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2000 Review  
1993*

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**

Public Health Service  
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# Preface

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The *Healthy People 2000 Review, 1993*, second 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 the volume rested with the Division of Health Promotion Statistics, National Center for Health Statistics, under the general direction of Mary Anne Freedman.

The *Healthy People 2000 Review* was prepared by Kathleen M. Turczyn, with assistance from Fred Seitz, Susan E. Schober, and Christine M. Plepys under the guidance of Richard J. Klein and Mary Anne Freedman. Cheryl V. Rose, Christine M. Plepys, Jean Williams, Patricia A. Knapp, and Ildy I. Shannon provided computer programming assistance, and Gail R. Jones and Cheryl V. Rose provided statistical and graphic assistance.

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Publication of *Healthy People 2000 Review* would not have been possible without the contributions of 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

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# Introduction

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## Background and Summary

*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 coming decade. *Healthy People 2000* recognizes that lifestyle and environmental factors 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 A).

There are 300 unduplicated main objectives. Some priority areas share identical objectives; there are 332 objectives counting the duplicates. Subobjectives for minorities and other special populations were also established to meet unique needs and health problems. These population groups include people with low incomes, people who are members of some racial and ethnic minority groups, and people with disabilities (1). There are 223 special population targets excluding duplicates; with duplicates there are 284. Thus, without duplicates there are a total of 523 health promotion and disease prevention objectives and subobjectives for the year 2000; 616 with duplicates.

*Healthy People 2000 Review, 1993* presents an overview of the current status of progress toward all of the year 2000 objectives. The Public Health Service reviews progress toward the year 2000 objectives periodically. Summaries of these reviews are published in *Public Health Service Progress Reports on Healthy People 2000* (2). This report contains the most recent national data available and updates data published in *Healthy People 2000*, progress review reports, and all other earlier publications containing national data on the year 2000 objectives.

This summary of progress incorporates all 332 priority area (PA) objectives, a count that includes the 32 duplicates. Three years into the decade, 6 percent of the objectives have already been achieved. Progress toward the targets has been made on another 36 percent of the objectives, and 15 percent show movement away from the targets. Data for 5 percent of the objectives show mixed results (these objectives have more than one data point to measure and have shown progress for some and movement away from the targets for others), and 4 percent have updates but show no change. Six percent of the objectives have revised baselines and no update or new baselines where baselines did not originally exist (this is in addition to the objectives for which baselines were obtained last year). Twenty-one percent have no new data with which to evaluate progress, and baselines have yet to be obtained for 8 percent of the objectives.

Priority areas showing the most progress are Surveillance and Data Systems (PA 22) with progress on 6 of a total of 7 objectives, Cancer (PA 16) with progress on 11 of a total of 16 objectives, and Unintentional Injuries (PA 9) with progress on 13 of a total of 22 objectives including 6 objectives that have met or exceeded their targets.

Priority areas with the most objectives showing movement away from the targets are Occupational Safety and Health (PA 10) with 4 of 15 objectives in this category, and Diabetes and Chronic Disabling Conditions (PA 17) with 5 of 20 objectives in this category.

Sixty-nine objectives have had no data beyond the baseline. Priority areas with over half of their objectives in this category are Family Planning (PA 5) and Oral Health (PA 13). Twelve priority areas have established baselines for all of their objectives. Baselines have yet to be established for 28 objectives; 6 of these are in Educational and Community-Based Programs (PA 8), 5 are in Violent and Abusive Behavior (PA 7), and the rest are shared among 8 other priority areas.

## Organization and Scope of This Review

This *Review* is divided into three major sections. The first section presents a number of major, cross-cutting data issues involved in the monitoring of the objectives and subobjectives. Because these issues relate to objectives in numerous priority areas, they are discussed here rather than in each individual chapter.

The second section consists of 22 chapters, one for each *Healthy People 2000* priority area. Each chapter contains an objective summary table, a discussion of specific data issues, a figure 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 reasons the priority area was included in the initiative, a summary of the overall status of the objectives, and monitoring data issues that are not obvious from the summary table or the text of the objective, such as proxy measures, differing tracking systems, and operational definitions. A few caveats must be made regarding summaries of the progress (or lack of progress) on the objectives. In some cases, statements are based on data from only 1 or 2 years beyond the baseline. Many data points are derived from sample surveys and are therefore subject to sampling and nonsampling errors. A small change between a baseline level and more recent information may or may not indicate progress toward achievement of the year 2000 target. A more thorough assessment of progress, taking into account trends over several years, will be made as the decade progresses.

Most figures show the progress of one of the priority area objectives toward the objective target. Some show the latest data for population groups that were targeted because of especially high risk. In some cases, choice of figures depended on the availability of data; the choice does not confer more relative importance to any of the objectives depicted.

The objective summary table presents the baselines, targets, and current progress toward the priority area objectives. Most baselines use 1987 data. The most current vital statistics data are from 1991, with some provisional estimates from 1992. The most current estimates from the National Health Interview Survey are from 1992; approximately one-quarter of the objectives are tracked with data from this survey. Some 1988–91 data from the National Health and Nutrition Examination Survey are also included.

In the third section there are five appendix tables. Table A lists the priority area lead agencies. Table B displays the cause-of-death categories used for the *Healthy People 2000* mortality objectives. Table C presents current data sources for all the *Healthy People 2000* objectives and subobjectives. Table D shows trends in the Health Status Indicators developed for objective 22.1, and table E presents the latest available Health Status Indicators data by racial and Hispanic population groups.

## Data Issues

There are several major, cross-cutting data issues involved in the monitoring of the objectives and subobjectives. These include revised

baselines, issues regarding minority group subobjectives, age-adjusted versus crude mortality rates, data source comparability, cause-of-death category issues, years of healthy life, and the current midcourse review.

## Revised Baselines

For a number of *Healthy People 2000* objectives, the baselines shown in this *Review* have been revised from the original baselines published in *Healthy People 2000*. Fifty revisions were the result of the revised Census population estimates and 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 specific objectives (unduplicated), 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 A), as of this writing, all *Healthy People 2000* targets are being shown as originally published. However, some targets are being considered for revision during the mid-course review (see Midcourse Review).

## Revised Death Rates

The 1986–87 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 (3) (see *Health, United States, 1993*, Appendix I). Data for the three mortality objectives (4.1, 9.3, 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 (see below), the changes are relatively small. Cases where the recomputed baseline rate was the same as the original rate are denoted in the objective status tables by “no change.”

## American Indian and Alaska Native Mortality 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
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 (4); most of the population served live on or near reservations. “Reservation States” include approximately 90 percent of the AI/AN population in the United States, but exclude some urban centers with large American Indian populations.

The revised baselines are substantially lower than the original figures. These large differences are partially due to the substantially larger intercensal population estimates (death rate 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 deaths on death certificates in non-Reservation States compared with Reservation States (5).

## Minority Group Subobjectives

The guidelines for drafting the objectives required the identification of a data source to track progress before a subobjective for a minority or special population could be set. Special population subobjectives address disparities and differing trends. Although there are virtually no data gaps for existing subobjectives, lack of data sources prevented the establishment of subobjectives for some population groups. Data have now become available for some of these groups, and additional subobjectives are being added during the midcourse review (see below).

Many subpopulations are small and geographically clustered and cannot be measured through national surveys using standard sampling techniques. Developing techniques to assess the health of minorities and other special subpopulations will be a significant challenge during the coming decade.

Another concern is the availability of reliable denominator data. Although national surveys can provide numbers of responses for some subpopulations, intercensal population estimates may not be obtainable for these groups. County population estimates and State-specific estimates for major racial and ethnic subgroups may also be unavailable.

## Age Adjustment

Most of the original baselines for mortality objectives in *Healthy People 2000* are derived from the National Vital Statistics System and are age adjusted to the 1940 population. Exceptions are objectives 4.1, 9.3, and 10.1. Data for 4.1 and 9.3 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 previously published mortality subobjective baselines are age adjusted as well; the exceptions are subobjectives 4.1a (a crude rate from FARS), 9.1b, 9.1c, 9.5c, 9.6c, and 9.6d. Beginning with the publication of the 1992 *Review* (6), all mortality objectives and subobjectives, except for those tracked with FARS or Department of Labor data, are being tracked with age-adjusted rates (see appendix table B).

## 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. Unless the data for an objective are obtained from the same questions of the same survey system each year, unless operational definitions remain the same, and unless analytical techniques are constant, tracking can be compromised. Comparability, if an issue, is discussed in priority area chapters. For some objectives that will be tracked with the third National Health and Nutrition Examination Survey (NHANES III), proxy data from various surveys have been used until the NHANES III data are available. See appendix table C for a list of sources for each *Healthy People 2000* objective.

## Cause-of-Death Terminology and Codes

Twenty-four objectives (excluding duplicates) in *Healthy People 2000* are tracked using mortality data (appendix table B). 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 NCHS publications; in addition, in some cases, the International Classification of Diseases (ICD-9) codes are different as well (7).

Specifically, for five objectives, the terminology and the codes are different from those used for similar cause-of-death categories in the NCHS tabulation lists, making this an inclusion issue. One example,

objective 7.1, concerns reduction of "homicides." Progress toward this objective is measured using ICD-9 numbers E960-E969. The NCHS tabulation lists generally use "Homicide and legal intervention" (ICD-9 numbers E960-E978), which includes 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 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 categories and those defined by the 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 external consultants. This interim 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 definition and measurement of years of healthy life are still being refined; research will continue in this area. The methodology used for the interim measure is published elsewhere (8).

## Midcourse Review

The Public Health Service is currently undertaking a midcourse review of the *Healthy People 2000* objectives. The review consists of three parts: baseline revisions and reconsideration of targets, new special population subobjectives, and modifications to existing objectives or 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, NCHS identified over 100 objectives for which the baseline data specified in *Healthy People 2000* required revision (see Revised Baselines). The Public Health Service is currently considering whether new targets for the amended baselines are necessary.

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

**Modified and new objectives:** A third category of revisions involves reconsideration of objectives or the addition of new objectives to fill gaps that have become apparent in the original list of objectives. Objectives may be modified to reflect public policy in such areas as guns and family planning. Adding new objectives for areas that are not currently addressed in *Healthy People 2000* are being considered on a case-by-case basis.

The midcourse review was announced in October 1993 at the meeting of the *Healthy People 2000* Consortium. A draft of the midcourse review was available for public review and comment in late Spring 1994; the final document is expected to be published in early 1995.

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# Priority Area 1

## Physical Activity and Fitness

### Background and Data Summary

Regular physical activity can help to prevent and manage coronary heart disease, hypertension, noninsulin-dependent diabetes mellitus, osteoporosis, obesity, and mental health problems such as depression and anxiety (1). Regular physical activity has also been associated with lower rates of colon cancer (2) and stroke (3), and may be linked to reduced back injury (4). On average, physically active people outlive those who are inactive (5). 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 (6).

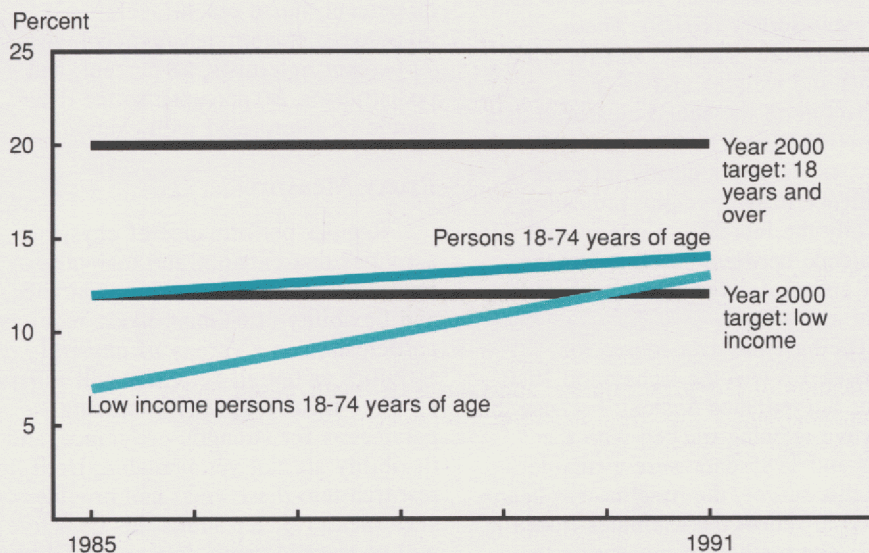
Of the 12 physical activity and fitness objectives, one has been met (objective 1.10), four show progress toward the year 2000 targets (1.1, 1.3, 1.4, and 1.6) while two are moving away from the targets (1.2 and 1.7). Data for one objective (1.5) show no change, and data to update progress for three objectives (1.8, 1.9, and 1.11) are not yet available. New baseline data have been established for one objective (1.12). Trends for special population subgroups are mixed. The decline in coronary heart disease mortality has been slower in the black population than in the total population. For objective 1.4 (vigorous physical activity), 1991 data indicate that the target for adults with annual incomes of less than \$20,000 has been surpassed. Although the proportion of adults with a sedentary lifestyle (1.5) shows no change among the total population, it has declined among people 65 years of age and over and people with disabilities.

### 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,

**Figure 1. Persons 18–74 years and over who engage in vigorous physical activity: United States, 1991, and year 2000 targets for objective 1.4**



	1985	1991	Year 2000 target
Persons 18–74 years . . . . .	12	14	20
Low income persons 18–74 years . . . . .	7	13	12

NOTE: Low income is defined as annual family income less than \$20,000.

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

weight-training 3 or more times a week) to complex formulas (for example, calculating average kilocalories expended per kilogram per day) (7). 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 (8,9). The estimated number of people who exercise vigorously were respondents who performed these activities 3 or more times per week.

Overweight (objective 1.2) 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 men, this was a BMI greater than or equal to 27.8 kilograms per meter squared; for women, it was 27.3 kilograms per meter squared.

## 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 (10), were derived from the National Health Interview Survey (NHIS). These estimates were based on self-reported heights and weights and are not comparable to the actual measured data from NHANES. The interim NHIS estimates showed a steady increase in prevalence of overweight, indicating correctly the increase in overweight prevalence between baseline and the latest update derived from measured height and weight.

The baseline data source for objective 1.3 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 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 estimates were made.

Objectives 1.3, 1.4, 1.6, 1.8, and 1.9 for children and adolescents will be tracked with the Youth Risk Behavior Survey (YRBS) for students in grades 9–12. Although baseline and tracking data are available for objectives 1.4, 1.8, and 1.9, trends for these objectives cannot currently be ascertained for this age group because the baseline data were for other age groups and from other sources.

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. For the PCPS in general, there was considerable variability in response rates among the provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetricians/gynecologists, 71 percent; internists, 58 percent; and pediatricians, 80 percent), so the data should be interpreted with caution.

## Proxy Measures

Regular performance of physical activities that enhance and maintain muscular strength, muscular endurance, and flexibility (1.6) most likely 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 or exercising more were counted 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 design of the questions used to track this objective changed between 1990 and 1991 and may have affected the estimates. The 1985 and 1990 NHIS questionnaires 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, 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. 1983 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 in 1990, and the percent who exercised 30 or more minutes in physical education class 1 or more times a week in 1991.



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

	Objective	1987 baseline			1992	Target 2000
		Original	Revised	1991		
<b>1.1</b>	<b>Coronary heart disease deaths (age adjusted per 100,000)</b> .....	135	<sup>1</sup> No change	118	---	100
	a. Blacks (age adjusted per 100,000) .....	163	<sup>1</sup> 168	156	---	115
<b>1.2</b>	<b>Overweight prevalence</b>					
	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> 36%	---	...
	Adolescents 12–19 years .....	<sup>2</sup> 15%	...	---	---	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> 49%	---	30%
	c. Hispanic females 20–74 years .....	...	<sup>8,9</sup> 27%	---	---	25%
	Mexican-American females .....	<sup>10</sup> 39%	...	<sup>3,11</sup> 47%	---	...
	Cuban females .....	<sup>10</sup> 34%	...	---	---	...
	Puerto Rican females .....	<sup>10</sup> 37%	...	---	---	...
	d. American Indians/Alaska Natives 20 years and over .....	<sup>12</sup> 29–75%	...	<sup>9</sup> 40%	<sup>9</sup> 36%	30%
	e. People with disabilities 20 years and over .....	<sup>8,9</sup> 36%	...	<sup>9</sup> 36%	<sup>9</sup> 37%	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</b>	<b>Moderate physical activity</b>					
	People 6 years and over .....	---	...	---	---	30%
	People 18–74 years					
	5 or more times per week .....	<sup>8</sup> 22%	<sup>8,19</sup> No change	24%	---	...
	7 or more times per week .....	<sup>8</sup> 12%	<sup>8,13</sup> 16%	17%	---	...
<b>1.4</b>	<b>Vigorous physical activity</b>					
	Children and adolescents 6–17 years .....	---	...	---	---	75%
	Children and adolescents 10–17 years .....	<sup>14</sup> 66%	...	---	---	...
	Students in 9th–12th grade .....	---	...	<sup>15</sup> 37%	---	...
	People 18 years and over .....	<sup>8</sup> 12%	...	14%	---	20%
	a. Lower-income people 18 years and over (annual family income less than \$20,000) .....	<sup>8</sup> 7%	...	13%	---	12%
<b>1.5</b>	<b>Sedentary lifestyle</b>					
	People 6 years and over .....	---	...	---	---	15%
	People 18 years and over .....	<sup>8</sup> 24%	...	24%	---	15%
	a. People 65 years and over .....	<sup>8</sup> 43%	...	29%	---	22%
	b. People with disabilities .....	<sup>8</sup> 35%	...	30%	---	20%
	c. Lower-income people (annual family income less than \$20,000) .....	<sup>8</sup> 32%	...	32%	---	17%
<b>1.6</b>	<b>Muscular strength, endurance, and flexibility</b>					
	People 6 years and over .....	---	...	---	---	40%
	Students in 9th–12th grade					
	Stretching 4 or more times per week .....	...	...	43%	---	...
	Strengthening 4 or more times per week .....	...	...	37%	---	...
	Weight lifting					
	People 18–64 years .....	...	<sup>15</sup> 11%	16%	---	...
<b>1.7</b>	<b>Weight loss practices among overweight people 12 years and over</b> .....	---	...	---	---	50%
	Overweight females 18 years and over .....	<sup>8</sup> 30%	...	22%	---	...
	Overweight males 18 years and over .....	<sup>8</sup> 25%	...	19%	---	...
<b>1.8</b>	<b>Daily school physical education</b>					
	Students in 1st–12th grade .....	<sup>16</sup> 36%	...	---	---	50%
	Students in 9th–12th grade .....	...	...	42%	---	...
<b>1.9</b>	<b>School physical education quality</b>					
	All students .....	<sup>17</sup> 27%	...	---	---	50%
	Students in 9th–12th grade .....	...	...	<sup>18</sup> 49%	---	...
<b>1.10</b>	<b>Worksite fitness programs</b>					
	50–99 employees .....	<sup>8</sup> 14%	...	---	33%	20%
	100–249 employees .....	<sup>8</sup> 23%	...	---	47%	35%

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

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
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>19</sup> 1 per 71,000 people	...	---	---	1 per 10,000 people
Public swimming pools . . . . .	<sup>19</sup> 1 per 53,000 people	...	---	---	1 per 25,000 people
Acres of park and recreation open space . . . . .	<sup>19</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>20</sup> 30%	...	---	---	50%
Percent of clinicians routinely providing services to 81–100% of patients					
Inquiry about exercise habits					
Pediatricians . . . . .	...	<sup>21</sup> 16%	---	---	...
Nurse practitioners . . . . .	...	<sup>21</sup> 30%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>21</sup> 14%	---	---	...
Internists . . . . .	...	<sup>21</sup> 40%	---	---	...
Family practitioners . . . . .	...	<sup>21</sup> 19%	---	---	...
Formulation of an exercise plan					
Pediatricians . . . . .	...	<sup>21</sup> 16%	---	---	...
Nurse practitioners . . . . .	...	<sup>21</sup> 14%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>21</sup> 13%	---	---	...
Internists . . . . .	...	<sup>21</sup> 25%	---	---	...
Family practitioners . . . . .	...	<sup>21</sup> 18%	---	---	...

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see *Health, United States, 1992*, Appendix I.

<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>1982–84 data.

<sup>11</sup>47 percent for ages 20 years and over.

<sup>12</sup>1984–88 data for different tribes.

<sup>13</sup>Data source has been changed and data have been revised to reflect updated methodology; see Introduction.

<sup>14</sup>1984 data.

<sup>15</sup>1990 data.

<sup>16</sup>1984–86 data.

<sup>17</sup>1983 data.

<sup>18</sup>Percent who exercised 30 or more minutes in physical education class 1 or more times per week.

<sup>19</sup>1986 data.

<sup>20</sup>1988 data.

<sup>21</sup>1992 data.

Data sources are shown in appendix table C.

# 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 age- and sex-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: 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 include*

walking, 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.

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# Priority Area 2

## Nutrition

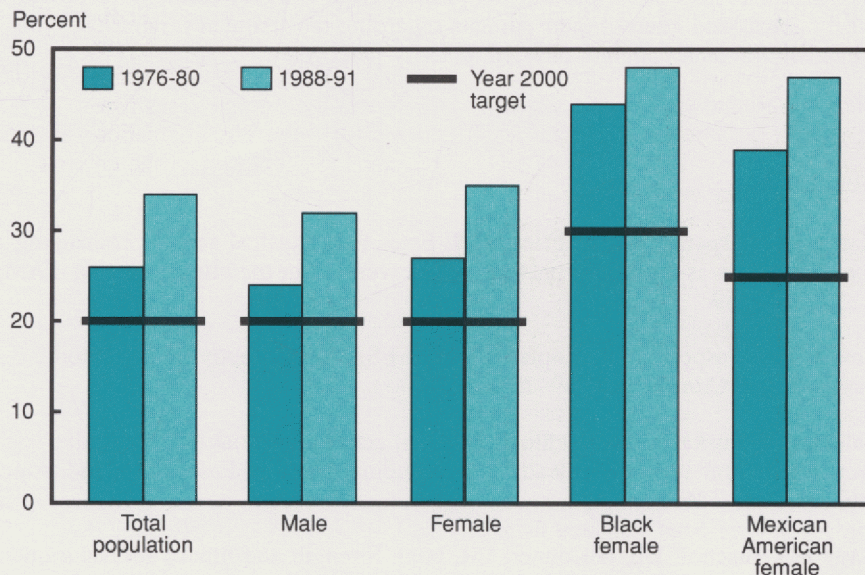
### Background and Data Summary

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 leading 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. Malnutrition still occurs in some groups of people, however, including those who are isolated or economically deprived.

Of the 21 objectives in this area, one objective, availability of reduced-fat processed foods, has been met (2.15). Progress toward the targets has been made on seven objectives (2.1, 2.2, 2.4, 2.5, 2.14, 2.16, and 2.20). Coronary heart disease mortality (2.1) continues to decline, although the decline is less marked among black Americans. Cancer deaths (2.2) have declined slightly since the 1987 baseline, and growth retardation (2.4) has decreased for low-income children and most of the high-risk subpopulation. Dietary fat intake and saturated fat intake have decreased (2.5). 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 (20.20).

Two objectives moved away from the target: the proportion of the population that is overweight (2.3) and the percent of overweight people engaging in weight-loss practices (2.7). Progress has been mixed for intake of calcium-rich foods (2.8) and proportion of breastfeeding mothers (2.11). Objective 2.13, the use of food labels, showed no change from baseline.

**Figure 2. Overweight adults 20–74 years of age: United States, 1976–80 and 1988–91, and year 2000 targets for objective 2.3**



	1976–80	1988–91	Year 2000 target
All persons . . . . .	26	34	20
Male . . . . .	24	32	20
Female . . . . .	27	35	20
Black women . . . . .	44	49	30
Mexican American women . . . . .	39	47	25

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

Tracking data for anemia prevalence have been obtained for low-income pregnant black women (2.10e) but not for Alaska Native children (2.10d). Data for iron deficiency prevalence (2.10, 2.10a, b, and c) have been collected and have yet to be analyzed. Two nutrition objectives have no new data (2.12 and 2.18), and one objective does not yet have baseline data (2.17). Several 1989 baselines have been found for objective 2.6 (daily intake of vegetables, fruits, and grain products), but there are presently no data available to ascertain a trend. Additionally, a trend cannot be ascertained for objective 2.9 (salt and sodium intake reduction) because baseline and update data are from two different surveys. A 1986 baseline has been found for nutrition education in

schools (2.19) and nutrition assessment, counseling and referral by physicians (2.21) has a new baseline.

### Data Issues

#### Definitions

Overweight (objective 2.3) 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 men, this was a BMI greater than or equal to 27.8 kilograms per meter squared; for women, it was 27.3 kilograms per meter squared.

Objective 2.12 (duplicate 13.11) 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) is assessed for children 6–23 months old. The preventive feeding practices are either that the child no longer uses 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 for American Indians and Alaska Natives (2.12b) were obtained from a special project conducted in three American Indian communities. The measure is not representative of all American Indians and Alaska Natives and is not comparable to the measure for the total population and for people with less than a high school education.

### **Comparability of Data Sources**

The evaluation of trends in dietary intake is affected by food composition database changes and food coding decisions made during or between surveys. Trend data for two nutrition objectives have been obtained from different surveys with different methodologies or changes in method administration (2.3 and 2.9). Different food composition data bases were used over time for objective 2.5, although the method was primarily the same. Data for objective 2.7 were obtained from the same survey that asked a different set of questions in different years. The 1985 and 1990 NHIS questionnaires 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, 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.

Overweight (objective 2.3) is being tracked with two main data sources. The major data source is 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), were derived from the NHIS. These estimates were based on self-reported heights and weights and are not comparable to the actual measured data from NHANES. The interim NHIS estimates showed a steady

increase in prevalence of overweight, indicating correctly the increase in overweight prevalence between baseline and the latest update derived from measured height and weight.

Tracking can also be affected by changing the population from which the survey sample is drawn. 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.

**Table 2. Nutrition objective status**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>2.1 Coronary heart disease deaths (age adjusted per 100,000)</b> .....	135	<sup>1</sup> No change	118	---	100
a. Blacks (age adjusted per 100,000) .....	163	<sup>1</sup> 168	156	---	115
<b>2.2 Cancer deaths (age adjusted per 100,000)</b> .....	133	<sup>1</sup> 134	135	<sup>2</sup> 133	130
<b>2.3 Overweight prevalence</b>					
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%	...	---	---	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> 49%	---	30%
c. Hispanic females 20–74 years .....	...	<sup>9,10</sup> 27%	---	---	25%
Mexican-American females .....	<sup>11</sup> 39%	...	<sup>4,12</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>10</sup> 40%	<sup>10</sup> 36%	30%
e. People with disabilities 20 years and over .....	<sup>9,10</sup> 36%	...	<sup>10</sup> 36%	<sup>10</sup> 37%	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>14</sup> 16%	<sup>15</sup> 11%	9%	8%	10%
a. Low-income black children under 1 year .....	<sup>14</sup> 15%	...	15%	15%	10%
b. Low-income Hispanic children under 1 year .....	<sup>14</sup> 13%	...	8%	8%	10%
c. Low-income Hispanic children 1 year .....	<sup>14</sup> 16%	...	11%	9%	10%
d. Low-income Asian/Pacific Islander children 1 year .....	<sup>14</sup> 14%	...	13%	12%	10%
e. Low-income Asian/Pacific Islander children age 2–4 years .....	<sup>14</sup> 16%	...	12%	11%	10%
<b>2.5 Dietary fat intake among people 2 years and over</b>					
Percent of calories from total fat .....	...	<sup>3,16</sup> 36%	434%	---	30%
Percent of calories from saturated fat .....	...	<sup>3,16</sup> 13%	412%	---	10%
People 20–74 years					
Percent of calories from total fat .....	<sup>3</sup> 36%	...	434%	---	...
Percent of calories from saturated fat .....	<sup>3</sup> 13%	...	412%	---	...
Females 20 years and over					
Percent of calories from total fat .....	<sup>9,17</sup> 36%	...	434%	---	...
Percent of calories from saturated fat .....	<sup>9,18</sup> 13%	...	412%	---	...
Males 20 years and over					
Percent of calories from total fat .....	...	<sup>3,16</sup> 37%	434%	---	...
Percent of calories from saturated fat .....	...	<sup>3,16</sup> 13%	412%	---	...
<b>2.6 Daily intake of vegetables, fruits, and grain products</b>					
Adults (number of servings)					
Vegetables and fruits .....	...	<sup>19</sup> 4.0	---	---	5.0
Males					
20–39 years .....	...	<sup>19</sup> 4.1	---	---	...
40–59 years .....	...	<sup>19</sup> 4.3	---	---	...
60 years and over .....	...	<sup>19</sup> 4.4	---	---	...
Females					
20–39 years .....	...	<sup>19</sup> 3.4	---	---	...
40–59 years .....	...	<sup>19</sup> 4.0	---	---	...
60 years and over .....	...	<sup>19</sup> 3.9	---	---	...
19–50 years .....	<sup>9</sup> 2.5	...	---	---	...
Grain products					
Adults, all ages .....	---	...	---	---	6.0
Females 19–50 years .....	<sup>9</sup> 3.0	...	---	---	...
<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%	...	22%	---	...
Overweight males 18 years and over .....	<sup>9</sup> 25%	...	19%	---	...



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

Objective	1987 baseline		1990	1991	Target 2000
	Original	Revised			
<b>2.8 Foods rich in calcium</b>					
3 or more servings daily					
People 12–24 years . . . . .	...	<sup>20</sup> 15%	---	---	50%
Males 19–24 years . . . . .	<sup>21</sup> 14%	...	<sup>20</sup> 14%	---	...
Females 19–24 years . . . . .	<sup>21</sup> 7%	...	<sup>20</sup> 7%	---	...
Pregnant and lactating females . . . . .	<sup>21</sup> 24%	...	<sup>20</sup> 16%	---	50%
2 or more servings daily					
People 25 years and over . . . . .	...	<sup>20</sup> 19%	---	---	50%
Males 25–50 years . . . . .	<sup>21</sup> 23%	...	<sup>20</sup> 23%	---	...
Females 25–50 years . . . . .	<sup>21</sup> 15%	...	<sup>20</sup> 16%	---	...
<b>2.9 Salt and sodium intake</b>					
Prepare foods without adding salt . . . . .	<sup>9</sup> 54%	...	---	---	65%
Adults who avoid using salt at table . . . . .	<sup>9</sup> 68%	...	---	---	80%
Adults who regularly purchase foods lower in sodium . . . . .	<sup>14</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>22</sup> 22–28%	...	---	---	10%
e. Black, low-income pregnant females 15–44 years (third trimester) . . . . .	<sup>14</sup> 41%	...	42%	43%	20%
<b>2.11 Breastfeeding</b>					
During early postpartum period <sup>23</sup> . . . . .	<sup>14</sup> 54%	...	53%	54%	75%
a. Low-income mothers . . . . .	<sup>14</sup> 32%	...	33%	35%	75%
b. Black mothers . . . . .	<sup>14</sup> 25%	...	26%	28%	75%
c. Hispanic mothers . . . . .	<sup>14</sup> 51%	...	52%	52%	75%
d. American Indian/Alaska Native mothers . . . . .	<sup>14</sup> 47%	...	46%	53%	75%
At age 5–6 months . . . . .	<sup>14</sup> 21%	...	18%	19%	50%
a. Low-income mothers . . . . .	<sup>14</sup> 9%	...	9%	9%	50%
b. Black mothers . . . . .	<sup>14</sup> 8%	...	7%	9%	50%
c. Hispanic mothers . . . . .	<sup>14</sup> 16%	...	16%	17%	50%
d. American Indian/Alaska Native mothers . . . . .	<sup>14</sup> 28%	...	22%	24%	50%
<b>2.12 Baby bottle tooth decay</b>					
Parents and caregivers who use preventive feeding practices . . . . .	...	<sup>24</sup> 51%	---	---	75%
a. Parent and caregivers with less than high school education . . . . .	...	<sup>24</sup> 31%	---	---	65%
b. American Indian/Alaska Native parents and caregivers . . . . .	...	<sup>25</sup> 74%	---	---	65%
<b>2.13 Use of food labels</b> . . . . .	<sup>14</sup> 74%	...	<sup>26</sup> 76%	74%	85%
<b>2.14 Informative nutrition labeling</b>					
Processed/packaged foods . . . . .	<sup>14</sup> 60%	...	66%	---	100%
Fresh produce . . . . .	---	...	---	<sup>27</sup> 77%	40%
Fresh seafood . . . . .	---	...	---	<sup>27</sup> 75%	40%
Fresh meat/poultry . . . . .	---	...	---	---	40%
Carry-away foods . . . . .	---	...	---	---	40%
<b>2.15 Availability of reduced-fat processed foods</b> . . . . .	<sup>28</sup> 2,500	...	5,618	---	5,000
<b>2.16 Low-fat, low-calorie restaurant food choices</b> . . . . .	<sup>19</sup> 70%	...	<sup>26</sup> 75%	---	90%
<b>2.17 Nutritious school and child care food services</b> . . . . .	---	...	---	---	90%
<b>2.18 Home-delivered meals for older adults</b> . . . . .	...	<sup>24</sup> 7%	---	---	80%
<b>2.19 Nutrition education in schools</b> . . . . .	...	<sup>24</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%

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

Objective	1987 baseline		1990	1991	Target 2000
	Original	Revised			
<b>2.21 Nutrition assessment, counseling, and referral by clinicians . . . . .</b>	<sup>14</sup> 40–50%	...	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about diet/nutrition					
Pediatricians . . . . .	...	<sup>29</sup> 53%	---	---	...
Nurses . . . . .	...	<sup>29</sup> 46%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>29</sup> 15%	---	---	...
Internists . . . . .	...	<sup>29</sup> 36%	---	---	...
Family physicians . . . . .	...	<sup>29</sup> 19%	---	---	...
Formulation of a diet/nutrition plan . . . . .					
Pediatricians . . . . .	...	<sup>29</sup> 31%	---	---	...
Nurses . . . . .	...	<sup>29</sup> 31%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>29</sup> 19%	---	---	...
Internists . . . . .	...	<sup>29</sup> 33%	---	---	...
Family physicians . . . . .	...	<sup>29</sup> 24%	---	---	...

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see *Health, United States, 1992*, Appendix I.

<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>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>1988 data.

<sup>15</sup>Revised baseline due to updated methodology.

