacks	1336	...	836	938	32

**Table 17. Diabetes and chronic disabling conditions objective status—Con.**

Objective	1988 baseline			1992	1993	Target 2000
	Original	Revised				
<b>17.12 Overweight prevalence</b>						
Adults 20 years and over	2326%	...	24,2534%	---	---	20%
Males	2324%	...	24,2632%	---	---	...
Females	2327%	...	24,2735%	---	---	...
Adolescents 12–19 years	2315%	...	---	---	---	15%
a. Low-income females 20 years and over	2337%	...	---	---	---	25%
b. Black females 20 years and over	2344%	...	24,2848%	---	---	30%
c. Hispanic females 20–74 years	---	...	---	---	---	25%
Hispanic females 20–74 years (self-reported)	...	29,3027%	30,3132%	30,3127%	---	...
Mexican-American females	2239%	...	24,3247%	---	---	...
Cuban females	2234%	...	---	---	---	...
Puerto Rican females	2237%	...	---	---	---	...
d. American Indians/Alaska Natives 20 years and over	3329–75%	...	3036%	3048%	---	30%
e. People with disabilities	29,3036%	...	3037%	3038%	---	25%
f. Females with high blood pressure	2350%	...	---	---	---	41%
g. Males with high blood pressure	2339%	...	---	---	---	35%
<b>17.13 Moderate physical activity</b>						
People 6 years and over	---	...	---	---	---	30%
People 18 years and over						
5 or more times per week	2922%	29,34No change	1924%	---	---	...
7 or more times per week	2912%	29,3416%	1917%	---	---	...
<b>17.14 Patient education for people with chronic and disabling conditions</b>	---	...	---	---	---	40%
a. People with diabetes	3532%	...	1939%	43%	---	75%
	(classes)					
	3568%					
	(counseling)					
b. People with asthma	...	199%	---	10%	---	50%
<b>17.15 Clinician assessment of childhood development</b>	---	...	---	---	---	80%
Percent of clinicians routinely providing service to 81–100% of patients (children)						
Visual acuity testing (3 years and over)						
Pediatricians	...	3655%	---	---	---	...
Nurse practitioners	...	3649%	---	---	---	...
Family physicians	...	3630%	---	---	---	...
Hearing testing (3 years and over)						
Pediatricians	...	3647%	---	---	---	...
Nurse practitioners	...	3646%	---	---	---	...
Family physicians	...	3619%	---	---	---	...
Evaluation of speech						
Pediatricians	...	3665%	---	---	---	...
Nurse practitioners	...	3651%	---	---	---	...
Family physicians	...	3639%	---	---	---	...
Evaluation of motor development						
Pediatricians	...	3672%	---	---	---	...
Nurse practitioners	...	3656%	---	---	---	...
Family physicians	...	3645%	---	---	---	...
Treatment/referral for vision problems						
Pediatricians	...	3667%	---	---	---	...
Nurse practitioners	...	3635%	---	---	---	...
Family physicians	...	3656%	---	---	---	...
Treatment/referral for hearing problems						
Pediatricians	...	3666%	---	---	---	...
Nurse practitioners	...	3635%	---	---	---	...
Family physicians	...	3655%	---	---	---	...

**Table 17. Diabetes and chronic disabling conditions objective status—Con.**

Objective	1988 baseline		1992	1993	Target 2000
	Original	Revised			
Treatment/referral for speech problems					
Pediatricians . . . . .	...	<sup>36</sup> 62%	---	---	...
Nurse practitioners . . . . .	...	<sup>36</sup> 34%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 48%	---	---	...
Treatment/referral for motor problems					
Pediatricians . . . . .	...	<sup>36</sup> 55%	---	---	...
Nurse practitioners . . . . .	...	<sup>36</sup> 33%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 49%	---	---	...
<b>17.16 Earlier detection of significant hearing impairment in children (average age in months)</b>	24–30	...	<sup>19</sup> 27	---	12
<b>17.17 Clinician assessment of cognitive and other functioning in older adults</b>	---	...	---	---	60%
Percent of clinicians routinely providing service to 81–100% of patients (adults aged 65 years and over)					
Visual acuity testing					
Nurse practitioners . . . . .	...	<sup>36</sup> 24%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>36</sup> 3%	---	---	...
Internists . . . . .	...	<sup>36</sup> 15%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 12%	---	---	...
Hearing testing					
Nurse practitioners . . . . .	...	<sup>36</sup> 16%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>36</sup> 2%	---	---	...
Internists . . . . .	...	<sup>36</sup> 9%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 7%	---	---	...
Evaluation of physical mobility					
Nurse practitioners . . . . .	...	<sup>36</sup> 41%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>36</sup> 18%	---	---	...
Internists . . . . .	...	<sup>36</sup> 42%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 26%	---	---	...
Evaluation for dementia					
Nurse practitioners . . . . .	...	<sup>36</sup> 28%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>36</sup> 9%	---	---	...
Internists . . . . .	...	<sup>36</sup> 23%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 13%	---	---	...
Inquiry about urinary incontinence					
Nurse practitioners . . . . .	...	<sup>36</sup> 33%	---	---	...
Obstetricians/gynecologists . . . . .	...	---	---	---	...
Internists . . . . .	...	<sup>36</sup> 30%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 15%	---	---	...
Treatment/referral for vision problems					
Nurse practitioners . . . . .	...	<sup>36</sup> 33%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>36</sup> 35%	---	---	...
Internists . . . . .	...	<sup>36</sup> 63%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 54%	---	---	...
Treatment/referral for hearing problems					
Nurse practitioners . . . . .	...	<sup>36</sup> 30%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>36</sup> 34%	---	---	...
Internists . . . . .	...	<sup>36</sup> 52%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 46%	---	---	...
Prescription of mobility aids/modification of living environment to improve mobility					
Nurse practitioners . . . . .	...	<sup>36</sup> 18%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>36</sup> 15%	---	---	...
Internists . . . . .	...	<sup>36</sup> 31%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 25%	---	---	...

**Table 17. Diabetes and chronic disabling conditions objective status—Con.**

Objective	1988 baseline		1992	1993	Target 2000
	Original	Revised			
Investigation of referral for treatable causes of dementia					
Nurse practitioners . . . . .	...	<sup>36</sup> 30%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>36</sup> 27%	---	---	...
Internists . . . . .	...	<sup>36</sup> 54%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 40%	---	---	...
Treatment/referral for urinary incontinence					
Nurse practitioners . . . . .	...	<sup>36</sup> 31%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>36</sup> 56%	---	---	...
Internists . . . . .	...	<sup>36</sup> 37%	---	---	...
Family physicians . . . . .	...	<sup>36</sup> 31%	---	---	...
<b>17.18 Perimenopausal women counseled about estrogen replacement therapy . . . . .</b>	---	...	---	---	90%
<b>17.19 Worksites with policies for hiring<sup>37</sup></b>					
Percent of worksites with voluntary policy . . . . .	<sup>12</sup> 37%	...	---	---	75%
<b>17.20 Service systems for children with or at risk of chronic and disabling conditions (number of States) . . . . .</b>	---	...	---	---	50

<sup>1</sup>1980 data.

<sup>2</sup>Data have been revised to reflect updated methodology.

<sup>3</sup>1990 data.

<sup>4</sup>Estimate based on preliminary data.

<sup>5</sup>Estimate derived from 1991–93 health status data and 1992 mortality data.

<sup>6</sup>Years of healthy life remaining at age 65.

<sup>7</sup>1983–85 data.

<sup>8</sup>1990–92 data.

<sup>9</sup>1991–93 data.

<sup>10</sup>1984–85 data.

<sup>11</sup>1984 data.

<sup>12</sup>1986 data.

<sup>13</sup>1986–88 data.

<sup>14</sup>1985–88 data.

<sup>15</sup>Data have been recomputed to reflect revised intercensal population estimates; see appendix.

<sup>16</sup>1987 data.

<sup>17</sup>1989 data.

<sup>18</sup>1983–86 data.

<sup>19</sup>1991 data.

<sup>20</sup>1984–87 data.

<sup>21</sup>Data are for American Indians/Alaska Natives 15 years and over in Indian Health Service areas only.

<sup>22</sup>1982–84 data.

<sup>23</sup>1976–80 data.

<sup>24</sup>1988–91 data.

<sup>25</sup>33 percent for ages 20 years and over.

<sup>26</sup>31 percent for ages 20 years and over.

<sup>27</sup>35 percent for ages 20 years and over.

<sup>28</sup>49 percent for ages 20 years and over.

<sup>29</sup>1985 data.

<sup>30</sup>Estimate derived from self-reported height and weight.

<sup>31</sup>Ages 20 years and over.

<sup>32</sup>47 percent for ages 20 years and over.

<sup>33</sup>1984–88 data.

<sup>34</sup>Data source has been changed and data have been revised to reflect updated methodology.

<sup>35</sup>1983–84 data.

<sup>36</sup>1992 data.

<sup>37</sup>Assuming full compliance, achieved through passage of the Americans with Disabilities Act of 1990.

NOTE: Data may include revisions and, therefore, may differ from data previously published.

Data Sources:

17.1\*, 17.1a–c\*—National Vital Statistics System, CDC, NCHS; National Health Interview Survey, CDC, NCHS.

17.2, 17.2a–c—National Health Interview Survey, CDC, NCHS.

17.3, 17.3a—Baseline: National Health Interview Survey, CDC, NCHS; National Nursing Home Survey, CDC, NCHS. Updates: National Health Interview Survey, CDC, NCHS.

17.4—National Health Interview Survey, CDC, NCHS.

17.5—National Health Interview Survey, CDC, NCHS.

17.6, 17.6a—National Health Interview Survey, CDC, NCHS.

17.7, 17.7a—National Health Interview Survey, CDC, NCHS.

17.8\*—Metropolitan Atlanta Developmental Disabilities Study, CDC, NCEH.

- 17.9, 17.9a,b—National Vital Statistics System, CDC, NCHS.
- 17.10—For blindness: Massachusetts Blind Registry, Massachusetts Commission on the Blind; For perinatal mortality and congenital malfunctions: Clinical series and selected data; For ESRD: Health Care Financing Administration, Bureau of Data Management and Strategy; For amputation: Denominator: National Health Interview Survey, CDC, NCHS; Numerator: National Hospital Discharge Survey, CDC, NCHS.
- 17.10a—Health Care Financing Administration Bureau of Data Management and Strategy.
- 17.10b—Program Statistics, PHS, IHS.
- 17.10c—Denominator: National Health Interview Survey, CDC, NCHS; Numerator: National Hospital Discharge Survey, CDC, NCHS.
- 17.11, 17.11e—National Health Interview Survey, CDC, NCHS.
- 17.11a—Ambulatory Utilization Data, Indian Health Service.
- 17.11b–d—Hispanic Health and Nutrition Examination Survey, CDC, NCHS.
- 17.12\*, 17.12a,b\*—National Health and Nutrition Examination Survey, CDC, NCHS.
- 17.12c—Baseline and updates: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. National Health Interview Survey, CDC, NCHS.  
Updates: National Health and Nutrition Examination Survey, CDC, NCHS.
- 17.12d—Baseline: Indian Health Service, Office of Planning Evaluation and Legislation, Program Statistics Division. Updates: National Health Interview Survey, CDC, NCHS.
- 17.12e—National Health Interview Survey, CDC, NCHS.
- 17.12f, g—National Health and Nutrition Examination Survey, CDC, NCHS.
- 17.13\*—Original baseline: Behavioral Risk Factor Surveillance System, CDC, NCCDPHP. National Health Interview Survey, CDC, NCHS.
- 17.14a—Baseline: Halpern M. The impact of diabetes education in Michigan. *Diabetes* 38(2):151A, 1989. Updates: National Health Interview Survey, CDC, NCHS.
- 17.14b—National Health Interview Survey, CDC, NCHS.
- 17.15—Primary Care Provider Surveys, OASH, ODPHP.
- 17.16—Baseline: Annual Survey of Hearing Impaired Children and Youth, Commission on Education of the Deaf. Updates: National Health Interview Survey, CDC, NCHS.
- 17.17—Primary Care Provider Surveys, OASH, ODPHP.
- 17.19—Baseline: Survey of Persons with Disability, International Center for the Disabled. Updates: Americans with Disabilities Act of 1990.

\*Duplicate objective.

# Diabetes and Chronic Disabling Conditions Objectives

**17.1\*:** Increase years of healthy life to at least 65 years.

*NOTE: Years of healthy life is a summary measure of health that combines mortality (quantity of life) and morbidity and disability (quality of life) into a single measure.*

Duplicate objectives: 8.1 and 21.1

**17.1a\*:** Increase years of healthy life among blacks to at least 60 years.

Duplicate objectives: 8.1a and 21.1a

**17.1b\*:** Increase years of healthy life among Hispanics to at least 65 years.

Duplicate objectives: 8.1b and 21.1b

**17.1c\*:** Increase years of healthy life among people aged 65 and older to at least 14 more years of healthy life.

Duplicate objectives: 8.1c and 21.1c

**17.2:** Reduce to no more than 8 percent the proportion of people who experience a limitation in major activity due to chronic conditions.

*NOTE: Major activity refers to the usual activity for one's age-sex group whether it is working, keeping house, going to school, or living independently. Chronic conditions are defined as conditions that either (1) were first noticed 3 or more months ago, or (2) belong to a group of conditions such as heart disease and diabetes, which are considered chronic regardless of when they began.*

**17.2a:** Reduce to no more than 15 percent the proportion of low-income people (annual family income of less than \$10,000 in 1988) who experience a limitation in major activity due to chronic conditions.

**17.2b:** Reduce to no more than 11 percent the proportion of American Indians and Alaska Natives who experience a limitation in major activity due to chronic conditions.

**17.2c:** Reduce to no more than 9 percent the proportion of blacks who experience a limitation in major activity due to chronic conditions.

**17.3:** Reduce to no more than 90 per 1,000 people the proportion of all people aged 65 and older who have difficulty in performing two or more personal care activities, thereby preserving independence.

*NOTE: Personal care activities are bathing, dressing, using the toilet, getting in and out of bed or chair, and eating.*

Duplicate objective: Age-related objective for people aged 65 and older

**17.3a:** Reduce to no more than 300 per 1,000 people the proportion of all people aged 85 and older who have difficulty in performing two or more personal care activities, thereby preserving independence.

Duplicate objective: Age-related objective for people aged 65 and older

**17.4:** Reduce to no more than 10 percent the proportion of people with asthma who experience activity limitation.

*NOTE: Activity limitation refers to any self-reported limitation in activity attributed to asthma.*

**17.5:** Reduce activity limitation due to chronic back conditions to a prevalence of no more than 19 per 1,000 people.

*NOTE: Chronic back conditions include intervertebral disk disorders, curvature of the back or spine, and other self-reported chronic back impairments such as permanent stiffness or deformity of the back or repeated trouble with the back. Activity limitation refers to any self-reported limitation in activity attributed to a chronic back condition.*

**17.6:** Reduce significant hearing impairment to a prevalence of no more than 82 per 1,000 people.

*NOTE: Hearing impairment covers the range of hearing deficits from mild loss in one ear to profound loss in both ears. Generally, inability to hear sounds at levels softer (less intense) than 20 decibels (dB) constitutes abnormal hearing. Significant hearing impairment is defined as having hearing thresholds for speech poorer than 25 dB. However,*

*for this objective, self-reported hearing impairment (that is, deafness in one or both ears or any trouble hearing in one or both ears) will be used as a proxy measure for significant hearing impairment.*

**17.6a:** Reduce significant hearing impairment among people aged 45 and older to a prevalence of no more than 180 per 1,000.

**17.7:** Reduce significant visual impairment to a prevalence of no more than 30 per 1,000 people.

*NOTE: Significant visual impairment is generally defined as a permanent reduction in visual acuity and/or field of vision that is not correctable with eyeglasses or contact lenses. Severe visual impairment is defined as inability to read ordinary newsprint even with corrective lenses. For this objective, self-reported blindness in one or both eyes and other self-reported visual impairments (that is, any trouble seeing with one or both eyes even when wearing glasses or color blindness) will be used as a proxy measure for significant visual impairment.*

**17.7a:** Reduce significant visual impairment among people aged 65 and older to a prevalence of no more than 70 per 1,000.

**17.8\*:** Reduce the prevalence of serious mental retardation in school-aged children to no more than 2 per 1,000 children.

*NOTE: Serious mental retardation is defined as an Intelligence Quotient (I.Q.) less than 50. This includes individuals defined by the American Association of Mental Retardation as profoundly retarded (I.Q. of 20 or less), severely retarded (I.Q. of 21–35), and moderately retarded (I.Q. of 36–50).*

Duplicate objective: 11.2

**17.9:** Reduce diabetes-related deaths to no more than 34 per 100,000.

**17.9a:** Reduce diabetes-related deaths among blacks to no more than 58 per 100,000.

**17.9b:** Reduce diabetes-related deaths among American Indians and Alaska Natives to no more than 48 per 100,000.

**17.10:** Reduce the most severe complications of diabetes as follows:

Complications among people with diabetes:	2000 target
End-stage renal disease	1.4 per 1,000
Blindness	1.4 per 1,000
Lower extremity amputation	4.9 per 1,000
Perinatal mortality <sup>1</sup>	2 percent
Major congenital malformation	4 percent

<sup>1</sup>Among infants of women with established diabetes.

*NOTE: End-stage renal disease (ESRD) is defined as requiring dialysis or transplantation and is limited to ESRD due to diabetes. Blindness refers to blindness due to diabetic eye disease.*

**17.10a:** Reduce end-stage renal disease due to diabetes among black persons with diabetes to no more than 2 per 1,000.

**17.10b:** Reduce end-stage renal disease due to diabetes among American Indians and Alaska Natives with diabetes to no more than 1.9 per 1,000.

**17.10c:** Reduce lower extremity amputations due to diabetes among blacks with diabetes to no more than 6.1 per 1,000.

**17.11:** Reduce diabetes to an incidence of no more than 2.5 per 1,000 people and a prevalence of no more than 25 per 1,000 people.

**17.11a:** Reduce diabetes among American Indians and Alaska Natives to a prevalence of no more than 62 per 1,000.

**17.11b:** Reduce diabetes among Puerto Ricans to a prevalence of no more than 49 per 1,000.

**17.11c:** Reduce diabetes among Mexican Americans to a prevalence of no more than 49 per 1,000.

**17.11d:** Reduce diabetes among Cuban Americans to a prevalence of no more than 32 per 1,000.

**17.11e:** Reduce diabetes among blacks to a prevalence of no more than 32 per 1,000.

**17.12\*:** Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents aged 12–19.

*NOTE: For people aged 20 and older, overweight is defined as body mass*

*index (BMI) equal to or greater than 27.8 for men and 27.3 for women. For adolescents, overweight is defined as BMI equal to or greater than 23.0 for males aged 12–14, 24.3 for males aged 15–17, 25.8 for males aged 18–19, 23.4 for females aged 12–14, 24.8 for females aged 15–17, and 25.7 for females aged 18–19. The values for adolescents are the age- and gender-specific 85th percentile values of the 1976–80 National Health and Nutrition Examination Survey (NHANES II), corrected for sample variation. BMI is calculated by dividing weight in kilograms by the square of height in meters. The cut points used to define overweight approximate the 120 percent of desirable body weight definition used in the 1990 objectives.*

Duplicate objectives: 1.2, 2.3, and 15.10

**17.12a\*:** Reduce overweight to a prevalence of no more than 25 percent among low-income women aged 20 and older.

Duplicate objectives: 1.2a, 2.3a, and 15.10a

**17.12b\*:** Reduce overweight to a prevalence of no more than 30 percent among black women aged 20 and older.

Duplicate objectives: 1.2b, 2.3b, and 15.10b

**17.12c\*:** Reduce overweight to a prevalence of no more than 25 percent among Hispanic women aged 20 and older.

Duplicate objectives: 1.2c, 2.3c, and 15.10c

**17.12d\*:** Reduce overweight to a prevalence of no more than 30 percent among American Indians and Alaska Natives.

Duplicate objectives: 1.2d, 2.3d, and 15.10d

**17.12e\*:** Reduce overweight to a prevalence of no more than 25 percent among people with disabilities.

Duplicate objectives: 1.2e, 2.3e, and 15.10e

**17.12f\*:** Reduce overweight to a prevalence of no more than 41 percent among women with high blood pressure aged 20 and older.

