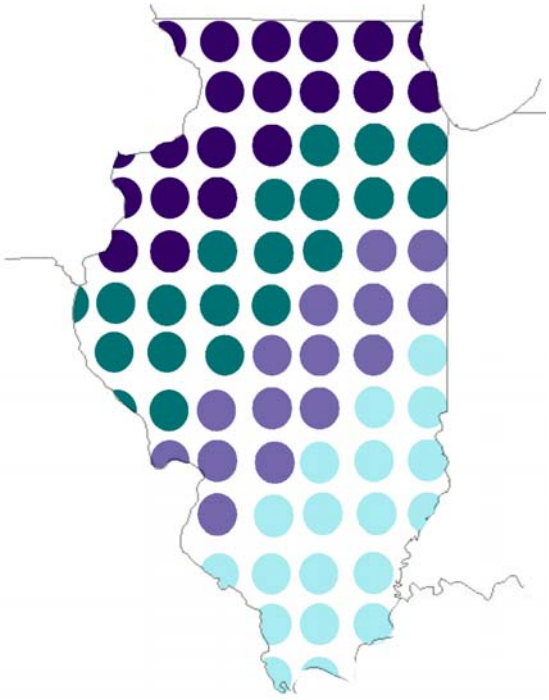
State of Illinois
Rod R. Blagojevich, Governor

Department of Public Health
Damon T. Arnold, M.D., M.P.H., Director

Illinois Disability and Health Data Report

Demographic and Health Profile of Illinoisans with Disabilities 2001-2003



December 2007

Illinois Department of PUBLIC HEALTH

Acknowledgements

The Illinois Department of Public Health extends its appreciation to those who contributed their time and expertise to this effort.

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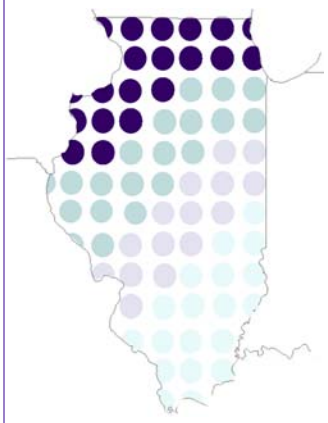
To learn more about the Illinois Disability and Health Program, or to receive the report in accessible formats, contact the Illinois Department of Public Health, Disability and Health Program, at 217-782-3300, TTY 800-547-0466.



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Illinois Department of
PUBLIC
HEALTH

Rod R. Blagojevich, Governor
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Dear Colleague:

On behalf of the Illinois Department of Public Health (IDPH), Office of Health Promotion, Division of Chronic Disease Prevention and Control, Disability and Health Program, I am pleased to share with you the "*Illinois Disability and Health Data Report: Demographic and Health Profile of Illinoisans with Disabilities, 2001-2003."*

This report is the first in a series of reports on the health status of Illinoisans with a disability. People with disabilities are at higher risk for developing secondary health conditions associated with their disability. Although these conditions are often preventable and manageable, people with disabilities often have difficulty participating in health promotion and disease prevention programs that are otherwise available to those without disability. I encourage readers of this report to develop and refine health promotion programs in state and local communities so that they are more inclusive for people with disabilities, and work together to improve the quality of life for Illinoisans with and without disability.

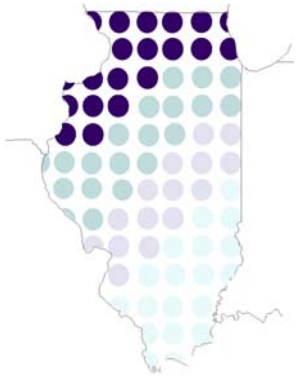
The IDPH Disability and Health Program and its many dedicated partners developed this report, representing a well coordinated approach to address health disparities identified in this report. The IDPH extends its sincere appreciation to these program partners who contributed their time and expertise to the development of this report.

Sincerely,

Damon T. Arnold, M.D., M.P.H.

Damon T. Arnold, M.D., M.P.H.
Director

Highlights



Prevalence of Disability in Illinois

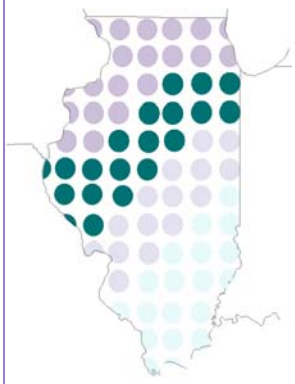
- The prevalence of disability among Illinois adults was 15.5 percent at the mid-point between 2001-2003.
- Women and older persons were more likely to report disability than their counterparts.
- The prevalence of disability between persons who are white, non-Hispanic and those who are black, non-Hispanic were similar.
- Illinois adults residing in rural areas reported a higher prevalence of disability than those who reside in the Chicago metropolitan area.

