

## **19. DISABILITY AND SECONDARY CONDITIONS**

<b>Number</b>	<b>Objective</b>
1	Core data sets
2	Depression
3	Days of anxiety
4	Healthy days among adults with activity limitations who need assistance
5	Personal and emotional support
6	Satisfaction with life
7	Print size on medicine, patient instructional materials, and syringe markings
8	Employment rates
9	Inclusion of children with disabilities in regular education programs
10	Compliance with Americans with Disabilities Act
11	Environmental barriers
12	Disability surveillance and health promotion programs



## Disability and Secondary Conditions

### Goal

Promote health and prevent secondary conditions among persons with disabilities, including eliminating disparities between persons with disabilities and the U.S. population.

### Terminology

(A listing of all acronyms used in this publication appears on page 27 of the Introduction.)

**Health promotion:** The promotion of healthy lifestyles and a healthy environment, the prevention of health complications (medical secondary conditions) and further disabling conditions, the preparation of the person with a disability to understand and monitor his or her own health and health care needs, and the promotion of opportunities for participation in commonly held life activities.

**People with disabilities:** Those persons identified as having limitations in activities because of an impairment or health condition, usually defined as having a duration of at least 12 months. Activities include those that negatively influence participation in work, school, leisure, and family and community life, from simple to complex, including looking and listening, standing, walking, achieving mobility, performing personal care, communicating, learning, and engaging in related behaviors.

### Overview

The population of people with disabilities, defined as being limited in a major activity of life or having other limitations in activities, was assessed at 11.7 percent of the total population by the National Health Interview Survey (NHIS) in 1970. The rate grew to 14.4 percent in 1981, remaining rather constant during the 1980s. Surveillance data regarding the prevalence of persons with disabilities in the United States now suggest substantial increases.<sup>1</sup> Census, NHIS, Survey of Income and Program Participation (SIPP), and Behavioral Risk Factor Surveillance System (BRFSS) data indicate that approximately 16 to 18 percent, or about 50 million Americans, experience an activity limitation due to an impairment or health condition.

By age, data suggest that the rates for persons over 45 (both 45-64 and over 65) are relatively stable, if not declining among older adults, with greater increases among younger populations. Between 1990 and 1994, there was a 16 percent increase in activity limitations among adults aged 18 to 44, from 8.8 percent in 1990 to 10.3 percent in 1994. This increase suggests 3.1 million more 18- to 44-year-olds were limited in 1994 than in 1990. In addition, disability rates have increased among young people under 18 years of age. Both girls and boys increased substantially, girls from 4.2 percent to 5.6 percent, a 33 percent increase, and boys from 5.6 percent to 7.9 percent, a 40 percent increase.<sup>2</sup> By contrast, disability rates among older people appear to be declining, from 24.9 percent in 1982 to 21.3 percent in 1994. However, because of the dramatic increase in the older population, the absolute number of older people with disabilities will continue to increase from 26.9 million in 1982 to 34.1 million in 1996.

The recently published Institute of Medicine report, *Enabling America*, indicates that 4 percent of the gross domestic product, \$300 billion, is the annual cost associated with disability. This includes \$160 billion in medical care expenditures (1994 dollars) and lost productivity costs approaching \$155 billion.<sup>3</sup>

1 ***Dynamics of the Health Problem***  
2

3 Beyond the data on prevalence and economic costs, there is the clear observation that people with  
4 disabilities have increased health concerns and susceptibility to secondary conditions, whether medical,  
5 physical, social, emotional, or societal. The Healthy People 2000 review document observed that health  
6 promotion and disease prevention needs of persons with disabilities “are not nullified because they were  
7 born with an impairing condition or have experienced a disease or injury that has long-term  
8 consequences.”<sup>4</sup> It suggested that, in fact, needs for health promotion are increased.  
9

10 BRFSS data indicate that people with disabilities experience more days of pain, depression, anxiety, and  
11 sleeplessness and fewer days with vitality during the past month than persons not reporting activity  
12 limitations.<sup>5</sup> In view of the increase in rates of disability among the younger population, it is particularly  
13 important to address various aspects of health and well-being, including access to health care, health  
14 promotion, prevention of secondary conditions, and removal of environmental barriers to full participation  
15 in society. Increased co-morbidity among older populations with disability may intensify the affect of  
16 impairments. For example, declining vision combined with declining hearing may have great implications  
17 for mobility, nutrition, and conditioning.<sup>5a</sup>  
18