Duplicate objectives: 1.2f, 2.3f, and 15.10f

**17.12g\*:** Reduce overweight to a prevalence of no more than 35 percent among men with high blood pressure aged 20 and older.

Duplicate objectives: 1.2g, 2.3g, and 15.10g

**17.13\*:** Increase to at least 30 percent the proportion of people aged 6 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day.

*NOTE: Light to moderate physical activity requires sustained, rhythmic muscular movements, is at least equivalent to sustained walking, and is performed at less than 60 percent of maximum heart rate. Maximum heart rate equals roughly 220 beats per minute minus age. Examples may include walking, swimming, cycling, dancing, gardening and yardwork, various domestic and occupational activities, and games and other childhood pursuits.*

Duplicate objectives: 1.3 and 15.11

**17.14:** Increase to at least 40 percent the proportion of people with chronic and disabling conditions who receive formal patient education including information about community and self-help resources as an integral part of the management of their condition.

**17.14a:** Increase to at least 75 percent the proportion of people with diabetes who receive formal patient education including information about community and self-help resources as an integral part of the management of their condition.

**17.14b:** Increase to at least 50 percent the proportion of people with asthma who receive formal patient education including information about community and self-help resources as an integral part of the management of their condition.

**17.15:** Increase to at least 80 percent the proportion of providers of primary care for children who routinely refer or screen infants and children for impairments of vision, hearing, speech and language, and assess other developmental milestones as part of well-child care.

**17.16:** Reduce the average age at which children with significant hearing impairment are identified to no more than 12 months.

**17.17:** Increase to at least 60 percent the proportion of providers of primary care for older adults who routinely evaluate people aged 65 and older for urinary incontinence and impairments of vision, hearing, cognition, and functional status.

**17.18:** Increase to at least 90 percent the proportion of perimenopausal women who have been counseled about the benefits and risks of estrogen replacement therapy (combined with progestin, when appropriate) for prevention of osteoporosis.

**17.19:** Increase to at least 75 percent the proportion of worksites with 50 or more employees that have a voluntarily established policy or program for the hiring of people with disabilities.

*NOTE: Voluntarily established policies and programs for the hiring of people with disabilities are encouraged for worksites of all sizes. This objective is limited to worksites with 50 or more employees for tracking purposes.*

**17.20:** Increase to 50 the number of States that have service systems for children with or at risk of chronic and disabling conditions, as required by Public Law 101-239.

*NOTE: Children with or at risk of chronic and disabling conditions, often referred to as children with special health care needs, include children with psychosocial as well as physical problems. This population encompasses children with a wide variety of actual or potential disabling conditions, including children with or at risk for cerebral palsy, mental retardation, sensory deprivation, developmental disabilities, spina bifida, hemophilia, other genetic disorders, and health-related educational and behavioral problems. Service systems for such children are organized networks of comprehensive, community-based, coordinated, and family-centered services.*

\*Duplicate objective.



# Priority Area 18 HIV Infection

## Background

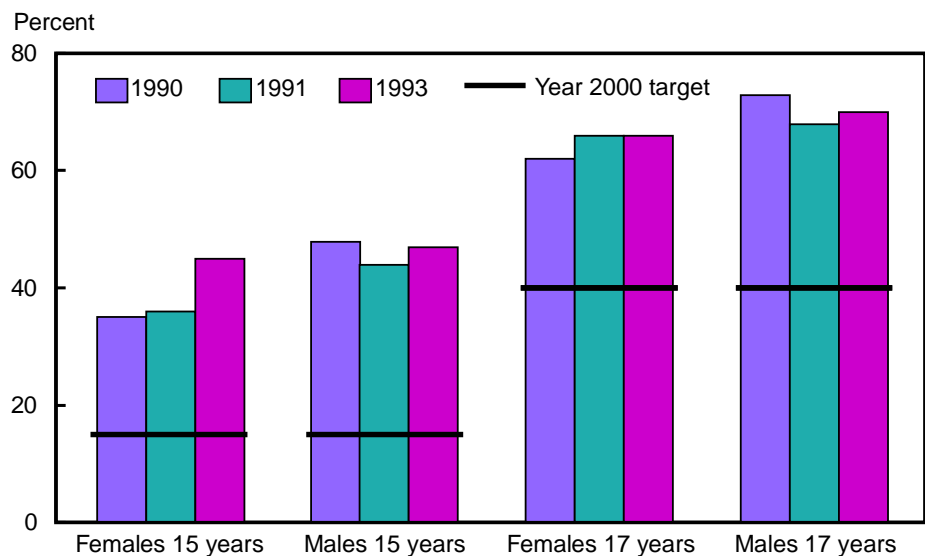
Over 427,000 people have been diagnosed with acquired immunodeficiency syndrome (AIDS) in the United States since the disease was first recognized (1). It is estimated that as many as 1 million people are infected with the human immunodeficiency virus (HIV), the virus that causes AIDS (2). No treatment is available to cure AIDS, although antimicrobial treatments now available extend survival among those who are HIV-infected. With current knowledge the HIV epidemic can only be controlled through preventive strategies, particularly through modifying personal behavioral risk factors. The objectives in the HIV priority area address sexual abstinence among adolescents, condom use among sexually active adolescents and unmarried adults, treatment for injecting drug users, use of uncontaminated injecting equipment among drug users who are not in treatment, HIV testing and counseling, and improving the safety of the country's blood supply.

## Data Summary

### Highlights

The estimated number of AIDS cases (objective 18.1) diagnosed in 1993 increased compared with the number diagnosed in 1992; however, the rate of increase was much smaller than the increase between 1991 and 1992. An exceptionally large number of cases diagnosed in 1992 were reported because of the expanded case definition implemented in 1993 (see Data Issues). The prevalence of HIV infection among women delivering liveborn infants (18.2c) decreased from 170 per 100,000 in 1992 to 160 per 100,000 in 1993. The proportion of adolescents who have ever had sexual intercourse has increased over recent years, particularly among 15-year-olds (18.3). However, between 1991 and 1993, the proportion of sexually active teenage females whose partners used condoms at last sexual intercourse (18.4a) increased from 38 to 46 percent and the proportion of sexually active teenage males who use condoms (18.4b) increased from 54 to 59 percent.

**Figure 19. Proportion of adolescents who have ever had sexual intercourse: United States, 1990, 1991, 1993, and year 2000 targets for objective 18.3**



	1990	1991	1993	Year 2000 target
Females 15 years . . . . .	35	36	<sup>1</sup> 45	15
Males 15 years . . . . .	48	44	<sup>1</sup> 47	15
Females 17 years . . . . .	62	66	<sup>2</sup> 66	40
Males 17 years . . . . .	73	68	<sup>2</sup> 70	40

<sup>1</sup>Data are for students in the 10th grade.

<sup>2</sup>Data are for students in the 12th grade.

SOURCES: Baseline: Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Family Growth; National Institutes of Health, National Institute of Child Health and Human Development; Updates: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Survey.

## Summary of Progress

Data to assess progress are available for 11 of the 14 objectives in this priority area. Two objectives have met the year 2000 targets (18.6 and 18.14). Data show improvements toward the year 2000 targets for four objectives (18.5, 18.7, 18.8, and 18.9). For two objectives (18.3 and 18.12), trends are moving away from the targets. Two objectives (18.1 and 18.2) aim to slow the rise in the number of AIDS cases and the prevalence of HIV infection, respectively. For objective 18.1, the current rate of increase in the number of cases diagnosed each year is such that the objective will not be met. No change is shown for objective 18.2. Baseline data are not yet available for objective 18.11. Data beyond baseline are not available for three objectives (18.4, 18.10, and 18.13). For objective 18.4,

however, data for the subobjectives targeting adolescents show progress toward the year 2000 targets.

## Data Issues

### Definitions

In January 1993 a new AIDS case definition was implemented for the AIDS Surveillance System (3). The expanded definition adds pulmonary tuberculosis, recurrent pneumonia, and invasive cervical cancer to the list of diseases that indicate that AIDS has fully developed among HIV-infected people. In addition, the new definition includes HIV-infected people with a CD4 cell count below 200 cells per microliter of blood, regardless of whether those persons have opportunistic infections, neoplasms, or

any other symptoms of HIV infection. These changes result in cases being diagnosed earlier in the course of the disease and a temporary increase in the number of cases reported. The expanded definition increased the number of cases diagnosed in 1992 because it applied to cases diagnosed in earlier years if they were reported after the new definition was implemented in 1993. Beginning in 1995, CDC will make estimates of the incidence of cases of AIDS opportunistic illnesses (including HIV dementia and wasting syndrome) by year of diagnosis. This will improve comparability for trend purposes.

The National Household Survey on Drug Abuse (NHSDA) provides recent data to monitor objective 18.5 on the proportion of intravenous drug users who are in treatment (4). The 1992 measure shows the proportion of injecting drug users who received drug abuse treatment in the past year. Injecting drug users are defined as anyone who used a needle to inject drugs for nonmedical reasons in the past year. Enumeration of injecting drug users is difficult because of the illegality of the behavior. Therefore, the number of injecting drug users may be underestimated using this data source. In addition, the NHSDA will miss an unknown proportion of injecting drug users who are homeless, institutionalized, or difficult to locate. The NHSDA data are not comparable to the baseline measure, which was estimated from various sources.

Recent data on the proportion of injecting drug users who are not in treatment who use uncontaminated injecting equipment (objective 18.6) are available from the Cooperative Agreement for AIDS Community-Based Outreach and Intervention Research Program from the National Institute on Drug Abuse (NIDA). Baseline data were from a similar research project, the National AIDS Demonstration Research Program, also from NIDA. Data from both data sources are from selected cities and are not nationally representative. The newer Cooperative Agreement obtains data from fewer cities than in the earlier project. The measure to monitor this objective is the proportion of current injecting drug users who did not share needles during the last 30 days. Injecting drug users are study participants who report injecting drugs during the past 30 days and whose drug-using behavior is confirmed

by observation of track marks or positive urine tests.

### Data Source Description

Data for objective 18.1 on the number of AIDS cases by year of diagnosis are available from the AIDS Surveillance System of the Centers for Disease Control and Prevention and are adjusted for both delayed and incomplete reporting (2). Data on AIDS cases are more often published by year of report than by year of diagnosis. Approximately 20 percent of AIDS cases are reported more than a year after diagnosis. The estimated number of AIDS cases by year of diagnosis changes as new data become available because AIDS cases diagnosed in previous years continue to be reported and because the adjustment factor for delays in reporting changes as new data become available. The adjustment factor for underreporting is based on the assumption that 85 percent of all AIDS cases are eventually reported. Studies of the completeness of reporting show that greater than 80 percent of AIDS cases are reported through the surveillance system (5).

### Comparability of Data Sources

The Youth Risk Behavior Survey (YRBS) provides the most recent information on adolescent postponement of sexual intercourse (18.3) and on the proportion of sexually active teenagers who used condoms during last sexual intercourse (18.4a and 18.4b). The YRBS is a school-based survey and so does not include teenagers who are not in school (truants and dropouts) and potentially at higher risk of these behaviors (6). Baseline data for females are from the National Survey of Family Growth and for males from the National Survey of Adolescent Males. Neither source of baseline data is comparable to the YRBS data. For objective 18.3, 1993 data are for 10th and 12th grade students; earlier data are for 15-year-olds and 17-year-olds. In 1993, data for objective 18.4a and 18.4b are for all students in the 9th–12th grades; for most students, ages ranged from 14–17 years. Data for previous years are for teenagers 15–19 years old.

### Data Availability

No national data are routinely available that directly measure HIV

seroprevalence among the general population. Estimates of the prevalence of HIV infection in the U.S. population as a whole are based on mathematical models using back calculation, a statistical method that estimates the number of prior HIV infections that would account for the number of AIDS cases that have subsequently occurred (1). Estimates of seroprevalence from the first 3 years of NHANES III are consistent with the estimate of 1 million people infected (7).

Nationally representative estimates of HIV seroprevalence among high-risk groups are not available. Information on the proportion infected among men who have sex with men and intravenous drug users has been obtained from seroprevalence studies conducted in clinical settings as part of a sentinel surveillance system conducted by CDC in collaboration with State and local health departments (8). The surveillance system covers various clinical settings in selected metropolitan areas. Seroprevalence estimates for men who have sex with men are based on anonymous surveys conducted in sexually transmitted disease (STD) clinics. For injecting drug users, estimates are based on surveys among drug users entering treatment programs. Clients attending STD clinics and drug treatment programs are not representative of all persons with these high-risk behaviors. In addition, there is considerable geographic variation in seroprevalence in both groups.

### References

1. Centers for Disease Control and Prevention. HIV/AIDS surveillance report. March. 1995.
2. Centers for Disease Control and Prevention. Estimates of HIV prevalence and projected AIDS cases: Summary of a workshop, October 31–November 1, 1989. *MMWR* 39:110–9. 1990.
3. Centers for Disease Control and Prevention. 1993 revised classification system for HIV infection and expanded surveillance case definition for AIDS among adolescents and adults. *MMWR* 41(No RR-17):1–19. 1992.
4. National Institute on Drug Abuse. National Household Survey on Drug Abuse: Population estimates 1991. No (ADM)92–1887. Washington: U.S. Department of Health and Human Services. 1992.
5. Rosenblum L, Buehler JW, Morgan MW, et al. The completeness of AIDS case reporting, 1988: A multisite collaborative surveillance project. *Am J Public Health* 82:1495–9. 1992.

6. Centers for Disease Control and Prevention. Health risk behaviors among adolescents who do and do not attend schools: United States, 1992. *MMWR* 43:129–32. 1994.
7. McQuillan GM, Khare M, Ezzati-Rice TM, et al. The Seroepidemiology of human immunodeficiency virus in the United States household population. Proceedings of the First National Conference on Human Retroviruses and Related Infections, Washington DC, December 12–16. 1993.
8. Centers for Disease Control and Prevention. National HIV serosurveillance summary, vol 3. Results through 1992. No HIV/NCID/11–93/036. Atlanta, Georgia: U.S. Department of Health and Human Services. 1993.

**Table 18. HIV infection objective status**

Objective	1989 baseline		1992	1993	Target 2000
	Original	Revised			
<b>18.1 AIDS (number of diagnosed cases per year, in thousands)<sup>1</sup></b>	44–50	<sup>2</sup> 49	91	95	98
a. Gay and bisexual males	26–28	<sup>2</sup> 27	45	42	48
b. Blacks	14–15	<sup>2</sup> 15	33	38	37
c. Hispanics	7–8	<sup>2</sup> 8	14	16	18
<b>18.2 HIV infection (per 100,000)</b>	400	...	400	---	800
a. Homosexual males	2,000–42,000	...	<sup>3</sup> 3,900–47,400	---	20,000
b. Intravenous drug abusers	30,000–40,000	...	<sup>3</sup> 600–52,900	---	40,000
c. Females giving birth to live-born infants	150	<sup>2</sup> 160	170	160	100
<b>18.3 Adolescents who ever had sexual intercourse</b>					
Adolescents 15 years					
Females	<sup>4</sup> 27%	...	---	<sup>5</sup> 45%	15%
Males	<sup>4</sup> 33%	...	---	<sup>5</sup> 47%	15%
Adolescents 17 years					
Females	<sup>4</sup> 50%	...	---	<sup>6</sup> 66%	40%
Males	<sup>4</sup> 66%	...	---	<sup>6</sup> 70%	40%
<b>18.4 Condom use at last sexual intercourse</b>					
Sexually active unmarried females 15–44 years	<sup>4</sup> 19%	...	---	---	50%
a. Sexually active females 15–19 years	<sup>4</sup> 26%	...	---	<sup>7</sup> 46%	60%
b. Sexually active males 15–19 years	<sup>4</sup> 57%	...	---	<sup>7</sup> 59%	75%
c. Intravenous drug abusers	---	<sup>8</sup> 34%	---	---	60%
<b>18.5 IV-drug abusers in treatment</b>	11%	...	25.5%	38.0%	50%
<b>18.6 IV-drug abusers using uncontaminated drug paraphernalia</b>	<sup>9</sup> 25–30%	<sup>2,10</sup> 30.8%	57%	---	50%
<b>18.7 Risk of transfusion-transmitted HIV infection (per units of blood)</b>	1 per 40,000–150,000	...	<sup>11</sup> 1 per 221,000	---	1 per 250,000
<b>18.8 Testing for HIV infection (HIV-infected people)</b>	15%	...	30–60%	---	80%
<b>18.9 Clinician counseling to prevent HIV and other sexually transmitted diseases</b>	<sup>12</sup> 10%	...	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about sexual practices and STD's (12 years and over)					
Pediatricians	---	...	30%	---	...
Nurse practitioners	---	...	52%	---	...
Obstetricians/gynecologists	---	...	34%	---	...
Internists	---	...	18%	---	...
Family physicians	---	...	13%	---	...
Counseling about HIV and STD prevention					
Pediatricians	---	...	46%	---	...
Nurse practitioners	---	...	50%	---	...
Obstetricians/gynecologists	---	...	46%	---	...
Internists	---	...	30%	---	...
Family physicians	---	...	27%	---	...
a. Providers practicing in high incidence areas	---	...	---	---	90%
<b>18.10 HIV education in schools</b>					
Percent of school districts requiring HIV education	66%	<sup>2</sup> 67%	---	---	95%
<b>18.11 HIV education in colleges and universities</b>	---	...	---	---	90%
<b>18.12 Outreach programs for drug abusers (cities with populations greater than 100,000)</b>	...	<sup>10</sup> 35%	32%	---	90%

**Table 18. HIV infection objective status—Con.**

Objective	1989 baseline		1992	1993	Target 2000
	Original	Revised			
<b>18.13 Clinic services for HIV and other sexually transmitted diseases . . . . .</b>	---	...	---	---	50%
Family planning clinics . . . . .	40%	...	---	---	...
<b>18.14 Regulations to protect workers from occupational exposure to HIV</b>					
Proportion of work places . . . . .	---	<sup>8</sup> 100%	---	---	100%

<sup>1</sup>Number corrected for underreporting and delays in reporting (see Data Issues).