<sup>16</sup>Up to 74 years.

<sup>17</sup>19–50 years from CSFII. 1976–80 NHANES II data show 36 percent.

<sup>18</sup>19–50 years from CSFII. 1976–80 NHANES II data show 13 percent.

<sup>19</sup>1989–90 data.

<sup>20</sup>1989 data.

<sup>21</sup>1985–86 data.

<sup>22</sup>1983–85 data.

<sup>23</sup>Breastfed in hospital.

<sup>24</sup>1991 data.

<sup>25</sup>1985–89 data.

<sup>26</sup>1990 data.

<sup>27</sup>1993 data.

<sup>28</sup>1986 data.

<sup>29</sup>1992 data.

Data sources are shown in appendix table C.

# 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 age- and sex-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, 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.

## **References**

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

# Priority Area 3 Tobacco

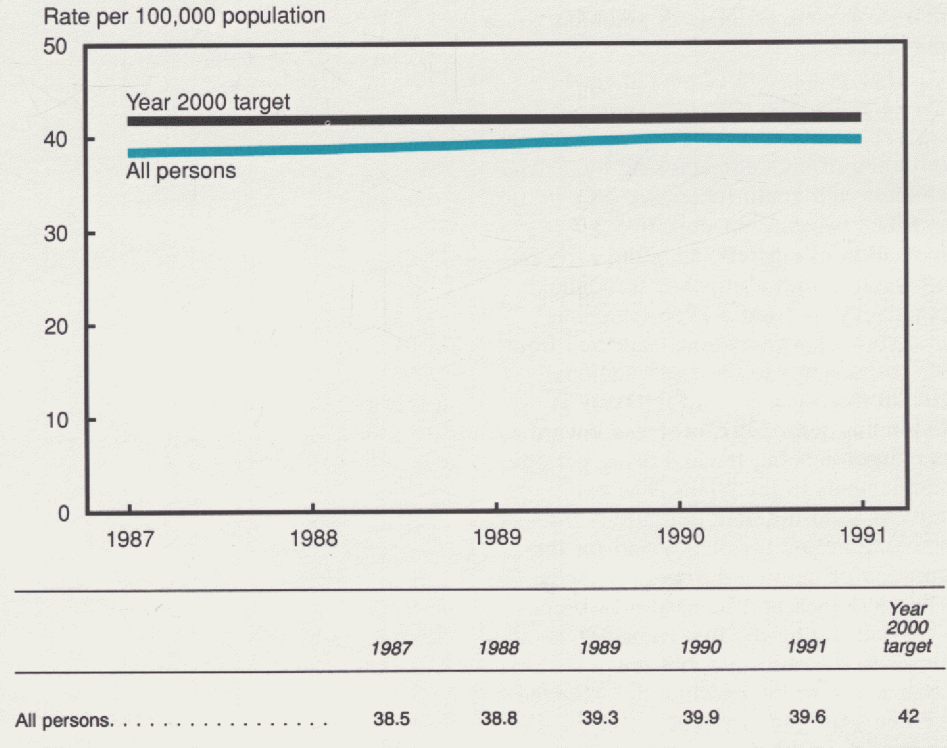
## Background and Data Summary

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 about 419,000 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).

Smoking contributes substantially to chronic morbidity and disability as well. The Office of Technology Assessment estimates that in 1990 smoking-related illnesses cost the Nation \$68 billion in health care costs, lost earnings from work, and loss of future earnings for work (3). Cigarette smoking during pregnancy accounts for 17–26 percent of low-birthweight babies (4). Passive or involuntary smoking also causes disease, including lung cancer in healthy nonsmokers and respiratory problems in young children and infants (5). The prevalence of smoking among adults decreased from 42 percent in 1965 to 27 percent in 1992. The prevalence of smoking remains disproportionately high among blue-collar workers, military personnel, and American Indians and Alaska Natives.

Recent data show some progress toward achieving the objectives in the tobacco priority area. Objective 3.13, to enact and enforce laws prohibiting the sale and distribution of tobacco products to youth 18 years and under in all 50 States, has been met. Data for nine objectives (3.1, 3.3, 3.4, 3.5, 3.6, 3.9, 3.11, 3.12, and 3.14) show improvements toward the year 2000 targets. This includes declining mortality from coronary heart disease (3.1). However, coronary heart disease mortality is declining more slowly among black persons; a substantial decline must occur to achieve the year 2000 target for this population. Objectives 3.2 and 3.3 address slowing the rise of deaths due to lung cancer and chronic obstructive pulmonary disease.

**Figure 3. Age-adjusted death rates for lung cancer: United States, 1987–91, and year 2000 targets for objective 3.2**



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

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 (to 39.6 per 100,000 from 39.9 in 1990). Provisional data for 1992, however, suggest that the lung cancer death rate may have risen again. If the current rate of increase in chronic obstructive lung disease mortality is maintained or reduced, the target for objective 3.3 will be met. Cigarette smoking prevalence (3.4) has declined slightly since the 1987 baseline; the number of cigarettes smoked per person has also declined (6). No progress was observed toward cessation of smoking during pregnancy (3.7), nor was progress observed for objective 3.15, restriction of tobacco product advertising and promotion to youth under 18 years of age. A new

baseline was established for one objective (3.16) and data beyond baseline were not available for four objectives (3.8, 3.10, 3.14, and 3.15).

## 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?" (the traditional definition). In 1992, data were collected for half the respondents using the traditional smoking questions and for the other half of respondents using a revised smoking question "Do you smoke everyday, some days, or

not at all?" An unpublished analysis of the 1992 traditional smoking measure revealed that the crude percent of current smokers aged 18 and over remained the same as it was in 1991. The 1992 estimate combines data collected using the traditional and the revised questions. Future estimates of smoking prevalence will be based on the revised definition, which is considered a more complete estimate of smoking prevalence.

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

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) (7). Beginning with 1991, progress toward the target is being tracked using periodic supplements to the NHIS. The two 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 baseline that counted women who quit any time during pregnancy in 1985.

### **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. A smokeless tobacco user is 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. However, information for males 18–25 years of age is also available from the NHSDA using the same definition as for the younger age group. As measured in the NHIS, the proportion of men 18–24 years of age using smokeless tobacco decreased from 8.9 percent in 1987 to 8.2 percent in 1992. The proportion among men 18–25 years of age was

higher and decreased from 1988 to 1992 according to the NHSDA (12.3 percent in 1988 and 11.7 percent in 1992). Differences between the NHSDA and the NHIS may be due to differences in the definition of smokeless tobacco user between the two surveys.



**Table 3. Tobacco objective status**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>3.1 Coronary heart disease deaths (age adjusted per 100,000)</b> . . . . .	135	<sup>1</sup> No change	118	---	100
a. Blacks (age adjusted per 100,000) . . . . .	163	<sup>1</sup> 168	156	---	115
<b>3.2 Slow the rise in lung cancer deaths (age adjusted per 100,000)</b> . . . . .	37.9	<sup>1</sup> 38.5	39.6	---	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	20.1	<sup>2</sup> 19.9	25
<b>3.4 Cigarette smoking prevalence</b>					
People 20 years and over . . . . .	29%	...	26%	27%	15%
Males . . . . .	32%	...	28%	29%	...
Females . . . . .	27%	...	24%	25%	...
a. People with high school education or less 20 years and over . . . . .	34%	...	31%	32%	20%
b. Blue-collar workers 20 years and over . . . . .	36%	...	36%	37%	20%
c. Military personnel . . . . .	<sup>3</sup> 42%	...	---	35%	20%
d. Blacks 20 years and over . . . . .	34%	...	30%	29%	18%
e. Hispanics 20 years and over . . . . .	<sup>4</sup> 33%	...	20%	21%	18%
f. American Indians/Alaska Natives . . . . .	<sup>5</sup> 42-70%	...	33%	40%	20%
g. Southeast Asian males . . . . .	<sup>6</sup> 55%	...	---	---	20%
h. Females of reproductive age (18-44 years) . . . . .	29%	...	27%	28%	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>3.5 Smoking initiation by children and adolescents</b> . . . . .	30%	...	24%	28%	15%
a. Lower socioeconomic status people 20-24 years . . . . .	40%	...	33%	38%	18%
<b>3.6 Smoking cessation attempts</b> . . . . .	<sup>9</sup> 34%	...	39%	37%	50%
<b>3.7 Smoking cessation during pregnancy</b> . . . . .	<sup>9</sup> 39%	...	31%	---	60%
a. Females with less than a high school education . . . . .	<sup>9,10</sup> 28%	...	21%	---	45%
<b>3.8 Children's exposure to smoke at home</b> . . . . .	<sup>9</sup> 39%	...	---	---	20%
<b>3.9 Smokeless tobacco use</b>					
Males 12-17 years . . . . .	<sup>3</sup> 6.6%	...	<sup>11</sup> 5.3%	4.8%	4%
Males 18-24 years . . . . .	8.9%	...	9.9%	8.2%	4%
a. American Indian/Alaska Native people 18-24 years . . . . .	<sup>12</sup> 18-64%	...	<sup>13</sup> 19.7%	<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%	...
<b>3.12 Clean indoor air laws</b>					
Number of States with laws restricting smoking in public places . . . . .	<sup>3,14</sup> 42	...	1444	14,1544	<sup>13</sup> 50
Number of States with restricted smoking in public workplaces . . . . .	<sup>3</sup> 31	...	1435	14,1536	<sup>13</sup> 50
Number of States with laws regulating smoking in private and public worksites . . . . .	<sup>3</sup> 13	...	1416	14,1516	<sup>13</sup> 50
<b>3.13 Laws prohibiting tobacco products sale and distribution to children 18 years and under</b> . . . . .	<sup>16</sup> 44	...	1448	---	50
Children 18 years and under					
Sale . . . . .	---	...	---	<sup>8</sup> 51	...
Distribution . . . . .	---	...	---	<sup>8</sup> 50	...
<b>3.14 Number of States with plans to reduce tobacco use</b> . . . . .	<sup>17</sup> 12	...	---	24	50
<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		1991	1992	Target 2000
	Original	Revised			
<b>3.16 Cessation counseling and followup by clinicians</b>					
Primary care . . . . .	9,1852%	...	---	---	75%
Oral health care . . . . .	9,1935%	...	---	---	75%
Percent of clinicians routinely providing service to 81–100% of patients					
Inquiry about tobacco use					
Pediatricians . . . . .	...	2033%	---	---	...
Nurse practitioners . . . . .	...	2051%	---	---	...
Obstetricians/Gynecologists . . . . .	...	2049%	---	---	...
Internists . . . . .	...	2075%	---	---	...
Family practitioners . . . . .	...	2059%	---	---	...
Discussion of strategies to quit smoking					
Pediatricians . . . . .	...	2019%	---	---	...
Nurse practitioners . . . . .	...	2020%	---	---	...
Obstetricians/Gynecologists . . . . .	...	2028%	---	---	...
Internists . . . . .	...	2050%	---	---	...
Family practitioners . . . . .	...	2043%	---	---	...

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see *Health, United States, 1992*, Appendix I.

<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>1986 data.

<sup>10</sup>Baseline for white females 20–44 years.

<sup>11</sup>Used in past month.

<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>1993 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.

Data sources are shown in appendix table C.

# 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.

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# Priority Area 4 Alcohol and Other Drugs

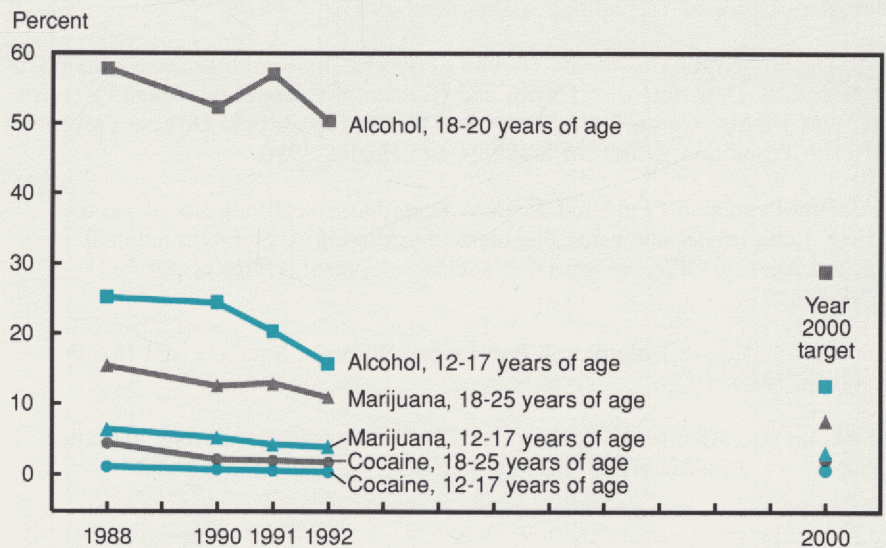
## Background and Data Summary

Large numbers of Americans have used illicit drugs and misused alcohol; these behaviors can have serious health and social consequences. Alcohol is implicated in nearly half of all deaths caused by 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 1991 (2). Intravenous drug users and their sexual partners are at high risk of infection with the human immunodeficiency virus, the ninth leading cause of death in 1991 (2).

The 1992 National Household Survey on Drug Abuse estimated that 17.4 million Americans had used marijuana in the past year, and 67.5 million had tried marijuana at least once (3). In the same year an estimated 22.6 million people had a history of cocaine use. The 1992 data for objective 4.7 show that 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.

Recent data indicate that progress is being made toward improving alcohol and other drug problems. Improvement toward year 2000 targets compared with baseline measures is shown for six objectives (4.2, 4.6, 4.8, 4.9, 4.11, 4.15) and the target for objective 4.1 has been surpassed. Average age at first use among adolescents aged 12–17 years did not change substantially for either cigarettes or marijuana but declined for alcohol (4.5). Heavy alcohol consumption has decreased among high school seniors but has changed very little among college students (4.7). The perception of harm from heavy alcohol use and from using cocaine once or twice has increased; however, for the occasional use of marijuana, it has decreased (4.10). Compared with baseline data, there has been no change in drug-related mortality (4.3) and a worsening trend for drug-related emergency room visits (4.4). New data

**Figure 4. Use of alcohol, marijuana, and cocaine in the past month by children and adolescents: United States, 1987–92, and year 2000 targets for objective 4.6**



	1988	1990	1991	1992	Year 2000 target
<b>Alcohol:</b>					
12–17 years	25.2%	24.5%	20.3%	15.7%	12.6%
18–20 years	57.9%	52.3%	57.0%	50.3%	29.0%
<b>Marijuana:</b>					
12–17 years	6.4%	5.2%	4.3%	4.0%	3.2%
18–25 years	15.5%	12.7%	13.0%	11.0%	7.8%
<b>Cocaine:</b>					
12–17 years	1.1%	0.6%	0.4%	0.3%	0.6%
18–25 years	4.5%	2.2%	2.0%	1.8%	2.3%

SOURCE: Office of Assistant Secretary, Substance Abuse Mental Health Services Administration, National Household Survey of Drug Abuse.

were available to establish baseline information for objective 4.19. No data beyond baseline were available for three objectives (4.13, 4.14, 4.18); three objectives have no baseline data (4.12, 4.16, 4.17).

## Data Issues

### Definitions

Cirrhosis deaths are tracked in objective 4.2 as an indicator of abusive alcohol consumption. The tracking variable included all deaths coded to ICD–9 571.0–571.9. This variable is

more inclusive than alcoholic liver disease and cirrhosis (571.0–571.3). Alcohol-related liver disease is underreported; a significant proportion of these deaths are coded to less specific categories such as 571.8 and 571.9. Estimates of the proportion of all cirrhosis deaths that are alcohol-related range from 41 to 95 percent (4).

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.

### **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.

Baseline data for objective 4.19 (screening, counseling, and referral by clinicians) were established from the 1992 Primary Care Provider Surveys. The wide range of response rates from the different provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetrician/gynecologists, 71 percent; internists, 58 percent; and pediatricians, 80 percent) dictate caution in interpreting the data.

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

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>4.1 Alcohol-related motor vehicle deaths (per 100,000)</b>	9.8	...	7.9	6.9	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	...	17.2	14.1	18.0
<b>4.2 Cirrhosis deaths (age adjusted per 100,000)</b>	9.1	<sup>4</sup> 9.2	8.3	7.9	6.0
a. Black males	22.0	<sup>4</sup> 22.6	17.4	---	12.0
b. American Indians/Alaska Natives	25.9	<sup>4</sup> 20.5	20.4	---	13.0
<b>Drug-related deaths (age adjusted per 100,000)</b>	3.8	<sup>1</sup> No change	3.8	---	3.0
<b>4.3</b>					
<b>4.4 Drug abuse-related emergency room visits (per 100,000)</b>	...	<sup>5</sup> 175.8	---	191.4	140.6
<b>4.5 Average age of first use (adolescents 12–17 years)</b>					
Cigarettes	<sup>2</sup> 11.6	...	11.5	11.5	12.6
Alcohol	<sup>2</sup> 13.1	...	12.6	12.6	14.1
Marijuana	<sup>2</sup> 13.4	...	13.5	13.5	14.4
<b>4.6 Use in past month by children and adolescents</b>					
Alcohol					
12–17 years	<sup>2</sup> 25.2%	...	20.3%	15.7%	12.6%
18–20 years	<sup>2</sup> 57.9%	...	57.0%	50.3%	29.0%
Marijuana					
12–17 years	<sup>2</sup> 6.4%	...	4.3%	4.0%	3.2%
18–25 years	<sup>2</sup> 15.5%	...	13.0%	11.0%	7.8%
Cocaine					
12–17 years	<sup>2</sup> 1.1%	...	0.4%	0.3%	0.6%
18–25 years	<sup>2</sup> 4.5%	...	2.0%	1.8%	2.3%
<b>4.7 Heavy drinking in past 2 weeks</b>					
High school seniors	<sup>3</sup> 33.0%	...	29.8%	27.9%	28.0%
College students	<sup>3</sup> 41.7%	...	42.8%	41.4%	32.0%
<b>4.8 Alcohol consumption (gallons per capita)</b>	2.54	...	<sup>6</sup> 2.46	---	2.0
<b>4.9 Perception of social disapproval by high school seniors</b>					
Heavy use of alcohol	<sup>3</sup> 56.4%	...	58.1%	60.8%	70.0%
Occasional use of marijuana	<sup>3</sup> 71.1%	...	75.8%	79.2%	85.0%
Trying cocaine once or twice	<sup>3</sup> 88.9%	...	91.8%	92.2%	95.0%
<b>4.10 Perception of harm by high school seniors</b>					
Heavy use of alcohol	<sup>3</sup> 44.0%	...	48.6%	49.0%	70.0%
Occasional use of marijuana	<sup>3</sup> 77.5%	...	78.6%	76.5%	90.0%
Trying cocaine once or twice	<sup>3</sup> 54.9%	...	59.4%	56.8%	80.0%
<b>4.11 Anabolic steroid use</b>					
Male high school seniors	<sup>3</sup> 4.7%	...	3.6%	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>7</sup> 88%	---	---	60%
Other drugs	...	<sup>7</sup> 89%	---	---	60%
<b>4.15 Number of States with administrative license suspension/revocation laws</b>	<sup>6,8</sup> 28	...	<sup>8</sup> 29	<sup>8,9</sup> 34	<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>6</sup> 0	...	---	---	50
Number of States with 0.00 alcohol concentration tolerance levels	<sup>6</sup> 0	...	---	---	50



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

Objective	1987 baseline		1991	1992	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>7</sup> 29%	---	---	...
Nurse practitioners . . . . .	...	<sup>7</sup> 45%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>7</sup> 34%	---	---	...
Internists . . . . .	...	<sup>7</sup> 63%	---	---	...
Family physicians . . . . .	...	<sup>7</sup> 39%	---	---	...
Inquiry about other drug use					
Pediatricians . . . . .	...	<sup>7</sup> 28%	---	---	...
Nurse practitioners . . . . .	...	<sup>7</sup> 43%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>7</sup> 32%	---	---	...
Internists . . . . .	...	<sup>7</sup> 34%	---	---	...
Family physicians . . . . .	...	<sup>7</sup> 23%	---	---	...
Referral to alcohol treatment					
Pediatricians . . . . .	...	<sup>7</sup> 26%	---	---	...
Nurse practitioners . . . . .	...	<sup>7</sup> 19%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>7</sup> 24%	---	---	...
Internists . . . . .	...	<sup>7</sup> 33%	---	---	...
Family physicians . . . . .	...	<sup>7</sup> 28%	---	---	...
Referral to drug abuse treatment					
Pediatricians . . . . .	...	<sup>7</sup> 32%	---	---	...
Nurse practitioners . . . . .	...	<sup>7</sup> 19%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>7</sup> 28%	---	---	...
Internists . . . . .	...	<sup>7</sup> 35%	---	---	...
Family physicians . . . . .	...	<sup>7</sup> 28%	---	---	...

<sup>1</sup>Data have been revised to include the entire U.S. American Indian/Alaska Native population; see Introduction.  
<sup>2</sup>1988 data.  
<sup>3</sup>1989 data.  
<sup>4</sup>Data have been recomputed to reflect revised intercensal population estimates; see *Health, United States, 1992*, Appendix I.  
<sup>5</sup>1991 data.  
<sup>6</sup>1990 data.  
<sup>7</sup>1992 data.  
<sup>8</sup>Includes the District of Columbia.  
<sup>9</sup>1993 data.

Data sources are shown in appendix table C.

# 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:

	2000 target (percent)
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.

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# Priority Area 5 Family Planning

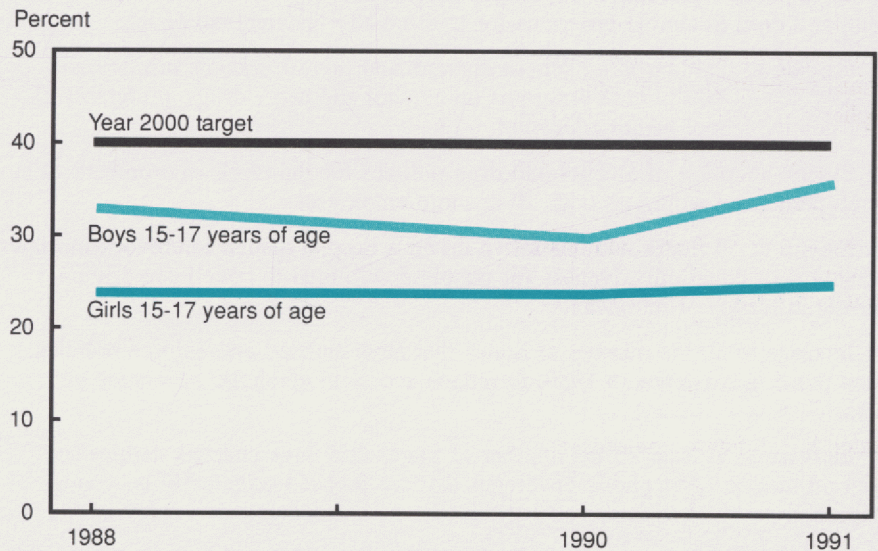
## Background and Data Summary

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 family and the importance of planning (2). Problems attendant to poor family planning exact a tremendous toll. Low birthweight (3), high rates of infant mortality (4), and inadequate family support (5) are some of the consequences of poor family planning. Five of the 11 objectives in this priority area focus on the teenage population. More than three out of four young women and 85 percent of young men have had sexual intercourse by age 20. Each year, 1 out of 10 young women in this age group becomes pregnant. By age 20, approximately 40 percent of all women have been pregnant while 63 percent of black women have been pregnant. An estimated 84 percent of these teen pregnancies were unintended (2).

Two objectives (5.5 and 5.6) have shown progress toward the year 2000 targets. The proportions of adolescent boys and girls who had not had sexual intercourse in the previous 3 months (objective 5.5) increased slightly from 1990 to 1991 and also from the 1988 baseline. It is important to note, however, that the baselines and updates for this objective are from different sources (see data issues). There were also slight increases in the proportion of sexually active adolescents who used contraceptives (objective 5.6).

Objectives 5.1 (adolescent pregnancy) and 5.4 (adolescent postponement of sexual intercourse) have moved away from the targets. The pregnancy rate for girls 15–17 years of age increased slightly between 1985 and 1990, while the rate for girls 10–14 years of age remained fairly stable during the same time period. The rate of live births for girls 15–17 years increased by about 21 percent between 1985 and 1990 (25 percent between

**Figure 5. Adolescent abstinence from sexual intercourse: United States, 1988–92, and year 2000 targets for objective 5.5**



	1988	1990	1991	Year 2000 target
Ever sexually active girls 15–17 years . . . . .	24	24	25	40
Ever sexually active boys 15–17 years . . . . .	33	30	36	40

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Survey of Family Growth.

1985 and 1991). Abortion rates decreased slightly between 1985 and 1990, although this may be an artifact of reporting practices (see Data Issues). Pregnancy rates for black adolescents 15–19 years of age have increased between 1985 and 1990; for Hispanic adolescents 15–19 years, they have decreased between 1985 and 1988.

The proportion of adolescents who have engaged in sexual intercourse (objective 5.4) also increased from baseline levels. However, the data sources for baselines and updates are different, so the data must be interpreted cautiously.

Baseline data were established for objective 5.10 (age appropriate preconception counseling) using data from the Primary Care Provider Surveys. Data were not available to update six objectives (5.2, 5.3, 5.7, 5.8, 5.9, and 5.11).

## Data Issues

### Description of Data Sources

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. Additional data are estimates provided by the Allan Guttmacher Institute (AGI); there has been little variation in these rates between 1985 and 1990.

Estimates of the number of abortions come from the Abortion Provider Survey, conducted by the AGI. This is a biannual 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 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 track abortions) to produce national estimates. The diversity of sources and the variability of reporting intervals complicate tracking of this objective.

interpreting the data. An update for objective 5.11 (HIV clinic services) will not be available until 1995.

### **Comparability of Data Sources**

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. While both surveys will be repeated in the future, the present updates come from the Youth Risk Behavior Survey (YRBS) and are not directly comparable to the baseline. The YRBS surveys adolescents in schools, possibly missing those at higher risk (6). Data from the YRBS were previously reported by grade, but have been revised and are now reported by age at the time of interview.

### **Data Availability**

No updates for objectives 5.2, 5.3, and 5.8 were available. The next updates for 5.2 and 5.3 will come from the NSFG, which is scheduled to be administered in 1994, with data available in 1996. 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; no source for updates has been identified.

Baseline data for objective 5.10 (age-appropriate preconception counseling) were established from the Primary Care Provider Surveys. The wide range of response rates from the different provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetricians/gynecologists, 71 percent; internists, 58 percent; and pediatricians, 80 percent) dictate caution in

**Table 5. Family planning objective status**

Objective	1988 baseline		1991	1992	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> 3.3	---	...
Females 15-17 years	<sup>2</sup> 71.1	<sup>2</sup> 70.9	<sup>3</sup> 74.3	---	...
Live births (per 1,000)					
Females 10-14 years	...	<sup>2</sup> 1.2	1.4	---	...
Females 15-17 years	...	<sup>2</sup> 31.0	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> 26.6	---	...
Fetal losses (per 1,000) <sup>4</sup>					
Females 10-14 years	...	<sup>2</sup> 0.4	<sup>3</sup> 0.4	---	...
Females 15-17 years	...	<sup>2</sup> 9.3	<sup>3</sup> 10.2	---	...
a. Pregnancies black adolescents (per 1,000) <sup>5</sup>					
Females 15-19 years	<sup>2</sup> 186	<sup>2</sup> 185	<sup>3</sup> 189	---	120
Females 15-17 years	...	<sup>2</sup> 134	<sup>6</sup> 140	---	...
Live births (per 1,000)					
Females 15-19 years	...	<sup>2</sup> 89	98	---	...
Females 15-17 years	...	<sup>2</sup> 63	70	---	...
Abortions (per 1,000)					
Females 15-19 years	...	<sup>2</sup> 71	<sup>3</sup> 67	---	...
Females 15-17 years	...	<sup>2</sup> 53	<sup>6</sup> 53	---	...
Fetal losses (per 1,000)					
Females 15-19 years	...	<sup>2</sup> 25	<sup>3</sup> 26	---	...
Females 15-17 years	...	<sup>2</sup> 18	<sup>6</sup> 19	---	...
b. Pregnancies Hispanic adolescents (per 1,000)					
Females 15-19 years	<sup>2</sup> 158	...	<sup>6</sup> 138.2	---	105
Live births (per 1,000)					
Females 15-19 years	...	<sup>2</sup> 86	---	---	...
Abortions (per 1,000)					
Females 15-19 years	...	<sup>2</sup> 50	---	---	...
Fetal losses (per 1,000)					
Females 15-19 years	...	<sup>2</sup> 22	---	---	...
<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>7</sup> 36%	---	15%
Males	33%	...	<sup>7</sup> 44%	---	15%
Adolescents 17 years					
Females	50%	...	<sup>7</sup> 66%	---	40%
Males	66%	...	<sup>7</sup> 68%	---	40%
<b>5.5 Adolescent abstinence from sexual intercourse</b>					
Ever sexually active females 15-17 years	26%	<sup>8</sup> 23.6%	25%	---	40%
Ever sexually active males 15-17 years	...	33%	36%	---	40%
<b>5.6 Contraception use by sexually active adolescents</b>					
Females 15-19 years					
First intercourse	63%	...	---	---	90%
Recent intercourse	78%	...	81%	---	90%
Oral contraception and condom use at most recent intercourse	2%	...	---	---	90%

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

Objective	1988 baseline		1991	1992	Target 2000
	Original	Revised			
High school males					
Recent intercourse . . . . .	...	<sup>3</sup> 78%	83%	---	90%
Oral contraception and condom use at most recent intercourse . . . . .	...	<sup>3</sup> 2.3%	3.3%	---	90%
Males 17–19 years					
Condom and oral contraception use at last intercourse . . . . .	...	15%	<sup>9</sup> 14%	---	90%
<b>5.7 Failure of contraceptive method . . . . .</b>	<sup>10</sup> 10%	<sup>8</sup> 14%	---	---	5%
<b>5.8 Family discussion of human sexuality</b>					
People 13–18 years who have discussed sexuality with parents . . . . .	<sup>11</sup> 66%	...	---	---	85%
<b>5.9 Adoption information from pregnancy counselors . . . . .</b>	<sup>12</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>13</sup> 18%	---	...	...
Nurse practitioners . . . . .	---	<sup>13</sup> 53%	---	...	...
Obstetricians/Gynecologists . . . . .	---	<sup>13</sup> 48%	---	...	...
Internists . . . . .	---	<sup>13</sup> 24%	---	...	...
Family physicians . . . . .	---	<sup>13</sup> 28%	---	...	...
Counseling about family planning					
Pediatricians . . . . .	---	<sup>13</sup> 36%	---	...	...
Nurse practitioners . . . . .	---	<sup>13</sup> 53%	---	...	...
Obstetricians/Gynecologists . . . . .	---	<sup>13</sup> 65%	---	...	...
Internists . . . . .	---	<sup>13</sup> 26%	---	...	...
Family physicians . . . . .	---	<sup>13</sup> 36%	---	...	...
<b>5.11 Clinic services for HIV and other sexually transmitted diseases . . . . .</b>	---	...	---	---	50%
Family planning clinics . . . . .	<sup>14</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>Fetal losses are estimated to be 20% of births plus 10% of abortions.

<sup>5</sup>Adolescents other than white.

<sup>6</sup>1988 data.

<sup>7</sup>Data were previously reported by high school grade; current data are by age.

<sup>8</sup>Baseline was revised to reflect updated methodology.

<sup>9</sup>1990–91 data.

<sup>10</sup>1982 data.

<sup>11</sup>1986 data.

<sup>12</sup>1984 data.

<sup>13</sup>1992 data.

<sup>14</sup>1989 data.

Data sources are shown in appendix table C.

# 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.

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# Priority Area 6 Mental Health and Mental Disorders

## Background and Data Summary

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, acute or chronic physical dysfunction, to environmental conditions and stresses.

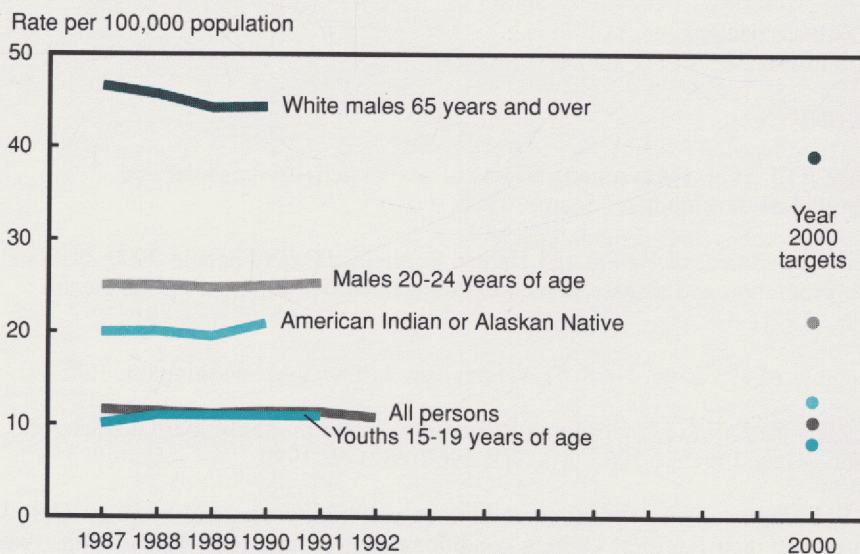
In 1989, an estimated 3.3 million adults in the United States reported that they had a psychiatric disorder that interfered with one or more aspects of their daily life in the past year. Approximately 77 percent had sought help for their problem. Sixty-eight percent had used prescription medications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

Five objectives (6.1, 6.2, 6.5, 6.8, and 6.11) show progress toward the year 2000 targets. The suicide rate for the total population 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 among adolescents (6.2) declined from the 1990 baseline and surpassed the year 2000 target. The prevalence of stress (6.5) has declined. The proportion of people seeking help with emotional problems (6.8) has increased. The proportion of worksites with stress reduction programs (6.11) has also increased.