19 ***Interventions for Improved Total Health for Persons with Disabilities***  
20

21 Health promotion programs have been shown to be effective in reducing secondary conditions and  
22 outpatient physician visits among persons with disabilities.<sup>6</sup> Effective interventions focus on improving  
23 functionality across a spectrum of diagnoses and a range of age groups.  
24

25 For example, effective intervention strategies among people with mobility impairments can focus on  
26 improving muscle tone, flexibility, and strength, such that both mobility-impaired persons in wheelchairs  
27 and mobility-impaired persons with arthritis could accrue benefits from the intervention. Also, effective  
28 intervention strategies for persons with communication disabilities and disorders can focus on improving  
29 access to health enhancement programs. People with sight impairments can have access to adequately  
30 informative labeling of foods and medications and people with hearing impairments can have access to  
31 televised or videotaped exercise programs that are closed captioned or signed by interpreters depicted  
32 within an inset of a video screen.  
33

34 Many existing health promotion interventions already in place for the population at large are easily  
35 adaptable to the needs of people with disabilities and can be incorporated into Healthy People 2010  
36 objectives in their current format. As new intervention strategies are developed, they can be influenced by  
37 epidemiologic results that depict the risk factors known to induce secondary conditions of existing  
38 disabilities or the protective factors known to inhibit any more impairment than already elicited by a  
39 primary disability. For example, the prevalence of secondary osteoporosis among able-bodied women and  
40 their range of bone mineral density deficits can be estimated using existing Federal data sets. The degree  
41 to which such women exercise and ingest calcium or estrogen supplements also can be estimated, leading  
42 to measurements of the influence of both risk and protective factors associated with osteoporosis in the  
43 able-bodied population. Because women with mobility impairments experience an elevated risk for  
44 secondary osteoporosis at earlier ages, their risk factors, such as diminished bone mineral density, and their  
45 protective factors, such as the optimal concentration of calcium or estrogen supplements to ingest or the  
46 optimal type of exercise in which to engage, become critically important epidemiologic parameters. The  
47 results of epidemiologic investigations into preventing secondary osteoporosis already influence health  
48 promotion strategies among able-bodied women; similar epidemiologic investigations can augment the  
49 development of health promotion strategies among disabled women.  
50

1 Health promotion strategies can be designed to accommodate ongoing evidence-based evaluation as well.  
2 Among those clinical interventions highlighted in the *Guide to Clinical Preventive Services* and those  
3 interventions selected for inclusion in the forthcoming *Guide to Community Preventive Services*, those  
4 with demonstrated cost-effectiveness achieved the most thorough consensus among the authors. Many  
5 such interventions focus on appropriate and timely medical care, and these can be equally accessible for  
6 disabled persons.

7  
8 For example, among able-bodied women at risk for breast cancer, the U.S. Preventive Services Task Force  
9 now recommends mammography services every 1 to 2 years, with or without annual clinical breast  
10 examination, among women between the ages of 50 and 69. This recommendation also can be adapted for  
11 women with disabilities, along with a recommendation that clinical providers can recognize the reasons  
12 women with disabilities often refrain from seeking mammography services, such as insensitivities  
13 expressed by clinicians or the lack of adaptive equipment on mammography screening machines. In  
14 addition, U.S. Preventive Services Task Force now recommends counseling to prevent injuries among all  
15 adults. Among men and women with disabilities, especially those with skeletal insufficiencies or calcium  
16 deficits who experience an elevated risk of fractures, adding that kind of counseling to prevent injuries  
17 during nearly all clinical encounters could be enormously beneficial. In these ways, evidence-based health  
18 promotion and disease prevention programs can be developed, implemented, and evaluated, so as to  
19 alleviate the health and injury disparities between able-bodied and disabled persons during the period in  
20 which Healthy People 2010 is operative.

## 21 **Disparities in Health**

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23  
24 The majority of objectives in the Healthy People 2000 agenda addressed primary prevention tasks. People  
25 with disabilities, even with their evident increased susceptibility to additional health problems, were not  
26 identified for special attention. Because of the inability of surveys to distinguish a subgroup population of  
27 “persons with disabilities,” few data are available on disparities. What is available, however, is important.