<sup>2</sup>Data have been revised. Original data were estimated based on preliminary analysis.

<sup>3</sup>1991–92 data.

<sup>4</sup>1988 data.

<sup>5</sup>Data are from 10th grade students.

<sup>6</sup>Data are from 12th grade students.

<sup>7</sup>9th–12th grade students.

<sup>8</sup>1992 data.

<sup>9</sup>1989 data.

<sup>10</sup>1991 data.

<sup>11</sup>1990 data.

<sup>12</sup>1987 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

18.1, 18.1a–c—AIDS Surveillance System, CDC, NCID.

18.2, 18.2a–c—CDC, NCID.

18.3\*—Baseline: National Survey of Family Growth, CDC, NCHS; National Survey of Adolescent Males, NIH, NICHD. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.

18.4\*—National Survey of Family Growth, CDC, NCHS.

18.4a—Baseline: National Survey of Family Growth, CDC, NCHS. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.

18.4b—Baseline: National Survey of Adolescent Males, NIH, NICHD. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.

18.4c—National AIDS Demonstration Research Program, NIH, NIDA.

18.5—Baseline: National Institute on Drug Abuse, NIH. Updates: National Household Survey on Drug Abuse, OAS, SAMHSA.

18.6—Baseline: National AIDS Demonstration Research Program, NIH, NIDA. Updates: Cooperative Agreement for AIDS Community-based Outreach/Intervention Research Program, NIH, NIDA.

18.7—Baseline: CDC, NCID. Updates: Comprehensive Blood Donations Data Set, CDC, NCID.

18.8—Baseline: HIV Counseling and Testing Data Sites System, CDC, NCPS. Updates: CDC Counseling and Testing Database and CDC HIV Reporting System, CDC, NCID.

18.9\*—Baseline: Primary Care Physician Survey of Sexual History-taking and Counseling Practices, Lewis CE and Freeman HE. Western Journal of Medicine, 147:165–7. 1987. Updates: Primary Care Provider Surveys, OASH, ODPHP.

18.10—Baseline: AIDS education: Public school programs require more student information and teacher training, GAO, 1990.

18.12—CDC, NCPS.

18.13—National Questionnaire on Provision of STD and HIV Services by Family Planning Clinics, PHS, OPA.

18.14—OSHA.

\*Duplicate objective.

# HIV Infection Objectives

**18.1:** Confine annual incidence of diagnosed AIDS cases to no more than 98,000 cases.

*NOTE: Targets for this objective are equal to upper bound estimates of the incidence of diagnosed AIDS cases projected for 1993.*

**18.1a:** Confine annual incidence of diagnosed AIDS cases among gay and bisexual men to no more than 48,000 cases.

**18.1b:** Confine annual incidence of diagnosed AIDS cases among blacks to no more than 37,000 cases.

**18.1c:** Confine annual incidence of diagnosed AIDS cases among Hispanics to no more than 18,000 cases.

**18.2:** Confine the prevalence of HIV infection to no more than 800 per 100,000 people.

**18.2a:** Confine the prevalence of HIV infection among homosexual men to no more than 20,000 per 100,000 homosexual men.

**18.2b:** Confine the prevalence of HIV infection among intravenous drug abusers to no more than 40,000 per 100,000 intravenous drug abusers.

**18.2c:** Confine the prevalence of HIV infection among women giving birth to live-born infants to no more than 100 per 100,000.

**18.3\*:** Reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15 percent by age 15 and no more than 40 percent by age 17.

Duplicate objectives: 5.4 and 19.9

**18.4\*:** Increase to at least 50 percent the proportion of sexually active, unmarried people who used a condom at last sexual intercourse.

*NOTE: Strategies to achieve this objective must be undertaken sensitively to avoid indirectly encouraging or condoning sexual activity among teens who are not yet sexually active.*

Duplicate objective: 19.10

**18.4a\*:** Increase to at least 60 percent the proportion of sexually active, unmarried young women aged 15–19 whose partners used a condom at last sexual intercourse.

Duplicate objective: 19.10a

**18.4b\*:** Increase to at least 75 percent the proportion of sexually active, unmarried young men aged 15–19 who used a condom at last sexual intercourse.

Duplicate objective: 19.10b

**18.4c\*:** Increase to at least 60 percent the proportion of intravenous drug abusers who used a condom at last sexual intercourse.

Duplicate objective: 19.10c

**18.5:** Increase to at least 50 percent the estimated proportion of all intravenous drug abusers who are in drug abuse treatment programs.

**18.6:** Increase to at least 50 percent the estimated proportion of intravenous drug abusers not in treatment who use only uncontaminated drug paraphernalia (“works”).

**18.7:** Reduce to no more than 1 per 250,000 units of blood and blood components the risk of transfusion-transmitted HIV infection.

**18.8:** Increase to at least 80 percent the proportion of HIV-infected people who have been tested for HIV infection.

**18.9\*:** Increase to at least 75 percent the proportion of primary care and mental health care providers who provide age-appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

*NOTE: Primary care providers include physicians, nurses, nurse practitioners, and physician assistants. Areas of high AIDS and sexually transmitted disease incidence are cities and States with incidence rates of AIDS cases, HIV seroprevalence, gonorrhea, or syphilis that are at least 25 percent above the national average.*

Duplicate objective: 19.14

**18.9a\*:** Increase to at least 90 percent the proportion of primary care and mental health care providers who practice in areas of high AIDS and sexually transmitted disease incidence, who provide age appropriate counseling on the

prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 19.14a

**18.10:** Increase to at least 95 percent the proportion of schools that have age-appropriate HIV education curricula for students in 4th–12th grade, preferably as part of quality school health education.

**18.11:** Provide HIV education for students and staff in at least 90 percent of colleges and universities.

**18.12:** Increase to at least 90 percent the proportion of cities with populations over 100,000 that have outreach programs to contact drug abusers (particularly intravenous drug abusers) to deliver HIV-risk-reduction messages.

*NOTE: HIV-risk-reduction messages include messages about reducing or eliminating drug use, entering drug treatment, disinfection of injection equipment if still injecting drugs, and safer sex practices.*

**18.13\*:** Increase to at least 50 percent the proportion of family planning clinics, maternal and child health clinics, sexually transmitted disease clinics, tuberculosis clinics, drug treatment centers, and primary care clinics that screen, diagnose, treat, counsel, and provide (or refer for) partner notification services for bacterial sexually transmitted diseases (gonorrhea, syphilis, and chlamydia).

Duplicate objectives: 5.11 and 19.11

**18.14:** Extend to all facilities where workers are at risk for occupational transmission of HIV regulations to protect workers from exposure to blood borne infections, including HIV infection.

*NOTE: The Occupational Safety and Health Administration (OSHA) is expected to issue regulations requiring worker protection from exposure to blood borne infections, including HIV, during 1991. Implementation of the OSHA regulations would satisfy this objective.*

\*Duplicate objective.

# Priority Area 19 Sexually Transmitted Diseases

## Background

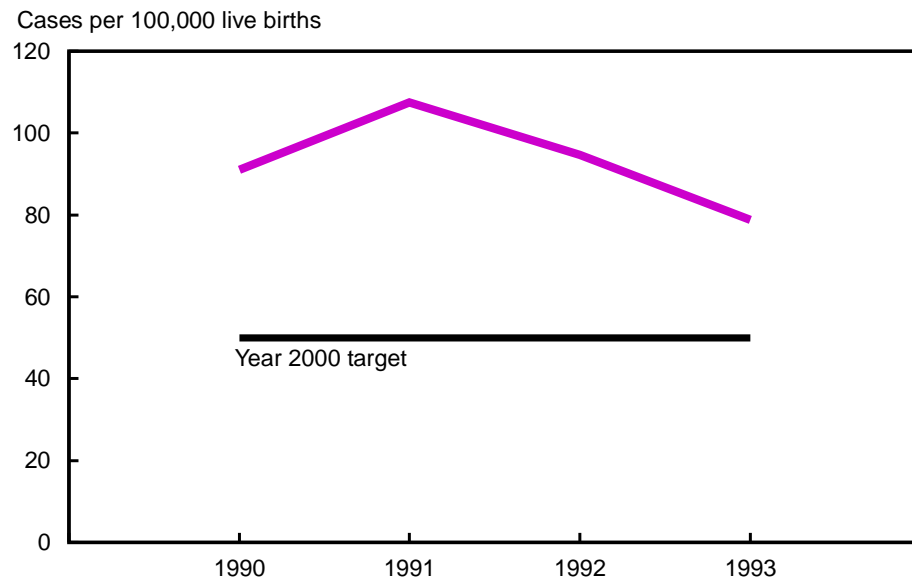
In 1989, excluding infection with the human immunodeficiency virus (HIV), almost 12 million cases of sexually transmitted diseases were reported, 86 percent of them in people 15–29 years old (1). By age 21, approximately one of every five young people has required treatment for a sexually transmitted disease (2). Women and children suffer a disproportionate amount of the sexually transmitted disease burden, with pelvic inflammatory disease, infertility, ectopic pregnancy, blindness, cancer associated with human papillomavirus, fetal and infant deaths, and congenital defects among the most serious complications. Ethnic and racial minorities also shoulder a disproportionate share of the sexually transmitted disease burden, experiencing higher rates of disease and disability than the population as a whole.

## Data Summary

### Highlights

Progress has been made toward achieving the sexually transmitted disease objectives. The incidence of gonorrhea infection in the general population and in special population subgroups (blacks, adolescents, and women of childbearing age) has declined steadily and surpassed the year 2000 targets (19.1). In addition, the hospitalization rate for pelvic inflammatory disease has surpassed the year 2000 target and continues to decline (19.6). Progress has been made in reducing repeat gonorrhea infections (19.8), primary and secondary syphilis (19.3), sexually transmitted hepatitis B cases (19.7), and in increasing condom use at last sexual intercourse among sexually active teenagers (19.10). In 1993 the rate of congenital syphilis cases per 100,000 live births (19.4) was the lowest it has been since 1990. The percent of adolescents having sexual

**Figure 20. Incidence of congenital syphilis: United States, 1990–93, and year 2000 target for objective 19.4**



	1990	1991	1992	1993	Year 2000 target
All persons. . . . .	91.0	107.6	94.7	79.0	50

SOURCE: Centers for Disease Control and Prevention, National Center for Prevention Services, Sexually Transmitted Disease Surveillance System.

intercourse (19.9) has increased and is moving away from the year 2000 target.

### Summary of Progress

Data to assess trends are available for 11 of 15 objectives in this priority area. Targets have been surpassed for two objectives (19.1 and 19.6) and progress has been made toward targets for an additional five objectives (19.3, 19.4, 19.7, 19.8, and 19.14). The trend is mixed for one objective (19.5). Recent data show trends moving away from targets for two objectives (19.2 and 19.9). Data subsequent to baseline measures are unavailable for five objectives (19.10, 19.11, 19.12, 19.13, and 19.15). For objective 19.10, however, data for the subobjectives targeting adolescents show progress toward the year 2000 targets. In addition, baseline data are not yet available for two subobjectives: condom use among intravenous drug users (19.10c) and counseling on HIV and STD prevention by providers practicing in high incidence areas (19.14a).

### Data Issues

### Definitions

In January 1988 CDC issued new guidelines for classifying and reporting cases of congenital syphilis (19.4). The new surveillance case definition is more useful for public health surveillance; the previous definition involved physical examination, laboratory and radiographic results, and followup serological data (3). Followup information was often difficult to obtain and led to delayed and incomplete reporting. In addition, the clinical criteria excluded stillbirths to mothers with untreated syphilis. The new case definition includes criteria for presumptive and confirmed cases of syphilis in infants and children and includes stillbirths. It allows diagnosis soon after delivery. A presumptive case includes all infants whose mothers have untreated or inadequately treated syphilis at delivery (4). The number of cases increased dramatically during 1989–91, partly as a result of the new case definition. The case definition was

fully implemented in all States on January 1, 1992; trends after this point will more accurately reflect changes in the true incidence of congenital syphilis.

### **Comparability of Data Sources**

The Youth Risk Behavior Survey (YRBS) provides the most recent information on adolescent postponement of sexual intercourse (19.9) and on the proportion of sexually active teenagers who used condoms during last sexual intercourse (19.10a and 19.10b). The YRBS is a school-based survey and does not include teenagers who are not in school (truants and dropouts) and potentially at higher risk of these behaviors (5). Baseline data for females are from the National Survey of Family Growth and for males from the National Survey of Adolescent Males. Neither source of baseline data is comparable to the YRBS data. For objective 19.9, 1993 data are for 10th and 12th grade students; earlier data are for 15-year-olds and 17-year-olds. In 1993, data for objective 19.10a and 19.10b are for all students in the 9th–12th grades; for most students, ages ranged from 14–17 years. Data for previous years are for teenagers 15–19 years old.

### **References**

1. Centers for Disease Control and Prevention. Division of STD/HIV prevention annual report, 1989. Atlanta, Georgia: U.S. Department of Health and Human Services. 1990.
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3. Kaufman RE, Jones OG, Blount JH, Wiesner PJ. Questionnaire survey of reported early congenital syphilis: Problems in diagnosis, prevention, and treatment. *Sex Transm Dis* 4:135–9.
4. Zenker P. New case definition for congenital syphilis reporting. *Sex Transm Dis* 18:44–5. 1991.
5. Centers for Disease Control and Prevention. Health risk behaviors among adolescents who do and do not attend schools: United States, 1992. *MMWR* 43:129–32. 1994.



**Table 19. Sexually transmitted diseases objective status**

	Objective	1988 baseline			Target 2000	
		Original	Revised	1992		1993
<b>19.1</b>	<b>Gonorrhea (per 100,000)</b> . . . . .	<sup>1</sup> 300	...	197	172	225
	a. Blacks . . . . .	<sup>1</sup> 1,990	...	1,404	1,215	1,300
	b. Adolescents 15–19 years . . . . .	<sup>1</sup> 1,123	...	870	742	750
	c. Females 15–44 years . . . . .	<sup>1</sup> 501	...	336	278	290
<b>19.2</b>	<b>Nongonococcal urethritis (per 100,000)</b> . . . . .	215	...	204	230	170
<b>19.3</b>	<b>Primary and secondary syphilis (per 100,000)</b> . . . . .	<sup>1</sup> 18.1	...	13.3	10.4	10
	a. Blacks . . . . .	<sup>1</sup> 118	...	97	77	65
<b>19.4</b>	<b>Congenital syphilis (per 100,000 live births)</b> . . . . .	<sup>1</sup> 100.0	<sup>2,3</sup> 91.0	94.7	79	50
<b>19.5</b>	<b>Annual number of first-time consultations<sup>4</sup></b>					
	Genital herpes . . . . .	167,000	<sup>5</sup> 163,000	139,000	172,000	142,000
	Genital warts . . . . .	451,000	<sup>5</sup> 290,000	218,000	167,000	385,000
<b>19.6</b>	<b>Pelvic inflammatory disease incidence (per 100,000)</b>					
	Females 15–44 years . . . . .	311	...	212	196	250
<b>19.7</b>	<b>Sexually transmitted Hepatitis B (number of cases)</b> . . . . .	<sup>6</sup> 8,300	<sup>2,6</sup> 47,593	52,882	35,849	30,500
<b>19.8</b>	<b>Repeat gonorrhea infection</b> . . . . .	<sup>6</sup> 20%	...	18%	17.4%	15%
<b>19.9</b>	<b>Adolescents who ever had sexual intercourse</b>					
	Adolescents 15 years					
	Females . . . . .	27%	...	---	<sup>7</sup> 45%	15%
	Males . . . . .	33%	...	---	<sup>7</sup> 47%	15%
	Adolescents 17 years					
	Females . . . . .	50%	...	---	<sup>8</sup> 66%	40%
	Males . . . . .	66%	...	---	<sup>8</sup> 70%	40%
<b>19.10</b>	<b>Condom use at last sexual intercourse</b>					
	Sexually active unmarried females 15–44 years . . . . .	19%	...	---	---	50%
	a. Sexually active females 15–19 years . . . . .	26%	...	---	<sup>9</sup> 46%	60%
	b. Sexually active males 15–19 years . . . . .	57%	...	---	<sup>9</sup> 59%	75%
	c. Intravenous drug abusers . . . . .	...	<sup>10</sup> 34%	---	---	60%
<b>19.11</b>	<b>Clinic services for HIV and other sexually transmitted diseases</b>					
	Family planning clinics . . . . .	<sup>14</sup> 0%	...	---	---	50%
<b>19.12</b>	<b>Sexually transmitted disease education in schools</b> . . . . .	95%	...	---	---	100%
<b>19.13</b>	<b>Correct management of sexually transmitted disease cases by primary care providers</b> . . . . .	70%	...	---	---	90%
<b>19.14</b>	<b>Clinician counseling to prevent HIV and other sexually transmitted diseases</b> . . . . .	<sup>6</sup> 10%	...	---	---	75%
	Percent of clinicians routinely providing service to 81–100% of patients					
	Counseling about HIV and STD prevention					
	Family physicians . . . . .	---	...	27%	---	...
	Internists . . . . .	---	...	30%	---	...
	Obstetricians/gynecologists . . . . .	---	...	46%	---	...
	Nurse practitioners . . . . .	---	...	50%	---	...
	Pediatricians . . . . .	---	...	46%	---	...

**Table 19. Sexually transmitted diseases objective status—Con.**

Objective	1988 baseline		1992	1993	Target 2000
	Original	Revised			
Inquiry about sexual practices and STD'S					
Family physicians . . . . .	---	...	13%	---	...
Internists . . . . .	---	...	18%	---	...
Obstetricians/gynecologists . . . . .	---	...	34%	---	...
Nurse practitioners . . . . .	---	...	52%	---	...
Pediatricians . . . . .	---	...	30%	---	...
a. Providers practicing in high-incidence areas . . . . .	---	...	---	---	90%
<b>19.15 Partner notification of exposure to sexually transmitted diseases</b>					
Patients with bacterial sexually transmitted diseases . . . . .	20%	...	---	---	50%

<sup>1</sup>1989 data.

<sup>2</sup>Data have been revised. Original data were estimated based on preliminary analysis.

<sup>3</sup>1990 data.

<sup>4</sup>As measured by first-time visits to physicians' offices.

<sup>5</sup>Data have been revised to reflect updated methodology.

<sup>6</sup>1987 data.

<sup>7</sup>Data are from 10th grade students.

<sup>8</sup>Data are from 12th grade students.

<sup>9</sup>Data are from 9th–12th grade students.

<sup>10</sup>1992 data.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

19.1, 19a–c—Sexually Transmitted Disease Surveillance System, CDC, NCPS.

19.2—National Disease and Therapeutic Index, IMS America, Ltd.

19.3, 19.3a—Sexually Transmitted Disease Surveillance System, CDC, NCPS.

19.4—Sexually Transmitted Disease Surveillance System, CDC, NCPS.

19.5—National Disease and Therapeutic Index, IMS America, Ltd.

19.6—National Hospital Discharge Survey, CDC, NCHS.

19.7\*—Viral Hepatitis Surveillance System, CDC, NCID.

19.8—Gonococcal Isolate Surveillance Project, CDC, NCPS.

19.9\*—Baseline: National Survey of Family Growth, CDC, NCHS; National Survey of Adolescent Males, NIH, NICHD. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.