Two objectives have moved away from the year 2000 targets. A greater proportion of people are not seeking help for stress-related problems (6.9). Funding reductions yielded a small decline in the number of State clearinghouses for mental health information (6.12). Baselines were established for objectives 6.13 and 6.14

**Figure 6. 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
All persons . . . . .	11.7	11.5	11.3	11.5	11.4	10.9	10.5
Youth 15–19 years . . . . .	10.2	11.1	11.1	11.1	11.0	...	8.2
Men aged 20–24 years . . . . .	25.2	25.2	24.9	25.1	25.4	...	21.4
White men 65 years and over . . . . .	46.7	45.7	44.3	44.4	...	...	39.2
American Indian or Alaska Native . . . . .	20.1	20.2	19.6	21.0	...	...	12.8

NOTE: 1992 data are provisional.

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

using data from the Primary Care Provider Surveys. The proportion of people suffering from depression who receive treatment (6.7) showed an increase between 1982 and 1983, but no updates have been available since that time. Four objectives (6.3, 6.4, 6.6, and 6.10) have no data beyond the baseline.

### Data Issues

### Definitions

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 hospitalization in the last 12 months. The exclusion of adolescents not in school may lead to an underestimate of the actual number of suicide attempts (4). Reliance on self-report of suicide attempts that resulted in hospitalization without validation from hospital sources may also affect the accuracy of estimates.

The baseline 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 for this objective came from two 1988 studies reported in the Archives of General Psychiatry (5,6);

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 National Health Interview Survey of Disabilities.

The sources and methods for collecting the data for the baseline and update for objective 6.12 (mutual help clearinghouses) are different. Future updates may come from another source, the Substance Abuse and Mental Health Services Administration's (SAMHSA) Community Mental Health Services office. The data sources are not directly comparable.

Baselines for objectives 6.13 (clinician review of patients' mental functioning) and 6.14 (clinician review of children's mental functioning) come from the Primary Care Provider Surveys. Varying response rates among the provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetrician/gynecologists, 71 percent; and pediatricians, 80 percent) must be considered when interpreting the data.

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

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>6.1 Suicide (age adjusted per 100,000)</b> . . . . .	11.7	<sup>1</sup> No change	11.4	<sup>2</sup> 10.9	10.5
a. Adolescents 15–19 years (per 100,000) . . . . .	10.3	<sup>1</sup> 10.2	11.0	---	8.2
b. Males 20–34 years (per 100,000) . . . . .	25.2	<sup>1</sup> No change	25.4	---	21.4
c. White males 65 years and over (per 100,000) . . . . .	46.1	<sup>1</sup> 46.7	42.7	---	39.2
d. American Indian/Alaska Native males (age adjusted per 100,000) . . . . .	15	<sup>3</sup> 20.1	19.2	---	12.8
<b>6.2 Suicide attempts among adolescents</b> . . . . .	...	<sup>2</sup> 2.1%	1.7%	---	1.8%
<b>6.3 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 Mental disorders among adults</b> . . . . .	<sup>9</sup> 12.6%	...	---	---	10.7%
<b>6.5 Adverse health effects from stress</b> . . . . .	<sup>10</sup> 42.6%	<sup>7,10</sup> 44.2%	<sup>4</sup> 40.6%	---	35%
a. People with disabilities . . . . .	<sup>10</sup> 53.5%	...	<sup>4</sup> 54.2%	---	40%
<b>6.6 Use of community support</b> . . . . .	<sup>11</sup> 15%	...	---	---	30%
<b>6.7 Treatment for depression</b> . . . . .	<sup>12</sup> 31%	...	<sup>13</sup> 36%	---	45%
<b>6.8 Seeking help with problems</b> . . . . .	<sup>10</sup> 11.1%	...	<sup>4</sup> 12.5%	---	20%
a. People with disabilities . . . . .	<sup>10</sup> 14.7%	...	<sup>4</sup> 17.0%	---	30%
<b>6.9 Not taking steps to control stress</b> . . . . .	<sup>10</sup> 21%	<sup>7,10</sup> 24%	<sup>4</sup> 28%	---	5%
<b>6.10 Number of States with suicide prevention in jails</b> . . . . .	...	<sup>14</sup> 3	---	---	50
<b>6.11 Worksite stress management programs</b> . . . . .	<sup>10</sup> 26.6%	...	---	37.0%	40%
<b>6.12 Number of States with mutual help clearinghouses</b> . . . . .	<sup>5</sup> 9	...	---	8	25
<b>6.13 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 Clinician review of children's 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%	---	---	...

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

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
Treatment/referral for cognitive problems					
Pediatricians . . . . .	...	<sup>14</sup> 51%	---	---	...
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 *Health, United States, 1992*, Appendix I.

<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 Introduction.

<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; see Introduction.

<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.

Data sources are shown in appendix table C.

# 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.

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# Priority Area 7

## Violent and Abusive Behavior

### Background and Data Summary

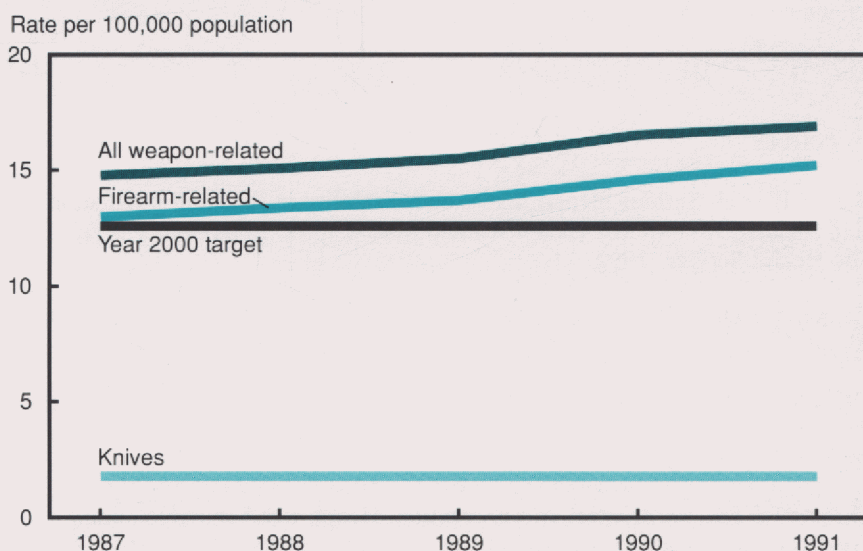
Violent and abusive behaviors continue to be major causes of death, injury, and stress in the United States. Suicide and homicide have resulted in over 50,000 deaths annually between 1985 and 1991 (1) and victims of violence have exceeded 2 million persons annually (2). Violence produces extensive physical costs and emotional consequences for society (3). The widespread nature of these consequences may indicate that violence has become a routine 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, being 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.

Two of the 18 objectives (7.2 and 7.8) in this priority area progressed toward the year 2000 targets. Suicides (7.2) have declined slightly for the total population. Rates of adolescent suicide (aged 15–19 years) remained stable between 1988 and 1991, but are higher than the 1987 baseline. Suicide rates for American Indians and Alaska Natives have declined slightly from the 1987 baseline (see Introduction), and rates for white males 65 years and over have declined more substantially. Injurious suicide attempts by adolescents (7.8) declined from the 1990 baseline and surpassed the year 2000 target. These data were obtained from the Youth Risk Behavior Survey and reflect suicide attempts in a 12-month period that required medical attention (10).

Movement away from the targets was reported for five objectives:

**Figure 7. Age-adjusted weapon-related death rates: United States, 1987–91, and year 2000 targets for objective 7.3**



	1987	1988	1989	1990	1991	Year 2000 target
All weapon-related . . . . .	14.8	15.1	15.5	16.5	16.9	12.6
Firearms . . . . .	13.0	13.4	13.7	14.6	15.2	...
Knives . . . . .	1.8	1.8	1.8	1.8	1.8	...

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

homicides (7.1), weapon-related deaths (7.3), assault injuries (7.6), rape (7.7), and number of States with death review systems (7.13). The homicide rate for black males aged 15–34 years increased 55 percent between 1987 and 1991. Almost all of this increase is due to a sharp rise in firearm homicides (nonfirearm homicides were unchanged over the period), and it may be associated with increased violence related to drug trafficking. Weapon carrying has increased among young people (11).

The increase in weapon carrying appears linked to the increase in deaths from firearms (7.3). The 1991 rate of deaths from firearms increased by nearly 17 percent from the 1987 baseline. In contrast, the rate of deaths from knives has remained stable for the past 4 years.

The rate of injuries from crimes involving assaultive behavior (rape, robbery, and assault) rose to 11 per 100,000 in 1991. The rates for rape and attempted rape (7.7), after dropping below the year 2000 target in 1990, rose substantially in 1991. Rape reporting is highly sensitive and subject to a range of social and contextual influences (12).

No data beyond the baselines were available for six objectives (7.4, 7.5, 7.9, 7.10, 7.15, and 7.18). Five objectives (7.11, 7.12, 7.14, 7.16, and 7.17) remain without baseline data. Two (7.11 and 7.16) should have baseline data within the next 2 years (see Data Issues).



## **Data Issues**

### **Definitions**

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.

Data for objectives 7.8 (adolescent suicide attempts) and 7.9 (physical fighting among adolescents) come from the school-based Youth Risk Behavior Survey (YRBS) and rely on student self-report. The exclusion of adolescents not in school may produce underestimates of both fighting and suicide attempts. The reliance on self-report without external validation of suicide attempts and fighting may affect the accuracy of these estimates.

### **Data Availability**

Data for objective 7.11 (inappropriate storage of weapons) are still not available, but the 1994 Health Promotion Disease Prevention supplement to the National Health Interview Survey will include questions designed to track this objective. Additionally, CDC's National Center for Injury Prevention and Control is developing a survey that will also collect data on this objective; this survey will also be fielded in 1994.

Objective 7.16 (conflict resolution in schools) also remains without a baseline. However, the School Health Policies and Programs Survey (beginning in 1994) will provide data for this objective.

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

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>7.1 Homicide (age adjusted per 100,000)</b> . . . . .	8.5	<sup>1</sup> No change	10.8	---	7.2
a. Children 3 years and under (per 100,000) . . . . .	3.9	<sup>1</sup> No change	<sup>2</sup> 4.4	---	3.1
b. Spouses 15–34 years (per 100,000) . . . . .	1.7	...	<sup>3</sup> 1.5	---	1.4
c. Black males 15–34 years (per 100,000) . . . . .	90.5	<sup>1</sup> 91.1	<sup>1</sup> 140.8	---	72.4
d. Hispanic males 15–34 years (per 100,000) . . . . .	53.1	<sup>1</sup> 41.3	50.8	---	42.5
e. Black females 15–34 years (per 100,000) . . . . .	20.0	<sup>1</sup> 20.2	24.1	---	16.0
f. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	14.1	<sup>4</sup> 11.2	12.2	---	11.3
<b>7.2 Suicide (age adjusted per 100,000)</b> . . . . .	11.7	<sup>1</sup> No change	11.4	<sup>5</sup> 10.9	10.5
a. Adolescents 15–19 years (per 100,000) . . . . .	10.3	<sup>1</sup> 10.2	11.0	---	8.2
b. Males 20–34 years (per 100,000) . . . . .	25.2	<sup>1</sup> No change	25.4	---	21.4
c. White males 65 years and over (per 100,000) . . . . .	46.1	<sup>1</sup> 46.7	42.7	---	39.2
d. American Indian/Alaska Native males (age adjusted per 100,000) . . . . .	15	<sup>4</sup> 20.1	19.2	---	12.8
<b>7.3 Weapon-related violent deaths (age adjusted per 100,000)</b> . . . . .	14.8	<sup>1</sup> No change	16.9	---	12.6
Firearms (age adjusted per 100,000) . . . . .	12.9	<sup>1</sup> 13.0	15.2	---	...
Knives (age adjusted per 100,000) . . . . .	1.9	<sup>1</sup> 1.8	1.8	---	...
<b>7.4 Child abuse and neglect (per 1,000)</b> . . . . .	<sup>6</sup> 25.2	<sup>6,7</sup> 22.6	---	---	less than 25.2
Incidence of types of maltreatment					
a. Physical abuse . . . . .	<sup>6</sup> 5.7	<sup>6,7</sup> 4.9	---	---	less than 5.7
b. Sexual abuse . . . . .	<sup>6</sup> 2.5	<sup>6,7</sup> 2.1	---	---	less than 2.5
c. Emotional abuse . . . . .	<sup>6</sup> 3.4	<sup>6,7</sup> 3.0	---	---	less than 3.4
d. Neglect . . . . .	<sup>6</sup> 15.9	<sup>6,7</sup> 14.6	---	---	less than 15.9
<b>7.5 Partner abuse (per 1,000)</b> . . . . .	<sup>8</sup> 30.0	...	---	---	27.0
<b>7.6 Assault injuries (per 100,000)</b> . . . . .	<sup>6</sup> 11.1	<sup>6,7</sup> 9.7	11.0	---	<sup>9</sup> 8.7
<b>7.7 Rape and attempted rape (per 100,000)</b> . . . . .	<sup>6</sup> 120	...	140	---	108
Incidence of rape and attempted rape					
a. Females 12–34 years . . . . .	<sup>6</sup> 250	...	<sup>2</sup> 206	---	225
<b>7.8 Suicide attempts among adolescents</b> . . . . .	...	<sup>2</sup> 2.1%	1.7%	---	1.8%
<b>7.9 Physical fighting among adolescents 14–17 years (incidents per 100 students per month)</b> . . . . .	...	<sup>10</sup> 137	---	---	110
<b>7.10 Weapon-carrying by adolescents 14–17 years (incidents per 100 students per month)</b> . . . . .	...	<sup>10</sup> 107	---	---	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
<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 *Health, United States, 1993*, Appendix I.

<sup>2</sup>1990 data.

<sup>3</sup>1989 data.

<sup>4</sup>Data have been revised to include the entire American Indian/Alaska Native population; see Introduction.

<sup>5</sup>Data are provisional.

<sup>6</sup>1986 data.

<sup>7</sup>Baseline has been revised to reflect updated methodology.

<sup>8</sup>1985 data.

<sup>9</sup>Target has been revised to reflect reduction from revised baseline.

<sup>10</sup>1991 data.

<sup>11</sup>1992 data.

Data sources are shown in appendix table C.

# 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.

## References

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# Priority Area 8 Educational and Community-Based Programs

## Background and Data Summary

Community-based interventions attempt to reach groups of people outside of traditional health care settings. Many of these programs are community-based, designed for people who meet in diverse settings, such as students within a school, employees at a worksite, or members of civic or religious groups. Other programs are planned to be community-wide. These health promotion programs can reach large numbers of people with intensive and effective interventions; in addition, they are relatively easy to implement. While community-based programs may address a single risk factor or health problem, many programs are starting to take a more comprehensive, and often more positive, approach to health and well-being. Community-based programs also increasingly recognize the importance of addressing the social and physical environment in which behavior occurs.

Of the 14 Educational and Community-Based Programs objectives, 4 are progressing toward the year 2000 targets (objectives 8.3, 8.6, 8.9, and 8.12), while one is moving away from the targets (8.1). No new data were available to update the baselines for two objectives (8.2 and 8.14). Data to update the baseline for objective 8.5 will be available in 1996. Baselines for the remaining six objectives are not yet available.

### Data Issues

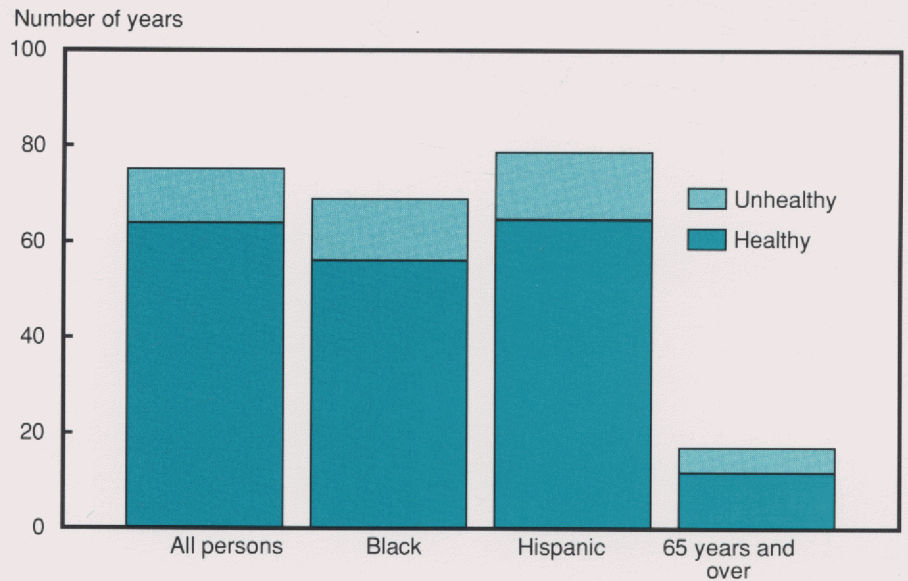
#### Years of Healthy Life

The concept of increasing years of healthy life is one of the three *Healthy People 2000* goals, and is included as three specific objectives (8.1, 17.1, and 21.1). See the introduction to the *Healthy People 2000 Review* for a discussion of years of healthy life.

#### Data Source Description

Objectives 8.2 (completion of high school) and 8.3 (preschool child

**Figure 8. Total life expectancy and years of healthy life: United States, 1990, and year 2000 targets for objective 8.1**



	Years of healthy life	Life expectancy
All persons . . . . .	64.0	75.4
Black . . . . .	56.0	69.1
Hispanic . . . . .	64.8	79.1
People 65 years and over . . . . .	11.9	17.2

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey and National Vital Statistics System.

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.

#### 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. Similarly, objective 8.14, which focuses on the proportion of people served by effective local health departments, is being monitored by the proportion of health departments carrying out the core functions of public health.

Because of the process-oriented nature of many of the objectives, this chapter poses as significant a challenge in obtaining relevant data to measure progress as any *Healthy People 2000* priority area. A concerted effort will be made over the decade to locate complete data sources for those objectives that are only being partially measured.

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

Objective	Baseline		1991	1992	Target 2000
	Original	Revised			
<b>8.1 Years of healthy life</b>	162.0	<sup>2,3</sup> 64.0	63.9	---	65
a. Blacks	156.0	<sup>2,3</sup> No change	56.0	---	60
b. Hispanics	162.0	<sup>2,3,4</sup> 64.8	---	---	65
c. People 65 years and over <sup>5</sup>	112.0	<sup>2,3</sup> 11.9	11.8	---	14
<b>8.2 Completion of high school</b>					
People 19–20 years	<sup>6</sup> 79%	<sup>2,3</sup> 83%	---	---	90%
<b>8.3 Preschool child development programs</b>					
Eligible children 4 years afforded opportunity to enroll in Head Start	<sup>2</sup> 47%	...	55%	---	100%
Disabled children 3–5 years enrolled in preschool	...	...	56%	---	100%
<b>8.4 Schools with quality school health education</b>	---	...	---	---	75%
<b>8.5 Health promotion in postsecondary institutions</b>					
Percent of higher education institutions offering health promotion activities	<sup>7</sup> 20%	...	---	---	50%
<b>8.6 Worksite health promotion activities</b>					
Worksites with 50 or more employees	<sup>8</sup> 65%	...	---	81%	85%
Medium and large companies having a wellness program	<sup>8</sup> 63%	...	---	---	...
<b>8.7 Hourly workers in health promotion activities</b>	---	...	---	---	20%
<b>8.8 Health promotion programs for older adults</b>	---	...	---	---	90%
<b>8.9 Family discussion of health issues—ages 10 years and over</b>	---	...	---	---	75%
Among 9th–12th grade students engaging in family discussion of HIV/AIDS	...	<sup>9</sup> 54%	61%	---	75%
<b>8.10 Number of States with community health programs for 40 percent of the population</b>	---	...	---	---	40%
<b>8.11 Counties with programs for racial/ethnic minority groups</b>	---	...	---	---	50%
<b>8.12 Hospital-based patient education and community health promotion</b>					
Patient education programs					
Community hospitals	<sup>10</sup> 66%	<sup>3,11</sup> 68%	<sup>2</sup> 86%	---	90%
Health maintenance organizations	---	...	---	---	90%
Health education classes	...	...	<sup>11</sup> 75%	---	...
Nutrition counseling	...	...	<sup>11</sup> 85%	---	...
Smoking cessation classes	...	...	---	67%	...
Community health promotion					
Community hospitals	<sup>9</sup> 60%	...	<sup>2</sup> 77%	---	90%
<b>8.13 Television partnerships with community organizations for health promotion</b>	---	...	---	---	75%
<b>8.14 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 enforce	...	<sup>2</sup> 59%	---	---	...
Health planning	...	<sup>2</sup> 57%	---	---	...
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; see Introduction.

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

<sup>5</sup>Years of healthy life remaining at age 65.

<sup>6</sup>1989 data for people 20–21 years.

<sup>7</sup>1989–90 data.

<sup>8</sup>1985 data.

<sup>9</sup>1989 data.

<sup>10</sup>1987 data.

<sup>11</sup>1988 data.

Data sources are shown in appendix table C.

# 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 and Data Summary

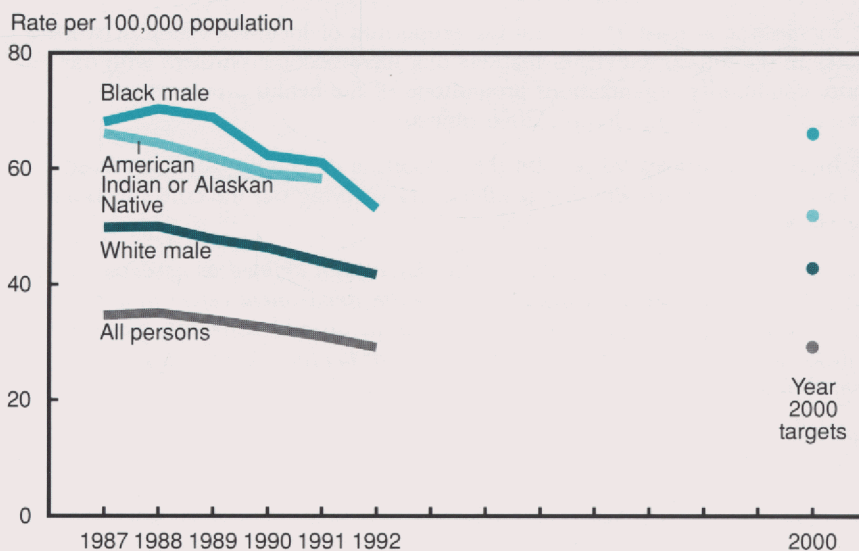
Unintentional injuries are the fifth leading cause of death in the United States, accounting for nearly 90,000 deaths annually (1). They are a major cause of disabilities and hospitalization and have significant impact on health care costs (2). For example, the National Highway Traffic Safety Administration has estimated that motor vehicle crashes alone cost the United States \$75 billion annually (3). Despite the tremendous financial and human costs, 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 and seat belt use by children 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. Progress toward the year 2000 targets was made on 13 objectives (9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.8, 9.9, 9.10, 9.12, 9.13, 9.14, and 9.17). For six objectives (9.1, 9.2, 9.3, 9.8, 9.9, and 9.10), the year 2000 target has been equaled or surpassed. Much of this progress is in areas related to motor vehicle fatalities, injuries, and use of vehicle occupant restraints (9.3, 9.9, and 9.12). This improvement may be attributable to reduction in the amount of driving and alcohol consumption during the recent economic slowdown. The national rate of residential fire deaths (9.6) and all special populations monitored as subobjectives show declining rates. These improvements may be associated with increased use of smoke detectors (9.17).

The hospitalization rates for hip fractures (9.7) remain above baseline levels, indicating no progress toward the

**Figure 9. Age-adjusted death rates for unintentional injuries: United States, 1987–92, and year 2000 targets for objective 9.1**



	1987	1988	1989	1990	1991	1992	Year 2000 target
All persons . . . . .	34.7	35.0	33.9	32.5	31.0	29.2	29.3
American Indian or Alaska Native . . . . .	66.0	64.4	61.8	59.0	58.3	---	66.1
Black male . . . . .	68.0	70.4	68.8	62.4	61.0	53.2	51.9
White male . . . . .	49.8	50.0	47.8	46.4	43.9	41.7	42.9

NOTE: 1992 data are provisional.

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

year 2000 target. 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. A baseline was established for objective 9.21 (injury prevention counseling) using data from the Primary Care Provider Surveys.

### Data Issues

#### 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 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

(environmental causes) on hospital discharge forms. The National Center for Health Statistics 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 limits tracking of 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.

### Data Availability

Data are not currently available to update three objectives (9.11, 9.16, and 9.19). 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 1994, 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) is no longer available from the U.S. Fire Administration; no alternative source has been identified. An update for objective 9.19 (protective equipment in sports) should be available in late 1994.

Baseline data have yet to be obtained for objectives 9.18 and 9.20. The School Health Programs and Policies Survey, soon to be 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 1994.

### Data Comparability

Data collection for objectives 9.12 (motor vehicle occupant protection systems) and 9.13 (helmet use by motorcyclists and bicyclists) has been 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 for objective 9.21 (injury counseling by primary care providers) come from the Primary Care Provider Surveys. The wide range of response rates among the provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetricians/gynecologists, 71 percent; internists, 58 percent; and pediatricians, 80 percent) dictates caution in interpreting the data.

**Table 9. Unintentional injuries objective status**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>9.1 Unintentional injury deaths (age adjusted per 100,000)</b> . . . . .	34.5	<sup>1</sup> 34.7	31.0	<sup>2</sup> 29.2	29.3
a. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	82.6	<sup>3</sup> 66.0	58.3	---	66.1
b. Black males (age adjusted per 100,000) . . . . .	64.9	<sup>1</sup> 68.0	61.0	<sup>2</sup> 53.2	51.9
c. White males (age adjusted per 100,000) . . . . .	53.6	<sup>1</sup> 49.8	43.9	<sup>2</sup> 41.7	42.9
<b>9.2 Unintentional injury hospitalizations (per 100,000)</b> . . . . .	<sup>4</sup> 887	<sup>4,5,6</sup> 83	<sup>6</sup> 764	<sup>6</sup> 714	754
<b>9.3 Motor vehicle crash-related deaths</b>					
Per 100 million vehicle miles traveled (VMT) . . . . .	2.4	...	1.9	1.8	1.9
(per 100,000) . . . . .	18.8	<sup>5</sup> 19.2	16.4	15.4	16.8
a. Children 14 years and under (per 100,000) . . . . .	6.2	...	5.0	4.8	5.5
b. People 15–24 years (per 100,000) . . . . .	36.9	...	31.4	28.0	33
c. People 70 years and over (per 100,000) . . . . .	22.6	...	22.3	21.9	20
d. American Indians/Alaska Natives (age adjusted per 100,000) . . . . .	46.8	<sup>3</sup> 37.7	33.4	---	39.2
e. Motorcyclists (per 100 million VMT) . . . . .	40.9	...	30.6	25.6	33.0
(per 100,000) . . . . .	1.7	...	1.1	0.9	1.5
f. Pedestrians (per 100,000) . . . . .	3.1	<sup>5</sup> 2.8	2.3	2.2	2.7
<b>9.4 Fall-related deaths (age adjusted per 100,000)</b> . . . . .	2.7	No change	2.6	---	2.3
a. People 65–84 years (per 100,000) . . . . .	18.0	<sup>1</sup> 18.1	18.0	---	14.4
b. People 85 years and over (per 100,000) . . . . .	131.2	<sup>1</sup> 133.0	147.5	---	105.0
c. Black males 30–69 years (per 100,000) . . . . .	8.0	<sup>1</sup> 8.1	6.2	---	5.6
<b>9.5 Drowning deaths (age adjusted per 100,000)</b> . . . . .	2.1	No change	1.9	---	1.3
a. Children aged 4 and under (per 100,000) . . . . .	4.2	<sup>1</sup> 4.3	3.6	---	2.3
b. Males 15–34 years (per 100,000) . . . . .	4.5	No change	4.1	---	2.5
c. Black males (age adjusted per 100,000) . . . . .	6.6	No change	5.8	---	3.6
<b>9.6 Residential fire deaths (age adjusted per 100,000)</b> . . . . .	1.5	<sup>1</sup> 1.7	1.5	---	1.2
a. Children 4 years and under (per 100,000) . . . . .	4.4	<sup>1</sup> 4.5	3.8	---	3.3
b. People 65 years and over (per 100,000) . . . . .	4.4	<sup>1</sup> 4.9	3.9	---	3.3
c. Black males (age adjusted per 100,000) . . . . .	5.7	<sup>1</sup> 6.4	5.1	---	4.3
d. Black females (age adjusted per 100,000) . . . . .	3.4	<sup>1</sup> 3.3	2.6	---	2.6
e. Residential fire deaths caused by smoking . . . . .	17%	<sup>5</sup> 26%	<sup>7</sup> 17%	---	5%
<b>9.7 Hip fractures among older adults (per 100,000)</b> . . . . .	<sup>4</sup> 714	...	814	757	607
a. White females 85 years and over . . . . .	<sup>4,2</sup> 721	...	3,091	2,368	2,177
<b>9.8 Nonfatal poisoning (per 100,000)</b> . . . . .	<sup>8</sup> 103	<sup>5,8</sup> 108	70	71	88
a. Among children 4 years and under . . . . .	<sup>8</sup> 650	<sup>5,8</sup> 648	654	651	520
<b>9.9 Nonfatal head injuries (per 100,000)</b> . . . . .	<sup>4</sup> 125	<sup>4,5</sup> 118	104	92	106
<b>9.10 Nonfatal spinal cord injuries (per 100,000)</b> . . . . .	<sup>4</sup> 5.9	<sup>4,5</sup> 5.3	6.4	3.6	5.0
a. Males . . . . .	<sup>4</sup> 8.9	<sup>4,5</sup> 9.6	9.8	4.8	7.1
<b>9.11 Secondary disabilities associated with head and spinal cord injuries</b>					
Head injuries (per 100,000) . . . . .	<sup>8</sup> 20.0	...	---	---	16.0
Spinal cord injuries (per 100,000) . . . . .	<sup>8</sup> 3.2	...	---	---	2.6
<b>9.12 Motor vehicle occupant protection system</b> . . . . .	<sup>4</sup> 42%	...	<sup>9</sup> 62%	<sup>10</sup> 66%	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%	...	62%	---	80%
Bicyclists . . . . .	<sup>4</sup> 8%	...	5–10%	---	50%
<b>9.14 Safety belt and helmet use laws</b> . . . . .					
Number of States with safety belt laws <sup>11</sup> . . . . .	<sup>7</sup> 33	...	<sup>9</sup> 44	<sup>10</sup> 45	50
Number of States with motorcycle helmet use laws <sup>12</sup> . . . . .	<sup>7</sup> 22	...	24	<sup>10</sup> 25	50
<b>9.15 Number of States with handgun design to protect children</b> . . . . .	<sup>7</sup> 0	...	<sup>13</sup> 0	---	50
<b>9.16 Fire suppression sprinkler installation (number of localities)</b> . . . . .	...	<sup>7</sup> 700	---	---	2,000
<b>9.17 Residences with smoke detectors</b> . . . . .	<sup>7</sup> 81%	...	<sup>13</sup> 82%	---	100%
<b>9.18 Injury prevention instruction in schools</b> . . . . .	---	...	---	---	50%

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

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>9.19 Protective equipment in sporting and recreation events</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>9</sup> 45%	---	---	...
Nurse practitioners . . . . .	...	<sup>9</sup> 29%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>9</sup> 6%	---	---	...
Internists . . . . .	...	<sup>9</sup> 11%	---	---	...
Family physicians . . . . .	...	<sup>9</sup> 16%	---	---	...
Inquiry about hazards for falls in the home (65 years and over)					
Nurse practitioners . . . . .	...	<sup>9</sup> 15%	---	---	...
Internists . . . . .	...	<sup>9</sup> 10%	---	---	...
Family physicians . . . . .	...	<sup>9</sup> 7%	---	---	...
Advice about seat belt/child care seat use					
Pediatricians . . . . .	...	<sup>9</sup> 58%	---	---	...
Nurse practitioners . . . . .	...	<sup>9</sup> 32%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>9</sup> 18%	---	---	...
Internists . . . . .	...	<sup>9</sup> 15%	---	---	...
Family physicians . . . . .	...	<sup>9</sup> 29%	---	---	...
Advice about prevention of falls in the home (65 years and older)					
Nurse practitioners . . . . .	...	<sup>9</sup> 17%	---	---	...
Internists . . . . .	...	<sup>9</sup> 17%	---	---	...
Family physicians . . . . .	...	<sup>9</sup> 15%	---	---	...
<b>9.22 Number of States with linked emergency medical services and trauma systems</b> . . . . .	2	...	7 <sup>2</sup>	---	50

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see *Health, United States, 1992*, Appendix I.

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

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

<sup>4</sup>1988 data.

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

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

<sup>7</sup>1989 data.

<sup>8</sup>1986 data.

<sup>9</sup>1992 data.

<sup>10</sup>1993 data.

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

<sup>12</sup>The District of Columbia and Puerto Rico also have motorcycle helmet laws.

<sup>13</sup>1990 data.

Data sources are shown in appendix table C.

# 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.

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# Priority Area 10 Occupational Safety and Health

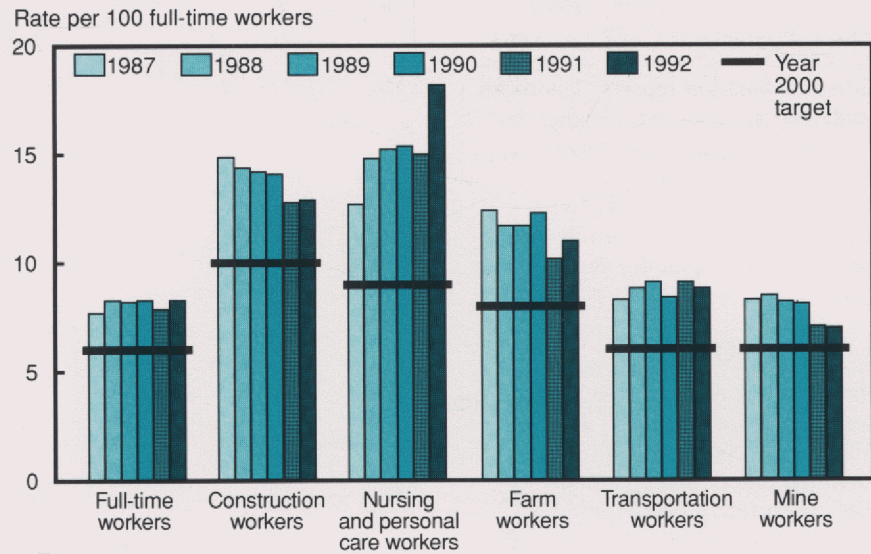
## Background and Data Summary

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 successful and cost-effective (3,4). Although work-related deaths have declined slightly from a 1983–87 average of 6 per 100,000 workers to a rate of 5.0 in 1992, work-related injuries remain above the 1983–87 average of 7.7 per 100 (7.9 in 1991 (5) and 8.3 in 1992 (6)). The leading cause of occupational deaths is motor vehicle accidents (7); 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 (8). Work-related deaths for some of these groups have declined from the 1983–87 averages. Specifically, the rates for mine workers, construction workers, and transportation workers are lower than baseline levels. The rate for construction workers is below the year 2000 target. These declines are particularly noteworthy, given that the revised reporting mechanism for occupation-related deaths (see Data Issues) is a more comprehensive method of data collection. 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 (9).