28 Among the Healthy People 2000 objectives, substantial discrepancies were reported initially for  
29 prevalence of overweight, reduced physical activity, increased stress, and less frequent mammograms for  
30 women over age 55 with disabilities. It is important to note that the only data on clinical preventive  
31 services were related to care of older women with disabilities. It is evident that this subgroup should be  
32 substantially represented across numerous objectives in many Healthy People chapters.

## 33 **Progress Toward Year 2000 Objectives**

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36 Healthy People 2000 had no official chapter addressing the health objectives for people with disabilities;  
37 however, a Progress Review was held in January 1997, and reported in *Prevention Report*, published by  
38 the Office of Disease Prevention and Health Promotion (ODPHP). Fifteen objectives were considered in  
39 the overview, six of those addressed issues for people experiencing disabilities; the remaining nine focused  
40 on primary prevention of conditions associated with disabilities, such as reducing the rate of hospitalization  
41 for nonfatal head and spinal cord injuries and reducing the incidence of spina bifida and other neural tube  
42 defects.

43  
44 The six objectives indicated that people with disabilities reporting no leisure-time physical activity  
45 declined from the 1985 baseline of 35 percent to 30 percent in 1991, short of the target of 20 percent for  
46 2000; the proportion of persons with severe mental disorders using community support programs has  
47 increased; little change has occurred in the proportion of people with depression seeking treatment;  
48 limitations of major activity due to chronic conditions increased between 1988 and 1994 from 9.4 percent  
49 to 10.3 percent; activity limitation associated with back conditions increased from 21.9 to 28.1 per 1,000

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1 between the 1986 to 1988 baseline and to 1992-1994; persons with disabilities, while increasing in receipt  
2 of recommended clinical preventive services, are consistently below those of the total population, with  
3 specific emphasis on tetanus boosters, pap tests, and breast exams and mammograms.

4  
5 The review also included followup recommendations. Among these were the following:

- 6  
7 1. Encourage medical schools to make disability management and preservation of functional capacity part  
8 of the curriculum.
- 9  
10 2. Improve data collection to ensure more accurate information about the nature and degree of disability  
11 and secondary conditions.
- 12  
13 3. Examine the inclusion and impact of managed care on people with disabilities and on receipt of  
14 services.

### **Draft 2010 Objectives**

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18 The objectives for this section will be divided by the public health functions of assessment, policy  
19 development, and assurance.

#### *Principles of 2010 Objective Development*

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22  
23 Principles underlying the development of objectives for 2010 related to people with disabilities include the  
24 following:

- 25  
26 1. Include people with disabilities along with public health personnel, university researchers, clinicians,  
27 and nongovernmental agencies, in developing the objectives.
- 28  
29 2. Highlight the need for visibility of health issues of people with disabilities among public health  
30 agencies.
- 31  
32 3. Encourage compliance by public health programs with the Americans with Disabilities Act.
- 33  
34 4. Address the role of the environment as either facilitator or barrier, or both, to health and well-being of  
35 people with disabilities.
- 36  
37 5. Establish an operational definition of “persons with disabilities” for use as a demographic-like variable  
38 in all surveillance instruments.
- 39  
40 6. Use the conceptual framework provided by the revised International Classification of Impairments,  
41 Disabilities, and Handicaps to establish common terminology.

#### *Assessment*

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43  
44  
45 **1. (Developmental) Include a comparable core set of items to identify “people with disabilities” in  
46 all data sets used for Healthy People 2010.**

47  
48 The Healthy People 2000 Midcourse Review stated, “The elements of this report that explicitly call for  
49 improvement for people with disabilities are limited by the availability of data with which to set targets”  
50 (DHHS, 1995, p. 40). As the year 2000 is approaching, the inclusion of a demographic-like variable

1 identifying “people with disabilities” is yet to emerge. There is, however, considerable effort being made  
2 by Federal staff at the Centers for Disease Control and Prevention (CDC), Assistant Secretary for Planning  
3 and Evaluation (ASPE), National Institute on Disability and Rehabilitation Research (NIDRR), along with  
4 leading university researchers in disability surveillance, to remedy this gap. This will occur by the year  
5 2000, and between 2000 and 2003, efforts will be made to integrate this set of items, perhaps three, as  
6 surveillance instruments are revised. People using instruments that currently include an operational  
7 definition of “people with disabilities” will be encouraged to use the standard definition.  
8