19.10\*—National Survey of Family Growth, CDC, NCHS.

19.10a\*—Baseline: National Survey of Family Growth, CDC, NCHS. Updates: Youth Risk Behavioral Survey, CDC, NCCDPHP.

19.10b\*—Baseline: National Survey of Adolescent Males, NIH, NICHD. Updates: Youth Risk Behavioral Survey, CDC, NCCDPHP.

19.10c\*—Baseline: National AIDS Demonstration Research Program, NIH, NIDA.

19.11\*—National Questionnaire on Provision of STD and HIV Services by Family Planning Clinics, PHS, OPA.

19.12—Baseline: Risk and Responsibility: Teaching Sex Education in America's Schools Today, Survey of Large School Districts on Sex and AIDS Education, Alan Guttmacher Institute, New York. 1989.

19.13—National Disease and Therapeutic Index, IMS America, Ltd.

19.14\*—Baseline: Primary Care Physician Survey of Sexual History-taking and Counseling Practices, Lewis CE and Freeman HE. Western Journal of Medicine, 147:165–7. 1987. Updates: Primary Care Provider Surveys, OASH, ODPHP.

19.15—Sexually Transmitted Disease Surveillance System, CDC, NCPS.

\*Duplicate objectives.

# Sexually Transmitted Diseases Objectives

**19.1:** Reduce gonorrhea to an incidence of no more than 225 cases per 100,000 people.

**19.1a:** Reduce gonorrhea among blacks to an incidence of no more than 1,300 cases per 100,000.

**19.1b:** Reduce gonorrhea among adolescents aged 15–19 to no more than 750 cases per 100,000.

**19.1c:** Reduce gonorrhea among women aged 15–44 to no more than 290 cases per 100,000.

**19.2:** Reduce Chlamydia trachomatis infections, as measured by a decrease in the incidence of nongonococcal urethritis to no more than 170 cases per 100,000 people.

**19.3:** Reduce primary and secondary syphilis to an incidence of no more than 10 cases per 100,000 people.

**19.3a:** Reduce primary and secondary syphilis among blacks to an incidence of no more than 65 cases per 100,000.

**19.4:** Reduce congenital syphilis to an incidence of no more than 50 cases per 100,000 live births.

**19.5:** Reduce genital herpes and genital warts, as measured by a reduction to 142,000 and 385,000, respectively, in the annual number of first-time consultations with a physician for the conditions.

**19.6:** Reduce the incidence of pelvic inflammatory disease, as measured by a reduction in hospitalizations for pelvic inflammatory disease, to no more than 250 per 100,000 women aged 15–44.

**19.7\*:** Reduce sexually transmitted hepatitis B infection to no more than 30,500 cases.

Duplicate objectives: 20.03b and 20.03c, combined

**19.8:** Reduce the rate of repeat gonorrhea infection to no more than 15 percent within the previous year.

*NOTE: As measured by a reduction in the proportion of gonorrhea patients who, within the previous year, were treated for a separate case of gonorrhea.*

**19.9\*:** Reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15 percent by age 15 and no more than 40 percent by age 17.

Duplicate objectives: 5.4 and 18.3

**19.10\*:** Increase to at least 50 percent the proportion of sexually active, unmarried people who used a condom at last sexual intercourse.

Duplicate objective: 18.4

**19.10a\*:** Increase to at least 60 percent the proportion of sexually active, unmarried young women aged 15–19 whose partner used a condom at last sexual intercourse.

Duplicate objective: 18.4a

**19.10b\*:** Increase to at least 75 percent the proportion of sexually active, unmarried young men aged 15–19 who used a condom at last sexual intercourse.

Duplicate objective: 18.4b

**19.10c\*:** Increase to at least 60 percent the proportion of intravenous drug abusers who used a condom at last sexual intercourse.

Duplicate objective: 18.4c

**19.11\*:** Increase to at least 50 percent the proportion of family planning clinics, maternal and child health clinics, sexually transmitted disease clinics, tuberculosis clinics, drug treatment centers, and primary care clinics that screen, diagnose, treat, counsel, and provide (or refer for) partner notification services for bacterial sexually transmitted diseases (gonorrhea, syphilis, and chlamydia).

Duplicate objectives: 5.11 and 18.13

**19.12:** Include instruction in sexually transmitted disease transmission prevention in the curricula of all middle and secondary schools, preferably as part of quality school health education.

*NOTE: Strategies to achieve this objective must be undertaken sensitively to avoid indirectly encouraging or condoning sexual activity among teens who are not yet sexually active.*

**19.13:** Increase to at least 90 percent the proportion of primary care providers treating patients with sexually transmitted diseases who correctly manage cases, as measured by their use

of appropriate types and amounts of therapy.

**19.14\*:** Increase to at least 75 percent the proportion of primary care and mental health care providers who provide age-appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

*NOTE: Primary care providers include physicians, nurses, nurse practitioners, and physician assistants. Areas of high AIDS and sexually transmitted disease incidence are cities and States with incidence rates of AIDS cases, HIV seroprevalence, gonorrhea, or syphilis that are at least 25 percent above the national average.*

Duplicate objective: 18.9

**19.14a\*:** Increase to at least 90 percent the proportion of primary care and mental health care providers who practice in areas of high AIDS and sexually transmitted disease incidence who provide age appropriate counseling on the prevention of HIV and other sexually transmitted diseases.

Duplicate objective: 18.9a

**19.15:** Increase to at least 50 percent the proportion of all patients with bacterial sexually transmitted diseases (gonorrhea, syphilis, and chlamydia) who are offered provider referral services.

*NOTE: Provider referral (previously called contact tracing) is the process whereby health department personnel directly notify the sexual partners of infected individuals of their exposure to an infected individual.*

\*Duplicate objective.

# Priority Area 20 Immunization and Infectious Diseases

## Background

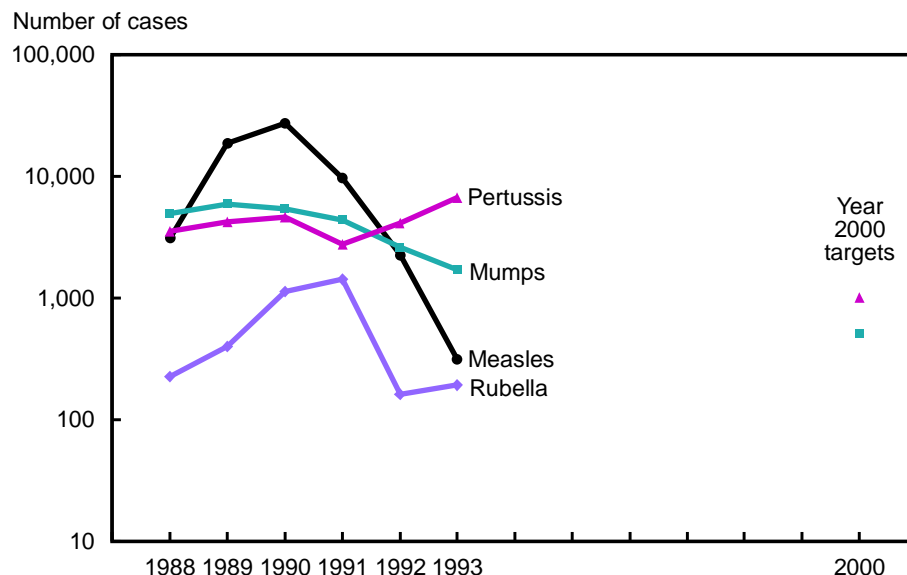
The reduction in incidence of infectious diseases is a significant public health achievement of this century. Much of this progress is a result of improvements in basic hygiene, food production and handling, and water treatment. The development and widespread use of vaccines has been instrumental in reducing the incidence of many infectious diseases. For others, antimicrobial agents have greatly reduced illness and death. Despite the progress that has been made, infectious diseases remain an important cause of illness and death in the United States. The very young, older adults, and members of minority groups are at increased risk for many infectious diseases. Each of the causative agents of infectious diseases, even those that are currently rare, pose a potential threat of recurrence or development of resistance to current treatment. For example, susceptibility to active tuberculosis among persons infected with the human immunodeficiency virus (HIV) has contributed to an increase in the number of tuberculosis cases after a steady decline since the 1950's (1). Outbreaks of multiple drug-resistant tuberculosis cases have occurred in recent years. A number of newly recognized infectious diseases have emerged. Recent examples include Legionnaires' Disease, toxic shock syndrome, Lyme disease, and the wide spectrum of diseases associated with HIV.

## Data Summary

### Highlights

Immunization levels among children have increased. In 1993, approximately two-thirds of children 19–35 months received a complete set of vaccinations comprising four doses of diphtheria-tetanus-pertussis vaccine, three doses of polio vaccine, and one dose of measles-containing vaccine (objective 20.11). This increased from 55 percent in 1992. Vaccination levels for pneumococcal pneumonia and influenza among people 65 years and over and

**Figure 21. Incidence of selected vaccine-preventable diseases: United States, 1988–93, and year 2000 targets for objective 20.1**



NOTE: Year 2000 targets for measles and rubella are zero.

	1988	1989	1990	1991	1992	1993	Year 2000 target
Measles . . . . .	3,058	18,193	26,527	9,411	2,237	312	0
Rubella . . . . .	225	396	1,125	1,401	160	192	0
Mumps . . . . .	4,866	5,792	5,292	4,264	2,572	1,692	500
Pertussis . . . . .	3,450	4,152	4,570	2,719	4,083	6,586	1,000

SOURCE: Centers for Disease Control and Prevention, Epidemiology Program Office, National Notifiable Disease Surveillance System.

hepatitis B among occupationally exposed workers have increased also. Most vaccine preventable diseases have declined from 1988 baseline measures (20.1). The number of measles cases reported in 1993 was 312, far below the baseline measure of 3,058 cases in 1988 and the 26,527 cases reported in 1990 at the height of the recent epidemic of this disease. Cases of rubella, congenital rubella syndrome, diphtheria, tetanus, and mumps are all at or near historic low levels. No indigenous cases of wild type polio have been reported in the United States since 1979. Pertussis cases have increased since 1991 from 2,719 cases to 6,583 cases in 1993.

The incidence of tuberculosis in the total population and racial and ethnic subgroups increased from 1988 baseline measures; however, rates decreased between 1992 and 1993 (20.4). The incidence of hepatitis B and hepatitis C have continued to decline beyond the targets specified the *Healthy People 2000* objective (20.3). Hepatitis A incidence declined from the baseline

rate in 1987; however, incidence increased slightly in 1993 compared with 1992.

## Summary of Progress

Data are available to assess progress for 12 of the 19 objectives in the Immunization and Infectious Diseases priority area. For three objectives (20.3, 20.11, and 20.13), there is progress toward achieving the year 2000 targets. Trends for six objectives (20.2, 20.4, 20.6, 20.9, 20.12, and 20.18) are moving away from the target. Mixed results are shown for three other objectives (20.1, 20.10, and 20.15). Data are not yet available to establish a baseline measure for objective 20.17 or to provide measures after baseline for six objectives (20.5, 20.7, 20.8, 20.14, 20.16, and 20.19).

## Data Issues

### Definitions

Epidemic-related pneumonia and influenza deaths are defined as those that are above the normal yearly fluctuations of mortality from these diseases. The data cannot be obtained directly from published mortality figures. Each year expected numbers of pneumonia and influenza deaths are calculated through a cyclical regression model using data for previous years but excluding data for the periods when mortality was known to be raised by influenza epidemics (2). Epidemic-related deaths are defined as those that exceed the predicted number during epidemic periods based on the model.

### Data Source Description

The National Notifiable Disease Surveillance System (NNDSS) is the data source for tracking cases of vaccine-preventable diseases (20.1). Interim data from this system are routinely published in the Morbidity and Mortality Weekly Report. Final data, used to track objective 20.1, are published in the Annual Summary of Notifiable Diseases (3). Detailed epidemiologic analyses of data from NNDSS are sometimes published in special surveillance reports. Data in these reports may not agree exactly with reports published in the Morbidity and Mortality Weekly Report because of differences in timing or refinements in case definition. The NNDSS is the data source for specific disease surveillance systems, such as the Viral Hepatitis Surveillance System and the Tuberculosis Morbidity Data System (20.3 and 20.4). In the case of the Viral Hepatitis Surveillance System, the data are corrected for underreporting.

### Comparability of Data Sources

Recent data on immunization levels among children under 2 years old are not directly comparable with the baseline data (20.11). The revised baseline was obtained from the 1985 United States Immunization Survey and shows the range of antigen-specific vaccination levels at the time of interview among children 2 years old. The specific immunization levels were 54 percent for polio, 61 percent for measles-containing vaccines, and

64 percent for diphtheria-tetanus-pertussis (DTP). Immunization data since 1991 are from the National Health Interview Survey and are for children 19–35 months old.

### References

1. Jereb JA, Kelly GD, Dooley SW, et al. Tuberculosis morbidity in the United States: Final data, 1990. *MMWR* 40(SS-3):23–7. 1991.
2. Lui K-J, Kendal AP. Impact of influenza epidemics on mortality in the United States from October 1972 to May 1985. *Am J Public Health* 77:712–6. 1987.
3. Centers for Disease Control and Prevention. Summary of notifiable diseases, United States, 1990. *MMWR* 39(53). 1991.

**Table 20. Immunization and infectious diseases objective status**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>20.1 Vaccine-preventable diseases (number of cases)</b>					
Diphtheria among people 25 years and under . . . . .	11	...	3	0	0
Tetanus among people 25 years and under . . . . .	13	...	7	4	0
Polio (wild-type virus) . . . . .	10	...	0	0	0
Measles . . . . .	<sup>1</sup> 3,058	...	2,237	312	0
Rubella . . . . .	<sup>1</sup> 225	...	160	192	0
Congenital Rubella Syndrome . . . . .	16	...	11	5	0
Mumps . . . . .	<sup>1</sup> 4,866	...	2,572	1,692	500
Pertussis . . . . .	<sup>1</sup> 3,450	...	4,083	6,586	1,000
<b>20.2 Epidemic-related pneumonia and influenza deaths among older adults (per 100,000)</b> . . . . .	29.1	<sup>2,3</sup> 19.9	<sup>4</sup> 23.1	---	7.3
<b>20.3 Viral hepatitis cases (per 100,000)</b>					
Hepatitis B (HBV) . . . . .	63.5	...	37.7	30.9	40.0
Hepatitis A . . . . .	31.0	<sup>5</sup> 33.0	27.2	28.2	23.0
Hepatitis C . . . . .	18.3	...	5.6	4.4	13.7
HBV cases (number of cases)					
a. Intravenous drug abusers . . . . .	30,000	<sup>5</sup> 44,348	10,576	15,136	22,500
b. Heterosexually active people . . . . .	33,000	<sup>5</sup> 33,995	46,152	26,289	22,000
c. Homosexual males . . . . .	25,300	<sup>5</sup> 13,598	6,730	9,560	8,500
d. Children of Asians/Pacific Islanders . . . . .	8,900	<sup>5</sup> 10,817	6,730	5,576	1,800
e. Occupationally exposed workers . . . . .	6,200	<sup>5</sup> 3,090	1,923	727	1,250
f. Infants . . . . .	3,500	<sup>5</sup> 3,863	2,464	1,992	550
g. Alaska Natives (number of new carriers) . . . . .	15	...	15	15	1
<b>20.4 Tuberculosis incidence (per 100,000)</b> . . . . .	19.1	...	10.5	9.8	3.5
a. Asians/Pacific Islanders . . . . .	<sup>1</sup> 36.3	...	46.6	44.5	15.0
b. Blacks . . . . .	128.3	...	31.7	29.1	10.0
c. Hispanics . . . . .	118.3	...	22.4	20.6	5.0
d. American Indians/Alaska Natives . . . . .	<sup>1</sup> 18.1	...	16.3	14.6	5.0
<b>20.5 Surgical wound and nosocomial infections</b>					
Device-associated nosocomial infection rates (per 1,000 device-days)					
Bloodstream Infections					
Medical/Coronary ICUs . . . . .	...	<sup>6</sup> 6.9	---	---	6.2
Surgical/Medical-Surgical ICUs . . . . .	...	<sup>6</sup> 5.3	---	---	4.8
Pediatric ICUs . . . . .	...	<sup>6</sup> 11.4	---	---	10.3
Urinary Tract Infections					
Medical/Coronary ICUs . . . . .	...	<sup>6</sup> 10.7	---	---	9.6
Surgical/Medical-Surgical ICUs . . . . .	...	<sup>6</sup> 7.6	---	---	6.8
Pediatric ICUs . . . . .	...	<sup>6</sup> 5.8	---	---	5.2
Pneumonia					
Medical/Coronary ICUs . . . . .	...	<sup>6</sup> 12.8	---	---	11.5
Surgical/Medical-Surgical ICUs . . . . .	...	<sup>6</sup> 17.6	---	---	15.8
Pediatric ICUs . . . . .	...	<sup>6</sup> 4.7	---	---	4.2
Surgical wound infection rates (per 100 operations)					
Low-risk patients . . . . .	...	<sup>6</sup> 1.1	---	---	1.0
Medium-low-risk patients . . . . .	...	<sup>6</sup> 3.2	---	---	2.9
Medium-high-risk patients . . . . .	...	<sup>6</sup> 6.3	---	---	5.7
High-risk patients . . . . .	...	<sup>6</sup> 14.4	---	---	13.0
<b>20.6 Illness among international travelers (number of cases)</b>					
Typhoid fever . . . . .	280	...	<sup>7</sup> 351	---	140
Hepatitis A . . . . .	1,280	<sup>5</sup> 4,475	3,814	4,581	640
Malaria . . . . .	2,000	<sup>5</sup> 932	910	1,299	1,000
<b>20.7 Bacterial meningitis (per 100,000)</b> . . . . .	<sup>8</sup> 6.3	<sup>5,8</sup> 6.5	---	---	4.7
a. Alaska Natives . . . . .	33	...	<sup>7</sup> 17	---	8
<b>20.8 Diarrhea among children in child care centers</b>					
Children 0–6 years . . . . .	...	<sup>7</sup> 32%	---	---	24%
Children 0–3 years . . . . .	...	<sup>7</sup> 38%	---	---	28%