Five of the 15 objectives in this priority area show progress toward the year 2000 targets (10.1, 10.5, 10.6, 10.10, and 10.13). The baseline for objective 10.6 (worksites mandates for use of occupant protection systems) surpassed the year 2000 target. Since

**Figure 10. Nonfatal work-related injuries among full-time workers according to selected occupations: United States, 1987–92, and year 2000 targets for objective 10.2**



	1987	1988	1989	1990	1991	1992	Year 2000 target
Full-time workers . . . . .	7.7	8.3	8.2	8.3	7.9	8.3	6
Construction workers . . . . .	14.9	14.4	14.2	14.1	12.8	12.9	10
Nursing and personal care workers . . . . .	12.7	14.8	15.2	15.4	15.0	18.2	9
Farm workers . . . . .	12.4	11.7	11.7	12.3	10.2	11.0	8
Transportation workers . . . . .	8.3	8.8	9.1	8.4	9.1	8.8	6
Mine workers . . . . .	8.3	8.5	8.2	8.1	7.1	7.0	6

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

seat belt use is a component of this objective, the achievement of the target level is probably a result of increased legislation and enforcement of State seat belt laws.

Two objectives (10.2, nonfatal occupational-related injuries, and 10.4, occupational skin disorders) remained relatively stable between 1988 and 1992, but were higher than the 1987 baseline. Objective 10.3 (cumulative trauma disorders) continued to increase between 1987 and 1992. Occupational lead exposure (10.8) increased considerably, and the number of States reporting also increased from 7 to 16.

No data beyond the baseline were available for objectives 10.9 (hepatitis

immunization), 10.12 (health and safety programs), and 10.14 (small business programs). Baseline data were established for objective 10.15 (clinician assessment). Two objectives (10.7 and 10.11) remain without baseline data; the data are expected in mid-1994.

## Data Issues

### Data Source Description

The 1992 data for objective 10.1 (work-related injury deaths) come from a new data source, the Census for Fatal Occupational Injuries (CFOI). Previous years' data came from the Annual

Survey on Occupational Injuries and Illnesses. 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 (10). 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 death rates obtained are somewhat higher, but more accurate. The rates for 1992 were rounded to whole numbers by the Bureau of Labor Statistics. National Traumatic Occupational Fatalities data will also be used to monitor this objective.

### **Data Availability**

Data to track objective 10.7 (occupational noise exposure) are still unavailable; the National Institute for Occupational Safety and Health (NIOSH) is currently developing the Sentinel Event Notification System for Occupational Risk (SENSOR) and the Occupational Hearing Conservation database that will help track this objective. 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.

Data for objective 10.15 (screening for occupational health exposure) are obtained from the Primary Care Provider Surveys. Because of the variability in response rates among the provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetricians/gynecologists, 71 percent; internists, 58 percent; and pediatricians, 80 percent), the data must be interpreted with caution. NIOSH, the Indian Health Service, and the Health Resources and Services Administration are working together to develop an additional tracking mechanism for this objective.

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

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>10.1 Work-related injury deaths (per 100,000)</b> . . . . .	16	...	4.3	5	4
a. Mine workers . . . . .	<sup>1</sup> 30.3	...	15.6	27	21
b. Construction workers . . . . .	<sup>1</sup> 25.0	...	16.6	14	17
c. Transportation workers . . . . .	<sup>1</sup> 15.2	...	8.1	13	10
d. Farm workers . . . . .	<sup>1</sup> 14.0	...	---	24	9.5
<b>10.2 Nonfatal work-related injuries (per 100)</b> . . . . .	7.7	...	7.9	8.3	6
a. Construction workers . . . . .	14.9	...	12.8	12.9	10
b. Nursing and personal care workers . . . . .	12.7	...	15.0	18.2	9
c. Farm workers . . . . .	12.4	...	10.2	11.0	8
d. Transportation workers . . . . .	8.3	...	9.1	8.8	6
e. Mine workers . . . . .	8.3	...	7.1	7.0	6
<b>10.3 Cumulative trauma disorders (per 100,000)</b> . . . . .	100	...	297	368	60
a. Manufacturing industry workers . . . . .	355	...	1,046	---	150
b. Meat product workers . . . . .	3,920	...	8,802	---	2,000
<b>10.4 Occupational skin disorders (per 100,000)</b> . . . . .	64	...	77	82	55
<b>10.5 Hepatitis B infections among occupationally exposed workers (number of cases)</b> . . . . .	6,200	<sup>2</sup> 3,090	2,576	---	1,250
<b>10.6 Worksite occupant protection system mandates</b> . . . . .	...	<sup>3</sup> 82.4%	---	---	75%
<b>10.7 Occupational noise exposure</b> . . . . .	---	...	---	---	15%
<b>10.8 Occupational lead exposure</b> . . . . .	<sup>4</sup> 4,804	...	---	<sup>5</sup> 9,621	0
<b>10.9 Hepatitis B immunizations among occupationally exposed workers</b> . . . . .	...	<sup>6</sup> 37%	---	---	90%
<b>10.10 Number of States with occupational health and safety plans</b> . . . . .	<sup>6</sup> 10	...	---	32	50
<b>10.11 Number of States with occupational lung disease exposure standards</b> . . . . .	---	...	---	---	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>7</sup> 28.6%	...	---	32.5%	50%
<b>10.14 Number of States with programs for small business safety and health</b> . . . . .	...	<sup>8</sup> 26	---	---	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%	---	---	...
Nurse practitioners . . . . .	---	<sup>3</sup> 14%	---	---	...
Obstetricians/Gynecologists . . . . .	---	<sup>3</sup> 6%	---	---	...
Internists . . . . .	---	<sup>3</sup> 14%	---	---	...
Family physicians . . . . .	---	<sup>3</sup> 7%	---	---	...
Counseling about work-related health risks					
Pediatricians . . . . .	---	<sup>3</sup> 8%	---	---	...
Nurse practitioners . . . . .	---	<sup>3</sup> 10%	---	---	...
Obstetricians/Gynecologists . . . . .	---	<sup>3</sup> 10%	---	---	...
Internists . . . . .	---	<sup>3</sup> 9%	---	---	...
Family physicians . . . . .	---	<sup>3</sup> 8%	---	---	...

<sup>1</sup>1983–1987 average.

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

<sup>3</sup>1992 data.

<sup>4</sup>1988 data from seven States.

<sup>5</sup>Data from 16 States.

<sup>6</sup>1989 data.

<sup>7</sup>1985 data.

<sup>8</sup>1991 data.

Data sources are shown in appendix table C.

# 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.

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# Priority Area 11 Environmental Health

## Background and Data Summary

Environmental factors play a fundamental role in health and disease. One of the most famous public health interventions to control disease (cholera) succeeded through control of a contaminated public water supply (1). Despite this historic and other more recent successes, the etiology linking toxic exposure to disease is not well documented (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 hazardous substances (3).

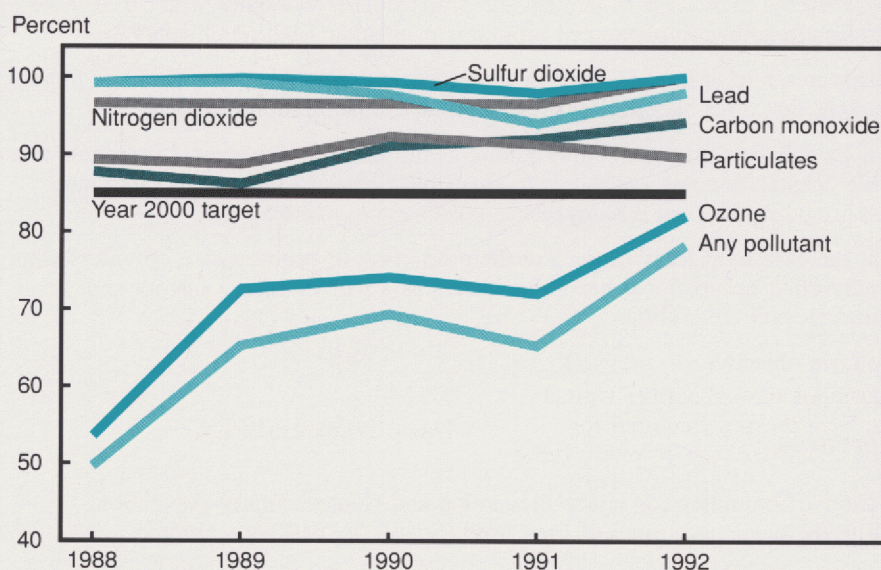
Research may clarify current ambiguity about exposure thresholds. Dioxin continues to be the focus of research (4), but lead has been shown to have toxic effects at even lower exposure levels than originally believed (5,6). Research will aid priority setting among environmental and public health interventions.

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, soil, and groundwater. They also include a variety of pollutants, such as radon, toxic chemicals, and lead. Eight of the objectives (11.1, 11.5, 11.6, 11.7, 11.12, 11.13, 11.15, and 11.16) showed some progress toward the year 2000 targets. Asthma hospitalizations (11.1) declined for the total population, but continued to increase for black and other persons other than white and children. Air quality (11.5) also showed improvement with no exceedances reported for nitrogen dioxide or sulphur dioxide; the lead exceedance was limited to the Los Angeles area, where a lead smelter is located.

A greater proportion of people reported testing their homes for radon (11.6) and toxic agent releases (11.7) decreased to levels below the year 2000

**Figure 11. Proportion of people who live in counties that meet criteria air pollutant standards: United States, 1988–92, and year 2000 targets for objective 11.5**



	1988	1989	1990	1991	1992	Year 2000 target
Any pollutant . . . . .	49.7	65.3	69.4	65.3	78.4	85
Ozone . . . . .	53.6	72.6	74.2	72.0	82.1	85
Carbon monoxide . . . . .	87.8	86.2	91.1	92.0	94.3	85
Nitrogen dioxide . . . . .	96.6	96.5	96.5	96.5	100.0	85
Sulfur dioxide . . . . .	99.3	99.9	99.4	98.0	100.0	85
Particulates . . . . .	89.4	88.8	92.3	91.4	89.6	85
Lead . . . . .	99.3	99.4	97.8	94.1	98.1	85

SOURCE: Environmental Protection Agency, National Air Quality and Emission Trends Report.

target (see Data Issues). Objectives 11.12 and 11.13 (radon construction standards and disclosure of lead and radon test results) also moved toward the targets; both advances may be tied to Federal initiatives in these areas.

Progress for objective 11.15 (recycling) was monitored through the use of supplemental data provided by the Environmental Protection Agency (EPA) (see Data Issues). These data show an increase in the number of programs and States with recycling for household hazardous wastes. Similarly, progress for objective 11.16 (sentinel environmental diseases) was

demonstrated by showing supplemental data on States with plans to fund monitoring programs.

Four objectives (11.3, 11.8, 11.9, and 11.10) showed movement away from the year 2000 targets. Waterborne disease outbreaks (11.3) increased from the 1988 level, as did human exposure to solid waste (11.8). The proportion of people receiving safe drinking water declined slightly, but this is largely attributable to an increase in the number of standards used to evaluate drinking water quality. The proportion of impaired surface waters (11.10) also increased, but these data must be

interpreted cautiously (see Data Issues).

New data from EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) show increases in the number of sites on the National Priorities List, sites with health assessments conducted and health concerns or hazards (objective 11.14). However, data to monitor progress on reduction of these risks are still being developed by ATSDR. No update data were available for objectives 11.2, 11.4, and 11.11.

## 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 limits tracking of this special population objective.

Data for 11.5 (air quality) are affected by weather fluctuations and may vary considerably on an annual basis. The data are also limited by the fact that not all counties have monitoring stations. Data on lead exceedances are affected by the presence of a lead production source located in Los Angeles County (a highly populated area).

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; by contrast, the objective calls for the proportion of homes that had been tested. NCHS is developing household weights for the survey data that will improve the estimate for tracking this objective. Additional analysis of NHIS data has indicated that testing for radon is related to education and socioeconomic factors.

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.

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.

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.

### Data Comparability

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 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 values reported by EPA. Updates for objective 11.15 (programs for recycling household hazardous materials and 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

An update for 11.4 (blood lead levels) will be available in 1994 from the NHANES III. 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 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.

**Table 11. Environmental health objective status**

Objective	1988 baseline		1991	1992	Target 2000
	Original	Revised			
<b>11.1 Asthma hospitalizations (per 100,000)</b> . . . . .	<sup>1</sup> 188	...	196	183	160
a. Blacks and other nonwhites . . . . .	<sup>1</sup> 334	...	349	380	265
b. Children 14 years and under . . . . .	<sup>1</sup> 284	...	339	344	225
<b>11.2 Mental retardation (per 1,000 school-aged children)</b> . . . . .	<sup>2</sup> 2.7	...	---	---	2
<b>11.3 Waterborne diseases (number of outbreaks)</b> . . . . .	31	<sup>3</sup> 16	15	19	11
a. People served by community water systems . . . . .	13	<sup>3</sup> 4	2	5	6
<b>11.4 Blood lead levels exceeding 15 &amp; 25 ug/dL</b> . . . . .	<sup>4</sup> 3 million	...	---	---	500,000
a. Inner-city low-income black children 15 & 25 ug/dL . . . . .	& 234,000	...	---	---	& 0
	<sup>4</sup> 234,900	...	---	---	75,000
	& 36,700	...	---	---	& 0
<b>11.5 Proportion of people in counties that have not exceeded standards for air pollutants</b> . . . . .	49.7%	...	65.3%	78.4%	85%
Ozone . . . . .	53.6%	...	72.0%	82.1%	85%
Carbon monoxide . . . . .	87.8%	...	92.0%	94.3%	85%
Nitrogen dioxide . . . . .	96.6%	...	96.5%	100%	85%
Sulfur dioxide . . . . .	99.3%	...	98.0%	100%	85%
Particulates . . . . .	89.4%	...	91.4%	89.6%	85%
Lead . . . . .	99.3%	...	94.1%	98.1%	85%
<b>11.6 Radon testing</b> . . . . .	<sup>5</sup> Less than	...	---	---	---
a. Homes with smokers and former smokers . . . . .	5%	...	<sup>6</sup> 7.4%	---	40%
b. Homes with children . . . . .	---	...	<sup>6</sup> 7.4%	---	50%
c. Homes with children and smokers . . . . .	---	...	---	---	50%
<b>11.7 Toxic agent releases</b>					
DHHS list of carcinogens (billion pounds) . . . . .	0.32	<sup>7</sup> 0.48	0.23	---	0.24
ATSDR list of the most toxic chemicals (billion pounds)					
200 substances . . . . .	2.62	<sup>7</sup> 3.50	2.16	---	2.60
250 substances . . . . .	3.70	<sup>7</sup> 4.48	2.70	---	...
<b>11.8 Solid waste (average pounds per person per day)</b> . . . . .	4.0	...	<sup>8</sup> 4.3	---	3.6
<b>11.9 People receiving safe drinking water</b> . . . . .	74%	<sup>9</sup> 73%	72%	72%	85%
Number of Maximum Contaminant Level Standards in force . . . . .	...	31	75	98	...
<b>11.10 Impaired surface water</b> . . . . .	<sup>10</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>11,12</sup> Less than 5%	---	---	50%
<b>11.12 Number of States with construction standards to minimize radon concentrations</b> . . . . .	<sup>5</sup> 1	...	---	<sup>13</sup> 3	35
<b>11.13 Disclosure of lead and radon concentrations (number of States)</b>					
Disclosure of lead . . . . .	<sup>5</sup> 2	...	5	<sup>14</sup> ---	30
Disclosure of radon . . . . .	<sup>5</sup> 1	...	5	13	30
<b>11.14 Significant health risks from hazardous waste sites (Indicators)</b>					
Sites on list . . . . .	<sup>8</sup> 1,082	<sup>8,15</sup> 1,079	---	1,199	...
Health assessments conducted . . . . .	<sup>8</sup> 1,000	<sup>8,15</sup> 1,379	---	1,452	...
Sites with public health concerns/hazards . . . . .	...	<sup>8,15</sup> 250	---	283	...
Sites where ATSDR recommendation followed . . . . .	---	...	---	---	100%
<b>11.15 Counties with programs for recyclable materials and household hazardous waste</b> . . . . .	<sup>1</sup> 850	...	---	---	75%
Programs in 41 States . . . . .	...	...	---	---	75%
Permanent and temporary household hazardous waste recycling . . . . .	...	<sup>1</sup> 300	802	---	...
States with at least one program . . . . .	...	128	50	---	...



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

<i>Objective</i>	<i>1988 baseline</i>		<i>1991</i>	<i>1992</i>	<i>Target 2000</i>
	<i>Original</i>	<i>Revised</i>			
<b>11.16 Number of States that track sentinel environmental diseases</b>					
Plans established and monitored. . . . .	...	80	---	---	35
Federal law and funds. . . . .	...	80	138	1610	---
State law and funds . . . . .	...	8,1729	1729	1731	---

<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 data from 1988 data.

<sup>4</sup>1984 data.

<sup>5</sup>1989 data.

<sup>6</sup>Data represent the proportion of people who reported that they knew what radon was and had tested their homes for radon.

<sup>7</sup>Baselines were revised to reflect updates from industry.

<sup>8</sup>1990 data.

<sup>9</sup>Baseline was revised to correct for rounding error.

<sup>10</sup>Baseline has been revised to reflect EPA reporting categories.

<sup>11</sup>1991 data.

<sup>12</sup>Data represent the proportion of people with homes built before 1950 who report that their paint had been analyzed for lead content.

<sup>13</sup>1993 data.

<sup>14</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>15</sup>Baselines were updated to reflect revised methodology.

<sup>16</sup>1994 funded.

<sup>17</sup>Includes the District of Columbia.

Data sources are shown in appendix table C.

# 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 is 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.

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# Priority Area 12

## Food and Drug Safety

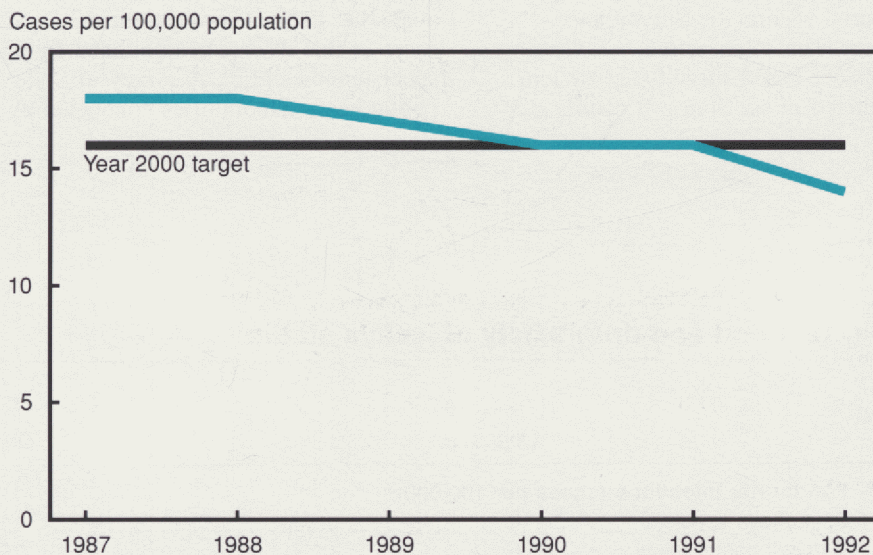
### Background and Data Summary

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 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.

The food and drug safety priority area contains six objectives that address reductions in foodborne diseases and precautions to reduce adverse medication interactions, especially among older people. Reported outbreaks of infections due to *Salmonella enteritidis* fell from 77 outbreaks in 1989 to 60 outbreaks in 1992 (objective 12.2). The incidence of infection caused by salmonella species is 14 per 100,000 in 1992, which indicates that part of objective 12.1 has been met. For the other foodborne pathogens in objective 12.1 as well as objectives 12.3 and 12.4, data are not available beyond the baseline. New data from the National Association of Retail Druggists for objective 12.5 (pharmacies with linked

**Figure 12. Infections caused by key foodborne pathogens: United States, 1988–91, and year 2000 targets for objective 12.1**



	1987	1988	1989	1990	1991	1992	Year 2000 target
Salmonella species infections . . . . .	18	18	17	16	16	14	16

SOURCE: Centers for Disease Control and Prevention, National Center for Infectious Diseases, Bacterial Meningitis Surveillance System.

systems) indicate that computer utilization by pharmacies has increased between 1989 and 1993. New baseline data have been established for objective 12.6. Objective 12.5 seeks to increase the proportion of pharmacies and other dispensers of prescription medications that use linked systems to warn of potential adverse drug reactions. The Omnibus Budget Reconciliation Act of 1990 provides statutory impetus for States to move toward this objective. According to a 1992 telephone survey of Medicaid pharmacy program representatives, 15 States currently plan to install point-of-sale, electronic drug claims processing systems in all their pharmacies that serve the Medicaid population (1).

### 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, and the Department of Agriculture. 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 *Campylobacter* Surveillance System is also 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. These issues must be taken into account when interpreting trends in campylobacter incidence.

The incidence of foodborne *Listeria monocytogenes* 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.

A surveillance system to track the incidence of *E. Coli* 0157:H7 is not available. Estimates of the incidence of cases of this disease are obtained from special studies (2,3). A survey of State public health laboratories conducted by

CDC in 1989 demonstrated that *E. Coli* 0157:H7 has been detected in most areas of the United States (4). Laboratory methods varied from State to State; improved surveillance data are needed to determine trends in incidence.

**Table 12. Food and drug safety objective status**

Objective	1987 baseline			1992	Target 2000
	Original	Revised	1991		
<b>12.1 Foodborne infections (cases per 100,000)</b>					
Salmonella species . . . . .	18	...	16	14	16
Campylobacter jejuni . . . . .	50	...	---	---	25
Escherichia coli 0157:H7 . . . . .	8	...	---	---	4
Listeria monocytogenes . . . . .	0.7	...	---	---	0.5
<b>12.2 Salmonella enteritidis outbreaks</b> . . . . .	177	...	67	60	25
<b>12.3 Refrigeration and cutting board practices</b>					
For refrigeration of perishable foods . . . . .	<sup>2</sup> 70%	...	---	---	75%
For washing cutting boards with soap . . . . .	<sup>2</sup> 66%	...	---	---	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>3</sup> 20%	...	---	---	70%
Using the Food Code 1993 [formally Unicode]. . . . .	<sup>3</sup> 0%	...	---	---	70%
<b>12.5 Pharmacies with linked systems</b> . . . . .	---	...	---	---	75%
Computer utilization by pharmacies . . . . .	<sup>1</sup> 85%	...	---	<sup>4</sup> 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>5</sup> 63%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>5</sup> 64%	---	---	...
Internists . . . . .	...	<sup>5</sup> 84%	---	---	...
Family physicians . . . . .	...	<sup>5</sup> 70%	---	---	...
Review of medications when prescribing (65 years and over)					
Nurse practitioners . . . . .	...	<sup>5</sup> 55%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>5</sup> 60%	---	---	...
Internists . . . . .	...	<sup>5</sup> 77%	---	---	...
Family physicians . . . . .	...	<sup>5</sup> 63%	---	---	...

<sup>1</sup>1989 data.  
<sup>2</sup>1988 data.  
<sup>3</sup>1990 data.  
<sup>4</sup>1993 data.  
<sup>5</sup>1992 data.

Data sources are shown in appendix table C.

# 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
Escherichia coli 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

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# Priority Area 13

## Oral Health

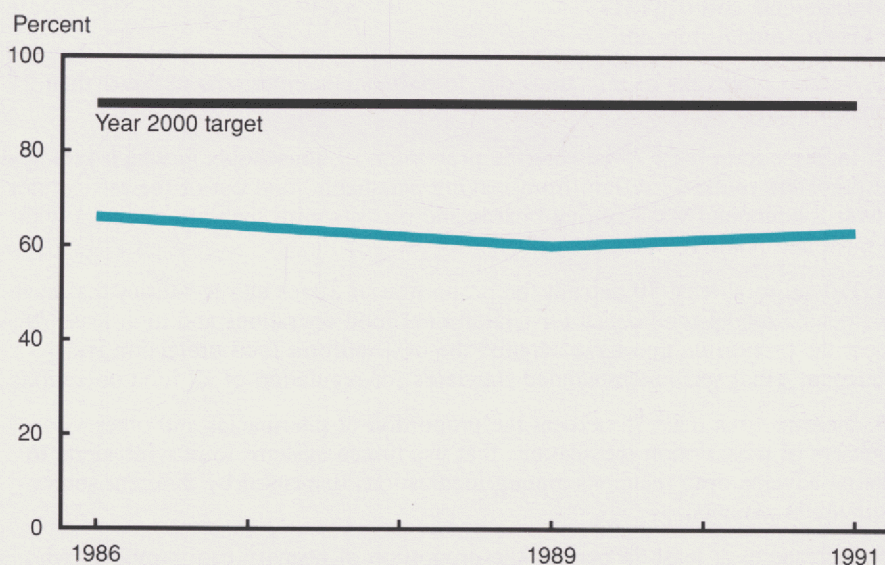
### Background and Data Summary

Oral diseases are among the most common health problems in the United States. Even though the overall prevalence of dental caries among school-aged children has declined steadily since the 1940's, half of them have had at least some decay in their permanent teeth (1). Among people aged 40–44 years, an average of more than 30 tooth surfaces have been affected by decay (1). Periodontal diseases are also a chronic problem. For example, 40 to 50 percent of adults (1) and 60 percent of 15-year-olds experience gingival infections (2). Despite a steady decline in tooth loss over the past several decades, 32 percent of people 65 years of age and over have lost all of their natural teeth (3). Expenditures for dental care are projected to reach \$40 billion in 1992 (4). 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 (5).

Progress has been made toward achievement of oral health objectives. Small improvements were observed in the proportion of 8- and 14-year-olds who had received dental sealants (objective 13.8), and there have been small increases in the proportion of adults who have had a regular dental visit in the preceding year (13.14). Complete tooth loss (13.4) is less common in older adults overall, although there has been no change among those with lower incomes. Oral cancer mortality rates (13.7) have decreased modestly among men and women 45–44 years of age.

Objective 13.12, regarding the proportion of children who have visited a dentist in the past year, is moving away from the target. The proportion of people served by optimally fluoridated water systems has remained about the same (13.9). Recent data beyond the baseline are not available for 10 objectives in this priority area (13.1, 13.2, 13.3, 13.5, 13.6, 13.10, 13.11, 13.13, 13.15, and 13.16). However, for three of these objectives (13.1, 13.2, and

**Figure 13. Children 5 years of age who visited the dentist in the past year: United States, 1986–91, and year 2000 targets for objective 13.12**



	1986	1989	1991	Year 2000 target
Children 5 years of age who visited the dentist in the past year . . . . .	66	60	63	90

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

13.5) data are available for the subobjectives targeting American Indians and Alaska Natives. These data show mixed results. Information on dental caries among 6–8-year-old children are not comparable to baseline, which showed prevalence separately for primary and permanent teeth. Among 15-year-olds, prevalence of dental caries declined slightly. Untreated dental caries increased among 6–8-year-olds and declined among 15-year-olds (13.2). The prevalence of gingivitis remained about the same among American Indians and Alaska Natives (13.5).

### 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 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 for American Indians and Alaska Natives (13.11b) were obtained from a special project conducted in three American Indian communities. The measure is not representative of all American Indians and Alaska Natives and is not comparable to the measure for the total population and for people with less than a high school education.

#### 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 example, in the 1990 National Health Interview Survey (NHIS), 21 percent of respondents believed that the purpose of water fluoridation was to purify water and 17 percent did not know the reason (6). Presumably, these people and possibly others would also not correctly identify whether their water supply was fluoridated. For this reason, additional baseline data for this objective are use of fluoridated products among all U.S. residents. The measurement of use of fluoride products among people without fluoridated water is estimated from the 1989 NHIS data and information on water fluoridation patterns in the United States.

### **Comparability of Data Sources**

Information on the proportion of 5-year-old children and adults aged 35 years and older who visited a dentist in the past 12 months (13.12 and 13.14, respectively) is obtained from supplements to the NHIS (7,8). In 1986 and 1989 these data were obtained from a knowledgeable respondent who provided information for all people in the household. 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. The introduction and question on visits in the past 2 weeks were not included in the 1991 survey. These may have differentially affected recall about visits in the past 12 months. Among adults, a person sampled from each family provided information only for himself or herself and not others in the household in the 1991 survey.

**Table 13. Oral health objective status**

Objective	1986-87 baseline		1991	1992	Target 2000
	Original	Revised			
<b>13.1 Dental caries</b>					
Children 6-8 years . . . . .	53%	...	---	---	35%
Adolescents 15 years . . . . .	78%	...	---	---	60%
a. Children 6-8 years whose parents have less than a high school education . . . . .	70%	...	---	---	45%
b. American Indian/Alaska Native children 6-8 years					
Primary or permanent teeth . . . . .	---	...	88%	---	45%
Primary teeth . . . . .	192%	...	---	---	...
Permanent teeth . . . . .	152%	...	---	---	...
c. Black children 6-8 years . . . . .	61%	...	---	---	40%
d. American Indian/Alaska Native adolescents 15 years					
Permanent teeth . . . . .	193%	...	91%	---	70%
<b>13.2 Untreated dental caries</b>					
Children 6-8 years . . . . .	27%	...	---	---	20%
a. Children whose parents have less than a high school education . . . . .	43%	...	---	---	30%
b. American Indian/Alaska Native children . . . . .	164%	...	70%	---	35%
c. Black children . . . . .	38%	...	---	---	25%
d. Hispanic children . . . . .	236%	...	---	---	25%
Adolescents 15 years . . . . .	23%	...	---	---	15%
a. Adolescents whose parents have less than a high school education . . . . .	41%	...	---	---	25%
b. American Indian/Alaska Native adolescents . . . . .	184%	...	59%	---	40%
c. Black adolescents . . . . .	38%	...	---	---	20%
d. Hispanic adolescents . . . . .	231-47%	...	---	---	25%
<b>13.3 No tooth loss</b>					
People 35-44 years . . . . .	331%	...	---	---	45%
<b>13.4 Complete tooth loss</b>					
People 65 years and over . . . . .	436%	...	32%	---	20%
a. Low-income people (annual family income less than \$15,000) . . . . .	446%	...	45%	---	25%
<b>13.5 Gingivitis</b>					
People 35-44 years . . . . .	342%	...	---	---	30%
a. Low-income people (annual family income less than \$12,000) . . . . .	350%	...	---	---	35%
b. American Indians/Alaska Natives . . . . .	195%	...	96%	---	50%
c. Hispanics . . . . .	---	...	---	---	50%
Mexican Americans . . . . .	274%	...	---	---	...
Cubans . . . . .	279%	...	---	---	...
Puerto Ricans . . . . .	282%	...	---	---	...
<b>13.6 Periodontal diseases</b>					
People 35-44 years . . . . .	324%	...	---	---	15%
<b>13.7 Oral cancer deaths</b>					
Males 45-74 years (per 100,000) . . . . .	512.1	5,613.6	12.7	---	10.5
Females 45-74 years (per 100,000) . . . . .	54.1	5,64.8	4.6	---	4.1
<b>13.8 Protective sealants</b>					
Children 8 years . . . . .	11%	...	717%	---	50%
Adolescents 14 years . . . . .	8%	...	713%	---	50%
<b>13.9 Water fluoridation</b>					
People served by optimally fluoridated water . . . . .	762%	7,861%	---	62%	75%
<b>13.10 Topical and systemic fluorides</b>					
People in nonfluoridated areas who use fluoride . . . . .	750%	...	---	---	85%
US-wide data people using:					
Toothpaste containing fluoride . . . . .	...	494%	---	---	...
Fluoride mouthrinse					
Children and adolescents 6-17 years . . . . .	...	722.0%	---	---	...
People 18 years and over . . . . .	...	77.7%	---	---	...
Fluoride supplements					
Children and adolescents 2-16 . . . . .	...	710.3%	---	---	...

**Table 13. Oral health objective status—Con.**

Objective	1986–87 baseline		1991	1992	Target 2000
	Original	Revised			
<b>13.11 Baby bottle tooth decay</b>					
Parents and caregivers who use preventive feeding practices . . . . .	...	<sup>9</sup> 55%	---	---	75%
a. Parents and caregivers with less than a high school education . . . . .	...	<sup>9</sup> 36%	---	---	65%
b. American Indian/Alaska Native parents and caregivers . . . . .	...	<sup>10</sup> 74%	---	---	65%
<b>13.12 Oral health screening, referral, and followup</b>					
Children 5 years who visited the dentist in the past year . . . . .	<sup>4</sup> 66%	...	63%	---	90%
<b>13.13 Oral health care at institutional facilities</b> . . . . .	---	...	---	---	100%
Nursing facilities . . . . .	<sup>11</sup> Required	...	---	---	...
Federal prisons . . . . .	---	...	---	---	...
Nonfederal prisons . . . . .	---	...	---	---	...
Juvenile homes . . . . .	---	...	---	---	...
Detention facilities . . . . .	---	...	---	---	...
<b>13.14 Regular dental visits</b>					
People 35 years and over . . . . .	<sup>4</sup> 54%	...	58%	---	70%
a. Edentulous people . . . . .	<sup>4</sup> 11%	...	13%	---	50%
b. People 65 years and over . . . . .	<sup>4</sup> 42%	...	47%	---	60%
<b>13.15 Oral health care for infants with cleft lip and/or palate</b>					
Number of States with existing systems for recording and referring infants . . . . .	<sup>7</sup> 25	<sup>7,12</sup> 11	---	<sup>13</sup> 23	40
<b>13.16 Protective equipment in sporting and recreation events</b> . . . . .	---	...	---	---	100%
National Collegiate Athletic Association					
Football . . . . .	<sup>14</sup> Required	...	---	---	...
Hockey . . . . .	<sup>14</sup> Required	...	---	---	...
Lacrosse . . . . .	<sup>14</sup> Required	...	---	---	...
High school football . . . . .	<sup>14</sup> Required	...	---	---	...
Amateur boxing . . . . .	<sup>14</sup> Required	...	---	---	...
Amateur ice hockey . . . . .	<sup>14</sup> Required	...	---	---	...