Health Disparities Between Adults With and Without Disability in Illinois

- Adults with disability in Illinois rated their own health worse than those without disability.
- Arthritis and asthma were more prevalent among Illinois adults with disability than those without disability.
- High blood cholesterol and high blood pressure were more prevalent among adults with disability than those without disability.
- Adults with disability in Illinois were less likely to engage in regular physical activity at the recommended level compared to those without disability.
- Obesity was more prevalent among adults with disability than those without disability.

About This Report

Purpose of the Report



The *Illinois Disability and Health Data Report* provides the first health profile of people with disabilities in Illinois. The report is intended to facilitate dialogue among key stakeholders in the state of Illinois who are interested in promoting the health and wellness of citizens with disabilities. Understanding of the demographic and health profile of people with disabilities is a critical initial step toward planning effective and targeted health promotion and chronic disease prevention.

Background

Chronic diseases are a major health burden in the United States. Every year, chronic diseases claim the lives of more than 1.7 million people and account for more than 70 percent of health care spending in the nation.[1] Chronic diseases are the primary cause of activity limitations for the majority of Americans with disability.[2] Despite the fact that chronic diseases are among the most prevalent and costly health problems, they are also among the most preventable. Promoting health and preventing or delaying the onset of specific chronic diseases has become a primary focus of the nation's health agenda.[3]

Health promotion and chronic disease prevention are as relevant to people with disabilities as they are for those without disability. The presence of disability increases the risk of developing secondary conditions, health conditions related to or exacerbated by the primary disability.[4] Researchers have repeatedly noted that risk factors for chronic diseases such as physical inactivity, obesity, hypertension, and high cholesterol, are more prevalent among people with disabilities than those without disability.[5, 6, 7, 8, 9] Thus, promotion of health and

wellness and prevention of secondary conditions are critical for people with disabilities in terms of living longer and healthier lives in the community.[10, 11]

Data Source

Data used for this report were extracted from the 2001 to 2003 Illinois Behavioral Risk Factor Surveillance System (ILBRFSS). The ILBRFSS, conducted annually by IDPH, is a random telephone survey of community households in the state designed to monitor health-related behaviors associated with chronic diseases and mortality among Illinois adults. Data were collected through telephone interviews from randomly selected adults, ages 18 years and older, at each sampled household. Until 2004, the ILBRFSS employed a split sample and a dual questionnaire procedure in order to increase the number of health topics being covered. Sampled adults were randomly assigned to one of two groups, and a different version of the survey questionnaire was administered to each group. Although the two versions shared the same core questions, each version included different sets of optional questions.

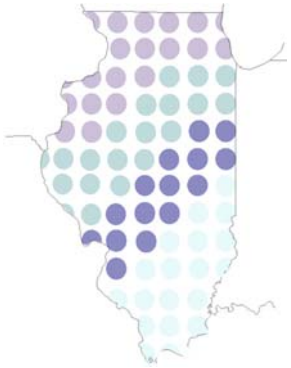
Disability Screening

Each year from 2001 to 2003, one of the two versions of the ILBRFSS questionnaire included a pair of disability screening questions. One question inquired whether a respondent had an activity limitation due to physical, mental and/or emotional problems. Another asked if he or she used a mobility-device (e.g., cane, wheelchair) and/or other assistive devices (e.g., special bed or telephone). Survey participants who responded positively to either or both questions were labeled as "adults with disability." The rest of the respondents were tallied as "adults without a disability" and served as representatives of the Illinois adult population without a disability.

Data Analysis

Data analyses were conducted using a statistical weight to produce state-level estimates. The statistical weight was primarily based on the probability of each respondent being selected in the survey on the basis of sex, age, race, and ethnic origin. The 95 percent confidence intervals were used to test statistical difference between the weighted estimates. In this report, expressions of "higher" and "lower" indicate a statistically significant difference between groups. Expressions such as "similar" or "no difference" indicate that the group difference was not statistically significant. The estimates for the two groups with and without disability also were compared to the *Healthy People 2010* target objectives when available.