**Table 20. Immunization and infectious diseases objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
<b>20.9 Ear infections among children 4 years and under (restricted activity days per 100 children)</b> . . . . .	131	<sup>3</sup> 135.4	155.2	196.3	105.0
<b>20.10 Pneumonia-related illness (restricted activity days per 100 people)</b>					
People 65 years and over . . . . .	48.0	<sup>3</sup> 19.1	63.5	45.1	38.0
Children 4 years and under . . . . .	27.0	<sup>3</sup> 29.4	<sup>9</sup> 19.4	<sup>9</sup> 22.5	24.0
<b>20.11 Immunization (percent immunized)</b>					
Basic immunization series among children					
Children 2 years and under . . . . .	<sup>10</sup> 70–80%	<sup>3,11</sup> 54–64%	---	---	90%
Children 19–35 months					
Diphtheria-tetanus-pertussis . . . . .	---	...	<sup>12</sup> 83%	<sup>12</sup> 88%	...
Polio . . . . .	---	...	<sup>12</sup> 72%	<sup>12</sup> 79%	...
Measles-containing . . . . .	---	...	83%	84%	...
Haemophilus influenzae B . . . . .	---	...	<sup>12</sup> 28%	<sup>12</sup> 55%	...
Hepatitis B . . . . .	---	...	---	<sup>12</sup> 16%	...
4DTP/3polio/IMMR . . . . .	---	...	55%	67%	...
Children in licensed child care facilities . . . . .	94%	<sup>3,13</sup> 94–95%	<sup>7,13</sup> 94–96%	---	95%
Children in kindergarten through post-secondary education institutions	97%	<sup>3,13</sup> 97–98%	<sup>8,13</sup> 96–98%	---	95%
Pneumococcal pneumonia and influenza immunizations					
Institutionalized chronically ill people or older people . . . . .	---	...	---	---	80%
Noninstitutionalized high-risk populations . . . . .	<sup>10</sup> 10–20%	<sup>3,14</sup> 14–30%	---	<sup>15</sup> 23%	60%
Hepatitis B immunizations					
Infants of antigen-positive mothers . . . . .	...	<sup>7</sup> 40%	---	---	90%
Occupationally exposed workers . . . . .	...	<sup>16</sup> 37%	50%	<sup>17</sup> 71%	90%
IV-drug users in drug treatment programs . . . . .	---	...	---	---	50%
Homosexual males . . . . .	---	...	---	---	50%
<b>20.12 Post exposure rabies treatments (number)</b> . . . . .	18,000	...	24,700	---	9,000
<b>20.13 Immunization laws (number of States)</b> . . . . .	<sup>18,19</sup> 10	<sup>3,16</sup> 10–49	34–50	---	50
<b>20.14 Provision of immunizations by clinicians</b> . . . . .	---	...	---	---	90%
Percent of clinicians routinely providing service to 81–100% of patients					
Children:					
DTP vaccination					
Pediatricians . . . . .	...	<sup>20</sup> 86%	---	---	...
Nurse practitioners . . . . .	...	<sup>20</sup> 76%	---	---	...
Family physicians . . . . .	...	<sup>20</sup> 89%	---	---	...
Oral polio vaccination					
Pediatricians . . . . .	...	<sup>20</sup> 87%	---	---	...
Nurse practitioners . . . . .	...	<sup>20</sup> 76%	---	---	...
Family physicians . . . . .	...	<sup>20</sup> 89%	---	---	...
Tetanus-diphtheria booster (under 18 years)					
Pediatricians . . . . .	...	<sup>20</sup> 79%	---	---	...
Nurse practitioners . . . . .	...	<sup>20</sup> 71%	---	---	...
Family physicians . . . . .	...	<sup>20</sup> 70%	---	---	...
Hib vaccination					
Pediatricians . . . . .	...	<sup>20</sup> 85%	---	---	...
Nurse practitioners . . . . .	...	<sup>20</sup> 68%	---	---	...
Family physicians . . . . .	...	<sup>20</sup> 74%	---	---	...
Adults:					
Tetanus-diphtheria booster (18 years and over)					
Nurse practitioners . . . . .	...	<sup>20</sup> 38%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>20</sup> 4%	---	---	...
Internists . . . . .	...	<sup>20</sup> 29%	---	---	...
Family physicians . . . . .	...	<sup>20</sup> 28%	---	---	...
Influenza vaccination (65 years and over)					
Nurse practitioners . . . . .	...	<sup>20</sup> 42%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>20</sup> 6%	---	---	...
Internists . . . . .	...	<sup>20</sup> 49%	---	---	...
Family physicians . . . . .	...	<sup>20</sup> 31%	---	---	...

**Table 20. Immunization and infectious diseases objective status—Con.**

Objective	1987 baseline		1992	1993	Target 2000
	Original	Revised			
Pneumococcal vaccination (65 years and over)					
Nurse practitioners . . . . .	...	<sup>20</sup> 33%	---	---	...
Obstetricians/gynecologists . . . . .	...	<sup>20</sup> 5%	---	---	...
Internists . . . . .	...	<sup>20</sup> 40%	---	---	...
Family physicians . . . . .	...	<sup>20</sup> 25%	---	---	...
<b>20.15 Financial barriers to immunization</b>					
Employment-based insurance plans that provide coverage for immunizations					
Conventional insurance plans . . . . .	<sup>16</sup> 45%	...	53%	---	100%
Preferred provider organization plans . . . . .	<sup>16</sup> 62%	...	65%	---	100%
Health maintenance organization plans . . . . .	<sup>16</sup> 98%	...	95%	---	100%
<b>20.16 Public health department provision of immunizations . . . . .</b>	...	<sup>18</sup> 37–70%	---	---	90%
<b>20.17 Local health programs to identify tuberculosis . . . . .</b>	---	...	---	---	90%
<b>20.18 Preventive therapy for tuberculosis</b>					
Percent of infected persons completing therapy . . . . .	66.3%	...	<sup>7</sup> 64.9%	---	85%
<b>20.19 Laboratory capability for influenza diagnosis</b>					
Tertiary care hospitals . . . . .	---	<sup>21</sup> 52%	---	---	85%
Secondary care hospitals and HMOs . . . . .	---	...	---	---	50%
Secondary care hospitals . . . . .	---	<sup>21</sup> 45%	---	---	...
HMOs . . . . .	---	<sup>21</sup> 68%	---	---	...

<sup>1</sup>1988 data.  
<sup>2</sup>1979–80 influenza season through 1986–87 influenza season.  
<sup>3</sup>Data have been revised to reflect updated methodology.  
<sup>4</sup>1987–88 influenza season through 1989–90 influenza season.  
<sup>5</sup>Data have been revised. Original data were estimated based on preliminary analysis.  
<sup>6</sup>1986–90 data.  
<sup>7</sup>1991 data.  
<sup>8</sup>1986 data.  
<sup>9</sup>Numerator has standard error of more than 30 percent.  
<sup>10</sup>1985 data.  
<sup>11</sup>1985 data; range of antigen-specific immunization levels among 2-year-old children (see text).  
<sup>12</sup>Three or more doses.  
<sup>13</sup>Range of antigen-specific immunization levels.  
<sup>14</sup>1989 data; among people 65 years and over, 14 percent received pneumococcal vaccine and 30 percent received influenza vaccine.  
<sup>15</sup>Proportion of people 65 years and over who received both pneumococcal and influenza vaccines; 28 percent received pneumococcal vaccine and 52 percent received influenza vaccine.  
<sup>16</sup>1989 data.  
<sup>17</sup>1994 data.  
<sup>18</sup>1990 data.  
<sup>19</sup>Includes the District of Columbia.  
<sup>20</sup>1992 data.  
<sup>21</sup>1993 data.

NOTE: Data include revisions and, therefore, may differ from those previously published in these reports and other publications.

Data Sources:

- 20.1—National Notifiable Disease Surveillance System, CDC, EPO.
- 20.2— CDC, NCID, and NCHS.
- 20.3\*, 20.3a–g\*—Viral Hepatitis Surveillance System, CDC, NCID.
- 20.4, 20.4a–d—Tuberculosis Morbidity Data, CDC, NCPS.
- 20.5—National Nosocomial Infection Surveillance System, CDC, NCID.
- 20.6—Malaria Surveillance System, CDC, NCID. Typhoid Surveillance System, CDC, NCID. Viral Hepatitis Surveillance System, CDC, NCID.
- 20.7—Bacterial Meningitis Surveillance System, CDC, NCID.
- 20.7a—Arctic Investigations Laboratory, CDC, NCID.
- 20.8—National Health Interview Survey, CDC, NCHS.
- 20.9—National Health Interview Survey, CDC, NCHS.
- 20.10—National Health Interview Survey, CDC, NCHS.
- 20.11—Basic immunization series among children: Baseline: United States Immunization Survey, CDC, NCPS. Updates: National Health Interview Survey, CDC, NCHS. Immunizations among children in licensed childcare facilities and in schools: State Immunization Survey, CDC, NIP. Pneumococcal and influenza immunizations among noninstitutionalized people: Original baseline: United States Immunization Survey, CDC, NCPS. Revised baseline and updates: National Health Interview Survey, CDC, NCHS. Hepatitis B immunizations among infants of antigen-positive women: Perinatal Hepatitis Screening Grant Program, CDC, NCID. Hepatitis B immunizations among occupationally exposed workers: Baseline: Regulatory Impact Analysis of OSHA Final Rule on Occupational Exposure to Bloodborne Pathogens, DOL, OSHA, ORA. Updates: CDC, NCID.
- 20.12—Rabies Vaccine and Immune Globulin Manufacturers Sales Data, CDC, NCID.



- 20.13—Survey of Immunization Laws, CDC, NCPS.
- 20.14—Primary Care Provider Surveys, OASH, ODPHP.
- 20.15—Health Insurance Association of America Employer Survey, Health Insurance Association of America.
- 20.16—Baseline: Immunization Grant Program Profiles, CDC, NCPS.
- 20.18—Tuberculosis Program Management Report Data on Completion of Preventive Therapy, CDC, NCPS.
- 20.19—Survey of Laboratories using Rapid Viral Diagnosis of Influenza, CDC, NCID.

\*Duplicate objective.

# Immunization and Infectious Diseases Objectives

**20.1:** Reduce indigenous cases of vaccine-preventable diseases as follows:

Disease	2000 target
Diphtheria among people aged 25 and younger	0
Tetanus among people aged 25 and younger	0
Polio (wild-type virus)	0
Measles (indigenous)	0
Rubella	0
Congenital Rubella Syndrome	0
Mumps	500
Pertussis	1,000

**20.2:** Reduce epidemic-related pneumonia and influenza deaths among people aged 65 and older to no more than 7.3 per 100,000 people.

*NOTE: Epidemic-related pneumonia and influenza deaths are those that occur above and beyond the normal yearly fluctuations of mortality. Because of the extreme variability in epidemic-related deaths from year to year, the target is a 3-year average.*

**20.3\*:** Reduce viral hepatitis as follows:

Hepatitis B (HBV): 40 per 100,000 people  
 Hepatitis A: 23 per 100,000 people  
 Hepatitis C: 13.7 cases per 100,000 people

Duplicate objectives: 19.07, 10.5

**20.3a:** Reduce hepatitis B (HBV) among intravenous drug abusers to no more than 22,500 cases.

**20.3b\*:** Reduce hepatitis B (HBV) among heterosexually active people to no more than 22,000 cases.

Duplicate objective: 19.7

**20.3c\*:** Reduce hepatitis B (HBV) among homosexual men to no more than 8,500 cases.

Duplicate objective: 19.7

**20.3d:** Reduce hepatitis B (HBV) among children of Asian and Pacific Islanders to no more than 1,800 cases.

**20.3e\*:** Reduce hepatitis B (HBV) among occupationally exposed

workers to no more than 1,250 cases.

Duplicate objective: 10.5

**20.3f:** Reduce hepatitis B (HBV) among infants to no more than 550 new carriers.

**20.3g:** Reduce hepatitis B (HBV) among Alaska Natives to no more than 1 case.

**20.4:** Reduce tuberculosis to an incidence of no more than 3.5 cases per 100,000 people.

**20.4a:** Reduce tuberculosis among Asians and Pacific Islanders to an incidence of no more than 15 cases per 100,000.

**20.4b:** Reduce tuberculosis among blacks to an incidence of no more than 10 cases per 100,000.

**20.4c:** Reduce tuberculosis among Hispanics to an incidence of no more than 5 cases per 100,000.

**20.4d:** Reduce tuberculosis among American Indians and Alaska Natives to an incidence of no more than 5 cases per 100,000.

**20.5:** Reduce by at least 10 percent the incidence of surgical wound infections and nosocomial infections in intensive care patients.

**20.6:** Reduce selected illness among international travelers as follows:

Typhoid fever: 140 cases  
 Hepatitis A: 640 cases  
 Malaria: 1,000 cases

**20.7:** Reduce bacterial meningitis to no more than 4.7 cases per 100,000 people.

**20.7a:** Reduce bacterial meningitis among Alaska Natives to no more than 8 cases per 100,000 people.

**20.8:** Reduce infectious diarrhea by at least 25 percent among children in licensed child care centers and children in programs that provide an Individualized Education Program (IEP) or Individualized Health Plan (IHP).

**20.9:** Reduce acute middle ear infections among children aged 4 and younger, as measured by days of restricted activity or school absenteeism, to no more than 105 days per 100 children.

**20.10:** Reduce pneumonia-related days of restricted activity as follows:

38 days per 100 people aged 65 and older.

24 days per 100 children aged 4 and younger.

**20.11:** Increase immunization levels as follows:

Basic immunization series among children under age 2: at least 90 percent.

Basic immunization series among children in licensed child care facilities and kindergarten through post-secondary education institutions: at least 95 percent.

Pneumococcal pneumonia and influenza immunization among institutionalized chronically ill or older people: at least 80 percent.

Pneumococcal pneumonia and influenza immunization among noninstitutionalized, high-risk populations, as defined by the Immunization Practices Advisory Committee: at least 60 percent.

Hepatitis B immunization among high-risk populations, including infants of surface antigen-positive mothers to at least 90 percent; occupationally exposed workers to at least 90 percent; IV-drug users in drug treatment programs to at least 50 percent; and homosexual men to at least 50 percent.

Duplicate objective for occupationally exposed workers: 10.9

**20.12:** Reduce postexposure rabies treatments to no more than 9,000 per year.

**20.13:** Expand immunization laws for schools, preschools, and day care settings to all States for all antigens.

**20.14:** Increase to at least 90 percent the proportion of primary care providers who provide information and counseling about immunizations and offer immunizations as appropriate for their patients.

**20.15:** Improve the financing and delivery of immunizations for children and adults so that virtually no American has a financial barrier to receiving recommended immunizations.

**20.16:** Increase to at least 90 percent the proportion of public health departments that provide adult immunization for influenza, pneumococcal disease, hepatitis B, tetanus, and diphtheria.

**20.17:** Increase to at least 90 percent the proportion of local health departments that have ongoing programs for actively identifying cases of tuberculosis and latent infection in populations at high risk for tuberculosis.

**20.18:** Increase to at least 85 percent the proportion of people found to have tuberculosis infection who completed courses of preventive therapy.

**20.19:** Increase to at least 85 percent the proportion of tertiary care hospital laboratories and to at least 50 percent the proportion of secondary care hospital and health maintenance organization laboratories possessing technologies for rapid viral diagnosis of influenza.

\*Duplicate objective.

# Priority Area 21 Clinical Preventive Services

## Background

Clinical preventive services are those disease prevention and health promotion services such as immunizations, screening for early detection of disease or risk factors, and patient counseling that are delivered to individuals in a health care setting. The U.S. Clinical Preventive Services Task Force, a panel of prevention experts convened by the U.S. Public Health Service, reviewed the full range of scientific literature on clinical preventive services and developed scientifically sound recommendations for specific services based on age, sex, and other risk factors (1).

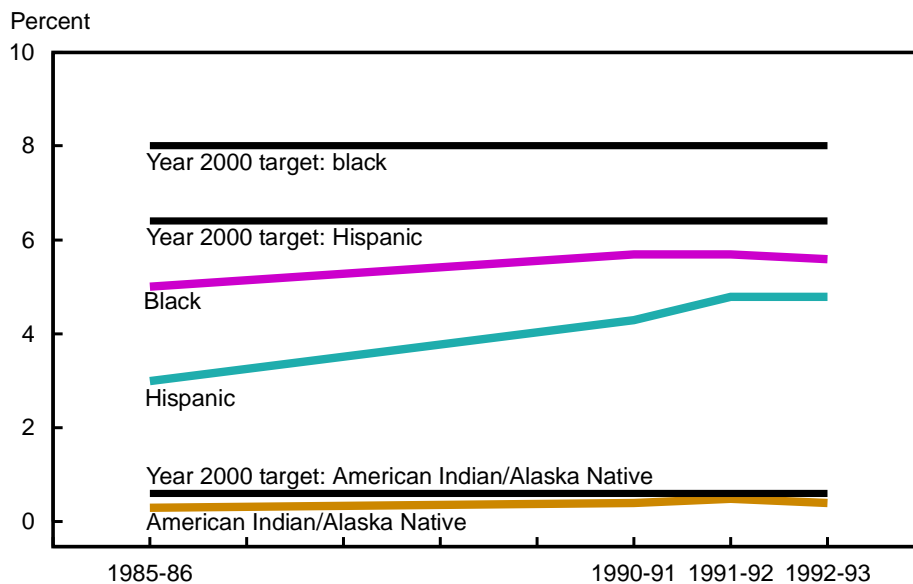
Preventive services for specific diseases and health-related behaviors are addressed in other priority areas of *Healthy People 2000*. For example, receipt of pap smears, clinical breast exams, and mammography are addressed in the cancer priority area. The objectives in this priority area support those objectives by considering clinical preventive services as a complete package and addressing barriers that impede access to and receipt of these services.

## Data Summary

### Highlights

The proportion of the adult population with a specific source of primary care has changed very little, from 82 percent in 1986 to 85 percent in 1993 (21.3). Hispanic and black adults are less likely to have a specific source of primary care and as with the population as a whole, this has not changed very much over recent years. Differences in survey methodology from year to year may affect these estimates (see Data Issues). Data from 1993 show that the proportion of adults who have received complete sets of recommended clinical preventive services has increased slightly since 1991 (21.2). This measure is described in more detail under Data Issues. The proportion of adults without health care coverage remained at 17 percent in 1993 (21.4).

**Figure 22. Racial/ethnic minority representation in health professions: United States, 1985–93, and year 2000 targets for objective 21.8**



	1985-86	1990-91	1991-92	1992-93	Year 2000 target
Black . . . . .	5.0	5.7	5.7	5.6	8
Hispanic . . . . .	3.0	4.3	4.8	4.8	6.4
American Indian or Alaska Native . . . . .	0.3	0.4	0.5	0.4	0.6

SOURCE: Health Resources and Services Administration, Bureau of Health Professions, Minorities and Women in the Health Fields.

This is a slight increase from the baseline figure of 16 percent. The proportion of people without health care coverage is used as a proxy measure of financial barriers to receiving recommended clinical preventive services.

### Summary of Progress

Data are available for five of the eight Clinical Preventive Services objectives to assess trends toward meeting the year 2000 targets. For three objectives (21.2, 21.3, and 21.8), data show progress toward achieving the year 2000 targets. Trends are moving away from targets for two objectives (21.1 and 21.4). Data beyond baseline are not available for three objectives (21.5, 21.6, and 21.7).

### Data Issues

### Years of Healthy Life

The concept of increasing years of healthy life is one of the three *Healthy*

*People 2000* goals, and is included as an objective in three priority areas (8.1, 17.1, and 21.1). See the appendix for a discussion of years of healthy life.

### Definitions

Objective 21.2 measures the receipt of all of the screening and immunization services and at least one of the counseling services, at the appropriate interval, as recommended by the U.S. Preventive Services Task Force. The recommendations vary by age, sex, and risk group; several of the objective's special population targets correspond to age groups specified by the Task Force. Questions to establish receipt of clinical preventive services among persons 19 years of age and over are obtained through periodic supplements to the National Health Interview Survey. The supplement provides information on all of the recommended immunizations and screening components, but only limited information on the counseling recommendations. Recommendations for

high-risk groups are not addressed. Questions include the interval since the last routine checkup by a medical doctor or other health care professional and receipt of several of the recommended services at the last checkup. Questions on receipt of some recommended services, namely immunizations, Pap tests, clinical breast examinations, and mammograms, were asked separately. For these, respondents of appropriate age and sex were asked whether they had received the service within a specific interval, usually the interval recommended by the Task Force. Finally, respondents were asked if they had been asked about at least one behavior that indicates the need for counseling. If the response was positive, this was used as an indicator that the person had received at least one recommended counseling service.