<sup>1</sup>1983–84 data.

<sup>2</sup>1982–84 data.

<sup>3</sup>1985–86 data.

<sup>4</sup>1986 data.

<sup>5</sup>1987 data.

<sup>6</sup>Data have been recomputed to reflect revised intercensal population estimates; see *Health, United States, 1992*. Appendix I.

<sup>7</sup>1989 data.

<sup>8</sup>Data have been revised. Original data were estimated based on preliminary analyses; see Introduction.

<sup>9</sup>1991 data.

<sup>10</sup>1985–89 data.

<sup>11</sup>1990 data.

<sup>12</sup>Data have been revised to reflect updated methodology; see Introduction.

<sup>13</sup>1993 data.

<sup>14</sup>1988 data.

Data sources are shown in appendix table C.

# 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.

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# Priority Area 14

## Maternal and Infant Health

### Background and Data Summary

Improving the health of mothers and infants is a national challenge. Of every 1,000 babies born in the United States each year, about 9 die before their first birthday (1). Although the infant mortality rate in the United States continues to decline and has reached an all-time low, in recent years the pace of progress has slowed. Important measures of increased risk of infant death, such as incidence of low birthweight and receipt of prenatal care, show little or no recent improvement. The mortality rate for black infants is twice the rate for white infants, and there is evidence that this difference is increasing (2).

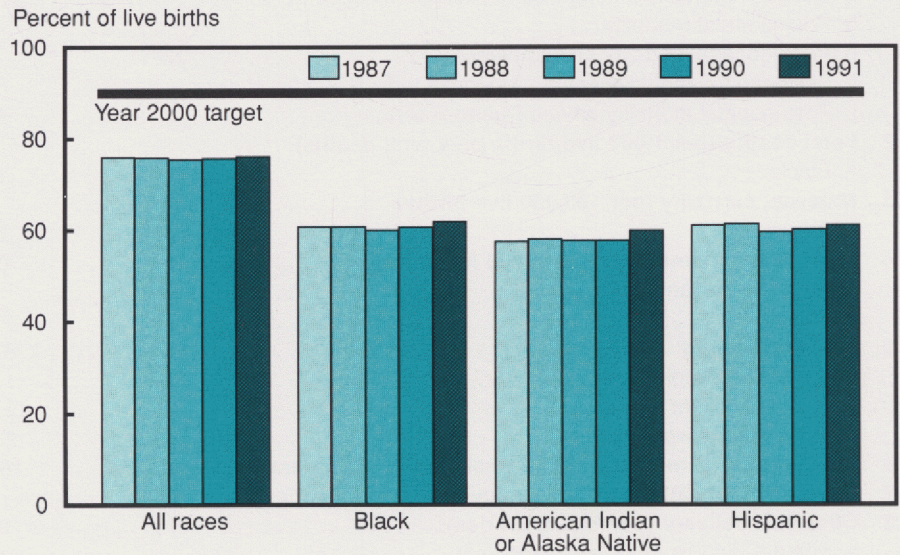
Of the 16 Maternal and Infant Health objectives for the total population, 8 moved toward the year 2000 targets (objectives 14.1, 14.2, 14.6, 14.7, 14.8, 14.10, 14.11, and 14.15); three moved away from the targets (14.3, 14.4, and 14.5). Progress for one objective (14.9) showed mixed results. Data to update progress for the remaining four objectives are not yet available. For some objectives, even though the overall objective is showing progress, the picture for minority racial subgroups is less encouraging. For example, although the overall infant, neonatal, and postneonatal mortality rates are declining (14.1, 14.1d, and 14.1g), postneonatal rates among black (14.1h) and American Indian and Alaska Native (14.1i) infants are not improving. Further reductions in infant mortality and morbidity will require a focus on strategies to modify the behaviors and lifestyles that affect birth outcomes.

### 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

**Figure 14. Proportion of mothers of live births who received prenatal care in the first trimester: United States, 1987–91, and year 2000 targets for objective 14.11**



	1987	1988	1989	1990	1991	Year 2000 target
All races . . . . .	76.0	75.9	75.5	75.8	76.2	90
Black . . . . .	60.8	60.7	60.0	60.6	61.9	90
American Indian or Alaska Native . . . . .	57.6	58.1	57.9	57.9	59.9	90
Hispanic . . . . .	61.0	61.3	59.5	60.2	61.0	90

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

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 (3,4).

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. Conversely, natality measures such as percent low birthweight (14.5) and percent receiving early care (14.11) tend to be higher for

white births and lower for births of other races.

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 have been recomputed by race of mother to allow comparable trend comparisons.

Studies indicate that infant mortality for minorities other than blacks from the annual vital statistics files have been seriously underestimated (5). Therefore, infant mortality (objective 14.1) for American Indians and Alaska Natives 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.

**Table 14. Maternal and infant health objective status**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>14.1 Infant mortality (per 1,000 live births)</b>	10.1	...	8.9	<sup>1</sup> 8.5	7
a. Blacks	17.9	<sup>2</sup> 18.8	17.6	---	11
b. American Indians/Alaska Natives	<sup>3</sup> 12.5	<sup>2,3</sup> 13.4	<sup>4</sup> 13.0	---	8.5
c. Puerto Ricans	<sup>3</sup> 12.9	...	49.9	---	8
d. Neonatal mortality	6.5	...	5.6	<sup>1</sup> 5.4	4.5
e. Neonatal mortality among blacks	11.7	<sup>2</sup> 12.3	11.2	---	7
f. Neonatal mortality among Puerto Ricans	<sup>3</sup> 8.6	...	46.7	---	5.2
g. Postneonatal mortality	3.6	...	3.4	<sup>1</sup> 3.1	2.5
h. Postneonatal mortality among blacks	6.1	<sup>2</sup> 6.4	6.3	---	4
i. Postneonatal mortality among American Indians/Alaska Natives	<sup>3</sup> 6.5	<sup>2,3</sup> 7.0	46.8	---	4
j. Postneonatal mortality among Puerto Ricans	<sup>3</sup> 4.3	...	43.2	---	2.8
<b>14.2 Fetal deaths (per 1,000 live births plus fetal deaths)</b>	7.6	...	7.3	---	5
a. Blacks	12.8	<sup>2</sup> 13.1	12.8	---	7.5
<b>14.3 Maternal mortality (per 100,000 live births)</b>	6.6	...	7.9	---	3.3
a. Blacks	14.2	<sup>2</sup> 14.9	18.1	---	5
<b>14.4 Fetal alcohol syndrome (per 1,000 live births)</b>	0.22	...	0.36	0.39	0.12
a. American Indians/Alaska Natives	4.0	...	55.2	---	2.0
b. Blacks	0.8	...	1.8	1.6	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	13.6%	---	9%
b. Very low-birthweight blacks	2.7%	<sup>2</sup> 2.8%	3.0%	---	2%
<b>14.6 Recommended minimum 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	...	18	17	15
<b>14.8 Cesarean delivery (per 100 deliveries)</b>	24.4	...	23.5	23.6	15
a. Primary (first time) cesarean delivery	17.4	...	17.1	16.8	12
b. Repeat cesarean deliveries (among women with previous cesarean delivery)	91.2	...	75.8	74.9	65
<b>14.9 Breastfeeding</b>					
During early postpartum period	<sup>8</sup> 54%	...	53%	54%	75%
a. Low-income mothers	<sup>8</sup> 32%	...	33%	35%	75%
b. Black mothers	<sup>8</sup> 25%	...	26%	28%	75%
c. Hispanic mothers	<sup>8</sup> 51%	...	52%	52%	75%
d. American Indian/Alaska Native mothers	<sup>8</sup> 47%	...	46%	53%	75%
At age 5–6 months	<sup>8</sup> 21%	...	18%	19%	50%
a. Low-income mothers	<sup>8</sup> 9%	...	9%	9%	50%
b. Black mothers	<sup>8</sup> 8%	...	7%	9%	50%
c. Hispanic mothers	<sup>8</sup> 16%	...	16%	17%	50%
d. American Indian/Alaska Native mothers	<sup>8</sup> 28%	...	22%	24%	50%
<b>14.10 Alcohol, tobacco, and drug use during pregnancy</b>					
Abstinence from					
Tobacco	<sup>9</sup> 75%	...	80%	---	90%
Alcohol	...	<sup>8</sup> 79%	---	---	Increase by 20%
Cocaine	...	<sup>8</sup> 99%	---	---	Increase by 20%
Marijuana	...	<sup>8</sup> 98%	---	---	Increase by 20%
<b>14.11 Prenatal care in the first trimester (percent of live births)</b>	76.0%	...	76.2%	---	90%
a. Blacks	61.1%	<sup>2</sup> 60.8	61.9%	---	90%
b. American Indians/Alaska Natives	60.2%	<sup>2</sup> 57.6	59.9%	---	90%
c. Hispanics	61.0%	...	61.0%	---	90%
<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%	---	---	---	...



**Table 14. Maternal and infant health objective status—Con.**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
Obstetrician/Gynecologists . . . . .	<sup>10</sup> 48%	---	---	---	...
Internists . . . . .	<sup>10</sup> 24%	---	---	---	...
Family physicians . . . . .	<sup>10</sup> 28%	---	---	---	...
<b>Counseling about family planning</b>					
Pediatricians . . . . .	<sup>10</sup> 36%	---	---	---	...
Nurse practitioners . . . . .	<sup>10</sup> 53%	---	---	---	...
Obstetrician/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 *Health, United States, 1992*, Appendix I.

<sup>3</sup>1984 data.

<sup>4</sup>1987 data.

<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; see Introduction.

<sup>8</sup>1988 data.

<sup>9</sup>1985 data.

<sup>10</sup>1992 data.

<sup>11</sup>Based on 20 States reporting.

<sup>12</sup>Based on 43 States reporting.

<sup>13</sup>Based on 9 States reporting.

Data sources are shown in appendix table C.

# 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 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 will be 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.

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# Priority Area 15 Heart Disease and Stroke

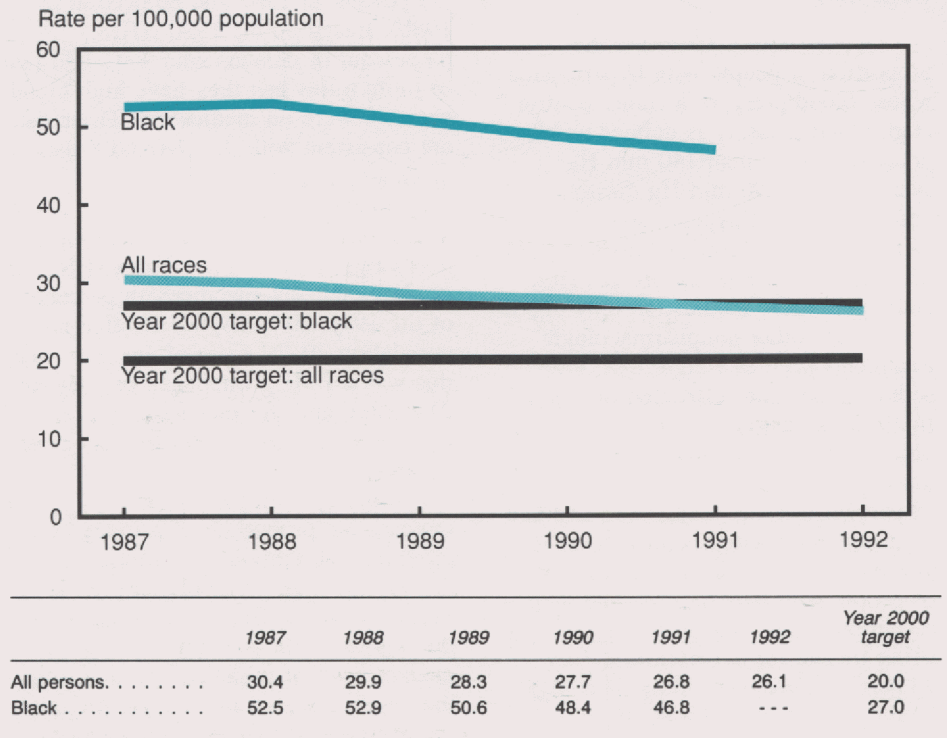
## Background and Data Summary

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, and cigarette smoking. Other important risk factors are obesity, physical inactivity, and 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 26 percent (1988–91) over the past decade (3). Overall, black persons have a higher prevalence of high blood pressure than white persons. The proportions of hypertensives who are aware of their condition, who are under treatment for their high blood pressure, and who have their blood pressure under control have all increased.

Approximately 52 million adults have high blood cholesterol requiring dietary intervention (4,5). Twenty-seven percent of adults are current cigarette smokers (see chapter 3, Tobacco).

Of the 17 objectives in the heart disease and stroke priority area, data for 14 objectives show improvements toward meeting the year 2000 targets (objectives 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) including one objective (15.7) which has been met. Mortality due to coronary heart disease (15.1) and stroke (15.2) declined from the 1987 baseline through 1991 in the population as a whole, as well as among black persons. However, mortality for both causes of death among black persons is higher and the decline in mortality over this period was not as substantial as that of the total

**Figure 15. Age-adjusted death rates for stroke: United States, 1987–92, and year 2000 targets for objective 15.2**



NOTE: 1992 data are provisional.

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

population. The 1976–80 and 1988–91 NHANES surveys show that the mean serum cholesterol levels of the population (15.6) have declined from 213 mg/dL to 205 mg/dL. These levels have been accompanied by a shift in the distribution of cholesterol levels in the population, in effect, reducing the percent of the population with high total cholesterol and increasing the percent of the population with total cholesterol levels less than 200 mg/dL. Recent data also indicate a decline in the percent of calories from total dietary fat and saturated fat (15.9, see chapter 2, Nutrition). Between 1985 and 1990 the proportion of the population who have ever had their blood pressure measured and can state whether it was normal or high increased from 94 to 97 percent. The percent who know their actual

blood pressure values (15.13) increased from 61 to 76 percent. There has been improvement in the proportion of the population who have ever had their cholesterol measured (15.14). Baseline data showed that 59 percent of the population in 1988 had ever had their cholesterol checked and in 1990 this proportion increased to 65 percent. Worksites having activities for high blood pressure and worksites having activities for nutrition education have increased between 1985 and 1992 (15.16). A 1992 baseline for worksites having activities for high blood pressure and/or nutrition education was established last year. The rate of end-stage renal disease (15.3) and the proportion of overweight people (15.10) are moving away from the target. 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 examined in the future using the National Health and Nutrition Examination Survey (NHANES III).

## 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. In 1976–80, among all people with high blood pressure (whether aware or unaware of their condition), only 11 percent were on medication and had their condition under control; 1988–91 provisional data indicate that 21 percent of people with hypertension had their condition under control. Among people being treated for hypertension, 33 percent were controlling their high blood pressure in 1976–80; the proportion has increased to 43 percent based on 1988–91 provisional data. 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.

Objective 15.5, to increase the proportion of hypertensives 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 hypertensives who are aware of their condition. In 1990 approximately 16 percent of the population reported that they had been told on two or more occasions by a doctor or health professional that they had high blood pressure, which is consistent with the NHANES data. NHIS respondents reporting high blood pressure were

asked if they were told to take blood pressure medication, diet or lose weight, cut down on salt, and exercise. In 1990 they were asked additionally if they were told to reduce alcohol consumption. In both 1985 and 1990 the percent of persons with high blood pressure who report taking any of these actions to control their condition moved closer to the target of 90 percent (79 percent in 1985 and 80 percent in 1990). Based on the 1990 NHIS, 67 percent of persons who were told two or more times that they have high blood pressure were on medication. These data are consistent with the NHANES data on treated hypertensives.

Objective 15.10 concerns overweight prevalence. The definition of overweight is 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 men, this was a BMI greater than or equal to 27.8 kilograms per meter squared; for women, it was 27.3 kilograms per meter squared.

Although objective 15.15, to increase the proportion of primary care providers who provide appropriate therapy for high blood cholesterol, is not measured in the same way as stated in the objective, the indication is that the median level of initiating diet and drug therapy has moved in the right direction. According to the Cholesterol Awareness Physicians Survey in 1986, the median level for initiating diet and drug therapy was 240–259 mg/dL and 300–319 mg/dL, respectively. Findings from the 1990 survey indicate a decline to 200–219 for diet therapy and 240–259 for drug therapy; additionally, 54 percent of physicians reported that they initiate diet therapy at these levels and 60 percent of physicians reported that they initiate drug therapy at these levels.

### Comparability of Data Sources

Overweight (objective 15.10) is being tracked with two main data sources. The major data source is the 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 earlier (6), were derived from the NHIS. These estimates were based on self-reported heights and weights and are not comparable to the actual measured data from the NHANES surveys. The interim

NHIS estimates showed a steady increase in prevalence of overweight, indicating correctly the increase in overweight prevalence between baseline and the latest updates derived from measured height and weight.

Objective 15.13 addresses blood pressure screening and whether people know if their blood pressure is normal or high. Data for the 1985 baseline and for 1990 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 can state the diastolic and systolic values of the measure. The proportion of adults 18 years and over who had their blood pressure checked within the previous 2 years and who could state whether their blood pressure was high, normal, or low was 86 percent in 1990 and 85 percent in 1991. This measure is not available for the 1985 baseline.

### Data Availability

Objective 15.8, awareness of a high blood cholesterol condition, will be measured by the NHANES III. 1988–91 data from the first 3 years of this survey will be available in 1994.

**Table 15. Heart disease and stroke objective status**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>15.1 Coronary heart disease deaths (age adjusted per 100,000)</b> . . . . .	135	<sup>1</sup> No change	118	---	100
a. Blacks (age adjusted per 100,000) . . . . .	163	<sup>1</sup> 168	156	---	115
<b>15.2 Stroke deaths (age adjusted per 100,000)</b> . . . . .	30.3	<sup>1</sup> 30.4	26.8	<sup>2</sup> 26.1	20.0
a. Blacks (age adjusted per 100,000) . . . . .	51.2	<sup>1</sup> 52.5	46.8	---	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>7</sup> 21%	---	50%
a. Males with high blood pressure . . . . .	<sup>5,6</sup> 6%	...	<sup>7</sup> 16%	---	40%
<b>15.5 Taking action to control blood pressure</b>					
People 18 years and over . . . . .	<sup>8</sup> 79%	...	<sup>4</sup> 80%	---	90%
a. White hypertensive males 18–34 years . . . . .	<sup>8</sup> 51%	...	<sup>4</sup> 54%	---	80%
b. Black hypertensive males 18–34 years . . . . .	<sup>8</sup> 63%	...	<sup>4</sup> 56%	---	80%
<b>15.6 Mean serum cholesterol level (mg/dL)</b>					
People 20–74 years . . . . .	<sup>5</sup> 213	...	<sup>9</sup> 205	---	200
Males 20–74 years . . . . .	<sup>5</sup> 211	...	<sup>9</sup> 205	---	...
Females 20–74 years . . . . .	<sup>5</sup> 215	...	<sup>9</sup> 205	---	...
<b>15.7 High blood cholesterol prevalence</b>					
People 20–74 years . . . . .	<sup>5</sup> 27%	...	<sup>9</sup> 20%	---	20%
Males 20–74 years . . . . .	<sup>5</sup> 25%	...	<sup>9</sup> 19%	---	...
Females 20–74 years . . . . .	<sup>5</sup> 29%	...	<sup>9</sup> 20%	---	...
<b>15.8 Awareness of high blood cholesterol condition</b>					
Adults with high blood cholesterol . . . . .	<sup>10</sup> 30%	...	---	---	60%
<b>15.9 Dietary fat intake among people 2 years and over</b>					
People 2 years and over					
Percent of calories from total fat . . . . .	...	<sup>5,11</sup> 36%	<sup>9</sup> 34%	---	30%
Percent of calories from saturated fat . . . . .	...	<sup>5,11</sup> 13%	<sup>9</sup> 12%	---	10%
People 20–74 years					
Percent of calories from total fat . . . . .	<sup>5</sup> 36%	...	<sup>9</sup> 34%	---	...
Percent of calories from saturated fat . . . . .	<sup>5</sup> 13%	...	<sup>9</sup> 12%	---	...
Females 20 years and over					
Percent of calories from total fat . . . . .	<sup>8,12</sup> 36%	...	<sup>9</sup> 34%	---	...
Percent of calories from saturated fat . . . . .	<sup>8,13</sup> 13%	...	<sup>9</sup> 12%	---	...
Males 20 years and over					
Percent of calories from total fat . . . . .	...	<sup>5,11</sup> 37%	<sup>9</sup> 34%	---	...
Percent of calories from saturated fat . . . . .	...	<sup>5,11</sup> 13%	<sup>9</sup> 12%	---	...
<b>15.10 Overweight prevalence</b>					
People 20–74 years . . . . .	<sup>5</sup> 26%	...	<sup>9,12</sup> 34%	---	20%
Males . . . . .	<sup>5</sup> 24%	...	<sup>9,13</sup> 32%	---	...
Females . . . . .	<sup>5</sup> 27%	...	<sup>9,14</sup> 35%	---	...
Adolescents 12–19 years . . . . .	<sup>5</sup> 15%	...	---	---	15%
a. Low-income females 20–74 years . . . . .	<sup>5</sup> 37%	...	---	---	25%
b. Black females 20–74 years . . . . .	<sup>5</sup> 44%	...	<sup>9,15</sup> 49%	---	30%
c. Hispanic females 20–74 years . . . . .	...	<sup>8,16</sup> 27%	---	---	25%
Mexican-American females . . . . .	<sup>17</sup> 39%	...	<sup>9,18</sup> 47%	---	...
Cuban females . . . . .	<sup>17</sup> 34%	...	---	---	...
Puerto Rican females . . . . .	<sup>17</sup> 37%	...	---	---	...
d. American Indians/Alaska Natives . . . . .	<sup>19</sup> 29–75%	...	<sup>16</sup> 40%	<sup>16</sup> 36%	30%
e. People with disabilities 20 years and over . . . . .	<sup>8,16</sup> 36%	...	<sup>16</sup> 36%	<sup>16</sup> 37%	25%
f. Females with high blood pressure 20–74 years . . . . .	<sup>5</sup> 50%	...	---	---	41%
g. Males with high blood pressure 20–74 years . . . . .	<sup>5</sup> 39%	...	---	---	35%
<b>15.11 Moderate physical activity</b>					
People 6 years and over . . . . .	---	...	---	---	30%
People 18–74 years					
5 or more times per week . . . . .	<sup>8</sup> 22%	<sup>8,20</sup> No change	24%	---	...
7 or more times per week . . . . .	<sup>8</sup> 12%	<sup>8,20</sup> 16%	17%	---	...

**Table 15. Heart disease and stroke objective status—Con.**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>15.12 Cigarette smoking prevalence</b>					
People 20 years and over . . . . .	29%	...	26%	27%	15%
Males . . . . .	32%	...	28%	29%	...
Females . . . . .	27%	...	24%	25%	...
a. People with high school education or less 20 years and over . . . . .	34%	...	32%	32%	20%
b. Blue-collar workers 20 years and over. . . . .	36%	...	36%	37%	20%
c. Military personnel . . . . .	<sup>10</sup> 42%	...	---	35%	20%
d. Blacks 20 years and over . . . . .	34%	...	30%	29%	18%
e. Hispanics 20 years and over. . . . .	<sup>17</sup> 33%	...	20%	21%	18%
f. American Indians/Alaska Natives . . . . .	<sup>21</sup> 42–70%	...	33%	40%	20%
g. Southeast Asian males . . . . .	<sup>19</sup> 55%	...	---	---	20%
h. Females of reproductive age (18–44 years). . . . .	29%	...	27%	28%	12%
i. Pregnant females . . . . .	<sup>8</sup> 25%	...	20%	---	10%
j. Females who use oral contraceptives . . . . .	<sup>22</sup> 36%	...	<sup>10</sup> 26%	---	10%
<b>15.13 Knowledge of blood pressure values</b>					
People 18 years and over. . . . .	<sup>8</sup> 61%	...	<sup>4</sup> 76%	---	90%
<b>15.14 Blood cholesterol checked in past 5 years</b>					
People 18 years and over. . . . .	---	...	---	---	75%
Ever checked . . . . .	<sup>10</sup> 59%	...	63%	---	...
Within past 2 years . . . . .	<sup>10</sup> 52%	...	50%	---	...
<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>10</sup> 240–259	<sup>4</sup> 200–219	---	...
Median cholesterol level when drug therapy is initiated (mg/dL). . . . .	...	<sup>10</sup> 300–319	<sup>4</sup> 240–259	---	...
<b>15.16 Worksite blood pressure/cholesterol education programs</b>					
High blood pressure and/or cholesterol . . . . .	...	<sup>23</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>24</sup> 84%	---	90%

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see *Health, United States, 1992*, Appendix I.

<sup>2</sup>Provisional data.

<sup>3</sup>Data have been revised. Original data were estimated based on preliminary analyses; see Introduction.

<sup>4</sup>1990 data.

<sup>5</sup>1976–80 data.

<sup>6</sup>People 20–74 years.

<sup>7</sup>1988–91 data for people 18 years and over.

<sup>8</sup>1985 data.

<sup>9</sup>1988–91 data.

<sup>10</sup>1988 data.

<sup>11</sup>Up to 74 years.

<sup>12</sup>33% for people 20 years and over.

<sup>13</sup>31% for people 20 years and over.

<sup>14</sup>35% for people 20 years and over.

<sup>15</sup>49% for people 20 years and over.

<sup>16</sup>Estimate derived from self-reported height and weight.

<sup>17</sup>1982–84 data.

<sup>18</sup>47% for people 20 years and over.

<sup>19</sup>1984–88 data.

<sup>20</sup>Data source has been changed and data have been revised to reflect updated methodology; see Introduction.

<sup>21</sup>1979–87 data.

<sup>22</sup>1983 data.

<sup>23</sup>1992 data.

<sup>24</sup>1987 data.

Data sources are shown in appendix table C.



# 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*.

## References

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# Priority Area 16 Cancer

## Background and Data Summary

Cancer accounts for nearly one out of every four deaths in the United States (1). Cancer is not one disease, but a constellation of more than 1,000 different diseases, each characterized by the uncontrolled growth and spread of abnormal cells. Of the 250 million Americans now living, about 75 million will eventually have cancer. While the incidence of cancer has increased in the past two decades, death rates for those under 55 have fallen. More people are surviving cancer now than several decades ago (2). Research has demonstrated that many cancers can be prevented or, if detected and treated at early stages, cured.

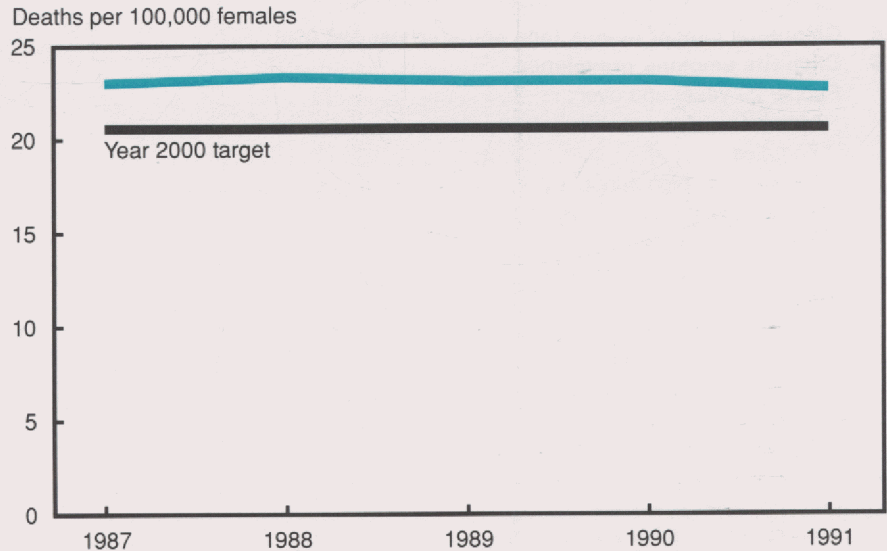
Recent data from the 1992 National Health Interview Survey (NHIS) cancer supplement are now available to assess progress for a number of Priority Area 16 objectives. Therefore, many more objectives have baseline or update data compared with last year's report. Progress toward the year 2000 targets has been made for 11 of the 16 objectives (16.1, 16.3, 16.4, 16.5, 16.6, 16.7, 16.10, 16.11, 16.13, 16.14, and 16.16). It should be noted that in many cases the actual improvement is small. 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. Provisional data for 1992, however, suggest that the lung cancer death rate may have risen again. Progress for 16.12 (Pap tests) was mixed and a new baseline was added for exposure to sun (16.9). Although several new baselines have been obtained for objective 16.8, there are presently no data available to ascertain a trend in the daily intake of vegetables, fruits, and grain products. Complete data were unavailable to update progress for objective 16.15.

### Data Issues

#### Age-Adjusted Death Rates

The death rates shown in objectives 16.1–16.5 have been age adjusted to the

**Figure 16. Age-adjusted death rates for female breast cancer: United States, 1987–91, and year 2000 targets for objective 16.3**



	1987	1988	1989	1990	1991	Year 2000 target
Females . . . . .	23.0	23.3	23.1	23.1	22.7	20.6

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

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

Comparability of data for objective 16.6 (cigarette smoking prevalence) may be affected by changes in the definition of a smoker for 1992. In addition to respondents who reported that they currently smoke, the 1992 definition of current smokers included persons who reported they did not currently smoke but reported that they smoked "some days."

Pap test (objective 16.12) data from the 1992 NHIS are for women with a uterine cervix only. The 1987 baseline

data from the NHIS include women without a uterine cervix. The result is that the 1992 figures are computed using a proportionally smaller denominator than was used in 1987, yielding somewhat higher estimates. Data from the 1991 NHIS show that 81.5 percent of all women 18 years and older have a uterine cervix (hysterectomy prevalence is 18.5 percent). For women 45 years and over, 34 percent report having had a hysterectomy.

**Table 16. Cancer objective status**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>16.1 Cancer deaths (age adjusted per 100,000)</b> . . . . .	133	<sup>1</sup> 134	135	<sup>2</sup> 133	130
<b>16.2 Lung cancer deaths (age adjusted per 100,000)</b> . . . . .	37.9	<sup>1</sup> 38.5	39.6	---	42.0
<b>16.3 Female breast cancer deaths (age adjusted per 100,000)</b> . . . . .	22.9	<sup>1</sup> 23.0	22.7	---	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	13.5	---	13.2
<b>16.6 Cigarette smoking prevalence</b>					
People 20 years and over . . . . .	29%	...	26%	27%	15%
Males . . . . .	32%	...	28%	29%	...
Females . . . . .	27%	...	24%	25%	...
a. People with high school education or less 20 years and over . . . . .	34%	...	31%	32%	20%
b. Blue-collar workers 20 years and over. . . . .	36%	...	36%	37%	20%
c. Military personnel . . . . .	<sup>3</sup> 42%	...	---	35%	20%
d. Blacks 20 years and over . . . . .	34%	...	30%	29%	18%
e. Hispanics 20 years and over . . . . .	<sup>4</sup> 33%	...	20%	21%	18%
f. American Indians/Alaska Natives . . . . .	<sup>5</sup> 42-70%	...	33%	40%	20%
g. Southeast Asian males . . . . .	<sup>6</sup> 55%	...	---	---	20%
h. Females of reproductive age (18-44 years) . . . . .	29%	...	27%	28%	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>					
People 2 years and over					
Percent of calories from total fat . . . . .	...	<sup>9,10</sup> 36%	<sup>11</sup> 34%	---	30%
Percent of calories from saturated fat . . . . .	...	<sup>9,10</sup> 13%	<sup>11</sup> 12%	---	10%
People 20-74 years					
Percent of calories from total fat . . . . .	<sup>9,10</sup> 36.3%	...	<sup>11</sup> 34%	---	...
Percent of calories from saturated fat . . . . .	<sup>9,10</sup> 13.2%	...	<sup>11</sup> 12%	---	...
Females 20 and over					
Percent of calories from total fat . . . . .	<sup>7,12</sup> 36%	...	<sup>11</sup> 34%	---	...
Percent of calories from saturated fat . . . . .	<sup>7,12</sup> 13%	...	<sup>11</sup> 12%	---	...
Males 20 years and over					
Percent of calories from total fat . . . . .	...	<sup>7,12</sup> 37%	<sup>11</sup> 35%	---	...
Percent of calories from saturated fat . . . . .	...	<sup>7,12</sup> 13%	<sup>11</sup> 12%	---	...
<b>16.8 Daily intake of vegetables, fruits, and grain products</b>					
Adults (number of servings)					
Vegetables and fruits . . . . .	...	<sup>13</sup> 4.0	---	---	5
Males					
20-39 years . . . . .	...	<sup>13</sup> 4.1	---	---	...
40-59 years . . . . .	...	<sup>13</sup> 4.3	---	---	...
60 years and over . . . . .	...	<sup>13</sup> 4.4	---	---	...
Females					
20-39 years . . . . .	...	<sup>13</sup> 3.4	---	---	...
40-59 years . . . . .	...	<sup>13</sup> 4.0	---	---	...
60 years and over . . . . .	...	<sup>13</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>14</sup> 31%	---	---	...
Use sunscreen . . . . .	...	<sup>14</sup> 28%	---	---	...
Wear protective clothing . . . . .	...	<sup>14</sup> 28%	---	---	...
<b>16.10 Tobacco, diet, and cancer screening and counseling by clinicians</b>					
Smoking patients . . . . .	<sup>15,16</sup> 52%	...	<sup>16,17</sup> 96%	---	75%
Digital rectal . . . . .	---	...	<sup>17</sup> 49%	---	...
Blood stool . . . . .	---	...	<sup>17</sup> 56%	---	...