Part I: Prevalence of Disability in Illinois



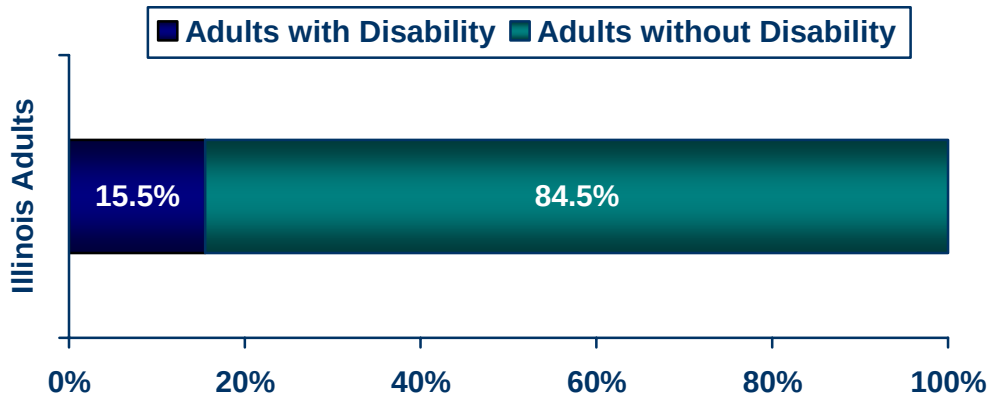
This section highlights the prevalence of disability in Illinois. Approximately one in every seven adults was estimated to have a disability. The prevalence appeared to be higher among women, older adults, persons in non-Hispanic white and non-Hispanic black groups, and rural residents.

Disability in Illinois

The previously reported percentage of people with disability in Illinois ranges from 12.4 percent in the 2004 American Community Survey[12] to 17 percent in the 2000 U.S. Census.[13]

Figure 1 graphically shows proportion of Illinois adults with and without disability based on the 2001-2003 Illinois Behavioral Risk Factor Surveillance data. Among adults ages 18 and older living in Illinois communities, 15.5 percent are estimated to have a disability. Note that these estimates do not include individuals using long-term care services such as nursing homes and institutions. Thus, the true magnitude of disability in Illinois is likely to be greater than the data presented here.

Figure 1. Prevalence of Disability in Illinois



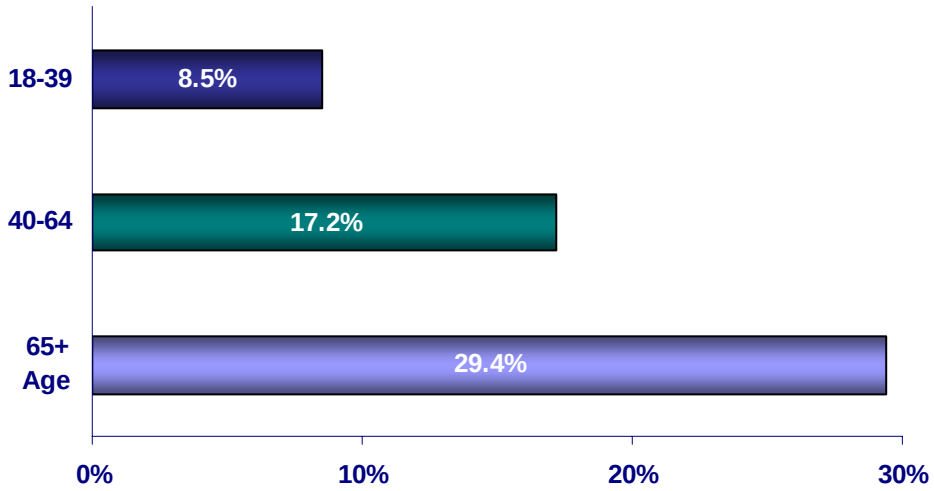
Source: 2001-2003 ILBRFSS

Disability by Age

Disability affects people of all ages. The likelihood of having disability, however, increases dramatically as a result of aging-related health conditions, which are major causes of activity limitations.

Figure 2 illustrates how the prevalence of disability in Illinois progresses across three age groups. More than one in every four non-institutionalized seniors (i.e., ages 65 years and older) living in the community has a disability. The prevalence among that age group is three times higher than that of young adults ages 18 to 39 years. Because the data do not include older adults who use nursing homes, the true extent of disability among Illinois senior citizens is likely to be higher. In light of the growth of the 65 and older age group, the number of Illinois seniors with disability is expected to rise substantially after 2010.