The proportion of people receiving the minimum set of recommended services at the appropriate interval is low; overall, about 13 percent of adults received a complete set of preventive services in 1993. Among people 65 years of age and over, only 1 percent received the complete set of preventive services. However, much larger proportions of people have received individual components of the recommended services. The measure for older people may be influenced by the way the information is obtained in the NHIS supplement. Older people are likely to have more frequent visits to health professionals for various health problems, which should increase the likelihood of receiving preventive services. However, complete preventive services may not have been received at the last regular checkup as specified in some of the NHIS questions.

### **Comparability of Data Sources**

Baseline data on the proportion of people who have a specific source of ongoing primary care were obtained from a survey conducted by the Robert Wood Johnson Foundation (2) (objective 21.3). Recent information for this objective is available from the NHIS. In 1990 and 1991, information on source of primary care was received from one adult randomly selected from among household members. In 1993, a knowledgeable adult respondent provided information for all members of the household. Some differences in this measure between the baseline and more recent years may be accounted for by

differences in survey methods. In the 1986 Robert Wood Johnson Survey, people with low income were defined as those whose family income was below 150 percent of the poverty level. In the NHIS surveys, low-income adults were those whose family income was below the poverty level. Thus, tracking data for subobjective 21.3c are not comparable with the baseline measure.

Data on the proportion of people under 65 years of age who do not have health care coverage are from the NHIS (21.4). The 1989 baseline data and tracking data from 1992 and 1993 updates are not directly comparable because of questionnaire changes.

### **Proxy Measures**

The proportion of the U.S. population under 65 years of age that does not have health care coverage (private insurance, Medicare, Medicaid, or a military plan) is used to measure progress for objective 21.4, financial barriers to receiving recommended clinical preventive services. However, this only provides a partial measure for the objective since many health insurance plans do not provide full coverage for preventive health care. In 1988, only 41 percent of employer-sponsored health insurance plans covered adult physical examinations, 56 percent covered well baby care, and 69 percent covered preventive diagnostic tests (3).

### **References**

1. U.S. Preventive Services Task Force. Guide to clinical preventive services: An assessment of the effectiveness of 169 interventions. Report of the U.S. Preventive Services Task Force. Baltimore, Maryland: Williams and Wilkins. 1989.
2. The Robert Wood Johnson Foundation. Access to health care in the United States: Results of a 1986 survey. Special Report Number Two/1987. Princeton, New Jersey: The Foundation. 1987.
3. Health Insurance Association of America. Research bulletin: A profile of employer-sponsored group health insurance. Washington: The Association. 1989.

**Table 21. Clinical preventive services objective status**

Objective	Baseline		1992	1993	Target 2000
	Original	Revised			
<b>21.1 Years of healthy life</b>	<sup>1</sup> 62.0	<sup>2,3</sup> 64.0	63.7	---	65
a. Blacks	<sup>1</sup> 56.0	<sup>2,3</sup> No change	55.6	---	60
b. Hispanics	<sup>1</sup> 62.0	<sup>2,3,4</sup> 64.8	<sup>4,5</sup> 64.0	---	65
c. People 65 years and over <sup>6</sup>	<sup>1</sup> 12.0	<sup>2,3</sup> 11.9	11.9	---	14
<b>21.2 Receipt of recommended services</b>	...	<sup>7,8</sup> 13%	---	14%	50%
a. Infants up to 24 months	...	---	---	---	90%
b. Children 2–12 years	...	---	---	---	80%
c. Adolescents 13–18 years	...	---	---	---	50%
d. People 19–39 years	...	<sup>7</sup> 12%	---	16%	40%
e. People 40–64 years	...	<sup>7</sup> 18%	---	18%	40%
f. People 65 years and over	...	<sup>7</sup> 0%	---	1%	40%
g. Low-income people	...	<sup>7,8</sup> 8%	---	10%	50%
h. Blacks	...	<sup>7,8</sup> 13%	---	17%	50%
i. Hispanics	...	<sup>7,8</sup> 13%	---	12%	50%
j. Asians/Pacific Islanders	...	<sup>7,8</sup> 12%	---	14%	50%
k. American Indians/Alaska Natives	...	<sup>7,8</sup> 14%	---	15%	70%
l. People with disabilities	...	<sup>7,8</sup> 12%	---	12%	80%
<b>21.3 Access to primary care (percent with source of care)</b>					
All ages	<sup>9</sup> 82%	...	---	85%	95%
Ages 18 years and over	...	<sup>9</sup> 79%	78%	83%	95%
a. Hispanics	<sup>9</sup> 70%	...	65%	71%	95%
b. Blacks	<sup>9</sup> 80%	...	77%	79%	95%
c. Low-income people	<sup>9</sup> 80%	...	72%	72%	95%
<b>21.4 Financial barriers to receipt of clinical preventive services</b>	---	...	---	---	0%
Proportion without health care coverage					
People under 65 years	...	<sup>10</sup> 16%	17%	17%	...
<b>21.5 Clinical preventive services from publicly funded programs (proportion of eligible people)</b>	---	...	---	---	90%
Federal programs					
Screening	...	<sup>11</sup> 10–100%	---	---	...
Counseling	...	<sup>11</sup> 40–100%	---	---	...
Immunizations	...	<sup>11</sup> 10–96%	---	---	...
<b>21.6 Provision of recommended services by primary care providers</b>	---	...	---	---	50%
Percent of clinicians routinely providing service to 81–100% of patients (children)					
Hemoglobin/hematocrit					
Pediatricians	...	<sup>12</sup> 78%	---	---	...
Nurse practitioners	...	<sup>12</sup> 77%	---	---	...
Family physicians	...	<sup>12</sup> 52%	---	---	...
Eye exam (for strabismus and amblyopia)					
Pediatricians	...	<sup>12</sup> 64%	---	---	...
Nurse practitioners	...	<sup>12</sup> 67%	---	---	...
Family physicians	...	<sup>12</sup> 53%	---	---	...
Blood pressure					
Pediatricians	...	<sup>12</sup> 78%	---	---	...
Nurse practitioners	...	<sup>12</sup> 71%	---	---	...
Family physicians	...	<sup>12</sup> 42%	---	---	...
Height and weight					
Pediatricians	...	<sup>12</sup> 96%	---	---	...
Nurse practitioners	...	<sup>12</sup> 88%	---	---	...
Family physicians	...	<sup>12</sup> 89%	---	---	...
DTP vaccination					
Pediatricians	...	<sup>12</sup> 86%	---	---	...
Nurse practitioners	...	<sup>12</sup> 76%	---	---	...
Family physicians	...	<sup>12</sup> 89%	---	---	...

**Table 21. Clinical preventive services objective status—Con.**

Objective	Baseline		1992	1993	Target 2000
	Original	Revised			
Oral polio vaccination					
Pediatricians . . . . .	...	1287%	---	---	...
Nurse practitioners . . . . .	...	1276%	---	---	...
Family physicians . . . . .	...	1289%	---	---	...
Tetanus-diphtheria booster					
Pediatricians . . . . .	...	1279%	---	---	...
Nurse practitioners . . . . .	...	1271%	---	---	...
Family physicians . . . . .	...	1270%	---	---	...
Hib vaccination					
Pediatricians . . . . .	...	1285%	---	---	...
Nurse practitioners . . . . .	...	1268%	---	---	...
Family physicians . . . . .	...	1274%	---	---	...
(adults)					
Tetanus-diphtheria booster(18 years and over)					
Nurse practitioners . . . . .	...	1238%	---	---	...
Obstetricians/gynecologists . . . . .	...	124%	---	---	...
Internists . . . . .	...	1229%	---	---	...
Family physicians . . . . .	...	1228%	---	---	...
Influenza vaccination (65 years and over)					
Nurse practitioners . . . . .	...	1242%	---	---	...
Obstetricians/gynecologists . . . . .	...	126%	---	---	...
Internists . . . . .	...	1249%	---	---	...
Family physicians . . . . .	...	1231%	---	---	...
Pneumococcal vaccination (65 years and over)					
Nurse practitioners . . . . .	...	1233%	---	---	...
Obstetricians/gynecologists . . . . .	...	125%	---	---	...
Internists . . . . .	...	1240%	---	---	...
Family physicians . . . . .	...	1225%	---	---	...
Blood pressure					
Nurse practitioners . . . . .	...	1282%	---	---	...
Obstetricians/gynecologists . . . . .	...	1288%	---	---	...
Internists . . . . .	...	1292%	---	---	...
Family physicians . . . . .	...	1289%	---	---	...
Cholesterol level					
Nurse practitioners . . . . .	...	1245%	---	---	...
Obstetricians/gynecologists . . . . .	...	1236%	---	---	...
Internists . . . . .	...	1280%	---	---	...
Family physicians . . . . .	...	1261%	---	---	...
Breast exam (by clinician)					
Nurse practitioners . . . . .	...	1278%	---	---	...
Obstetricians/gynecologists . . . . .	...	1292%	---	---	...
Internists . . . . .	...	1276%	---	---	...
Family physicians . . . . .	...	1262%	---	---	...
Pap smear					
Nurse practitioners . . . . .	...	1277%	---	---	...
Obstetricians/gynecologists . . . . .	...	1295%	---	---	...
Internists . . . . .	...	1267%	---	---	...
Family physicians . . . . .	...	1262%	---	---	...
Mammogram					
Nurse practitioners . . . . .	...	1263%	---	---	...
Obstetricians/gynecologists . . . . .	...	1285%	---	---	...
Internists . . . . .	...	1267%	---	---	...
Family physicians . . . . .	...	1253%	---	---	...

**Table 21. Clinical preventive services objective status—Con.**

Objective	Baseline		1992	1993	Target 2000
	Original	Revised			
<b>21.7 Local health department assurance of access to essential clinical preventive service</b>					
Proportion of people served . . . . .	---	...	---	---	90%
Proportion of local health departments that:					
Assess provision of clinical preventive services . . . . .	...	<sup>13</sup> 76%	---	---	...
Collect data on number of providers of clinical preventive services. . . . .	...	<sup>13</sup> 45%	---	---	...
Evaluate gaps between availability and need for clinical preventive services. . . . .	...	<sup>13</sup> 57%	---	---	...
Provide programs to fill gaps (of those that evaluate gaps) . . . . .	...	<sup>13</sup> 83%	---	---	...
<b>21.8 Racial/ethnic minority representation in the health professions</b>					
Degrees awarded to—					
Blacks . . . . .	<sup>14</sup> 5.0%	...	<sup>15</sup> 5.7%	<sup>16</sup> 5.9%	8.0%
Hispanics . . . . .	<sup>14</sup> 3.0%	...	<sup>15</sup> 4.8%	<sup>16</sup> 4.8%	6.4%
American Indians/Alaska Natives . . . . .	<sup>14</sup> 0.3%	...	<sup>15</sup> 0.5%	<sup>16</sup> 0.4%	0.6%

<sup>1</sup>1980 data.

<sup>2</sup>1990 data.

<sup>3</sup>Data have been revised to reflect updated methodology.

<sup>4</sup>Estimate based on preliminary data.

<sup>5</sup>Estimates derived from 1991–93 health status data and 1992 mortality data.

<sup>6</sup>Years of healthy life remaining at age 65.

<sup>7</sup>1991 data.

<sup>8</sup>Among people 19 years and over.

<sup>9</sup>1986 data.

<sup>10</sup>1989 data.

<sup>11</sup>1991–92 data.

<sup>12</sup>1992–93 data.

<sup>13</sup>1990 data.

<sup>14</sup>1985–86 data.

<sup>15</sup>Academic year 1991–92.

<sup>16</sup>Academic year 1992–93.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

21.1\*, 21.1a–c\*—National Health Interview Survey, CDC, NCHS; National Vital Statistics System, CDC, NCHS.

21.2, 21.2d–l—National Health Interview Survey, CDC, NCHS.

21.3, 21.3a–c—Baseline: 1986 Access to Health Care Survey, Robert Wood Johnson Foundation. Updates: National Health Interview Survey, CDC, NCHS.

21.4—National Health Interview Survey, CDC, NCHS.

21.5—BHCDA Survey, HRSA, OPEL; Survey of Federal Programs, HRSA, OPEL.

21.6—Primary Care Provider Surveys, OASH, ODPHP.

21.7—National Profile of Local Health Departments, National Association of County and City Health Officials.

21.8—Minorities and Women in the Health Fields, HRSA, BHP.

\*Duplicate objective.



# Clinical Preventive Services Objectives

**21.1\*:** Increase years of healthy life to at least 65 years.

*NOTE: Years of healthy life is a summary measure of health that combines mortality (quantity of life) and morbidity and disability (quality of life) into a single measure.*

Duplicate objectives: 8.1 and 17.1

**21.1a\*:** Increase years of healthy life among blacks to at least 60 years.

Duplicate objectives: 8.1 and 17.1a

**21.1b\*:** Increase years of healthy life among Hispanics to at least 65 years.

Duplicate objectives: 8.1b and 17.1b

**21.1c\*:** Increase years of healthy life among people aged 65 and older to at least 14 years remaining.

Duplicate objectives: 8.1c and 17.1c

**21.2:** Increase to at least 50 percent the proportion of people who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2a:** Increase to at least 90 percent the proportion of infants up to 24 months who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2b:** Increase to at least 80 percent the proportion of children aged 2–12 who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2c:** Increase to at least 50 percent the proportion of

adolescents aged 13–18 who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2d:** Increase to at least 40 percent the proportion of adults aged 19–39 who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2e:** Increase to at least 40 percent the proportion of adults aged 40–64 who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2f:** Increase to at least 40 percent the proportion of adults aged 65 and older who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2g:** Increase to at least 50 percent the proportion of low-income people who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2h:** Increase to at least 50 percent the proportion of blacks who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2i:** Increase to at least 50 percent the proportion of Hispanics who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2j:** Increase to at least 50 percent the proportion of Asians and Pacific Islanders who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2k:** Increase to at least 70 percent the proportion of American Indians and Alaska Natives who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.2l:** Increase to at least 80 percent the proportion of people with disabilities who have received, as a minimum within the appropriate interval, all of the screening and immunization services and at least one of the counseling services appropriate for their age and gender as recommended by the U.S. Preventive Services Task Force.

**21.3:** Increase to at least 95 percent the proportion of people who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.3a:** Increase to at least 95 percent the proportion of Hispanics who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.3b:** Increase to at least 95 percent the proportion of blacks who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.3c:** Increase to at least 95

percent the proportion of low-income people who have a specific source of ongoing primary care for coordination of their preventive and episodic health care.

**21.4:** Improve financing and delivery of clinical preventive services so that virtually no American has a financial barrier to receiving, at a minimum, the screening, counseling, and immunization services recommended by the U.S. Preventive Services Task Force.

**21.5:** Assure that at least 90 percent of people for whom primary care services are provided directly by publicly funded programs are offered, at a minimum, the screening, counseling, and immunization services recommended by the U.S. Preventive Services Task force.

*NOTE: Publicly funded programs that provide primary care services directly include federally funded programs such as the Maternal and Child Health Program, Community and Migrant Health Centers, and the Indian Health Service as well as primary care service settings funded by State and local governments. This objective does not include services covered indirectly through the Medicare and Medicaid programs.*

**21.6:** Increase to at least 50 percent the proportion of primary care providers who provide their patients with the screening, counseling, and immunization services recommended by the U.S. Preventive Services Task Force.

**21.7:** Increase to at least 90 percent the proportion of people who are served by a local health department that assesses and assures access to essential clinical preventive services.

**21.8:** Increase the proportion of all degrees in the health professions and allied and associated health profession fields awarded to members of underrepresented racial and ethnic minority groups as follows:

	2000 Target (percent)
Blacks	8.0
Hispanics	6.4
American Indians and Alaska Natives	0.6

\*Duplicate objective.

## Priority Area 22 Surveillance and Data Systems

### Background

Public health surveillance is the systematic collection, analysis, and use of health information. Surveillance is essential to understanding the health status of a population and planning effective prevention programs. The Institute of Medicine identifies this assessment activity as one of the core functions of public health (1). Surveillance is critical in all health agencies: Federal, State, and local. State and local data are needed to assess health needs and to implement and evaluate community health programs. Achievement of the year 2000 objectives depends in part on our ability to monitor and compare progress toward the objectives at all levels of government.

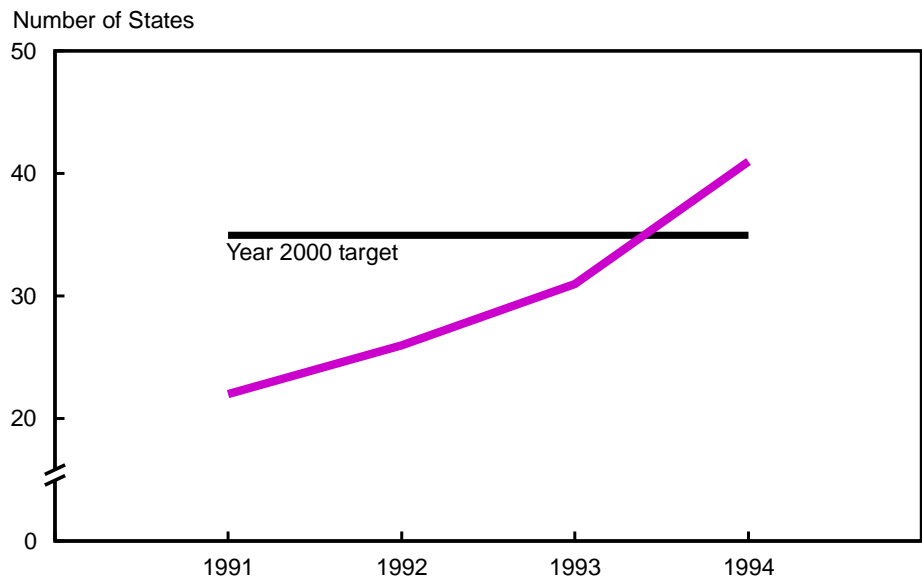
We must also be able to measure the health status of special populations. Morbidity, mortality, health behaviors, access to and use of health services vary markedly by age, race, sex, and socioeconomic status. Therefore, many of the objectives throughout *Healthy People 2000* are targeted toward racial and ethnic minorities, elderly people, people with chronic disabilities, and people with low incomes.

Some important health issues could not be addressed in the year 2000 objectives since national data to accurately characterize the problems were unavailable. The lack of data at the State and local levels is of even greater concern. Thus, several objectives in priority area 22 are directed toward enhancing data systems in States and communities. Similarly, objectives address the identification of and response to data gaps related to minorities and other special populations.