**Table 16. Cancer objective status—Con.**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
Proctoscopic exam . . . . .	---	...	<sup>17</sup> 23%	---	...
Breast physical . . . . .	---	...	<sup>17</sup> 78%	---	...
Mammogram . . . . .	---	...	<sup>17</sup> 37%	---	...
Pap test . . . . .	---	...	<sup>17</sup> 55%	---	...
Percent of clinicians routinely providing service to 81–100% of patients					
Formulation of diet/nutrition plan					
Pediatricians . . . . .	...	<sup>14</sup> 31%	---	---	...
Nurse practitioners . . . . .	...	<sup>14</sup> 31%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>14</sup> 19%	---	---	...
Internists . . . . .	...	<sup>14</sup> 33%	---	---	...
Family physicians . . . . .	...	<sup>14</sup> 24%	---	---	...
Discussion of strategies to quit smoking					
Pediatricians . . . . .	...	<sup>14</sup> 19%	---	---	...
Nurse practitioners . . . . .	...	<sup>14</sup> 20%	---	---	...
Obstetricians/Gynecologists . . . . .	...	<sup>14</sup> 28%	---	---	...
Internists . . . . .	...	<sup>14</sup> 50%	---	---	...
Family physicians . . . . .	...	<sup>14</sup> 43%	---	---	...
<b>16.11 Breast examination and mammogram</b>					
Females 40 years and over (ever received) . . . . .	36%	...	<sup>18</sup> 59%	66%	80%
Females 50 years and over (preceding 1–2 years) . . . . .	25%	...	<sup>18</sup> 49%	51%	60%
Ever received					
a. Hispanic females 40 years and over . . . . .	20%	...	<sup>18</sup> 51%	66%	80%
b. Low-income females 40 years and over (annual family income less than \$10,000) . . . . .	22%	...	<sup>18</sup> 40%	47%	80%
c. Females 40 years and over with less than a high school education . . . . .	23%	...	<sup>18</sup> 44%	50%	80%
d. Females 70 years and over . . . . .	25%	...	<sup>18</sup> 46%	55%	80%
e. Black females 40 years and over . . . . .	28%	...	<sup>18</sup> 52%	62%	80%
Received within preceding 2 years					
a. Hispanic females 50 years and over . . . . .	18%	...	<sup>18</sup> 42%	47%	60%
b. Low-income females 50 years and over (annual family income less than \$10,000) . . . . .	15%	...	<sup>18</sup> 32%	32%	60%
c. Females 50 years and over with less than a high school education . . . . .	16%	...	<sup>18</sup> 35%	35%	60%
d. Females 70 years and over . . . . .	18%	...	<sup>18</sup> 39%	39%	60%
e. Black females 50 years and over . . . . .	19%	...	<sup>18</sup> 43%	48%	60%
<b>16.12 Pap test</b>					
Ever received . . . . .	<sup>19</sup> 88%	...	---	<sup>20</sup> 91%	95%
Received within preceding 3 years . . . . .	<sup>19</sup> 75%	...	---	<sup>20</sup> 74%	85%
Ever received					
a. Hispanic females 18 years and over . . . . .	<sup>19</sup> 75%	...	---	<sup>20</sup> 83%	95%
b. Females 70 years and over . . . . .	<sup>19</sup> 76%	...	---	<sup>20</sup> 82%	95%
c. Females 18 years and over with less than a high school education . . . . .	<sup>19</sup> 79%	...	---	<sup>20</sup> 82%	95%
d. Low-income females 18 years and over (annual family income less than \$10,000) . . . . .	<sup>19</sup> 80%	...	---	<sup>20</sup> 86%	95%
Received within preceding 3 years					
a. Hispanic females 18 years and over . . . . .	<sup>19</sup> 66%	...	---	<sup>20</sup> 74%	80%
b. Females 70 years and over . . . . .	<sup>19</sup> 44%	...	---	<sup>20</sup> 46%	70%
c. Females 18 years and over with less than a high school education . . . . .	<sup>19</sup> 58%	...	---	<sup>20</sup> 58%	75%
d. Low-income females 18 years and over (annual family income less than \$10,000) . . . . .	<sup>19</sup> 64%	...	---	<sup>20</sup> 65%	80%
<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 . . . . .	...	...	36%	---	...

**Table 16. Cancer objective status—Con.**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>16.14 Oral, skin, and digital rectal examinations</b>					
People 50 years and over (during past year) . . . . .	---	---	---	---	40%
Oral . . . . .	...	149%	---	---	...
Skin . . . . .	...	1417%	---	---	...
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>18</sup> 18–21	...	---	<sup>21</sup> 64%	80%

<sup>1</sup>Data have been recomputed to reflect revised intercensal population estimates; see *Health, United States, 1992, Appendix I.*

<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>1976–80 data.

<sup>10</sup>For persons up to 74 years.

<sup>11</sup>1988–91 data.

<sup>12</sup>Data for 19–50 years of age only.

<sup>13</sup>1989 preliminary data.

<sup>14</sup>1992 data.

<sup>15</sup>1986 data.

<sup>16</sup>Data reflect tobacco screening and counseling only.

<sup>17</sup>1989 data.

<sup>18</sup>1990 data.

<sup>19</sup>Includes women without a uterine cervix.

<sup>20</sup>Data are for women with uterine cervix only.

<sup>21</sup>1993 data.

Data sources are shown in appendix table C.



# 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.

## References

1. National Center for Health Statistics. Advance report of final mortality statistics, 1991. Monthly vital statistics report; vol 42 no 2, suppl. Hyattsville, Maryland: Public Health Service. 1993.
2. National Cancer Institute. Cancer control objectives for the nation: 1985–2000. Bethesda, Maryland: National Cancer Institute Monographs 2(1986). 1986.

# Priority Area 17

## Diabetes and Chronic Disabling Conditions

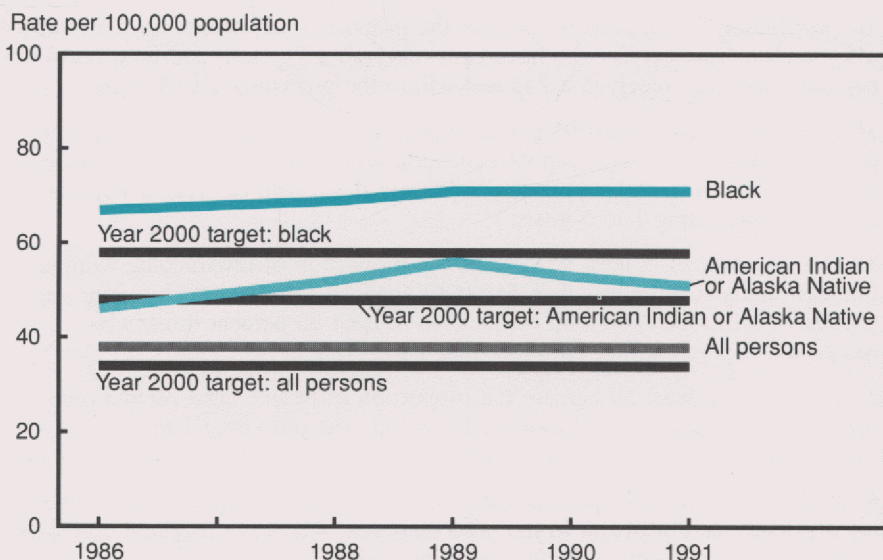
### Background and Data Summary

As the population of the United States grows older, the problems posed by chronic and disabling conditions increasingly demand the Nation's attention. Chronic conditions such as heart disease, cancer, stroke, and lung and liver disease are joined in importance by other chronic and disabling conditions, such as 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 conditions, affected about 10 percent of Americans in 1992 (1). Over 30 million people have functional limitations that interfere with their daily activities, and about 10 million have limitations that prevent them from working, attending school, or maintaining a household. The underlying impairments most often responsible for these conditions are arthritis, heart disease, back conditions, lower extremity impairments, and intervertebral disk disorders (2). For those under age 18 years the most frequent causes of activity limitation are asthma, mental retardation, mental illness, and hearing and speech impairments.

Four objectives (17.7, 17.13, 17.14, and 17.19) are moving toward the year 2000 targets. Six (17.1, 17.2, 17.4, 17.5, 17.6, 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. Data from the Primary Care Provider Survey was used to establish new baselines for two objectives (17.15 and 17.17). For the remaining four objectives two have no baseline (17.18 and 17.20) and one has no data beyond the baseline to assess progress (17.8).

**Figure 17. Age-adjusted death rates for diabetes-related causes: United States, 1987–91, and year 2000 targets for objective 17.9**



	1986	1988	1989	1990	1991	Year 2000 target
All persons . . . . .	38	38	38	38	38	34
Black . . . . .	67	69	71	71	71	58
American Indian or Alaska Native . . . . .	46	52	56	53	51	48

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

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 that prohibits all employers from discriminating against a “qualified disabled individual because of the disability in regard to job application procedures, hiring, advancement...” (3). As a result, this objective has been achieved via legislation.

### 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.

### Comparability of Data Sources

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

### Data Issues

### Years of Healthy Life

Years of Healthy Life (17.1) is discussed in the Introduction.

available from this survey, the baseline has been revised to reflect the estimates from the 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.

**Table 17. Diabetes and chronic disabling conditions objective status**

Objective	1988 baseline		1991	1992	Target 2000
	Original	Revised			
<b>17.1 Years of healthy life</b>	162.0	<sup>2,3</sup> 64.0	63.9	---	65
a. Blacks	156.0	<sup>2,3</sup> No change	56.0	---	60
b. Hispanics	162.0	<sup>2,3,4</sup> 64.8	---	---	65
c. People 65 years and over <sup>5</sup>	112.0	<sup>2,3</sup> 11.9	11.8	---	14
<b>17.2 Limitation in major activity due to chronic conditions</b>	9.4%	...	9.6%	10.3%	8%
a. Low-income people (annual family income less than \$10,000)	18.9%	...	19.6%	20.2%	15%
b. American Indians/Alaska Natives	<sup>6</sup> 13.4%	...	<sup>7</sup> 12.0%	<sup>8</sup> 12.6%	11%
c. Blacks	11.2%	...	11.0%	11.3%	9%
<b>17.3 People with self-care problems (per 1,000)</b>					
People 65 years and over	<sup>9</sup> 111	...	---	---	90
Noninstitutionalized population	<sup>10</sup> 77	...	<sup>11</sup> 77	---	...
a. People 85 years and over	<sup>9</sup> 371	...	---	---	325
Noninstitutionalized population	<sup>10</sup> 223	...	<sup>11</sup> 204	---	...
<b>17.4 Percent of people with asthma with activity limitation</b>	<sup>12</sup> 19.4%	...	<sup>7</sup> 21.8%	<sup>8</sup> 21.8%	10%
<b>17.5 Activity limitation due to chronic back conditions (per 1,000)</b>	<sup>12</sup> 21.9	...	<sup>7</sup> 25.1	<sup>8</sup> 25.3	19.0
<b>17.6 Significant hearing impairment (per 1,000)</b>	<sup>12</sup> 88.9	...	<sup>7</sup> 89.7	<sup>8</sup> 93.5	82.0
a. People 45 years and over	<sup>12</sup> 203	...	<sup>7</sup> 205.9	<sup>8</sup> 215.7	180
<b>17.7 Significant visual impairment (per 1,000)</b>	<sup>12</sup> 34.5	...	<sup>7</sup> 31.7	<sup>8</sup> 32.8	30.0
a. People 65 years and over	<sup>12</sup> 87.7	...	<sup>7</sup> 78.0	<sup>8</sup> 79.8	70.0
<b>17.8 Mental retardation (per 1,000 school-aged children)</b>	<sup>13</sup> 2.7	...	---	---	2.0
<b>17.9 Diabetes-related deaths (age adjusted per 100,000)</b>	<sup>11</sup> 38	<sup>11,14</sup> No change	38	---	34
a. Blacks (age adjusted per 100,000)	<sup>11</sup> 65	<sup>11,14</sup> 67	71	---	58
b. American Indians/Alaska Natives (age adjusted per 100,000)	<sup>11</sup> 54	<sup>11,14</sup> 46	51	---	48
<b>17.10 Diabetes-related complications</b>					
People with diabetes					
End-stage renal disease (ESRD)(per 1,000)	<sup>15</sup> 1.5	...	<sup>16</sup> 2.0	---	1.4
Blindness (per 1,000)	2.2	...	<sup>3</sup> 2.5	---	1.4
Lower extremity amputation (per 1,000)	<sup>15</sup> 8.2	...	6.2	7.8	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	<sup>17</sup> 2.2	...	<sup>16</sup> 3.1	---	2.0
b. American Indians/Alaska Natives with diabetes	<sup>17</sup> 2.1	...	<sup>12</sup> 2.2	<sup>18</sup> 4.2	1.9
Lower extremity amputations due to diabetes					
c. Blacks with diabetes (per 1,000)	<sup>19</sup> 10.2	...	11.1	8.6	6.1
<b>17.11 Diabetes incidence and prevalence</b>					
Total population (per 1,000)					
Incidence of diabetes	<sup>12</sup> 2.9	<sup>2,12</sup> No change	<sup>7</sup> 2.6	---	2.5
Prevalence of diabetes	<sup>12</sup> 28	<sup>2,12</sup> No change	<sup>7</sup> 27	<sup>8</sup> 28	25
Special populations—prevalence of diabetes (per 1,000)					
a. American Indians/Alaska Natives <sup>20</sup>	<sup>15</sup> 69	...	---	67	62
b. Puerto Ricans (ages 20–74)	<sup>21</sup> 55	...	---	---	49
c. Mexican Americans (ages 20–74)	<sup>21</sup> 54	...	---	---	49
d. Cuban Americans (ages 20–74)	<sup>21</sup> 36	...	---	---	32
e. Blacks	<sup>12</sup> 36	...	<sup>7</sup> 36	<sup>8</sup> 36	32
<b>17.12 Overweight prevalence</b>					
Adults 20 years and over	<sup>22</sup> 26%	...	<sup>23,24</sup> 34%	---	20%
Males	<sup>22</sup> 24%	...	<sup>23,25</sup> 32%	---	...
Females	<sup>22</sup> 27%	...	<sup>23,26</sup> 35%	---	...
Adolescents 12–19 years	<sup>22</sup> 15%	...	---	---	15%
a. Low-income females 20 years and over	<sup>22</sup> 37%	...	---	---	25%

**Table 17. Diabetes and chronic disabling conditions objective status—Con.**

Objective	1988 baseline		1991	1992	Target 2000
	Original	Revised			
b. Black females 20 years and over . . . . .	2244%	...	23,2748%	---	30%
c. Hispanic females 20 years and over . . . . .	...	28,2927%	---	---	25%
Mexican-American females. . . . .	2139%	...	23,3047%	---	...
Cuban females. . . . .	2134%	...	---	---	...
Puerto Rican females. . . . .	2137%	...	---	---	...
d. American Indians/Alaska Natives 20 years and over . . . . .	3129-75%	...	2940%	2936%	30%
e. People with disabilities . . . . .	28,2936%	...	2936%	2937%	25%
f. Females with high blood pressure . . . . .	2250%	...	---	---	41%
g. Males with high blood pressure. . . . .	2239%	...	---	---	35%
<b>17.13 Moderate physical activity</b>					
People 6 years and over. . . . .	---	...	---	---	30%
People 18-74 years					
5 or more times per week . . . . .	2822%	28,32No change	24%	---	...
7 or more times per week . . . . .	2812%	28,3216%	17%	---	...
<b>17.14 Patient education for people with chronic and disabling conditions</b> . . . . .	---	...	---	---	40%
a. People with diabetes. . . . .	3332%	...	39%	---	75%
	(classes)				
	3368%				
	(counseling)				
b. People with asthma. . . . .	...	349%	---	---	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 . . . . .	...	3555%	---	---	...
Nurse practitioners . . . . .	...	3549%	---	---	...
Family physicians . . . . .	...	3530%	---	---	...
Hearing testing (3 years and over)					
Pediatricians . . . . .	...	3547%	---	---	...
Nurse practitioners . . . . .	...	3546%	---	---	...
Family physicians . . . . .	...	3519%	---	---	...
Evaluation of speech					
Pediatricians . . . . .	...	3565%	---	---	...
Nurse practitioners . . . . .	...	3551%	---	---	...
Family physicians . . . . .	...	3539%	---	---	...
Evaluation of motor development					
Pediatricians . . . . .	...	3572%	---	---	...
Nurse practitioners . . . . .	...	3556%	---	---	...
Family physicians . . . . .	...	3545%	---	---	...
Treatment/referral for vision problems					
Pediatricians . . . . .	...	3567%	---	---	...
Nurse practitioners . . . . .	...	3535%	---	---	...
Family physicians . . . . .	...	3556%	---	---	...
Treatment/referral for hearing problems					
Pediatricians . . . . .	...	3566%	---	---	...
Nurse practitioners . . . . .	...	3535%	---	---	...
Family physicians . . . . .	...	3555%	---	---	...
Treatment/referral for speech problems					
Pediatricians . . . . .	...	3562%	---	---	...
Nurse practitioners . . . . .	...	3534%	---	---	...
Family physicians . . . . .	...	3548%	---	---	...
Treatment/referral for motor problems					
Pediatricians . . . . .	...	3555%	---	---	...
Nurse practitioners . . . . .	...	3533%	---	---	...
Family physicians . . . . .	...	3549%	---	---	...

**Table 17. Diabetes and chronic disabling conditions objective status—Con.**

Objective	1988 baseline		1991	1992	Target 2000
	Original	Revised			
17.16 Earlier detection of significant hearing impairment in children (average age in months)	24–30	...	27	---	12
17.17 Clinician assessment of cognitive and other functioning in older adults	---	...	---	---	60%
Percent of clinicians routinely providing service to 81–100% of patients (adults aged 65 years and over)					
Visual acuity testing					
Nurse practitioners	...	<sup>35</sup> 24%	---	---	...
Obstetricians/Gynecologists	...	<sup>35</sup> 3%	---	---	...
Internists	...	<sup>35</sup> 15%	---	---	...
Family physicians	...	<sup>35</sup> 12%	---	---	...
Hearing testing					
Nurse practitioners	...	<sup>35</sup> 16%	---	---	...
Obstetricians/Gynecologists	...	<sup>35</sup> 2%	---	---	...
Internists	...	<sup>35</sup> 9%	---	---	...
Family physicians	...	<sup>35</sup> 7%	---	---	...
Evaluation of physical mobility					
Nurse practitioners	...	<sup>35</sup> 41%	---	---	...
Obstetricians/Gynecologists	...	<sup>35</sup> 18%	---	---	...
Internists	...	<sup>35</sup> 42%	---	---	...
Family physicians	...	<sup>35</sup> 26%	---	---	...
Evaluation for dementia					
Nurse practitioners	...	<sup>35</sup> 28%	---	---	...
Obstetricians/Gynecologists	...	<sup>35</sup> 9%	---	---	...
Internists	...	<sup>35</sup> 23%	---	---	...
Family physicians	...	<sup>35</sup> 13%	---	---	...
Inquiry about urinary incontinence					
Nurse practitioners	...	<sup>35</sup> 33%	---	---	...
Obstetricians/Gynecologists	...	---	---	---	...
Internists	...	<sup>35</sup> 30%	---	---	...
Family physicians	...	<sup>35</sup> 15%	---	---	...
Treatment/referral for vision problems					
Nurse practitioners	...	<sup>35</sup> 33%	---	---	...
Obstetricians/Gynecologists	...	<sup>35</sup> 35%	---	---	...
Internists	...	<sup>35</sup> 63%	---	---	...
Family physicians	...	<sup>35</sup> 54%	---	---	...
Treatment/referral for hearing problems					
Nurse practitioners	...	<sup>35</sup> 30%	---	---	...
Obstetricians/Gynecologists	...	<sup>35</sup> 34%	---	---	...
Internists	...	<sup>35</sup> 52%	---	---	...
Family physicians	...	<sup>35</sup> 46%	---	---	...
Prescription of mobility aids/modification of living environment to improve mobility					
Nurse practitioners	...	<sup>35</sup> 18%	---	---	...
Obstetricians/Gynecologists	...	<sup>35</sup> 15%	---	---	...
Internists	...	<sup>35</sup> 31%	---	---	...
Family physicians	...	<sup>35</sup> 25%	---	---	...
Investigation of referral for treatable causes of dementia					
Nurse practitioners	...	<sup>35</sup> 30%	---	---	...
Obstetricians/Gynecologists	...	<sup>35</sup> 27%	---	---	...
Internists	...	<sup>35</sup> 54%	---	---	...
Family physicians	...	<sup>35</sup> 40%	---	---	...
Treatment/referral for urinary incontinence					
Nurse practitioners	...	<sup>35</sup> 31%	---	---	...
Obstetricians/Gynecologists	...	<sup>35</sup> 56%	---	---	...
Internists	...	<sup>35</sup> 37%	---	---	...
Family physicians	...	<sup>35</sup> 31%	---	---	...



**Table 17. Diabetes and chronic disabling conditions objective status—Con.**

Objective	1988 baseline		1991	1992	Target 2000
	Original	Revised			
17.18 Providers who counsel about estrogen replacement therapy .....	---	...	---	---	90%
17.19 Worksites with policies for hiring					
Percent of worksites with voluntary policy .....	<sup>11</sup> 37%	...	<sup>36</sup> 100%	<sup>36</sup> 100%	75%
17.20 Service systems for children with or at risk of chronic and disabling conditions (number of States) .....	---	...	---	---	50

<sup>1</sup>1980 data.

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

<sup>3</sup>1990 data.

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

<sup>5</sup>Years of healthy life remaining at age 65.

<sup>6</sup>1983–85 data.

<sup>7</sup>1989–91 data.

<sup>8</sup>1990–92 data.

<sup>9</sup>1984–85 data.

<sup>10</sup>1984 data.

<sup>11</sup>1986 data.

<sup>12</sup>1986–88 data.

<sup>13</sup>1985–88 data.

<sup>14</sup>Data have been recomputed to reflect revised intercensal population estimates; see *Health, United States, 1992*, Appendix I.

<sup>15</sup>1987 data.

<sup>16</sup>1989 data.

<sup>17</sup>1983–86 data.

<sup>18</sup>1988–90 data.

<sup>19</sup>1984–87 data.

<sup>20</sup>Data are for American Indians/Alaska Natives 15 years and over in Indian Health Service areas only.

<sup>21</sup>1982–84 data.

<sup>22</sup>1976–80 data.

<sup>23</sup>1988–91 data.

<sup>24</sup>33 percent for ages 20 years and over.

<sup>25</sup>31 percent for ages 20 years and over.

<sup>26</sup>35 percent for ages 20 years and over.

<sup>27</sup>49 percent for ages 20 years and over.

<sup>28</sup>1985 data.

<sup>29</sup>Estimate derived from self-reported height and weight.

<sup>30</sup>47 percent for ages 20 years and over.

<sup>31</sup>1984–88 data.

<sup>32</sup>Data source has been changed and data have been revised to reflect updated methodology; see Introduction.

<sup>33</sup>1983–84 data.

<sup>34</sup>1991 data.

<sup>35</sup>1992 data.

<sup>36</sup>Achieved through passage of the Americans with Disabilities Act of 1990.

Data sources are shown in appendix table C.

# 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.

## References

1. National Center for Health Statistics. Unpublished data from the National Health Interview Survey.
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.

# Priority Area 18

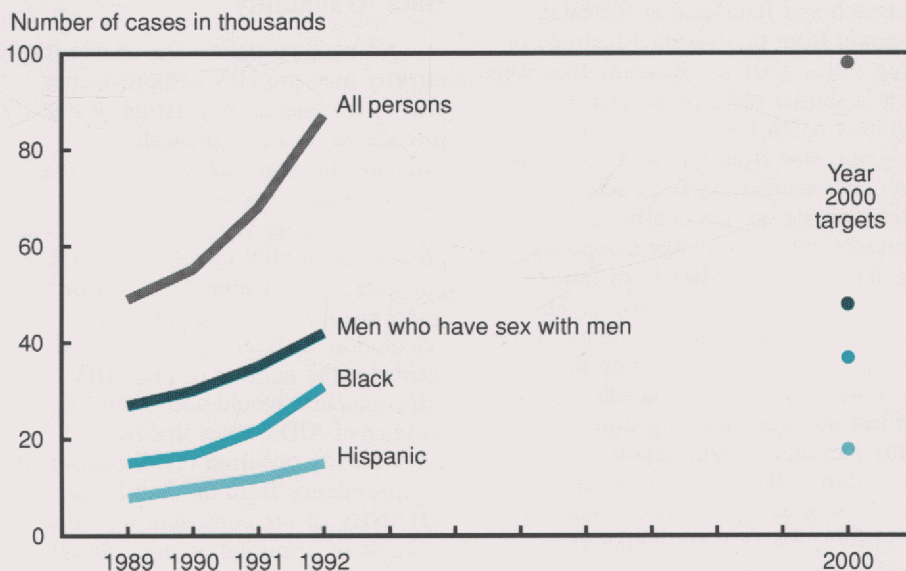
## HIV Infection

### Background and Data Summary

An estimated 1 million people in the United States are infected with the human immunodeficiency virus (HIV) (1). By the end of 1993, a total of 361,509 cases of AIDS had been reported (2). This count is based on the case definition used prior to the latest revision in January 1993. Although antimicrobial treatment extends survival, no treatment is yet available to prevent death among people with acquired immunodeficiency syndrome (AIDS). HIV and AIDS will continue to make major demands on health and social services systems for decades.

Data beyond baseline are available for 10 of the 14 objectives in this priority area. Data show improvements toward the year 2000 targets for five objectives (18.5, 18.6, 18.7, 18.8, 18.9) and a worsening situation for two objectives (18.3 and 18.12). The first 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. The estimated number of AIDS cases diagnosed in 1992 increased substantially compared with the 1989 baseline. The prevalence of HIV infection among the total population is still estimated at 400 per 100,000 people, or about 1 million HIV-infected people. Data on the seroprevalence among men who have sex with men and among intravenous drug users show the ranges of estimates from anonymous surveys conducted in sexually transmitted disease clinics and drug abuse treatment centers (see Data Issues). The Youth Risk Behavior Survey shows an increase in the proportion of sexually active teenage females whose partners used condoms at last sexual intercourse (18.4a) compared with 1988, but a decrease in the proportion of sexually active teenage males who use condoms (18.4b). OSHA regulations, published in December 1991, requiring worker protection from exposure to blood borne infections including HIV, essentially fulfill objective 18.14. Baseline data are not yet available for objective 18.11. Data beyond baseline are not available for two objectives (18.10 and 18.13).

**Figure 18. Number of diagnosed AIDS cases per year according to selected population groups: United States, 1989–92**



	1989	1990	1991	1992	Year 2000 target
(Number in thousands)					
All persons . . . . .	49	55	68	87	98
Men who have sex with men . . . . .	27	30	35	42	48
Black . . . . .	15	17	22	31	37
Hispanic . . . . .	8	10	12	15	18

SOURCE: Centers for Disease Control and Prevention, National Center for Infectious Diseases, AIDS Surveillance System.

### Data Issues

#### Definition

In January 1993 a new AIDS case definition was implemented for the AIDS Surveillance System (3). The new 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. It is expected that the expanded definition will increase cases reported in 1993 because both prevalent

and incident cases are reported. The long-term effect on the number of cases reported will be less when only incident cases are reported.

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 1991 and 1992 measures show 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. These data are not comparable to the baseline measure, which was estimated from various sources. Enumeration of injecting drug users is difficult because of the illegality of the behavior. The NHSDA will miss an

unknown proportion of injecting drug users who are homeless, institutionalized, or difficult to locate.

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 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). 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. A comparison of vital records and deaths in the AIDS Surveillance System indicates that the surveillance identifies 70 to 90 percent of AIDS cases in men 25–44 years of age. Other studies of the completeness of reporting show that greater than 80 percent of AIDS cases are reported through the surveillance system (5).

Updates for objective 18.9 (clinician counseling to prevent HIV and other sexually transmitted disease) were obtained from the Primary Care

Provider Surveys. The wide range of response rates among the provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetricians/gynecologists, 71 percent; internists, 58 percent; and pediatricians, 80 percent) should be taken into consideration when interpreting the data.

### **Data Availability**

No national data are available that directly measure HIV seroprevalence among the general population or that provide nationally representative estimates for high-risk groups such as men who have sex with men and intravenous drug users. 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 (6).

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 (7). 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 intravenous 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.

### **Comparability of Data Sources**

The 1990 Youth Risk Behavior Survey (YRBS) provides the most recent information 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 and at higher risk (8). The data

presented are for students in the 9th–12th grades; for most students, ages ranged from 14–17 years. These data are not directly comparable to the baseline, which shows condom use among young men and women aged 15–19 years.

Objective 18.3 (adolescent postponement of sexual intercourse) is discussed in priority area 5.



**Table 18. HIV objective status**

Objective	1989 baseline		1991	1992	Target 2000
	Original	Revised			
<b>18.1 AIDS (number of diagnosed cases per year)</b> . . . . .	44,000–50,000	<sup>1</sup> 49,000	68,000	87,000	98,000
a. Gay and bisexual males . . . . .	26,000–28,000	<sup>1</sup> 27,000	35,000	42,000	48,000
b. Blacks . . . . .	14,000–15,000	<sup>1</sup> 15,000	22,000	31,000	37,000
c. Hispanics . . . . .	7,000–8,000	<sup>1</sup> 8,000	12,000	15,000	18,000
<b>18.2 HIV infection (per 100,000)</b> . . . . .	400	...	---	---	800
a. Homosexual males . . . . .	2,000–42,000	...	<sup>2</sup> 17,400–60,900	<sup>3</sup> 3,900–47,400	20,000
b. Intravenous drug abusers . . . . .	30,000–40,000	...	<sup>20</sup> 49,300	<sup>3</sup> 600–52,900	40,000
c. Females giving birth to live-born infants . . . . .	150	...	---	170	100
<b>18.3 Adolescents who ever had sexual intercourse</b>					
Adolescents 15 years					
Females . . . . .	<sup>4</sup> 27%	...	36%	---	15%
Males . . . . .	<sup>4</sup> 33%	...	44%	---	15%
Adolescents 17 years					
Females . . . . .	<sup>4</sup> 50%	...	66%	---	40%
Males . . . . .	<sup>4</sup> 66%	...	68%	---	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>5</sup> 38%	---	60%
b. Sexually active males 15–19 years . . . . .	<sup>4</sup> 57%	...	<sup>5</sup> 54%	---	75%
c. Intravenous drug abusers . . . . .	34%	...	---	---	60%
<b>18.5 IV-drug abusers in treatment</b> . . . . .	11%	...	18.8%	16.7%	50%
<b>18.6 IV-drug abusers using uncontaminated drug paraphernalia</b> . . . . .	<sup>6</sup> 25–30%	<sup>1,7</sup> 30.8%	---	57%	50%
<b>18.7 Risk of transfusion-transmitted HIV infection (units of blood)</b> . . . . .	1 per 40,000–150,000	...	1 per <sup>2</sup> 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>8</sup> 10%	...	---	---	75%
a. Providers practicing in high-incidence areas . . . . .	---	...	---	---	90%
Percent of clinicians routinely providing service to 81–100% of patients Inquiry about sexual practices and STDs (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%	...
<b>18.10 Students in grades 4th–12th</b> . . . . .	66%	<sup>1</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>7</sup> 35%	---	32%	90%
<b>18.13 Clinic services for HIV and other sexually transmitted diseases</b> . . . . .	---	...	---	---	50%
Family planning clinics . . . . .	40%	...	---	---	...

**Table 18. HIV objective status—Con.**

<i>Objective</i>	<i>1989 baseline</i>		<i>1991</i>	<i>1992</i>	<i>Target 2000</i>
	<i>Original</i>	<i>Revised</i>			
<b>18.14 Regulations to protect workers from occupational exposure to HIV</b>					
Proportion of work places .....	---	<sup>9</sup> 100%	---	---	100%

<sup>1</sup>Data have been revised. Original data were estimated based on preliminary analysis; see Introduction.

<sup>2</sup>1990 data.

<sup>3</sup>1991–1992 data.

<sup>4</sup>1988 data.

<sup>5</sup>9th–12th grade students.

<sup>6</sup>1989 data.

<sup>7</sup>1991 data.

<sup>8</sup>1987 data.

<sup>9</sup>1992 data.

Data sources are shown in appendix table C.

# 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.

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1. 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.
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# Priority Area 19

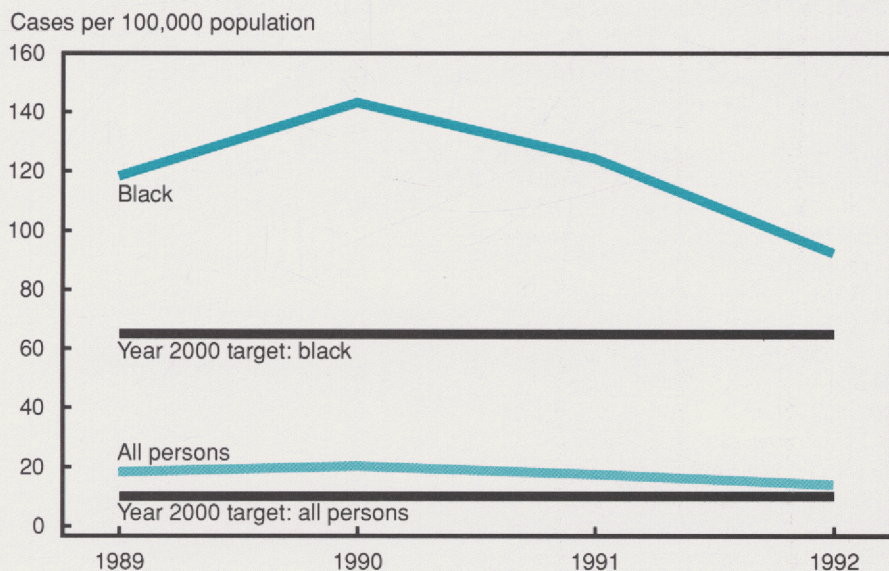
## Sexually Transmitted Diseases

### Background and Data Summary

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 aged 15–29 years (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, sterility, ectopic pregnancy, blindness, cancer associated with papilloma virus, fetal and infant deaths, birth defects, and mental retardation 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.