Figure 2. Prevalence of Disability Among Illinois Adults by Age



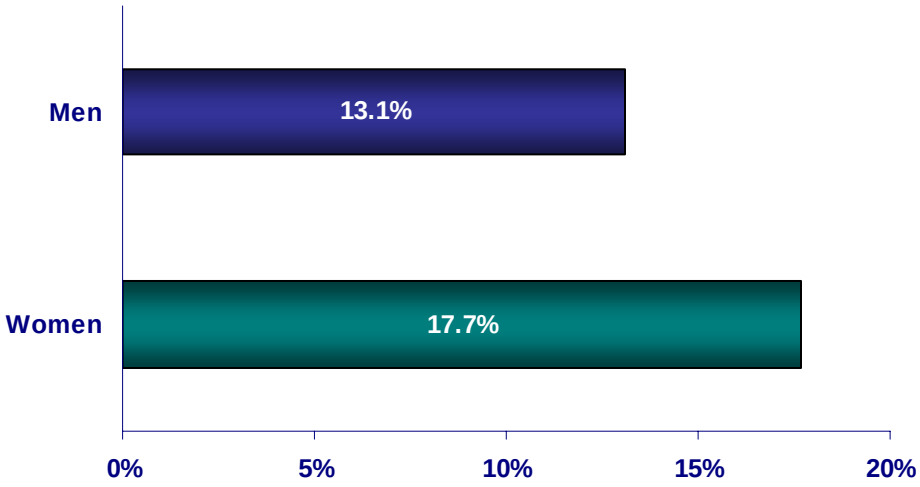
Source: 2001-2003 ILBRFSS

Disability by Gender

Data from population-based community surveys consistently estimate that disability prevalence is higher for women than men.[2,13] Women are more frequently affected by several different health conditions that cause disability compared to men.[2] The most commonly reported health conditions associated with a disability in women included back disorders, arthritis, heart disease, respiratory problems and high blood pressure.

Figure 3 shows the prevalence of disability among Illinois adults by gender. Consistent with other survey data, a higher proportion of women reported having a disability compared to men.

Figure 3. Prevalence of Disability Among Illinois Adults by Gender



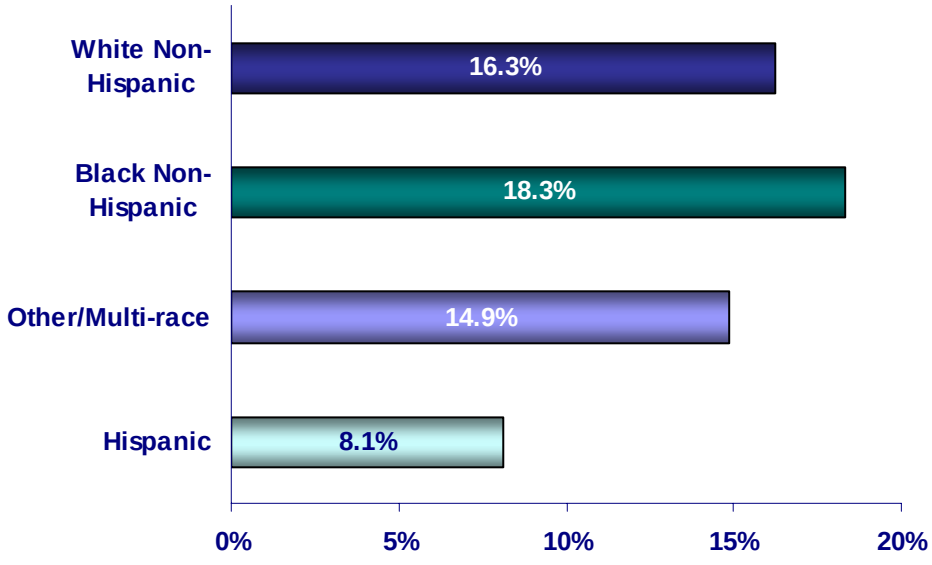
Source: 2001-2003 ILBRFSS

Disability by Race/Ethnicity

Prevalence of disability often varies across different racial/ethnic groups. Discrepancies may be attributable, at least partially, to the age composition of the groups. For example, the age distribution of the Hispanic population is much younger than that of the national population. Factors such as poverty, income and access to health care also are likely to contribute to the discrepancies across the groups.

Figure 4 shows the prevalence of disability across the four racial/ethnic groups in Illinois. American Indians, Asians and other groups and persons with multiple race are aggregated into a single group, "Other/Multi-Race," due to their small sample sizes. Estimated disability prevalence between the three groups, white non-Hispanic, black non-Hispanic, and other/multi race, did not differ statistically. The prevalence of disability for Hispanics was lower than that for white and black non-Hispanic groups, but statistically not different from that for other/multi-race group.