### Data Summary and Issues

The first part of objective 22.1, development of Health Status Indicators, has been achieved. The consensus set of 18 indicators was published in July 1991 (2). National data for the Health Status Indicators were first published in October 1992 (3). A trend of the

**Figure 23. Number of States with Healthy People 2000 plans: United States, 1991–94**



	1991	1992	1993	1994	Year 2000 target
Number of States . . . . .	22	26	31	41	35

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics.

national data for the Health Status Indicators is shown in table C. Table D presents the indicators for the major racial/ethnic groups for the most recent data year. The achievement of the remainder of this objective is being measured by tracking the use of the indicators by State and local health departments.

Objective 22.2 is close to being achieved with 93 percent of objectives with ongoing data sources. The Centers for Disease Control and Prevention (CDC) has expanded its role in supporting State assessment activities related to the year 2000 objectives. In 1994, 17 of the 41 States and the District of Columbia with *Healthy People 2000* plans had included surveillance and data systems objectives in their plans (figure 23).

Procedures for collecting comparable data among Federal, State, and local agencies (22.3) continue to be developed. The baseline shows the percent of objectives that are tracked with vital statistics data, which are collected by local jurisdictions. Comparable procedures for monitoring population-based nutrition objectives

were included in 1992. Objectives monitored with the Youth Risk Behavior Surveillance System, the Notifiable Disease Surveillance System, the Fatal Accident Reporting System, and several other national systems that depend on State data are now included. Objectives monitored with the National Health Interview Survey were also counted if the State Behavioral Risk Factor Surveillance System included questions that were similar in wording and conceptual approach (some objectives, for example, physical activity and current smoking, are being monitored by the States but not with methods comparable with national methods). Efforts will be underway beginning early this summer to increase comparability between these two survey systems.

A number of objectives are out of scope for the purposes of tracking objective 22.3. The majority of them are Services and Protection objectives that do not involve traditional data collection comparability issues, although they may involve what is considered appropriate protocol. These objectives include patient education and counseling,

employer- and community-based prevention programs, development and implementation of quality standards, conformance with national guidelines, and enactment of national laws. Therefore, the current estimate of 21 percent is an underestimate of the actual proportion of all objectives with comparable data collection procedures.

Objective 22.4 addresses the development and implementation of a national process to identify significant gaps in the Nation's disease prevention and health promotion data. There are two parts to this objective: the identification of data gaps in broad areas of public health where insufficient data exist to develop objectives, and the identification of data gaps connected with special populations. First steps to identify significant gaps in broad areas of the Nation's disease prevention and health promotion data have been taken. In 1993, the National Committee on Vital and Health Statistics Subcommittee on State and Community Health Statistics recommended the development of a coordinated Federal, State, and community health statistics system that should include the following data sets in order to carry out the functions of assessment and policy development: vital statistics, in-patient hospitalization utilization, ambulatory care, long-term care, incidence and prevalence of disease and disability, health care resources, health care costs and expenditures, demographic profiles of populations served, access to basic health care and preventive services, health risk behaviors and attitudes, and environmental health risks. The process of the *Healthy People 2000 Midcourse Review* has brought the Nation closer to achieving the latter part of this objective, although there is much more that needs to be done as the decade progresses. During the *Midcourse Review*, considerable attention was given to major population groups that are at highest risk for premature death, disease, or disability, and 120 new subobjectives were proposed by the lead PHS agencies (see the section on the *Midcourse Review* in the Introduction). Data gaps still exist for all possible population groups that might be at higher risk than the general population, and additional steps will be taken to identify these gaps.

Progress toward objective 22.5, the number of States that periodically analyze and publish data needed to

measure progress toward the national health objectives, is currently being assessed by the number of States that publish data from major databases including vital statistics, the Behavioral Risk Factor Surveillance System, hospital discharge system data, and the Youth Risk Behavior Surveillance System. A national database (the Health Care Cost and Utilization Project) is currently being developed to build comparable hospital discharge data sets among States. The number of States with at least one racial/ethnic group that comprises at least 10 percent of their population that publish vital statistics data for each of these groups is also being tracked. In 1993, there were 27 States whose populations included at least 10 percent racial/ethnic minorities. Twenty-three of those States were publishing data for their major racial/ethnic groups.

Data to measure objective 22.6, to expand in all States systems for the transfer of year 2000 data among Federal, State, and local agencies, are now available for three data systems. The National Electronic Telecommunications System for Surveillance (NETSS) is operating in all States. In 1995, the Public Health Laboratory Information System (PHLIS) became available in all States as well. DATA2000, containing tracking data for all the national *Healthy People 2000* objectives, became available in April 1995 to State and local health department personnel through the CDC WONDER/PC system, a system actively used by all State Health Departments.

Achieving the timely release of national surveillance and survey data to measure progress toward the national health objectives (22.7) is measured by percent of objectives with data released within 1 year and between 1 and 2 years of data collection. As of February 1995, data released within 1 year of data collection had been obtained for 67 percent of the objectives with data; an additional 24 percent of the objectives had data obtained between 1 and 2 years of collection.

## References

1. Institute of Medicine. The future of public health. Washington: National Academy Press. 1988.
2. Centers for Disease Control and Prevention. Consensus set of health indicators for the general

assessment of community health status, United States. MMWR 40(27):449-51. 1991.

3. Klein RJ, Hawk SA. Health status indicators: Definitions and national data. Statistical notes; vol 1 no 3. Hyattsville, Maryland: National Center for Health Statistics. 1992.

**Table 22. Surveillance and data systems objective status**

Objective	1987 baseline				Target 2000
	Original	Revised	1992	1993	
<b>22.1 Health status indicators</b>					
Develop (indicators selected) . . . . .	0%	<sup>1</sup> 100%	---	100%	...
Establish use (number of States) . . . . .	...	...	---	---	40
Monitoring some indicators <sup>2</sup> . . . . .	...	...	48	51	...
Providing HSI data to local health departments . . . . .	...	...	36	---	...
<b>22.2 National data sources</b> . . . . .	<sup>3</sup> 77%	...	---	93%	100%
a. State level data for at least two-thirds of the objectives (number of States) <sup>4</sup> . . . . .	23	122	<sup>2,5</sup> 32	<sup>2,6</sup> 42	35
<b>22.3 Comparable data collection procedures</b>					
Federal, State, and local agencies . . . . .	...	<sup>3</sup> 12%	14%	<sup>6,7</sup> 21%	100%
<b>22.4 Identify gaps in health data; establish mechanisms to meet needs<sup>7</sup></b> . . . . .	...	...	...	...	...
<b>22.5 Periodic analysis and publication of data (number of States)</b> . . . . .	20	...	---	---	50
Vital statistics . . . . .	...	50	50	50	...
Behavioral Risk Factor Survey data <sup>2</sup> . . . . .	...	40	49	50	...
Hospital discharge data. . . . .	...	<sup>8</sup> 34	<sup>8</sup> 37	<sup>8</sup> 39	...
Youth Risk Behavior Survey data . . . . .	...	<sup>9</sup> 24	---	<sup>6</sup> 43	...
a. Analysis for racial and ethnic groups (number of States) <sup>2,10</sup> . . . . .	...	<sup>11</sup> 19	---	23	25
<b>22.6 Number of States with data transfer systems</b> . . . . .	30	...	---	---	50
National Electronic Telecommunications System for Surveillance (NETSS) . . . . .	...	<sup>11</sup> 50	---	---	...
Public Health Laboratory Information System (PHLIS) . . . . .	...	<sup>11</sup> 37	<sup>5</sup> 44	<sup>6</sup> 50	...
DATA2000 on CDC WONDER/PC . . . . .	...	<sup>12</sup> 50	---	---	...
<b>22.7 Timely release of national data (percent of objectives)</b>					
Data released within 1 year of collection . . . . .	...	<sup>6,13</sup> 65%	---	<sup>12</sup> 67%	100%
Data released between 1 and 2 years of collection . . . . .	...	<sup>6,13</sup> 24%	---	<sup>12</sup> 24%	...

<sup>1</sup>1991 data.

<sup>2</sup>Includes the District of Columbia.

<sup>3</sup>1990 data.

<sup>4</sup>States that have adopted Healthy People 2000 plans.

<sup>5</sup>1993 data.

<sup>6</sup>1994 data.

<sup>7</sup>See text for a discussion of this objective.

<sup>8</sup>States with legislative mandates to collect hospital discharge data. In 1994, 22 States collected these data.

<sup>9</sup>First year of State Youth Risk Behavior Surveys.

<sup>10</sup>27 States have at least one racial/ethnic group comprising at least 10 percent of their population; data show number of States that published vital statistics data for these racial/ethnic groups.

<sup>11</sup>1992 data.

<sup>12</sup>1995 data.

<sup>13</sup>Data have been revised to reflect updated methodology.

NOTE: Data include revisions and, therefore, may differ from data previously published in these reports and other publications.

Data Sources:

22.1—CDC, NCHS.

22.2, 22.2a— Baseline: National data: ODPHP; State data: Public Health Foundation. Updates: CDC, NCHS; OASH, ODPHP.

22.3—CDC, NCHS.

22.4—Subcommittee on State and Community Health Statistics, NCVHS.

22.5—Baseline: Public Health Foundation. Updates: Vital statistics: CDC, NCHS; BRFS: CDC, NCCDPHP; Hospital discharge data: National Association of Health Data Organizations; YRBS: CDC, NCCDPHP.

22.5a—CDC, NCHS.

22.6—CDC, IRMO; CDC, NCHS.

22.7—CDC, NCHS.

# Surveillance and Data Systems Objectives

**22.1:** Develop a set of health status indicators appropriate for Federal, State, and local health agencies, and establish use of the set in at least 40 States.

**22.2:** Identify, and create where necessary, national data sources to measure progress toward each of the year 2000 national health objectives.

**22.2a:** Identify, and create where necessary, State-level data for at least two-thirds of the objectives in at least 35 States.

**22.3:** Develop and disseminate among Federal, State, and local agencies procedures for collecting comparable data for each of the year 2000 national health objectives and incorporate these into Public Health Service data collection systems.

**22.4:** Develop and implement a national process to identify significant gaps in the Nation's disease prevention and health promotion data, including data for racial and ethnic minorities, people with low incomes, and people with disabilities, and establish mechanisms to meet these needs.

*NOTE: Disease prevention and health promotion data include disease status, risk factors, and services receipt data. Public health problems include such issue areas as HIV infection, domestic violence, mental health, environmental health, occupational health, and disabling conditions.*

**22.5:** Implement in all States periodic analysis and publication of data needed to measure progress toward objectives for at least 10 of the priority areas of the national health objectives.

*NOTE: Periodic is at least once every 3 years. Objectives include, at a minimum, one from each objectives category: health status, risk reduction, and services and protection.*

**22.5a:** Implement in at least 25 States periodic analysis and publication of data needed to measure State progress toward the national health objectives for each racial or ethnic group that makes up

at least 10 percent of the State population.

**22.6:** Expand in all States systems for the transfer of health information related to the national health objectives among Federal, State, and local agencies.

*NOTE: Information related to the national health objectives includes State and national level baseline data, disease prevention and health promotion evaluation results, and data generated to measure progress.*

**22.7:** Achieve timely release of national surveillance and survey data needed by health professionals and agencies to measure progress toward the national health objectives.

*NOTE: Timely release (publication of provisional or final data or public-use data tapes) should be based on the use of the data, but is at least within one year of the end of data collection.*

# Appendix

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# Appendix

## Revised Baselines and Targets

For a number of *Healthy People 2000* objectives, the baselines are revised from the original baselines published in *Healthy People 2000* (1). Baselines for 50 of the population-based mortality objectives were updated using intercensal population estimates based on the 1990 census enumeration. These are discussed below. In priority area 14, 11 baselines were revised in response to a change in the method for tabulating the race of infants (see Chapter 14, Maternal and Infant Health). For 44 unduplicated objectives, the baselines have been changed because of modifications in methodology, typographical errors, changes in data sources, or because the baseline data were based on preliminary analyses.

Except for objectives 6.3 and 7.6, which were revised by the lead agency responsible for achieving the objectives (appendix table I), as of this writing, all *Healthy People 2000* targets are being shown as originally published.

## Death Rates

The 1986 and 1987 baselines for population-based mortality objectives and subobjectives tracked with data from the National Vital Statistics System (NVSS), as well as subsequent data for the 1980's, have been recomputed using intercensal population estimates based on the 1990 Census enumeration. These revisions have been published in prior editions of the *Review*. Data for the three mortality objectives (4.1, 9.3 (except 9.3d), and 10.1) tracked by sources other than the NVSS are not revised for this reason. With the exception of American Indian/Alaska Native death rates, the changes are relatively small. Cases where the recomputed baseline rate was the same as the original rate are denoted in the priority area data tables by "no change."

## American Indian and Alaska Native Death Rates

The baseline rates for some American Indian/Alaska Native (AI/AN) mortality subobjectives have been revised to reflect the new intercensal populations and the inclusion of the

entire U.S. AI/AN population. The objectives affected by this change are: 4.2b (cirrhosis deaths), 6.1d/7.2d (suicide deaths), 7.1f (homicide deaths), 9.1a (unintentional injury deaths), 9.3d (motor vehicle crash deaths), and 17.9b (diabetes-related deaths).

The original baselines and targets for these objectives were established using data from the 33 States in which AI/AN health services are provided by the Indian Health Service Regional Service Offices. The Indian Health Service provides health care to approximately 60 percent of the AI/AN population (2); most of the population served live on or near reservations. The 33 "Reservation States" include approximately 90 percent of the AI/AN population in the United States, but do not include some States with large American Indian populations.

The revised baselines are substantially lower than the original figures. These differences are partially due to the substantially larger intercensal population denominators based on the 1990 Census compared with those based on the 1980 Census. They may also reflect the relatively greater failure to identify AI/AN race on death certificates in non-Reservation States compared with Reservation States (3).

## Minority Group Subobjectives

Special population subobjectives address disparities and differing trends. The guidelines for drafting the subobjectives required the identification of a data source to track progress before a subobjective for a minority or special population could be set. Lack of data sources prevented the establishment of subobjectives for some population groups.

Many subpopulations are small and geographically clustered and cannot be adequately measured through national surveys using standard sampling techniques. Developing techniques to assess the health of minorities and other special subpopulations is a significant challenge during this decade.

## Age Adjustment

Most of the original baselines for the population-based mortality objectives in *Healthy People 2000* are derived from the NVSS and are age

adjusted to the 1940 population. Exceptions are objectives 4.1, 9.3 (except 9.3d), and 10.1. Data for 4.1 and 9.3 (except 9.3d) are crude rates from the National Highway and Traffic Safety Administration's Fatal Accident Reporting System (FARS); data for 10.1 are crude rates from the Department of Labor's Annual Survey of Occupational Injuries and Illnesses and Census of Fatal Occupational Injuries. Most of the mortality subobjective baselines originally published in *Healthy People 2000* are age adjusted as well; the exceptions are subobjectives 4.1a (a crude rate from FARS) and 9.1b, 9.1c, 9.5c, 9.6c, and 9.6d (crude rates from the NVSS). Beginning with the publication of the 1992 *Review* (4), the baselines and tracking data for all mortality objectives and subobjectives, except those tracked with FARS or Department of Labor data, are age adjusted (see appendix table II).

## Data Source Comparability

For some objectives the baseline data source differs from the source used to monitor progress. Comparability between different data sources or even within the same data source for different years is not assured. Comparability can be compromised by changes in survey questions, survey systems, survey methodology, operational definitions, and analytic techniques. Some of the most important comparability issues are discussed in the priority area chapters. The data source for each *Healthy People 2000* objective is shown at the end of the summary data table in each priority area chapter.

## Cause-of-Death Terminology and Codes

Twenty-four objectives (excluding duplicates) in *Healthy People 2000* are tracked using mortality data. For most of these objectives, the cause-of-death terminology used in *Healthy People 2000* is different from that used in *Health, United States; Vital Statistics of the United States, Mortality*, and other National Center for Health Statistics (NCHS) publications; in some cases, the *Ninth Revision International Classification of Diseases (ICD-9)* codes are different as well (5) (appendix table II).

For five objectives, the terminology and the codes are different from those



used for similar cause-of-death categories in NCHS publications. One example, objective 7.1, concerns reduction of "homicides." Progress toward this objective is measured using ICD-9 codes E960-E969. NCHS generally uses "Homicide and legal intervention" (ICD-9 numbers E960-E978), which includes "legal intervention" or police action. For 14 objectives, only the terminology differs; the defining ICD-9 identifying codes are the same. For example, objective 15.2 calls for reduction in mortality from "stroke"; NCHS tabulation lists use the term "Cerebrovascular diseases" (both use ICD-9 numbers 430-438). Only one objective, suicide, has the same title and the same code structure in both uses. The remaining four mortality objectives have no comparable category in NCHS publications. With the exception of heart disease, the differences between mortality rates defined by the *Healthy People 2000* ICD-9 categories and those defined by NCHS rubrics are relatively small, if not trivial.

## Years of Healthy Life

Increasing years of healthy life is one of the three *Healthy People 2000* goals and is included as three specific objectives (8.1, 17.1, 21.1). The 1980 baseline was updated to 1990 using a revised methodology developed by NCHS and outside consultants; the revised baseline was first published in the 1992 *Review* (4). The *Healthy People 2000* years of healthy life (HP2000-YHL) measure, which will be used to monitor progress until the year 2000, combines mortality data from the National Vital Statistics System with health status data from the National Health Interview Survey. The methodology used for the HP2000-YHL measure is published elsewhere (6).

## Census Poverty Threshold

Poverty statistics are based on definitions originally developed by the Social Security Administration. They include a set of money income thresholds that vary by family size and composition. Families or individuals with income below their appropriate thresholds are classified as below the poverty level. These thresholds are updated annually by the U.S. Bureau of the Census. The average poverty

threshold for a family of four was \$14,335 in 1992 and \$14,764 in 1993 (7).

## DATA2000 Monitoring System

The DATA2000 Monitoring System is an electronic database that contains the national baseline and monitoring data for each *Healthy People 2000* objective and special population subobjective. It is a component of CDC WONDER/PC, the Centers for Disease Control and Prevention's on-line public health information system. It contains the full text of each of the original 523 objectives and subobjectives, all tracking data available from baseline to latest update, information on the data such as definitions and clarifications, and the data sources that are being used to track progress.

Information on Public Health Service lead agency contacts for each *Healthy People 2000* priority area and major data source contacts will be available in late summer, 1995. Objective and subobjective changes and additions will be incorporated in the fall of 1995 when the *Healthy People 2000* midcourse review process is complete. Plans are underway to incorporate State data for many of the national *Healthy People 2000* objectives into DATA2000.

## References

1. U.S. Department of Health and Human Services. *Healthy people 2000: National health promotion and disease prevention objectives*. Washington: Public Health Service. 1991.
2. American Indian Health Care Association. *Enhancing Health Statistics for American Indians and Alaska Native Communities: An agenda for action*. St. Paul, Minnesota: American Indian Health Care Association. 1992.
3. Indian Health Service. Personal communication. Rockville, Maryland: Public Health Service. November. 1992.
4. National Center for Health Statistics. *Healthy people 2000 review, 1992*. Hyattsville, Maryland: Public Health Service. 1993.
5. World Health Organization. *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, based on the recommendations of the Ninth Revision Conference, 1975*. Geneva: World Health Organization. 1977.
6. Erickson P, Wilson R, Shannon I. *Years of healthy life. Statistical notes, number 7*. Hyattsville, Maryland: National Center for Health Statistics. 1995.
7. U.S. Bureau of the Census. *Current population reports, Series P60-188. Income, poverty, and validation of non-cash benefits*. Washington, October. 1994.