Progress has been made toward achieving the sexually transmitted disease objectives. Data to monitor progress are available for 11 of the 15 objectives (3). Trends are in a positive direction for seven objectives (19.1, 19.2, 19.3, 19.5, 19.6, 19.8, and 19.14). In fact, the incidence of gonorrhea in the total population (19.1) and hospitalizations for pelvic inflammatory disease (19.6) have surpassed the year 2000 targets. Although 1992 data on the rate of initial physician visits for genital herpes (19.5) is less than the 1988 baseline rate, there is no clear overall trend over this time period because of the large variability in these rates. The incidence of nongonococcal urethritis (19.2) in 1992 is lower than the 1988 baseline rate; however, the incidence increased since 1991. Although the 1992 congenital syphilis rate is higher than the revised 1989 baseline figure, the rate has decreased since 1991 (19.4). A worsening situation has been seen for two objectives. The percent of adolescents having sexual intercourse (19.9) has increased and is moving away from the year 2000 target. The number of sexually transmitted hepatitis B cases

**Figure 19. Incidence of primary and secondary syphilis cases: United States, 1988–92, and year 2000 targets for objective 19.3**



	1989	1990	1991	1992	Year 2000 target
Total	18.1	20.1	17.3	13.7	10
Black	118	143	124	92	65

SOURCE: Centers for Disease Control and Prevention, National Center for Preventive Services, Sexually Transmitted Disease Surveillance System.

in 1992 is larger than the revised 1987 baseline; however, the number of cases has declined since 1991 (19.7). The proportion of sexually active teenage females whose partners used condoms at their last sexual intercourse (19.10a) has increased compared with baseline data, showing an improvement toward the year 2000 target. However, a reverse trend was seen among teenage males (19.10b). Data subsequent to baseline measures are unavailable for four objectives (19.11, 19.12, 19.13, and 19.15). 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

#### Definition

In January 1988 CDC issued new guidelines for classifying and reporting cases of congenital syphilis. The new definition is more useful for public health surveillance; the previous definition involved physical examination, laboratory and radiographic results, and followup serological data (2). Followup information was often difficult to obtain and led to delayed and underreporting. 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 history of sexual intercourse among adolescents (19.9) is discussed in priority area 5. Condom use at last sexual intercourse (19.10) is discussed in priority area 18.

Updates for objective 19.14 (clinician counseling to prevent HIV and other sexually transmitted diseases) were obtained from the Primary Care Provider Surveys. The wide range of response rates among the provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetricians/gynecologists, 71 percent; internists, 58 percent; and pediatricians, 80 percent) should be taken into consideration when interpreting the data.

**Table 19. Sexually transmitted diseases objective status**

Objective	1988 baseline		1991	1992	Target 2000
	Original	Revised			
<b>19.1 Gonorrhea (per 100,000)</b> . . . . .	<sup>1</sup> 300	...	249	202	225
a. Blacks . . . . .	<sup>1</sup> 1,990	...	1,720	1,434	1,300
b. Adolescents 15–19 years . . . . .	<sup>1</sup> 1,123	...	991	837	750
c. Females 15–44 years . . . . .	<sup>1</sup> 501	...	419	366	290
<b>19.2 Nongonococcal urethritis (per 100,000)</b> . . . . .	215	...	170	210	170
<b>19.3 Primary and secondary syphilis (per 100,000)</b> . . . . .	<sup>1</sup> 18.1	...	17.3	13.7	10
a. Blacks . . . . .	<sup>1</sup> 118	...	124	92	65
<b>19.4 Congenital syphilis (per 100,000 live births)</b> . . . . .	<sup>1,2</sup> 100.0	44.7	107.5	94.7	50
<b>19.5 Annual number of first-time consultations<sup>3</sup></b> . . . . .					
Genital herpes . . . . .	167,000	<sup>4</sup> 163,000	285,000	139,000	142,000
Genital warts . . . . .	451,000	<sup>4</sup> 290,000	282,000	218,000	385,000
<b>19.6 Pelvic inflammatory disease incidence (per 100,000)</b> . . . . .					
Females 15–44 years . . . . .	311	...	234	213	250
<b>19.7 Sexually transmitted hepatitis B (number of cases)</b> . . . . .	<sup>5</sup> 58,300	<sup>2,5</sup> 47,593	58,393	52,800	30,500
<b>19.8 Repeat gonorrhea infection</b> . . . . .	<sup>5</sup> 20%	...	---	18%	15%
<b>19.9 Adolescents who ever had sexual intercourse</b> . . . . .					
Adolescents 15 years . . . . .					
Females . . . . .	27%	...	<sup>6</sup> 36%	---	15%
Males . . . . .	33%	...	<sup>6</sup> 44%	---	15%
Adolescents 17 years . . . . .					
Females . . . . .	50%	...	<sup>6</sup> 66%	---	40%
Males . . . . .	66%	...	<sup>6</sup> 68%	---	40%
<b>19.10 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>7</sup> 38%	---	60%
b. Sexually active males 15–19 years . . . . .	57%	...	<sup>7</sup> 54%	---	75%
c. Intravenous drug abusers . . . . .	34%	...	---	---	60%
<b>19.11 Clinic services for HIV and other sexually transmitted diseases</b> . . . . .					
Family planning clinics . . . . .	<sup>1</sup> 40%	...	---	---	50%
<b>19.12 Sexually transmitted disease education in schools</b> . . . . .	95%	...	---	---	100%
<b>19.13 Correct management of sexually transmitted disease cases by primary care providers</b> . . . . .	70%	...	---	---	90%
<b>19.14 Clinician counseling to prevent HIV and other sexually transmitted diseases</b> . . . . .	<sup>5</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%	...
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; see Introduction.

<sup>3</sup>As measured by first-time visits to physicians' offices.

<sup>4</sup>Data have been revised to reflect updated methodology; see Introduction.

<sup>5</sup>1987 data.

<sup>6</sup>Data were previously reported by high school grade; current data are by age.

<sup>7</sup>9th–12th grade students.

Data sources are shown in appendix table C.



# 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.

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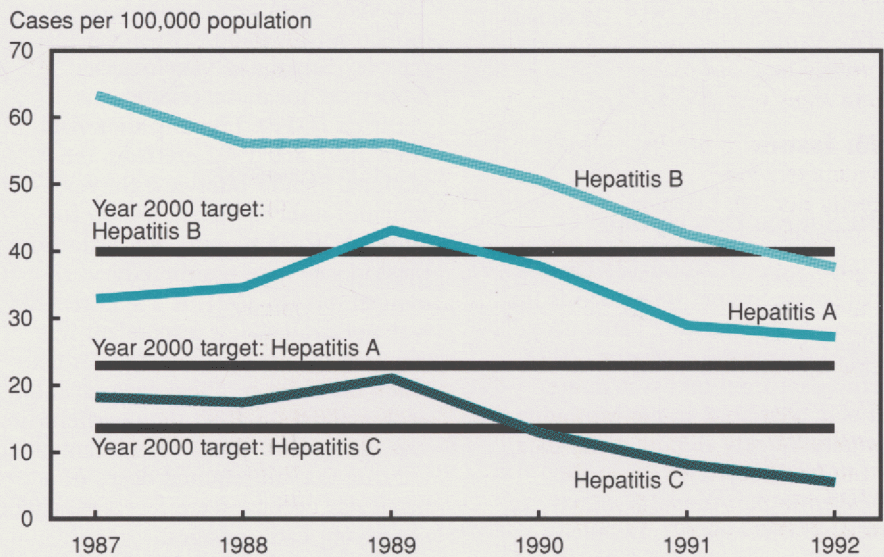
# Priority Area 20 Immunization and Infectious Diseases

## Background and Data Summary

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.

Recent data indicate mixed results regarding trends toward achieving the year 2000 objectives in the immunization and infectious diseases priority area. For 3 of the 19 objectives (20.3, 20.11, and 20.13) there is progress toward achieving the year 2000 targets. This includes an overall reduction in the incidence of viral hepatitis (20.3). The targets for hepatitis B and C have been surpassed. Among the special population targets for hepatitis B, a dramatic reduction in the number of cases has occurred among intravenous drug users and men who have sex with men, surpassing the

**Figure 20. Incidence of viral hepatitis cases: United States, 1987-92, and year 2000 targets for objective 20.3**



	1987	1988	1989	1990	1991	1992	Year 2000 target
Hepatitis B(HBV) . . . . .	63.5	56.2	56.2	50.6	42.6	37.7	40.0
Hepatitis A . . . . .	33.0	34.8	43.3	37.9	29.0	27.2	23.0
Hepatitis C . . . . .	18.3	17.5	21.1	13.1	8.3	5.6	13.7

SOURCE: Centers for Disease Control and Prevention, National Center for Infectious Diseases, Sentinel Counties Hepatitis Investigation and Viral Hepatitis Surveillance System.

numbers targeted for the year 2000. However, hepatitis B cases have increased among heterosexually active people and men who have sex with men. Improvements have occurred for immunization levels among various populations targeted in objective 20.11. Although baseline data on the basic immunization series among children are not directly comparable with 1991 and 1992 updates, the results indicate improvements toward the year 2000 targets. Vaccination levels for pneumococcal pneumonia and influenza among people 65 years and over and hepatitis B among occupationally exposed workers have increased.

Five objectives (20.2, 20.4, 20.9, 20.12, and 20.18) are moving away from the target. These include increased morbidity from various infectious

diseases, including epidemic-related pneumonia and influenza (20.2), tuberculosis (20.4), and middle ear infections among children (20.9). Mixed results are shown for four other objectives (20.1, 20.6, 20.10, and 20.15). Cases of measles, rubella, and mumps have decreased since baseline showing improvements toward meeting the year 2000 targets (20.1). However, cases of other vaccine-preventable diseases, particularly pertussis, have increased. Hepatitis A reported among international travelers has declined, while malaria and typhoid cases have increased (20.6). Restricted activity related to pneumonia decreased among children under 5 years old but increased among those 65 years and older (20.10). In 1992, a larger proportion of conventional insurance plans and

preferred provider organization plans provided coverage for immunizations compared with the 1989 baseline, while a somewhat smaller percentage of health maintenance organization plans provided coverage (20.15). New data are available to establish baseline measures for two objectives (20.14 and 20.19). Data are not yet available to establish baseline measures for objective 20.17 or to provide measures after baseline for four objectives (20.5, 20.7, 20.8, and 20.16).

## Data Issues

### 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 (2). 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.

### Definition

Epidemic-related pneumonia and influenza deaths are defined as those that are above the normal yearly fluctuations of mortality. 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 (3). Epidemic-related deaths are defined as those that exceed the predicted number during epidemic periods based on the model.

## 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 from 1991 and 1992 are from the National Health Interview Survey. Immunization levels are shown for children 19–35 months old. Data from these 2 years are not directly comparable. In 1991, if a shot record was not available, a respondent was required to specify exact ages or dates when the child received each dose for each antigen. In 1992 the questionnaire was changed so that a respondent could indicate that all required doses of a particular vaccine were received without specifying dates or ages.

The baseline for objective 20.14, provision of immunizations by clinicians, was obtained from the Primary Care Provider Surveys. The wide range of response rates among the provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetrician/gynecologists, 71 percent; internists, 58 percent; and pediatricians, 80 percent) should be taken into consideration when interpreting the data.

**Table 20. Immunization and infectious diseases objective status**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>20.1 Vaccine-preventable diseases (number of cases)</b>					
Diphtheria among people 25 years and under . . . . .	11	...	2	3	0
Tetanus among people 25 years and under . . . . .	13	...	4	7	0
Polio (wild-type virus) . . . . .	10	...	0	0	0
Measles . . . . .	<sup>1</sup> 3,058	...	9,411	2,237	0
Rubella . . . . .	<sup>1</sup> 225	...	1,401	160	0
Congenital Rubella Syndrome . . . . .	16	...	47	11	0
Mumps . . . . .	<sup>1</sup> 4,866	...	4,264	2,572	500
Pertussis . . . . .	<sup>1</sup> 3,450	...	2,719	4,083	1,000
<b>20.2 Epidemic-related pneumonia and influenza deaths among older adults (per 100,000)</b> . . . . .	<sup>2</sup> 9.1	<sup>2,3</sup> 19.9	<sup>4</sup> 14.6	<sup>5</sup> 23.1	7.3
<b>20.3 Viral hepatitis cases (per 100,000)</b>					
Hepatitis B (HBV) . . . . .	63.5	...	42.6	37.7	40.0
Hepatitis A . . . . .	31.0	<sup>6</sup> 33.0	29.0	27.2	23.0
Hepatitis C . . . . .	18.3	...	8.3	5.6	13.7
HBV cases (number of cases)					
a. Intravenous drug abusers . . . . .	30,000	<sup>6</sup> 44,348	12,666	10,576	22,500
b. Heterosexually active people . . . . .	33,000	<sup>6</sup> 33,995	43,795	46,152	22,000
c. Homosexual males . . . . .	25,300	<sup>6</sup> 13,598	14,598	6,730	8,500
d. Children of Asians/Pacific Islanders . . . . .	8,900	<sup>6</sup> 10,817	7,514	6,730	1,800
e. Occupationally exposed workers . . . . .	6,200	<sup>6</sup> 3,090	2,576	1,923	1,250
f. Infants (new carriers) . . . . .	3,500	<sup>6</sup> 3,863	2,235	2,464	550
g. Alaska Natives . . . . .	15	...	15	15	1
<b>20.4 Tuberculosis (per 100,000)</b> . . . . .	19.1	...	10.4	10.5	3.5
a. Asians/Pacific Islanders . . . . .	<sup>1</sup> 36.3	...	41.8	46.6	15.0
b. Blacks . . . . .	<sup>1</sup> 28.3	...	31.9	31.7	10.0
c. Hispanics . . . . .	<sup>1</sup> 18.3	...	21.4	22.4	5.0
d. American Indians/Alaska Natives . . . . .	<sup>1</sup> 18.1	...	16.3	16.3	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>7</sup> 6.9	---	---	6.2
Surgical/Medical-Surgical ICUs . . . . .	...	<sup>7</sup> 5.3	---	---	4.8
Pediatric ICUs . . . . .	...	<sup>7</sup> 11.4	---	---	10.3
Urinary tract infections					
Medical/Coronary ICUs . . . . .	...	<sup>7</sup> 10.7	---	---	9.6
Surgical/Medical-Surgical ICUs . . . . .	...	<sup>7</sup> 7.6	---	---	6.8
Pediatric ICUs . . . . .	...	<sup>7</sup> 5.8	---	---	5.2
Pneumonia					
Medical/Coronary ICUs . . . . .	...	<sup>7</sup> 12.8	---	---	11.5
Surgical/Medical-Surgical ICUs . . . . .	...	<sup>7</sup> 17.6	---	---	15.8
Pediatric ICUs . . . . .	...	<sup>7</sup> 4.7	---	---	4.2
Surgical wound infection rates (per 100 operations)					
Low-risk patients . . . . .	...	<sup>7</sup> 1.1	---	---	1.0
Medium-low-risk patients . . . . .	...	<sup>7</sup> 3.2	---	---	2.9
Medium-high-risk patients . . . . .	...	<sup>7</sup> 6.3	---	---	5.7
High-risk patients . . . . .	...	<sup>7</sup> 14.4	---	---	13.0
<b>20.6 Illness among international travelers (number of cases)</b>					
Typhoid fever . . . . .	280	...	351	---	140
Hepatitis A . . . . .	1,280	<sup>6</sup> 4,475	3,730	3,814	640
Malaria . . . . .	2,000	<sup>6</sup> 932	1,021	---	1,000
<b>20.7 Bacterial meningitis (per 100,000)</b> . . . . .	<sup>8</sup> 6.3	<sup>6,8</sup> 6.5	---	---	4.7
a. Alaska Natives . . . . .	33	...	17	---	8
<b>20.8 Diarrhea among children in child care centers</b>					
Children 0-6 years . . . . .	...	<sup>9</sup> 32%	---	---	24%
Children 0-3 years . . . . .	...	<sup>9</sup> 38%	---	---	28%

**Table 20. Immunization and infectious diseases objective status—Con.**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
<b>20.9 Ear infections among children 4 years and under</b> (restricted activity days per 100 children) . . . . .	131	<sup>3</sup> 135.4	155.7	155.2	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	78.5	63.5	38.0
Children 4 years and under . . . . .	27.0	<sup>3</sup> 29.4	24.1	19.4	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>12,13</sup> 69%	<sup>12,13</sup> 83%	...
Polio . . . . .	---	...	<sup>12,13</sup> 53%	<sup>12,13</sup> 72%	...
Measles-containing . . . . .	---	...	<sup>13</sup> 82%	<sup>13</sup> 83%	...
Haemophilus influenzae B . . . . .	---	...	<sup>13</sup> 58%	<sup>13</sup> 67%	...
Children in licensed child care facilities . . . . .	94%	<sup>3,14</sup> 94–95%	<sup>14</sup> 94–96%	---	95%
Children in kindergarten through post-secondary education institutions . . . . .	97%	<sup>3,14</sup> 97–98%	<sup>14</sup> 96–98%	---	95%
Pneumococcal pneumonia and influenza immunizations					
Institutionalized chronically ill people or older people . . . . .	---	...	---	---	80%
Noninstitutionalized high-risk population . . . . .	<sup>10</sup> 10–20%	<sup>3,15</sup> 14–30%	<sup>16</sup> 16%	---	60%
Hepatitis B immunizations					
Infants of antigen-positive mothers . . . . .	...	<sup>9</sup> 40%	---	---	90%
Occupationally exposed workers . . . . .	...	<sup>17</sup> 37%	---	50%	90%
IV-drug users in drug treatment programs . . . . .	---	...	---	---	50%
Homosexual males . . . . .	---	...	---	---	50%
<b>20.12 Postexposure rabies treatments (number)</b> . . . . .	18,000	...	18,800	24,700	9,000
<b>20.13 Immunization laws (number of States)</b> . . . . .	<sup>18,19</sup> 10	<sup>3,17</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%	---	---	...

**Table 20. Immunization and infectious diseases objective status—Con**

Objective	1987 baseline		1991	1992	Target 2000
	Original	Revised			
Family physicians . . . . .	...	<sup>20</sup> 31%	---	---	...
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>17</sup> 45%	...	---	53%	100%
Preferred Provider Organization plans . . . . .	<sup>17</sup> 62%	...	---	65%	100%
Health Maintenance Organization plans . . . . .	<sup>17</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%	...	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 though 1986–87 influenza season.

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

<sup>4</sup>1986–87 influenza season through 1988–89 influenza season.

<sup>5</sup>1987–88 influenza season through 1989–90 influenza season.

<sup>6</sup>Data have been revised. Original data were estimated based on preliminary analysis; see Introduction.

<sup>7</sup>1986–90 data.

<sup>8</sup>1986 data.

<sup>9</sup>1991 data.

<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>1991 and 1992 data on immunization levels among children 19–35 months are not comparable. Changes between 1991 and 1992 are primarily the result of a redesign of the 1992 National Health Interview Survey vaccination section.

<sup>14</sup>Range of antigen-specific immunization levels.

<sup>15</sup>1989 data; among people 65 years and over, 14 percent received pneumococcal vaccine and 30 percent received influenza vaccine.

<sup>16</sup>Proportion of people 65 years and over who received both pneumococcal and influenza vaccines; 21 percent received pneumococcal vaccine and 42 percent received influenza vaccine.

<sup>17</sup>1989 data.

<sup>18</sup>1990 data.

<sup>19</sup>Includes the District of Columbia.

<sup>20</sup>1992 data.

<sup>21</sup>1993 data.

Data sources are shown in appendix table C.

# 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.

## **References**

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3. 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.

# Priority Area 21 Clinical Preventive Services

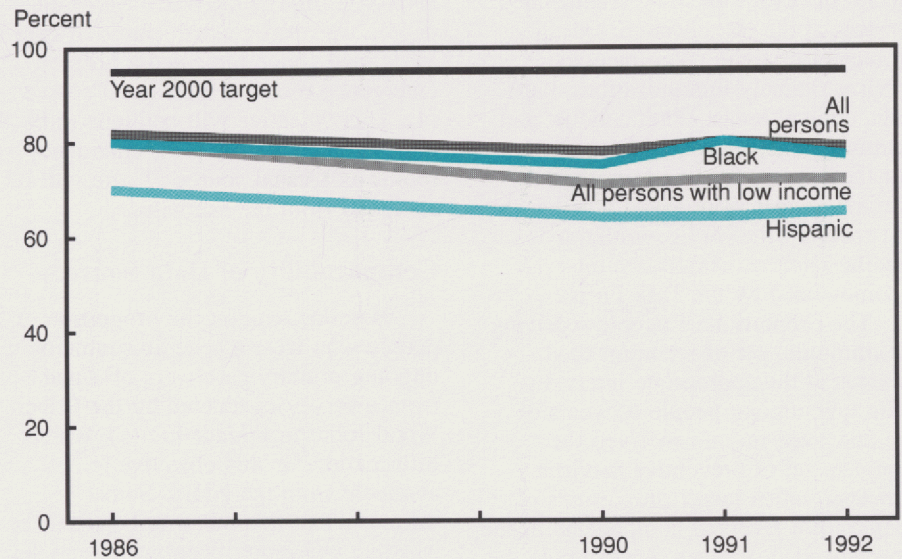
## Background and Data Summary

Clinical preventive services are those disease prevention and health promotion services—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 appointed by the U.S. Public Health Service, has reviewed the full range of scientific literature on clinical preventive services and developed scientifically sound recommendations for specific services based on age, gender, 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 are available for four objectives (21.1, 21.3, 21.4, and 21.8) to assess trends toward meeting the eight Clinical Preventive Services objectives. Data for objective 21.1 show movement away from the targets. Data from the 1992 National Health Interview Survey (NHIS) on the proportion of people who have a specific source of ongoing primary care show a slight decline from the 1986 baseline for the population as a whole and for blacks, Hispanics, and people with low incomes (21.3). Information on degrees awarded to minorities in the health professions show improvements toward meeting the year 2000 target (21.8). Data beyond previously published baseline figures are not available at this time for objectives 21.2, 21.5, and 21.7. Data from the 1992 Primary Care Provider Surveys establish baseline information for objective 21.6.

**Figure 21. Adults with a regular source of primary care: United States, 1986–91, and year 2000 targets for objective 21.3**



	1986	1990	1991	1992	Year 2000 target
All persons 18 years and over . . . .	82	78	80	79	95
Hispanic . . . . .	70	64	64	65	95
Black . . . . .	80	75	80	77	95
Low-income persons 18 years and over . . . . .	80	71	72	72	95

NOTE: Low income is defined as below the poverty threshold.

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

## Data Issues

### Years of Healthy Life

See the Introduction for a discussion of years of healthy life.

### Definition

Receipt of all of the screening and immunization services and at least one of the counseling services, at the appropriate interval, and as recommended by the U.S. Preventive Services Task Force is considered in objective 21.2. The recommendations vary by age, gender, 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 were included in the Health Promotion and Disease Prevention Supplement of the 1991 NHIS and were used to establish a baseline for this objective. The baseline has been revised due to updated methodology since publication in the *Healthy People 2000 Review, 1992* (2). The supplement provides information on all of the recommended immunizations and screening components. Recommendations for high-risk groups are not addressed. The NHIS supplement did not provide detailed information on receipt of recommended

counseling services. For the purpose of obtaining a measure for this objective, if a person responded that he or she had been asked about at least one behavior that indicates the need for counseling, this was used as an indicator that the person had received at least one counseling service. Information was obtained on 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 gender were asked whether they had received the service within a specific interval, usually the interval recommended by the Task Force.

The proportion of people receiving the minimum set of recommended services at the appropriate interval is quite low; among people 65 years of age and over, no one received the complete set of preventive services. However, much larger proportions of people have received components of the recommended services, for example the history, physical examination, laboratory diagnostic procedures, and immunizations. 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 be received at the last regular checkup as specified in some of the NHIS questions. Also, additional preventive services are recommended for people 65 years and over, which decreases the likelihood of people in this age group receiving the complete set of services.

The proportion of the U.S. population under 65 years of age that does not have health care coverage—neither private insurance, Medicare, Medicaid, nor 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,

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).

In 1990 people who indicated emergency rooms as the usual place they went if they were sick or needed advice about their health were included as having a usual source of care, whereas they were not included in 1991 and 1992. In 1990, 0.6 percent of all people who had a usual source of care as defined above indicated a hospital emergency room as their usual source (4). This objective will continue to be monitored with the NHIS; emergency rooms as a usual source of care will be excluded from the estimates.

### **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 (5). Recent information for this objective is available from the NHIS. Some differences in this measure between the baseline and more recent years may be accounted for by differences in survey methods.

Data on the proportion of people under 65 years of age who do not have health care coverage are from the NHIS. The 1989 baseline data and 1990 update are not directly comparable because of questionnaire changes between these 2 years.

Baseline data for objective 21.6, provision of recommended services by primary care providers, were established from the Primary Care Provider Surveys. The wide range of response rates from the different provider groups (family physicians, 50 percent; nurse practitioners, 70 percent; obstetricians/gynecologists, 71 percent; and internists, 58 percent) dictate caution in interpreting the data.

**Table 21. Clinical preventive services objective status**

Objective	Baseline		1991	1992	Target 2000
	Original	Revised			
<b>21.1 Years of healthy life</b>	<sup>1</sup> 62.0	<sup>2,3</sup> 64.0	63.9	---	65
a. Blacks	<sup>1</sup> 56.0	<sup>2,3</sup> No change	56.0	---	60
b. Hispanics	<sup>1</sup> 62.0	<sup>2,3,4</sup> 64.8	---	---	65
c. People 65 years and over <sup>5</sup>	<sup>1</sup> 12.0	<sup>2,3</sup> 11.9	11.8	---	14
<b>21.2 Receipt of recommended service</b>		<sup>6,7</sup> 13%	---	---	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>6</sup> 12%	---	---	40%
e. People 40–64 years		<sup>6</sup> 18%	---	---	40%
f. People 65 years and over		<sup>6</sup> 0%	---	---	40%
g. Low-income people		<sup>6,7</sup> 8%	---	---	50%
h. Blacks		<sup>6,7</sup> 13%	---	---	50%
i. Hispanics		<sup>6,7</sup> 13%	---	---	50%
j. Asians/Pacific Islanders		<sup>6,7</sup> 12%	---	---	50%
k. American Indians/Alaska Natives		<sup>6,7</sup> 14%	---	---	70%
l. People with disabilities		<sup>6,7</sup> 12%	---	---	80%
<b>21.3 Access to primary care (Percent with source of care)</b>	<sup>8</sup> 82%	...	80%	79%	95%
a. Hispanics	<sup>8</sup> 70%	...	64%	65%	95%
b. Blacks	<sup>8</sup> 80%	...	80%	77%	95%
c. Low-income people	<sup>8</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>9</sup> 16%	<sup>2</sup> 17%	---	...
<b>21.5 Clinical preventive services from publicly funded programs (proportion of eligible people)</b>	---	...	---	---	90%
Federal programs					
Screening		<sup>10</sup> 10–100%	---	---	...
Counseling		<sup>10</sup> 40–100%	---	---	...
Immunizations		<sup>10</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>11</sup> 78%	---	---	...
Nurse practitioners		<sup>11</sup> 77%	---	---	...
Family physicians		<sup>11</sup> 52%	---	---	...
Eye exam (for strabismus and amblyopia)					
Pediatricians		<sup>11</sup> 64%	---	---	...
Nurse practitioners		<sup>11</sup> 67%	---	---	...
Family physicians		<sup>11</sup> 53%	---	---	...
Blood pressure					
Pediatricians		<sup>11</sup> 78%	---	---	...
Nurse practitioners		<sup>11</sup> 71%	---	---	...
Family physicians		<sup>11</sup> 42%	---	---	...
Height and weight					
Pediatricians		<sup>11</sup> 96%	---	---	...
Nurse practitioners		<sup>11</sup> 88%	---	---	...
Family physicians		<sup>11</sup> 89%	---	---	...
DTP vaccination					
Pediatricians		<sup>11</sup> 86%	---	---	...
Nurse practitioners		<sup>11</sup> 76%	---	---	...

**Table 21. Clinical preventive services objective status—Con.**

Objective	Baseline		1991	1992	Target 2000
	Original	Revised			
Family physicians	...	1189%	---	---	...
Oral polio vaccination					
Pediatricians	...	1187%	---	---	...
Nurse practitioners	...	1176%	---	---	...
Family physicians	...	1189%	---	---	...
Tetanus-diphtheria booster					
Pediatricians	...	1179%	---	---	...
Nurse practitioners	...	1171%	---	---	...
Family physicians	...	1170%	---	---	...
Hib vaccination					
Pediatricians	...	1185%	---	---	...
Nurse practitioners	...	1168%	---	---	...
Family physicians	...	1174%	---	---	...
(adults)					
Tetanus-diphtheria booster (18 years and over)					
Nurse practitioners	...	1138%	---	---	...
Obstetricians/Gynecologists	...	114%	---	---	...
Internists	...	1129%	---	---	...
Family physicians	...	1128%	---	---	...
Influenza vaccination (65 years and over)					
Nurse practitioners	...	1142%	---	---	...
Obstetricians/Gynecologists	...	116%	---	---	...
Internists	...	1149%	---	---	...
Family physicians	...	1131%	---	---	...
Pneumococcal vaccination (65 years and over)					
Nurse practitioners	...	1133%	---	---	...
Obstetricians/Gynecologists	...	115%	---	---	...
Internists	...	1140%	---	---	...
Family physicians	...	1125%	---	---	...
Blood pressure					
Nurse practitioners	...	1182%	---	---	...
Obstetricians/Gynecologists	...	1188%	---	---	...
Internists	...	1192%	---	---	...
Family physicians	...	1189%	---	---	...
Cholesterol level					
Nurse practitioners	...	1145%	---	---	...
Obstetricians/Gynecologists	...	1136%	---	---	...
Internists	...	1180%	---	---	...
Family physicians	...	1161%	---	---	...
Breast exam (by clinician)					
Nurse practitioners	...	1178%	---	---	...
Obstetricians/Gynecologists	...	1192%	---	---	...
Internists	...	1176%	---	---	...
Family physicians	...	1162%	---	---	...
Pap smear					
Nurse practitioners	...	1177%	---	---	...
Obstetricians/Gynecologists	...	1195%	---	---	...
Internists	...	1167%	---	---	...
Family physicians	...	1162%	---	---	...
Mammogram					
Nurse practitioners	...	1163%	---	---	...
Obstetricians/Gynecologists	...	1185%	---	---	...
Internists	...	1167%	---	---	...
Family physicians	...	1153%	---	---	...
<b>21.7 Local health department assurance of access to essential clinical preventive service</b>					
Proportion of people served	---	...	---	---	90%

**Table 21. Clinical preventive services objective status—Con.**

Objective	Baseline		1991	1992	Target 2000
	Original	Revised			
Proportion of local health departments providing:					
Health education . . . . .	...	<sup>12</sup> 74%	---	---	...
Child health . . . . .	...	<sup>12</sup> 84%	---	---	...
Immunizations . . . . .	...	<sup>12</sup> 92%	---	---	...
Prenatal care . . . . .	...	<sup>12</sup> 59%	---	---	...
Primary care . . . . .	...	<sup>12</sup> 22%	---	---	...
<b>21.8 Racial/ethnic minority representation in the health professions</b>					
Degrees awarded to:					
Blacks . . . . .	<sup>13</sup> 5.0%	...	<sup>14</sup> 5.7%	<sup>15</sup> 5.7%	8.0%
Hispanics . . . . .	<sup>13</sup> 3.0%	...	<sup>14</sup> 4.3%	<sup>15</sup> 4.8%	6.4%
American Indians/Alaska Natives . . . . .	<sup>13</sup> 0.3%	...	<sup>14</sup> 0.4%	<sup>15</sup> 0.5%	0.6%

<sup>1</sup>1980 data.

<sup>2</sup>1990 data.

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

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

<sup>5</sup>Years of healthy life remaining at age 65.

<sup>6</sup>1991 data.

<sup>7</sup>Among people 19 years and over.

<sup>8</sup>1986 data.

<sup>9</sup>1989 data.

<sup>10</sup>1991–92 data.

<sup>11</sup>1992 data.

<sup>12</sup>1990 data.

<sup>13</sup>1985–86 data.

<sup>14</sup>Academic year 1990–91.

<sup>15</sup>Academic year 1991–92.

Data sources are shown in appendix table C.

# 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.

## 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.
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## Priority Area 22 Surveillance and Data Systems

### Background and Data Summary

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 identified this assessment activity as one of the core functions of public health (1).

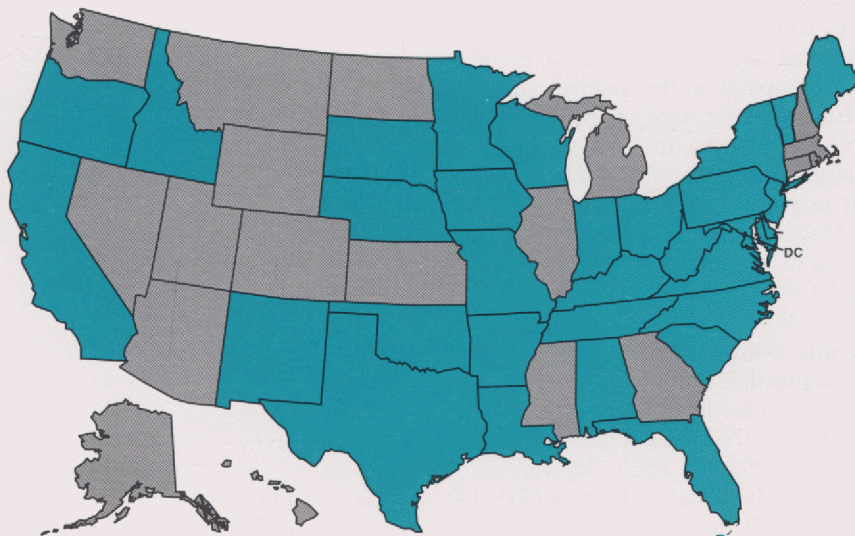
Surveillance is critical in all health agencies: Federal, State, and local. State and local data are needed to assess health needs and to implement and evaluate community health programs. Achievement of the year 2000 objectives depends in part on our ability to monitor and compare progress toward the objectives at all levels of government.

We must also be able to measure the health status of special populations. Morbidity, mortality, health behaviors, and access to and use of health services vary markedly by age, race, gender, and socioeconomic status. Therefore, many of the objectives throughout *Healthy People 2000* are targeted toward racial and ethnic minorities, elderly people, and people with chronic disabilities.

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.