9 On the basis of this inclusion, the status of health and well-being among people with disabilities will be  
10 significantly clearer, and appropriate interventions can be developed. Tracking will allow evaluation of the  
11 impact of the interventions on the health status of this group.  
12

13 **2. (Developmental) Reduce by 43 percent the number of days of depression in the past 30 days**  
14 **experienced by adults with activity limitations who need assistance.**  
15

16 **Target Setting Method:** Number of days reported by persons with activity limitations who do not  
17 need assistance, Behavioral Risk Factor Surveillance System in eight States.  
18

19 **Potential Data Source:** Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.  
20

21 **3. (Developmental) Reduce by 34 percent the number of days of anxiety in the past 30 days**  
22 **experienced by adults with activity limitations who need assistance.**  
23

24 **Target Setting Method:** Number of days reported by persons with activity limitations who do not  
25 need assistance, Behavioral Risk Factor Surveillance System in eight States.  
26

27 **Potential Data Source:** Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.  
28

29 **4. (Developmental) Increase by 75 percent the number of days in the past 30 when adults with**  
30 **activity limitations who need assistance feel healthy.**  
31

32 **Target Setting Method:** Number of days reported by persons with activity limitations who do not  
33 need assistance, Behavioral Risk Factor Surveillance System in eight States.  
34

35 **Potential Data Source:** Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.  
36

37 The three preceding objectives use the Behavioral Risk Factor Surveillance System (BRFSS) as a source of  
38 data. The objectives require that “people with disabilities” be operationally identified so that the objective  
39 can be measured. Sixteen States currently collect information on all these objectives. It is projected that  
40 by 2000 more than 30 States will be collecting these data. Although it is understood that the BRFSS is a  
41 State-based system, the dearth of information regarding people with disabilities requires a system that can  
42 both identify people with disabilities and collect information on their status compared to the general  
43 population. BRFSS also requires information directly from the respondent, without proxy. Currently, the  
44 BRFSS is the only system that allows collection of data for all these objectives.  
45

46 **5. (Developmental) Increase to \_\_ percent the proportion of people with disabilities reporting**  
47 **sufficient personal and emotional support.**  
48

49 **Potential Data Source:** Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.  
50

- 1 **6. (Developmental) Increase to \_\_ percent the proportion of people with disabilities reporting**  
2 **satisfaction with life.**

3  
4 **Potential Data Source:** Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

5  
6 *Policy Development*

- 7  
8 **7. (Developmental) Ensure that the typesize (printing) and style used on medicines, patient**  
9 **instructional materials, and syringes are legible to 98 percent of the adult population.**

10  
11 **Potential Data Source:** American Foundation for the Blind.

12  
13 Errors often result and frustration and uncertainty are generated when medicine markings, instruction  
14 sheets (including warning labels), medicine bottle labels, syringe markings, and other patient information  
15 are too small to be read by adults with visual impairment. This objective would lead to greater  
16 independence and better adherence to treatment plans and would result in better health for all Americans,  
17 particularly those with visual impairments.

- 18  
19 **8. (Developmental) Increase employment rates among people with disabilities to be equal to those**  
20 **for people without disabilities.**

21  
22 **Target Setting Method:** Use current rate of employment for U.S. population.

23  
24 **Potential Data Source:** Survey of Income and Program Participation (SIPP), Bureau of the Census.

25  
26 Overall, unemployment averages in the single digits for the U.S. population. SIPP data suggest that  
27 unemployment among persons with disabilities averages 40 to 60 percent, depending on the definition  
28 used.

- 29  
30 **9. Increase to 60 percent the proportion of children with disabilities included in regular education**  
31 **programs.** (Baseline: 45 percent for children 3 to 21 years of age in 1996)

32  
33 **Data Source:** Department of Education, Office of Special Education and Rehabilitative Services,  
34 Office of Special Education Programs.

35  
36 Inclusion in educational activities with nondisabled peers is a crucial part of social and emotional health of  
37 children with disabilities.