**Table I. Priority area lead agencies**

<i>Priority area</i>	<i>Lead agency</i>
01 Physical Activity and Fitness	President's Council on Physical Fitness and Sports
02 Nutrition	National Institutes of Health Food and Drug Administration
03 Tobacco	Centers for Disease Control and Prevention Substance Abuse and Mental Health Services Administration
04 Alcohol and Other Drugs	Office of Population Affairs
05 Family Planning	Substance Abuse and Mental Health Services Administration
06 Mental Health and Mental Disorders	Centers for Disease Control and Prevention
07 Violent and Abusive Behavior	Centers for Disease Control and Prevention Health Resources and Services Administration
08 Educational and Community-Based Programs	Centers for Disease Control and Prevention
09 Unintentional Injuries	Centers for Disease Control and Prevention
10 Occupational Safety and Health	Centers for Disease Control and Prevention
11 Environmental Health	National Institutes of Health Centers for Disease Control and Prevention
12 Food and Drug Safety	Food and Drug Administration
13 Oral Health	National Institutes of Health Centers for Disease Control and Prevention
14 Maternal and Infant Health	Health Resources and Services Administration
15 Heart Disease and Stroke	National Institutes of Health
16 Cancer	National Institutes of Health
17 Diabetes and Chronic Disabling Conditions	National Institutes of Health Centers for Disease Control and Prevention
18 HIV Infection	National AIDS Program Office
19 Sexually Transmitted Diseases	Centers for Disease Control and Prevention
20 Immunization and Infectious Diseases	Centers for Disease Control and Prevention
21 Clinical Preventive Services	Health Resources and Services Administration Centers for Disease Control and Prevention
22 Surveillance and Data Systems	Centers for Disease Control and Prevention

**Table II. Mortality objective cause-of-death categories**

Objective number	Healthy People 2000		Mortality tabulation lists	
	Cause of death <sup>1</sup>	ICD-9 identifying codes	Cause of death	ICD-9 identifying codes
1.1	Coronary Heart Disease	410-414, 402, 429.2	Diseases of heart	390-398, 402, 404-429, 410-414
1.1a	[Blacks]			
2.1	See 1.1			
2.1a	See 1.1a			
2.2	Cancer (all sites)	140-208	Malignant neoplasms, including neoplasms of lymphatic hematopoietic tissues	(Same as HP2000)
3.1	See 1.1			
3.1a	See 1.1a			
3.2	Lung cancer	162.2-162.9	Malignant neoplasms of trachea, bronchus and lung	162
3.3	Chronic obstructive pulmonary disease	490-496	Chronic obstructive pulmonary diseases and allied conditions	(Same as HP2000)
4.1	Alcohol-related motor vehicle crashes	E810-E819 <sup>2</sup>	No comparable category	...
4.1a	[American Indians/Alaska Natives]			
4.1b	[Ages 15-24]			
4.2	Cirrhosis	571	Chronic liver disease and cirrhosis	(Same as HP2000)
4.2a	[Black males]			
4.2b	[American Indians/Alaska Natives]			
4.3	Drug-related deaths	292, 304, 305.2-305.9, E850-E858, E950.0-E950.5, E962.0, E980.0-E980.5	Drug induced causes	(Same as HP2000)
6.1	Suicides	E950-E959	(Same as HP2000)	(Same as HP2000)
6.1a	[Ages 15-19]			
6.1b	[Males 20-34]			
6.1c	[White males 65 and over]			
6.1d	[American Indian/Alaska Native males]			
7.1	Homicides	E960-E969	Homicide and legal intervention	E960-E978
7.1a	[Children 0-3]			
7.1b	[Spouses 15-34]			
7.1c	[Black males 15-34]			
7.1d	[Hispanic males 15-34]			
7.1e	[Black females 15-34]			
7.1f	[American Indians/Alaska Natives]			
7.2	See 6.1			
7.2a	See 6.1a			
7.2b	See 6.1b			
7.2c	See 6.1c			
7.2d	See 6.1d			

**Table II. Mortality objective cause-of-death categories—Con.**

Objective number	Healthy People 2000		Mortality tabulation lists	
	Cause of death <sup>1</sup>	ICD-9 identifying codes	Cause of death	ICD-9 identifying codes
7.3	Firearm injuries	E922.0–E922.3, E922.8–E922.9, E955.0–E955.4, E965.0–E965.4, E970, E985.0–E985.4	No comparable category	...
	Knife injuries	E920.3, E956, E966 E986, E974	No comparable category	...
9.1	Unintentional injuries	E800–E949	Accidents and adverse effects	(Same as HP2000)
9.1a	[American Indians/Alaska Natives]			
9.1b	[Black males]			
9.1c	[White males]			
9.3	Motor vehicle crashes	E810–E825	Motor vehicle accidents	(Same as HP2000)
9.3a	[Ages 14 and younger]			
9.3b	[Ages 15–24]			
9.3c	[Ages 70 and over]			
9.3d	[American Indians/Alaska Natives]			
9.3e	[Motorcyclists]			
9.3f	[Pedestrians]			
9.4	Falls and fall-related injuries	E880–E888	Accidental falls	(Same as HP2000)
9.4a	[Ages 65–84]			
9.4b	[Ages 85 and over]			
9.4c	[Black males 30–69]			
9.5	Drowning	E830, E832, E910	Accidental drowning and submersion	E910
9.5a	[Ages 0–4]			
9.5b	[Males 15–34]			
9.5c	[Black males]			
9.6	Residential fires	E890–E899	Accidents caused by fire and flames (place of accident-home)	(Same as HP2000)
9.6a	[Ages 0–4]			
9.6b	[Ages 65 and over]			
9.6c	[Black males]			
9.6d	[Black females]			
10.1	Work-related injuries <sup>3</sup>	E800–E999	No comparable category	...
10.1a	[Mine workers]			
10.1b	[Construction workers]			
10.1c	[Transportation workers]			
10.1d	[Farm workers]			
13.7	Cancer of the oral cavity and pharynx	140–149	Malignant neoplasms of lip, oral cavity, and pharynx	(Same as HP2000)
14.3	Maternal mortality	630–676	Complications of pregnancy, childbirth, and the puerperium or maternal mortality	(Same as HP2000)
14.3a	[Blacks]			

**Table II. Mortality objective cause-of-death categories—Con.**

Objective number	Healthy People 2000		Mortality tabulation lists	
	Cause of death <sup>1</sup>	ICD-9 identifying codes	Cause of death	ICD-9 identifying codes
15.1	See 1.1			
15.1a	See 1.1a			
15.2	Stroke	430-438	Cerebrovascular diseases	(Same as HP2000)
15.2a	[Blacks]			
16.1	See 2.2			
16.2	See 3.2			
16.3	Breast cancer in women	174	Malignant neoplasm of female breast	(Same as HP2000)
16.4	Cancer of the uterine cervix	180	Malignant neoplasm of cervix uteri	(Same as HP2000)
16.5	Colorectal cancer	153.0-154.3, 154.8, 159.0	Malignant neoplasms of colon, rectum, rectosigmoid junction, and anus	153, 154
17.9	Diabetes-related deaths <sup>3</sup>	250	Diabetes mellitus	(Same as HP2000)
17.9a	[Blacks]			
17.9b	[American Indians/Alaska Natives]			
20.2	Epidemic-related pneumonia and influenza deaths for ages 65 and over	480-487	No comparable category	...

<sup>1</sup>Unless otherwise specified, *Healthy People 2000* uses underlying-cause-of-death data.

<sup>2</sup>Includes only those deaths assigned to E810-E819 that were alcohol related; see Priority Area 4, Alcohol and Other Drugs.

<sup>3</sup>*Healthy People 2000* uses multiple-cause-of-death data.

**Table III. Health status indicators: United States, 1991–1993**

	<i>Health status indicators</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>
1	Race/ethnicity-specific infant mortality as measured by the rate (per 1,000 live births) of deaths among infants under 1 year of age <sup>1</sup>	8.9	8.5	28.3
	White	7.3	6.9	---
	Black	17.6	16.8	---
	American Indian <sup>3</sup>	<sup>4</sup> 13.0	<sup>5</sup> 12.7	---
	Chinese <sup>3</sup>	<sup>6</sup> 6.2	<sup>5</sup> 5.5	---
	Japanese <sup>3</sup>	<sup>6</sup> 6.6	<sup>5</sup> 7.0	---
	Filipino <sup>3</sup>	<sup>6</sup> 6.6	<sup>5</sup> 6.9	---
	Hawaiian and part-Hawaiian <sup>3</sup>	<sup>6</sup> 11.3	<sup>7</sup> 11.1	---
	Other Asian or Pacific Islander <sup>3</sup>	<sup>6</sup> 7.6	<sup>5</sup> 7.0	---
	Hispanic origin <sup>3,8,9</sup>	<sup>6</sup> 8.2	<sup>5</sup> 8.3	---
2	Total deaths per 100,000 population (ICD–9 nos. 0–E999) <sup>10</sup>	513.7	504.5	<sup>15</sup> 14.0
3	Motor vehicle crash deaths per 100,000 population. (ICD–9 nos. E810–E825) <sup>10</sup>	17.0	15.8	<sup>15</sup> 15.5
4	Work-related injury deaths per 100,000 population	1.4	2.4	3.2
5	Suicides per 100,000 population (ICD–9 nos. E950–E959)	11.4	11.1	<sup>11</sup> 11.2
6	Homicides per 100,000 population (ICD–9 nos. E960–E978)	10.9	10.5	<sup>11</sup> 10.5
7	Lung cancer deaths per 100,000 population (ICD–9 no. 162) <sup>10</sup>	39.6	39.3	---
8	Female breast cancer deaths per 100,000 women (ICD–9 no. 174) <sup>10</sup>	22.7	21.9	<sup>12</sup> 21.6
9	Cardiovascular disease deaths per 100,000 population	185.0	180.4	<sup>18</sup> 181.1
	Heart disease deaths per 100,000 population (ICD–9 nos. 390–398, 402, 404–429) <sup>1</sup>	148.2	144.3	<sup>18</sup> 144.5
	Stroke deaths per 100,000 population (ICD–9 nos. 430–438) <sup>10</sup>	26.8	26.2	<sup>18</sup> 26.1
10	Reported incidence (per 100,000 population) of acquired immunodeficiency syndrome <sup>11</sup>	22.7	30.3	31.2
11	Reported incidence (per 100,000 population) of measles	3.8	0.9	0.1
12	Reported incidence (per 100,000 population) of tuberculosis	10.4	10.5	9.8
13	Reported incidence (per 100,000 population) of primary and secondary syphilis	17.0	13.3	10.4
14	Prevalence of low birthweight as measured by the percentage of live born infants weighing under 2,500 grams at birth	7.1	7.1	---
15	Births to adolescents (ages 10–17 years) as a percentage of total live births	4.9	4.9	---
16	Prenatal care as measured by the percentage of mothers delivering live infants who did not receive care during the first trimester of pregnancy	23.8	22.3	---
17	Childhood poverty, as measured by the proportion of children under 15 years of age living in families at or below the poverty level			
	Under 18 years <sup>12</sup>	21.8	22.3	22.7
	Under 15 years <sup>12</sup>	22.4	23.2	23.4
	5–17 years <sup>12,13</sup>	20.0	20.2	20.8
18	Proportion of persons living in counties exceeding U.S. Environmental Protection Agency standards for air quality during the previous year <sup>14</sup>	34.7	21.6	23.5

<sup>1</sup>Includes races not shown separately.

<sup>2</sup>Data are provisional.

<sup>3</sup>Linked file data source.

<sup>4</sup>Data are for 1987.

<sup>5</sup>Data are for 1988.

<sup>6</sup>Data are for 1983–85.

<sup>7</sup>Data are for 1986–88.

<sup>8</sup>Includes mothers of all races.

<sup>9</sup>Includes 23 States and the District of Columbia in 1987; 30 States and DC in 1988.

<sup>10</sup>Age adjusted to the 1940 standard population.

<sup>11</sup>By date of diagnosis. Adjusted for delays in reporting; not adjusted for underreporting.

<sup>12</sup>Beginning with 1992, data reflect updated methodology.

<sup>13</sup>Related children in families.

<sup>14</sup>1993 data based on 1990 county population estimates.

**Data Sources:**

1–3,5,14–16 — National Vital Statistics System, CDC, NCHS.

4 — (1991) Annual Survey of Occupational Injuries and Illness, Department of Labor, Bureau of Labor Statistics.

4 — (1992–93) Census of Fatal Occupational Injuries, Department of Labor, Bureau of Labor Statistics.

10 — AIDS Surveillance System, CDC, NCID. Data are AIDS cases reported by year of diagnosis, adjusted for reporting delays. Based on cases reported to CDC through September 1994 (?).

11 — National Notifiable Disease Surveillance System, CDC, EPO.

12 — Tuberculosis Morbidity Data, CDC, NCPS.

13 — Sexually Transmitted Disease Surveillance System, CDC, NCPS.

17 — Current Population Survey, U.S. Bureau of the Census.

18 — National Air Quality and Emission Trends Report, Office of Air and Radiation, U.S. Environmental Protection Agency.

**Table IV. Health status indicators by race and Hispanic origin: United States, 1992**

Health status indicators	Total <sup>1</sup>	Race				
		White	Black	American Indian/ Alaska Native	Asian/ Pacific Islander	Hispanic Origin <sup>2</sup>
1 Race/ethnicity-specific infant mortality as measured by the rate (per 1,000 live births) of deaths among infants under 1 year of age . . . . .	8.5	6.9	16.8	<sup>3</sup> 12.7	<sup>3</sup> 6.8	<sup>3,4</sup> 8.3
2 Total deaths per 100,000 population (ICD-9 nos. 0-E999) <sup>5</sup> . . . . .	504.5	477.5	767.5	453.1	285.8	<sup>6</sup> 380.6
3 Motor vehicle crash deaths per 100,000 population (ICD-9 nos. E810-E825) <sup>5</sup> . . . . .	15.8	15.9	16.3	32.0	9.9	<sup>6</sup> 16.3
4 Work-related injury deaths per 100,000 population <sup>7</sup> . . . . .	3.2	3.1	2.9	3.2	2.9	3.5
5 Suicides per 100,000 population (ICD-9 nos. E950-E959) <sup>5</sup> . . . . .	11.1	11.8	6.9	11	6.0	<sup>6</sup> 7.2
6 Homicides per 100,000 population (ICD-9 nos. E960-E978) <sup>5</sup> . . . . .	10.5	6.1	39.4	10.5	5.7	<sup>6</sup> 17.6
7 Lung cancer deaths per 100,000 population (ICD-9 no. 162) <sup>5</sup> . . . . .	39.3	38.8	49.8	22.2	17.9	<sup>6</sup> 14.5
8 Female breast cancer deaths per 100,000 women (ICD-9 no. 174) <sup>5</sup> . . . . .	21.9	21.7	27.0	11.0	9.3	<sup>6</sup> 13.0
9 Cardiovascular disease deaths per 100,000 population (ICD-9 nos. 390-448) <sup>5</sup> . . . . .	180.4	172.8	265.3	132.8	107.4	<sup>6</sup> 120.5
Heart disease deaths per 100,000 population (ICD-9 nos. 390-398, 402, 404-429) <sup>5</sup> . . . . .	144.3	139.2	205.4	107.1	77.8	<sup>6</sup> 94.8
Stroke deaths per 100,000 population (ICD-9 nos. 430-438) <sup>5</sup> . . . . .	26.2	24.2	45.0	19.1	23.5	<sup>6</sup> 19.3
10 Reported incidence (per 100,000 population) of acquired immunodeficiency syndrome <sup>7,8</sup> . . . . .	31.2	<sup>9</sup> 17.9	<sup>9</sup> 104.2	<sup>9</sup> 11.9	<sup>9</sup> 7.4	52.6
11 Reported incidence (per 100,000 population) of measles <sup>7</sup> . . . . .	0.1	---	---	---	---	---
12 Reported incidence (per 100,000 population) of tuberculosis <sup>7</sup> . . . . .	9.8	<sup>9</sup> 3.6	<sup>9</sup> 29.1	<sup>9</sup> 14.6	<sup>9</sup> 44.5	20.6
13 Reported incidence (per 100,000 population) of primary and secondary syphilis <sup>7</sup> . . . . .	10.4	<sup>9</sup> 1.2	<sup>9</sup> 76.5	<sup>9</sup> 1.7	<sup>9</sup> 1.0	6.0
14 Prevalence of low birthweight as measured by the percentage of live born infants weighing under 2,500 grams at birth . . . . .	7.1	5.8	13.3	6.2	6.6	<sup>10</sup> 6.1
15 Births to adolescents (ages 10-17 years) as a percentage of total live births . . . . .	4.9	3.9	10.3	8.0	2.0	<sup>10</sup> 7.1
16 Prenatal care as measured by the percentage of mothers delivering live infants who did not receive care during the first trimester of pregnancy . . . .	22.3	19.2	36.1	37.9	23.4	<sup>10</sup> 35.8
17 Childhood poverty, as measured by the proportion of children under 15 years of age living in families at or below the poverty level <sup>7</sup> . . . . .						
Under 18 years . . . . .	22.7	17.8	46.1	---	---	40.9
Under 15 years . . . . .	23.4	---	---	---	---	---
5-17 years <sup>11</sup> . . . . .	20.8	---	---	---	---	---
18 Proportion of persons living in counties exceeding U.S. Environmental Protection Agency standards for air quality during the previous year <sup>12</sup> . . . . .	23.5	23.1	24.8	17.6	37.2	42.3

<sup>1</sup>Includes racial and ethnic groups not shown separately.

<sup>2</sup>Hispanic origin can be of any race.

<sup>3</sup>1988 linked file data source.

<sup>4</sup>Data are for 30 States and the District of Columbia.

<sup>5</sup>Age adjusted to the 1940 standard population.

<sup>6</sup>Data are for 48 States and the District of Columbia.

<sup>7</sup>1993 data.

<sup>8</sup>By date of diagnosis. Adjusted for delays in reporting; not adjusted for underreporting.

<sup>9</sup>Data are for the non-Hispanic population.

<sup>10</sup>Data are for 49 States and the District of Columbia.

<sup>11</sup>Related children in families.

<sup>12</sup>1993 data based on 1990 county population estimates.

Data Sources:

1-3,5-9,14-16 — National Vital Statistics System, CDC, NCHS.

4 — Census of Fatal Occupational Injuries, Department of Labor, Bureau of Labor Statistics.

10 — AIDS Surveillance System, CDC, NCID. Data are AIDS cases reported by year of diagnosis, adjusted for reporting delays.

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11 — National Notifiable Disease Surveillance System, CDC, EPO.

12 — Tuberculosis Morbidity Data, CDC, NCPS.

13 — Sexually Transmitted Disease Surveillance System, CDC, NCPS.

17 — Current Population Survey, U.S. Bureau of the Census.

18 — National Air Quality and Emission Trends Report, Office of Air and Radiation, U.S. Environmental Protection Agency.