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 published in October 1992 (3). A trend of the national data for the Health Status Indicators is shown in appendix table D. Appendix table E presents the indicators for the major racial/ethnic groups. The

Figure 22. States with complete year 2000 plans: United States, 1993



	1990	1992	Year 2000 target
Objectives with sources . . . . .	77%	99%	100%

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

achievement of the remainder of this objective is being measured by tracking the use of the indicators by State and local health departments.

Work is continuing on the other six objectives in priority area 22. Objective 22.2 is close to being achieved. The Centers for Disease Control and Prevention (CDC) has expanded its role in supporting State assessment activities related to the year 2000 objectives. In 1993, 31 States and the District of Columbia had adopted *Healthy People 2000* plans (see figure 22). As this *Healthy People 2000* Review demonstrates, the Department of Health and Human Services is committed to tracking the course of each priority area.

Procedures for collecting comparable data (22.3) continue to be developed. Comparable procedures were available at baseline for tracking objectives monitored with vital statistics data. In 1992, comparable procedures

for monitoring population-based nutrition objectives were established.

Steps are being taken to develop and implement a national process to identify significant gaps in the Nation's disease prevention and health promotion data (22.4). 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 hospital 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.

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 Survey System, and hospital discharge system data. 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, 23 of the 27 target 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 currently available for two data systems. The National Electronic Telecommunications System for Surveillance (NETSS) is present in all States. In 1993, the Public Health Laboratory Information System (PHLIS) became available in 44 States.

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 within 2 years of data collection. As of February 1994, data released within 1 year of data collection had been obtained for 55 percent of the objectives; an additional 16 percent of the objectives had data obtained within 2 years of collection.

**Table 22. Surveillance and data systems objective status**

Objective	1987 baseline			1992	Target 2000
	Original	Revised	1991		
<b>22.1 Health status indicators</b> . . . . .	---	...	---	---	...
Develop . . . . .	None selected	...	Indicators selected	---	...
Establish use (number of States) . . . . .	...	...	---	---	40
Monitoring some indicators . . . . .	...	...	---	48	...
Providing HSI data to local health departments . . . . .	...	...	---	36	...
<b>22.2 National data sources</b> . . . . .	<sup>1</sup> 77%	...	---	99%	100%
a. State level data for at least two-thirds of the objectives (number of States) <sup>2</sup> . . . . .	23	<sup>3</sup> 22	<sup>4</sup> 26	<sup>5,6</sup> 32	35
<b>22.3 Comparable data collection procedures</b>					
Federal, State, and local agencies . . . . .	...	<sup>1</sup> 12%	---	14%	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>5</sup> . . . . .	...	40	<sup>4</sup> 49	<sup>6</sup> 50	...
Hospital discharge data . . . . .	...	34	---	<sup>6</sup> 37	...
a. Analysis for racial and ethnic groups (number of States) <sup>5,8</sup> . . . . .	...	<sup>4</sup> 19	---	<sup>6</sup> 23	25
<b>22.6 Number of States with data transfer systems</b> . . . . .	30	...	---	---	50
National Electronic Telecommunications System for Surveillance (NETSS) . . . . .	...	<sup>4</sup> 50	---	---	...
Public Health Laboratory Information Systems (PHLIS) . . . . .	...	<sup>4</sup> 37	---	<sup>6</sup> 44	...
<b>22.7 Timely release of national data<sup>9</sup></b> . . . . .	---	...	---	---	100%
Data released within 1 year of collection . . . . .	...	<sup>10</sup> 55%	---	---	...
Data released within 2 years of collection . . . . .	...	<sup>10</sup> 61%	---	---	...

<sup>1</sup>1990 data.

<sup>2</sup>States that have adopted *Healthy People 2000* plans.

<sup>3</sup>1991 data.

<sup>4</sup>1992 data.

<sup>5</sup>Includes the District of Columbia.

<sup>6</sup>1993 data.

<sup>7</sup>See text for a discussion of this objective.

<sup>8</sup>Twenty seven 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>9</sup>Percent of objectives with timely data.

<sup>10</sup>1994 data.

Data sources are shown in appendix table C.

# 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.*

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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 A. 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 B. 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			



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 E800–E949	No comparable category	...
9.1	Unintentional injuries		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 B. 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
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 <sup>1</sup>	(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>Healthy People 2000 uses multiple-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>Unless otherwise specified, Healthy People 2000 uses underlying-cause-of-death data.

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives**

[\*Indicates duplicate objective]

Priority area	Objective number	Data source
Physical Activity	1.1*, 1.1a	National Vital Statistics System, CDC, NCHS.
	1.2*, 1.2a,b	National Health and Nutrition Examination Survey, CDC, NCHS.
	1.2c	Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. National Health Interview Survey, CDC, NCHS. Updates: 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. 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. 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	National Health Interview Survey, CDC, NCHS. Youth Risk Behavior Survey, CDC, NCCDPHP
	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. <i>Developing Teaching Skills in Physical Education</i> . Palo Alto, Ca. Mayfield. 1983. Update: 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. <i>Local Opportunities for Americans: Final Report of the Municipal and County Park and Recreation Study</i> , 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 Providers Survey, OASH, ODPHP.	
Nutrition	2.1*, 2.1a	National Vital Statistics System, CDC, NCHS.
	2.2*	National Vital Statistics System, CDC, NCHS.
	2.3*, 2.3a,b	National Health and Nutrition Examination Survey, CDC, NCHS.
	2.3c	Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. National Health Interview Survey, CDC, NCHS. Updates: 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.	

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>
Nutrition—Con.	2.3f,g	National Health and Nutrition Examination Survey, CDC, NCHS.
	2.4, 2.4a–e 2.5*	Pediatric Nutrition Surveillance System, CDC, NCCDPHP. 1976–80 Baseline: National Health and Nutrition Examination Survey, CDC, NCHS. 1985 Baseline: Continuing Survey of Food Intakes by Individuals, USDA. 1988–91 Update: National Health and Nutrition Examination Survey, CDC, NCHS.
	2.6*	Baseline: Continuing Survey of Food Intakes by Individuals, USDA. Updates: National Health and Nutrition Examination Survey, CDC, NCHS (Future).
	2.7*	National Health Interview Survey, CDC, NCHS.
	2.8	Continuing Survey of Food Intakes by Individuals, USDA. Updates: National Health and Nutrition Examination Survey III (Future).
	2.9	1985 Baseline: Continuing Survey of Food Intakes by Individuals, USDA. 1988 Baseline: Health and Diet Survey, FDA. 1991 Updates: National Health Interview Survey, CDC, NCHS.
	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: Pregnancy Nutrition Surveillance Systems, CDC, NCCDPHP.
	2.10e	Pregnancy Nutrition Surveillance System, CDC, NCCDPHP.
	2.11*, 2.11a–c	Ross Laboratories Mothers Survey.
	2.11d	Pediatric Nutrition Surveillance System, CDC, NCCDPHP.
	2.12*, 2.12a	National Health Interview Survey, CDC, NCHS.
	2.12b	Baseline: 1990 Baby Bottle Tooth Decay 5-Year Evaluation Report, Indian Health Service, Dental Services Branch.
	2.13	Health and Diet Survey, FDA. 1992 Update: National Health Interview Survey, CDC, NCHS.
	2.14	Food Label and Package Survey, FDA. Fresh Fruit and Produce Survey, FDA (Future).
	2.15	Nielsen Company National Scantrack.
	2.16	Survey of Chain Operators, National Restaurant Association.
	2.17	School Nutrition Dietary Assessment, USDA (Future).
	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. <i>AM J Prev Med</i> 4:9–16. 1988. 1992 Baseline: Primary Care Providers Survey, OASH, ODPHP.	
Tobacco	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,i	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.

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

Priority area	Objective number	Data source
Tobacco—Con.	3.4f	Updates: National Health Interview Survey, CDC, NCHS. Baseline: CDC, 1987.
	3.4g	Updates: National Health Interview Survey, CDC, NCHS. Baseline: Local Surveys. Update: Jenkins CH. Cancer risks and prevention practices among Vietnamese refugees. <i>Western J of Med</i> 153:34-9. 1990.
	3.4j	Baseline: Behavioral Risk Factor Surveillance System, CDC, NCCDPHP. Updates: National Survey of Family Growth (Future).
	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 (Future).
	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. Updates: School Health Policies and Programs Study, CDC, NCCDPHP (Future).
	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	Association of State and Territorial Health Officials Survey of State Tobacco Prevention and Control Activities; Office on Smoking and Health Legislative Tracking, CDC, NCCDPHP (Future).
	3.15	Federal Trade Commission data reported by Office on Smoking and Health, CDC, NCCDPHP.
3.16	Baseline for Internists: Wells, et al. <i>Physicians Practice Study</i> , <i>AJPH</i> 76:1009–13. 1986. Baseline for dentists: Secker-Walker, et al. <i>Statewide Survey of Dentists' Smoking Cessation Advice</i> . <i>JADA</i> 118:37–40. 1989. 1992 Baseline: Primary Care Provider Surveys, OASH, ODPHP.	
Alcohol and Other Drugs	4.1, 4.1a–b	Fatal Accident Reporting System, NHTSA.
	4.2, 4.2a–b	National Vital Statistics System, CDC, NCHS. Indian Health Service Administrative Statistics, IHS.
	4.3	National Vital Statistics System, CDC, NCHS.
	4.4	Drug Abuse Warning Network, SAMHSA, OAS.

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>	
Alcohol and Other Drugs—Con.	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.	
	4.12	State Substance Abuse Services Plans, SAMHSA, CSAT (Future).	
	4.13	<i>Baseline: Report to Congress and the White House on the Nature and Effectiveness of Federal, State, and Local Drug Prevention Education Programs.</i> U.S. Department of Education. 1987. Updates: School Health Policies and Programs Study, CDC, NCCDPHP (Future).	
	4.14	National Survey of Worksite Health Promotion Activities, OASH, ODPHP.	
	4.15	Office of Alcohol and State Programs, NHTSA.	
	4.16	Substance Abuse Block Grant Program, SAMHSA, CSAP, CSAT (Future).	
	4.17	Substance Abuse Block Grant Program, SAMHSA, CSAP, CSAT (Future).	
	4.18	Office of Alcohol and State Programs, NHTSA (Future).	
	4.19	Primary Care Provider Surveys, OASH, ODPHP.	
	Family Planning	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. Pregnancy Risk Assessment Monitoring System, CDC (Future).
		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; National Survey of Family Growth, CDC, NCHS (Future); National Survey of Adolescent Males, NIH, NICHD (Future).
5.5		Baseline: National Survey of Family Growth, CDC, NCHS; National Survey of Adolescent Males, NIH, NICHD. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP; National Survey of Family Growth, CDC, NCHS (Future); National Survey of Adolescent Males, NIH, NICHD (Future).	
5.6		Baseline: National Survey of Family Growth, CDC, NCHS. Youth Risk Behavior Survey, CDC, NCCDPHP. National Survey of Adolescent Males, NIH, NICHD.	
5.7		Baseline (revised); National Survey of Family Growth, CDC, NCHS. Updates: National Survey of Family Growth, CDC, NCHS (Future). National Survey of Adolescent Males, NIH, NICHD (Future).	
5.8		Baseline: Planned Parenthood Federation of America, Inc., 1986. Updates: National Survey of Family Growth, CDC, NCHS (Future); National Survey of Adolescent Males, NIH, NICHD (Future);	

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>
Family Planning—Con.	5.9	National Health Interview Survey, CDC, NCHS (Future). 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.
Mental Health and Mental Disorders	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. Updates: Child Epidemiologic Catchment Area Studys, NIH, NIMH (Future).
	6.4	Baseline: Epidemiologic Catchment Area Study, NIH, NIMH. Updates: National Comorbidity Study, NIH, NIMH (Future); National Health and Nutrition Examination Survey, CDC, NCHS (Future).
	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. Updates: National Health Interview Survey, CDC, NCHS.
	6.7	Baseline: Epidemiologic Catchment Area Study, NIH NIMH. Updates: National Comorbidity Survey NIH, NIMH (Future).
	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 (Future).
	6.13	Primary Care Provider Surveys, OASH, ODPHP.
	6.14	Primary Care Provider Surveys, OASH, ODPHP.
Violent and Abusive Behavior	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.	
7.11	National Health Interview Survey, CDC, NCHS (Future).	

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>	
Violent and Abusive Behavior—Con.	7.12	Joint Accreditation Survey, Joint Commission on the Accreditation of Healthcare Organizations (Future). American Hospital Association. American Medical Association (Future).	
	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 (Future).	
	7.14	Annual 50 State Survey, National Committee for Prevention of Child Abuse (Future). National Incidence of Child Abuse and Neglect Survey, Office of Human Development, NCCAN (Future).	
	7.15	Domestic Violence Statistical Survey, National Coalition Against Domestic Violence.	
	7.16	School Health Policies and Programs Study, CDC, NCCDPHP.	
	7.17	National Committee for Prevention of Child Abuse (Future); CDC, NCIPC (Future).	
	7.18*	National Study of Jails, National Center on Institutions and Alternatives, CDC, NCIPC.	
	Educational and Community-Based Programs	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; Administration for Children and Families. National Center for Education Statistics, National Education Goals Panel.
8.4		School Health Policies and Programs Study, CDC, NCCDPHP.	
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.	
8.7		National Health Interview Survey, CDC, NCHS (Future).	
8.8		Catalog of Local Health Promotion Programs, National Elder Care Institute on Health Promotion, American Association of Retired Persons. State Units of Aging Reporting System, National Association of State Units of Aging.	
8.9		Baseline: Youth Risk Behavior Survey, CDC, NCCDPHP. Updates: National Health Interview Survey, CDC, NCHS (Future).	
8.10		American Hospital Association Annual Survey (Community Health Promotion Section). Public Health Impact Data Base, PHF.	
8.11		Community Demonstration Projects Review, PHS, OMH. Health Education Resource Management System, IHS. Hispanic Chronic Disease Prevention Project, National Coalition of Hispanic Health and Human Services Organizations. Bilingual Service Delivery Project, Association of State and Territorial Health Officials.	
8.12		Annual Survey of Hospitals, American Hospital Association. HMO Industry Profile, Group Health Association of America, Inc.	



**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>
Educational and Community-Based Programs—Con.	8.13	Survey to be developed and administered by a private or voluntary partner, in cooperation with ODPHP.
	8.14	National Profile of Local Health Departments, National Association of County Health Officials. Profile of State and Territorial Public Health Systems, CDC, ASTHO. State Mortality and Morbidity Data, CDC. National Vital Statistics System, CDC, NCHS.
Unintentional Injuries	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, US 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; Youth Risk Behavior Survey, CDC, NCCDPHP (Future); National Health Interview Survey, CDC, NCHS (Future).
	9.13	Baseline: 19 Cities Survey, DOT, NHTSA. Updates: Youth Risk Behavior Survey, CDC, NCCDPHP.
	9.14	DOT, NHTSA.
	9.15	CDC, NCIPC.
9.16	Baseline: Fire Suppression Sprinkler Codes, FEMA, US Fire Administration. Updates: International Association of Fire Chiefs (Future).	
9.17	Baseline: National Fire Incident Reporting System, FEMA, US Fire Administration. Updates: National Health Interview Survey, CDC, NCHS.	
9.18	School Health Policies and Programs Study, CDC, NCCDPHP.	
9.19*	CDC, NCPS. NIH, NIDR.	
9.20	DOT, FHA.	
9.21	Primary Care Provider Surveys, OASH, ODPHP.	
9.22	CDC, NCIPC.	
Occupational Safety and Health	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.	

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>
Occupational Safety and Health—Con.	10.7	Occupational Hearing Conservation Database, CDC, NIOSH (Future); Sentinel Event Notification Systems for Occupational Risks, CDC, NIOSH (Future).
	10.8	Adult Elevated Blood Lead Level Registries, CDC, NIOSH.
	10.9*	Regulatory Impact Analysis of OSHA Final Rule on Occupational Exposure to Bloodborne Pathogens, DOL, OSHA, ORA.
	10.10	Association of State and Territorial Health Officials Reporting System: Unintentional Injuries Survey, PHF.
	10.11	CDC, NIOSH (Future).
	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.
	Environmental Health	11.1, 11.1a,b
11.2*		Metropolitan Atlanta Developmental Disabilities Surveillance Program, CDC, NCEH. Child Count Reports of the Department of Education, OSEP, USDE.
11.3, 11.3a		Waterborne Surveillance System, CDC, NCEH.
11.4, 11.4a		National Health and Nutrition Examination Survey, CDC, NCHS. CDC State-Based Surveillance for Childhood Lead Poisoning. State & Local Childhood Lead Prevention Programs.
11.5		National Air Quality and Emissions Trends Report, AIRS, OAR, EPA.
11.6, 11.6a,b		Baseline: OPA, OAR, Office of Radiation Programs. Updates: National Health Interview Survey, CDC, NCHS (Future).
11.7		Toxic Chemical Release Inventory, EPA, OPPTS; ATSDR List of Priority Hazardous Substances; DHHS Annual Report on Carcinogens.
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.
Food and Drug Safety	12.1	Bacterial Meningitis Surveillance System, CDC, NCID; Campylobacter Surveillance System, CDC, NCID; Salmonella Surveillance System, CDC, NCID.
	12.2	Salmonella Surveillance System, CDC, NCID.
	12.3	Diet–Health Knowledge Survey, USDA, ASFCS.
	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 (Future).
	12.6	Primary Care Provider Surveys, OASH, ODPHP.

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>
Oral Health	13.1, 13.1c	National Survey of Dental Caries in U.S. School Children, 1986–1987, NIH, NIDR.
	13.1a	North Carolina Oral Health School Survey, North Carolina Division of Dental Health, University of North Carolina School of Public Health.
	13.1b,d	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.
	13.2a	Baseline: North Carolina Oral Health School Survey, North Carolina Division of Dental Health, University of North Carolina School of Public Health.
	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.
	13.3	Baseline: National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–1986, NIH, NIDR.
	13.4, 13.4a	Baseline: National Health Interview Survey, CDC, NCHS.
	13.5, 13.5a	National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–1986, NIH, NIDR.
	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.
	13.6	Baseline: National Survey of Oral Health in U.S. Employed Adults and Seniors, 1985–1986, NIH, NIDR.
	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. Updates: National Health Interview Survey, 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 (1986, 1989, 1991), CDC, NCHS.
13.13	Health Care Financing Administration.	
13.14	National Commission on Correctional Health Care (Future). National Health Interview Survey (1986, 1989, 1991), CDC, NCHS.	
13.15	State Public Health Dentists Survey, Illinois State Health Department (1989, 1993).	
13.16*	CDC, NCPS. NIH, NIDR.	
Maternal and Infant Health	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.

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>
Maternal and Infant Health—Con.	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 Vital Statistics System, CDC, NCHS.
	14.8, 14.8a,b	National Hospital Discharge Survey, CDC, NCHS.
	14.9*, 14.9a–c	National Hospital Discharge Survey, CDC, NCHS.
	14.9d	Ross Laboratories Mother Survey.
	14.10	Pediatric Nutrition Surveillance System, CDC, NCCDPHP. Baseline: National Health Interview Survey, CDC, NCHS. Updates: National Maternal and Infant Health Survey, CDC, NCHS.
		National Vital Statistics System, CDC, NCHS.
		National Health Interview Survey, CDC, NCHS.
	14.11, 14.11a–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.
	14.14	Annual Report to Congress Summarizing State Reports required under title V under the MCH Block Grant, MCHB, HRSA.
	14.15	Council of Regional Networks for Genetic Services.
14.16	Primary Care Provider Surveys, OASH, ODPHP.	
Heart Disease and Stroke	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. Updates: National Health and Nutrition Examination Survey, CDC, NCHS (Future).
	15.9*	1976–80 Baseline: National Health and Nutrition Examination Survey, CDC, NCHS. 1985 Baseline: Continuing Survey of Food Intakes by Individuals, USDA. 1988–91 Update: National Health and Nutrition Examination Survey, CDC, NCHS.
	15.10*, 15.10a,b	National Health and Nutrition Examination Survey, CDC, NCHS.
	15.10c	Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates: National Health Interview Survey, CDC, NCHS.
	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*	Baseline (revised): National Health Interview Survey, CDC, NCHS. Original baseline: Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.
	15.12, 15.12a,b,d,h,i	National Health Interview Survey, CDC, NCHS.

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>	
Heart Disease and Stroke—Con.	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. <i>Western J of Med</i> 153:34–9. 1990.	
	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. 1990 Update: Cholesterol Awareness Survey, NIH, NHLBI. 1991 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.	
	Cancer	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,i		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. <i>Western J of Med</i> 153:34–9. 1990.	
16.6j		Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.	
16.7*		1976–80 Baseline: National Health and Nutrition Examination Survey, CDC, NCHS. 1985 Baseline: Continuing Survey of Food Intakes by Individuals, USDA. 1988–91 Update: National Health and Nutrition Examination Survey, CDC, NCHS.	
16.8*		Continuing Survey of Food Intakes by Individuals, USDA.	
16.9		National Health Interview Survey. CDC, NCHS.	
16.10		Baseline: Wells, et al, 1986. Updates: 1989 Survey of Physician's Attitudes and Practices in Early Cancer Detection, NCI. 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.		
16.15	National Cancer Institute, Division of Cancer Prevention and Control Surveillance Program.		

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>
Cancer—Con.	16.16	Baseline: American College of Radiology. Updates: 1992 National Mammography Facilities Survey, NIH, NCI; American College of Radiology.
Diabetes and Chronic Disabling Conditions	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	Massachusetts Blind Registry, Massachusetts Commission on the Blind. Health Care Financing Administration, Bureau of Data Management and Strategy. National Health Interview Survey, CDC, NCHS.
	17.10a,b,c	National Hospital Discharge Survey, CDC, NCHS. Health Care Financing Administration Bureau of Data Management and Strategy National Hospital Discharge Survey. National Hospital Discharge Survey, CDC, NCHS. Program Statistics, PHS, IHS.
	17.11, 17.11e	National Health Interview Survey, CDC, NCHS.
	17.11a	Ambulatory Utilization Data, Indian Health Service.
	17.11b–d	Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS.
	17.12*, 17.12a,b	National Health and Nutrition Examination Survey, CDC, NCHS.
	17.12c	Baseline: Hispanic Health and Nutrition Examination Survey, CDC, NCHS. Updates: National Health Interview 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.	
17.14, 17.14a,b	Baseline: Halpern M. The impact of diabetes education in Michigan. <i>Diabetes</i> 38(2):151A, 1989. Updates: 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.	
17.18	National Health Interview Survey, CDC, NCHS (Future).	
17.19	Baseline: Survey of Persons with Disability, International Center for the Disabled.	
17.20	Annual Report to Congress summarizing State reports required under Title V MCH Block Grant, MCHB, HRSA.	
HIV Infection	18.1,18.1a–c	AIDS Surveillance System, CDC, NCID.

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[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>
HIV Infection—Con.	18.2, 18.2a–c 18.3*	CDC, NCID. 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	None.
	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: 1991 National Health Interview Survey, CDC, NCHS; 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. <i>Western Journal of Medicine</i> , 147: 165–7. 1987. Updates: Primary Care Provider Surveys, OASH, ODPHP.
	18.9a	Primary Care Provider Surveys, OASH, ODPHP.
	18.10	Baseline: AIDS education: Public school programs require more student information and teacher training, GAO, 1990. Updates: School Health Policies and Programs Study, CDC, NCCDPHP (Future).
	18.11	American College Health Association (Future).
	18.12	CDC, NCPS.
18.13	National Questionnaire on Provision of STD and HIV Services by Family Planning Clinics, PHS, OPA.	
18.14	OSHA.	
Sexually Transmitted Diseases	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	Sexually Transmitted Disease Surveillance System, 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.	

**Table C. Data sources for the Healthy People 2000 objectives and subobjectives—Con.**

[\*Indicates duplicate objective]

<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>	
Sexually Transmitted Diseases—Con.	19.10b	Baseline: National Survey of Adolescent Males, NIH, NICHD. Updates: Youth Risk Behavioral Survey, CDC, NCCDPHP.	
	19.10c	None.	
	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. Updates: School Health Policies and Programs Study, CDC, NCCDPHP (Future).	
	19.13	National Disease and Therapeutic Index, IMS Americas, 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.	
	19.14a	Primary Care Provider Surveys, OASH, ODPHP.	
	19.15	Sexually Transmitted Disease Surveillance System, CDC, NCPS.	
	Immunization and Infectious Diseases	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, 20.7a		Bacterial Meningitis Surveillance System, 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		United States Immunization Survey, CDC, NCPS; State Immunization Survey, CDC, NCPS; National Health Interview Survey, CDC, NCHS; Perinatal Hepatitis B Screening Grant Program, CDC, NCID; Regulatory Impact Analysis of OSHA Final Rule on Occupational Exposure to Bloodborne Pathogens, DOL, OSHA, ORA.	
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	Immunization Grant Program Profiles, CDC, NCPS.		
20.17	Tuberculosis Screening and Preventive Therapy Summary Reports, 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.		
Clinical Preventive Services	21.1, 21.1(a–c)	National Health Interview Survey, CDC, NCHS; National Vital Statistics System, CDC, NCHS.	
	21.2, 21.2d–l	National Health Interview Survey, CDC, NCHS.	
	21.2a–c	National Health Interview Survey, CDC, NCHS (Future).	



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<i>Priority area</i>	<i>Objective number</i>	<i>Data source</i>
Clinical Preventive Services—Con.	21.3, 21.3a–c	Baseline: 1986 Access to Health Care Survey, Robert Wood Johnson Foundation.
	21.4	Updates: National Health Interview Survey, CDC, NCHS.
	21.5	National Health Interview Survey, CDC, NCHS.
	21.6	BHCDA Survey, HRSA, OPEL;
	21.7	Survey of Federal Programs, HRSA, OPEL.
	21.8	Primary Care Provider Surveys, OASH, ODPHP.
Surveillance and Data Systems	22.1	National Profile of Local Health Departments, National Association of County Health Officials.
	22.2, 22.2a	Minorities and Women in the Health Fields, HRSA, BHP.
	22.3	CDC, NCHS.
	22.4	Baseline: ODPHP (National data); Public Health Foundation (State data).
	22.5, 22.5a	Updates: CDC, NCHS; OASH, ODPHP.
	22.6	CDC, NCHS.
	22.7	Subcommittee on State and Community Health Statistics, NCVHS (Future).
	Baseline: Public Health Foundation.	
	Updates: OASH, ODPHP; CDC, NCHS.	
	CDC, IRMO and NCHS.	
	CDC.	

**Table D. Health Status Indicators: United States, 1990–92**

<i>Health status indicators</i>	1990	1991	1992
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>	9.2	8.9	<sup>2</sup> 8.5
White	7.6	7.3	---
Black	18.0	17.6	---
American Indian <sup>3</sup>	<sup>4</sup> 13.9	<sup>5</sup> 13.0	---
Chinese <sup>3</sup>	<sup>4</sup> 5.9	<sup>5</sup> 7.3	---
Japanese <sup>3</sup>	<sup>4</sup> 7.2	<sup>5</sup> 6.2	---
Filipino <sup>3</sup>	<sup>4</sup> 7.7	<sup>5</sup> 6.6	---
Other Asian or Pacific Islander <sup>3</sup>	<sup>4</sup> 8.6	<sup>5</sup> 7.9	---
Hispanic origin <sup>3,6</sup>	<sup>4</sup> 8.4	<sup>5</sup> 8.2	---
2 Total deaths per 100,000 population. (ICD–9 nos. 0–E999) <sup>1</sup>	520.2	513.7	<sup>1</sup> 504.9
3 Motor vehicle crash deaths per 100,000 population. (ICD–9 nos. E810–E825) <sup>7</sup>	18.5	17.0	<sup>1</sup> 16.0
4 Work-related injury deaths per 100,000 population.	1.5	1.4	2.4
5 Suicides per 100,000 population. (ICD–9 nos. E950–E959) <sup>7</sup>	11.5	11.4	<sup>1</sup> 10.9
6 Homicides per 100,000 population. (ICD–9 nos. E960–E	10.2	10.9	<sup>1</sup> 10.9
7 Lung cancer deaths per 100,000 population. (ICD–9 no. 162) <sup>7</sup>	39.9	39.6	---
8 Female breast cancer deaths per 100,000 women. (ICD–9 no. 174) <sup>7</sup>	23.1	22.7	---
9 Cardiovascular disease deaths per 100,000 population. ICD–9 nos. 390–448) <sup>7</sup>	189.8	185.0	---
10 Reported incidence (per 100,000 population) of acquired immunodeficiency syndrome. <sup>8</sup>	18.3	22.6	29.5
11 Reported incidence (per 100,000 population) of measles.	11.2	3.8	0.9
12 Reported incidence (per 100,000 population) of tuberculosis.	10.3	10.4	10.5
13 Reported incidence (per 100,000 population) of primary and secondary syphilis.	20.1	17.3	13.7
14 Prevalence of low birthweight as measured by the percentage of live born infants weighing under 2,5000 grams at birth.	7.0	7.1	---
15 Births to adolescents (ages 10–17 years) as a percentage of total live births.	4.7	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.	24.2	23.8	---
17 Childhood poverty, as measured by the proportion of children under 15 years of age living in families at or below the poverty level.			
Under 18 years	20.6	21.8	21.9
Under 15 years	21.4	22.4	22.7
5–17 years	19.0	20.0	19.8
18 Proportion of persons living in counties exceeding U.S. Environmental Protection Agency standards for air quality during the previous year.	30.6	34.7	21.5

<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 1986.

<sup>5</sup>Data are for 1987.

<sup>6</sup>Includes mother of all races.

<sup>7</sup>Age adjusted to the 1940 standard population.

<sup>8</sup>By date of diagnosis. Adjusted for delays in reporting; not adjusted for underreporting.

Sources:

1–3,5,14–16 — National Vital Statistics System, CDC, NCHS

4 — (1990–91) Annual survey of Occupational Injuries and Illness, Department of Labor, Bureau of Labor Statistics.

4 — (1992) 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 1993.

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 E. Health Status Indicators by race and Hispanic origin: United States, 1991**

Health status indicators	Total <sup>1</sup>	Race				
		White	Black	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic Origin
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.	8.9	7.3	17.6	<sup>2</sup> 13.0	<sup>2</sup> 7.3	<sup>2</sup> 8.2
2 Total deaths per 100,000 population. (ICD-9 nos. 0–E999) <sup>4</sup>	513.7	486.8	780.7	442.8	283.1	<sup>5</sup> 384.3
3 Motor vehicle crash deaths per 100,000 population. (ICD-9 nos. E810–E825) <sup>4</sup>	17.0	17.2	16.8	33.4	10.0	<sup>5</sup> 18.5
4 Work-related injury deaths per 100,000 population. <sup>6</sup>	2.4	5.0	0.7	---	2.6	3.1
5 Suicides per 100,000 population. (ICD-9 nos. E950–E959) <sup>4</sup>	11.4	12.1	6.9	11.3	6.1	<sup>5</sup> 7.7
6 Homicides per 100,000 population. (ICD-9 nos. E960–E978) <sup>4</sup>	10.9	6.2	41.9	12.4	6.1	<sup>5</sup> 16.6
7 Lung cancer deaths per 100,000 population. (ICD-9– no. 162) <sup>4</sup>	39.6	39.1	49.9	22.2	18.1	<sup>5</sup> 15.9
8 Female breast cancer deaths per 100,000 women. (ICD-9 no. 174) <sup>4</sup>	22.7	22.5	27.6	8.7	11.1	<sup>5</sup> 14.0
9 Cardiovascular disease deaths per 100,000 population. (ICD-9 nos. 390–448) <sup>4</sup>	185.0	177.3	272.9	126.8	107.4	<sup>5</sup> 124.2
Heart disease deaths per 100,000 population. (ICD-9 nos. 390–398, 402, 404–429) <sup>4</sup>	148.2	143.1	210.9	76.5	102.2	<sup>5</sup> 96.4
Stroke deaths per 100,000 population. (ICD-9 nos. 430–438) <sup>4</sup>	26.8	24.7	46.9	25.4	19.1	<sup>5</sup> 21.3
10 Reported incidence (per 100,000 population) of acquired immunodeficiency syndrome. <sup>6,7</sup>	29.5	<sup>8</sup> 18.8	<sup>8</sup> 89.3	<sup>8</sup> 12.3	<sup>8</sup> 6.8	45.4
11 Reported incidence (per 100,000 population) of measles. <sup>8</sup>	0.9	---	---	---	---	---
12 Reported incidence (per 100,000 population) of tuberculosis. <sup>8</sup>	10.5	<sup>8</sup> 4.0	<sup>8</sup> 31.7	<sup>8</sup> 16.3	<sup>8</sup> 46.6	22.4
13 Reported incidence (per 100,000 population) of primary and secondary syphilis. <sup>8</sup>	13.7	<sup>8</sup> 1.5	<sup>8</sup> 92.4	<sup>8</sup> 2.3	<sup>8</sup> 1.3	8.2
14 Prevalence of low birthweight as measured by the percentage of live born infants weighting under 2,500 grams at birth.	7.1	5.8	13.6	6.2	6.5	<sup>9</sup> 6.2
15 Births to adolescents (ages 10–17 years) as a percentage of total live births.	4.9	3.8	10.3	7.9	2.1	<sup>9</sup> 6.9
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	20.5	38.1	40.1	24.7	<sup>9</sup> 39.0
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>8</sup>						
Under 18 years	21.9	16.9	46.6	---	---	39.9
Under 15 years	22.7	---	---	---	---	---
5–17 years	19.8	---	---	---	---	---
18 Proportion of persons living in counties exceeding U.S. Environmental Protection Agency standards for air quality during the previous year. <sup>10</sup>	21.5	20.8	23.4	16.9	35.5	41.1

<sup>1</sup>Includes racial and ethnic groups not shown separately.

<sup>2</sup>1987 Linked file data source.

<sup>3</sup>Data are for 23 States and the District of Columbia.

<sup>4</sup>Age adjusted to the 1940 standard population.

<sup>5</sup>Data are for 47 States and the District of Columbia.

<sup>6</sup>1992 data.

<sup>7</sup>By date of diagnosis. Adjusted for delays in reporting; not adjusted for underreporting.

<sup>8</sup>Data are for the non-Hispanic population.

<sup>9</sup>Data are for 49 States and the District of Columbia.

<sup>10</sup>1992 data based on 1990 county population estimates.

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. Based on cases reported to CDC through September 1993.

11 — National Notifiable Disease Surveillance System, CDC, EPO

12 — Tuberculosis Morbidity Data, CDC, NCPS

13 — Sexually Transmitted Disease Surveillance System, CDC, NCPS

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