- 38  
39 **10. (Developmental) Increase to \_\_ percent the proportion of health, wellness, and treatment**  
40 **programs and facilities that are in compliance with the Americans with Disabilities Act,**  
41 **including:**

- 42  
43 **a. Community-based health and fitness programs**  
44 **b. Residential substance abuse treatment facilities**  
45 **c. Emergency housing programs for battered women**

46  
**Potential Data Sources:** State health department Americans with Disabilities Act compliance plans;  
Domestic Violence Statistical Survey; and health and fitness trade organizations.

1 **11. (Developmental) Ensure that environmental factors are rated as barriers to participation at**  
2 **home or work, and in the community by equal proportions of people with and without**  
3 **disabilities.**

- 4  
5 **a. Access to buildings**  
6 **b. Access to information, communications, and other devices and technology**  
7 **c. Transportation**  
8 **d. Perceived Community Attitudes**  
9 **e. Governmental policies**

10  
11 **Potential Data Source:** Behavioral Risk Factor Surveillance System, CDC, NCCDPHP.

12  
13 Persons with disabilities are often disabled as much, if not more, by environmental barriers as by personal  
14 activity limitations. No surveillance data are available, however, to evaluate the impact of environmental  
15 factors on participation. The Participation and Environment portion of the Disability Module of the  
16 BRFSS will address these factors.

17  
18 **12. Increase to 50 the number of States including public health surveillance and health promotion**  
19 **programs for persons with disabilities.**

20  
21 **Data Source:** National Center for Environmental Health, Office on Disability and Health; currently 14  
22 States include health promotion and surveillance activities, with an additional 2 providing surveillance.  
23

## 24 **Related Objectives From Other Focus Areas**

### 25 **Goal 1**

- 26  
27 6 People with good, very good, or excellent health  
28 7 Healthy days  
29 8 Able to do usual activities

### 30 **Physical Activity and Fitness**

- 31  
32 1 Leisure time physical activity  
33 2 Sustained physical activity  
34 3 Vigorous physical activity  
35 6 Vigorous physical activity, grades 9-12  
36 7 Moderate physical activity, grades 9-12  
37 10 School physical education quality

### 38 **Nutrition**

- 39  
40 5 Fat intake  
41 6 Saturated fat intake  
42 7 Vegetable and fruit intake  
43 8 Grain product intake  
44 9 Calcium intake  
45 10 Sodium intake  
46 11 Iron deficiency  
47 13 Meals and snacks at school  
48 14 Nutrition education, elementary schools  
49 15 Nutrition education, middle/junior high schools

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1 16 Nutrition education, senior high schools

2 20 Food security

3

4 **Educational and Community-Based Programs**

5 1 High school completion

6 7 Patient satisfaction with health care provider communication

7

8 **Injury/Violence Prevention**

9 34 Maltreatment of children

10 35 Physical abuse by intimate partners

11 36 Forced sexual intercourse

12 38 Sexual assault other than rape

13 39 Physical assaults

14

15 **Oral Health**

16 1 Caries experience

17 2 Untreated dental decay

18 3 Root caries

19 4 No tooth loss

20 5 Complete tooth loss

21 6 Gingivitis

22 7 Periodontal disease

23 8 Stage 1 oropharyngeal cancer lesions

24 9 Dental sealants

25 12 Screening/counseling for 2-year-olds

26 13 Screening, referral, treatment for first-time school program children

27 14 Adult use of oral health care system

28

29 **Access to Quality Health Services**

30 A.1 Uninsured children and adults

31 A.2 Insurance coverage

32 A.3 Routine screening about lifestyle risk factors

33 B.1 Source of ongoing primary care

34 B.2 Failure to obtain all needed health care

35 B.3 Lack of primary care visits

36 B.5 Racial/ethnic minority representation in the health professions

37 C.2 Insurance coverage

38

39 **Family Planning**

40 10 Pregnancy and STD preventive methods

41 12 School requirement for classes on human sexuality, pregnancy prevention, etc.

42

43 **Medical Product Safety**

44 6 Provider review of medications taken by patients

45 7 Complementary and alternative health care

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47 **Cancer**

48 10 Pap tests

49 11 Colorectal screening examination

50 13 Breast examination and mammogram

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**HIV**

- 8 Classroom education on HIV and STDs

**Mental Health and Mental Disorders**

- 7 Disabilities associated with mental disorders
- 23 Consumer satisfaction with services

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