Figure 4. Prevalence of Disability in Illinois Across Race/Ethnic Group



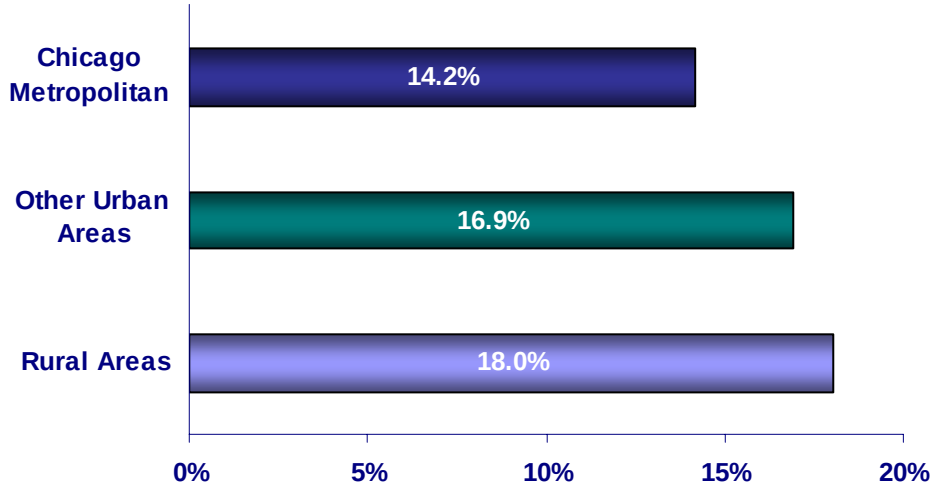
Source: 2001-2003 ILBRFSS

Disability by Geographic Area

The prevalence of disability varies across geographic region. For example, the prevalence of disability from the 2000 U.S. Census varied from 24.4 percent for the state of West Virginia to 15 percent for Minnesota and 14.9 percent for Alaska and Utah.[13] Age distribution of the residents, social and demographic characteristics of the area, and other factors contribute to the geographic variation for the disability prevalence.

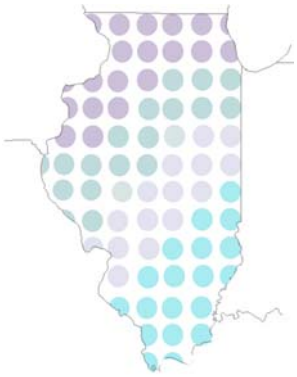
The prevalence of disability across the Chicago metropolitan area (i.e., city of Chicago, counties of Cook, Lake, McHenry, Kane, DuPage, and Will), the other urban areas (i.e., 13 urban counties), and the rural areas (i.e., 83 rural counties) is shown in **Figure 5**. The prevalence for the rural areas was statistically similar to that of the other urban areas, but higher than the Chicago metropolitan areas. The discrepancy may be attributable, at least partially, to a higher proportion of older individuals and the difficulty in accessing health and human services, which are common characteristics of rural communities of the state.

Figure 5. Prevalence of Disability Among Illinois Adults Across Three Geographic Areas



Source: 2001-2003 ILBRFSS

Part II: Health Disparities Between Adults With and Without Disability in Illinois



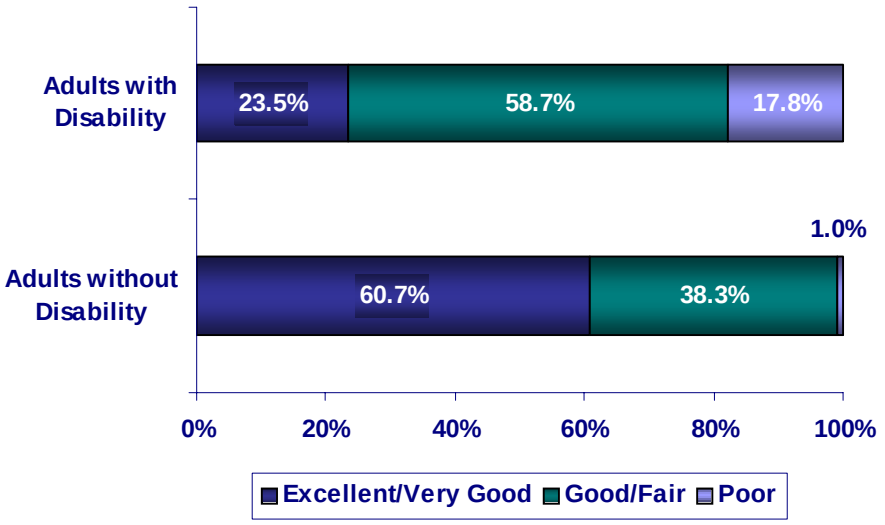
This section contrasts the health status of Illinois adults with and without disability. Fewer adults with disability perceived their health status as excellent compared to adults without disability. Individuals with disability also were more likely to have a secondary health condition. They also were less likely to be physically active and more likely to be obese. Results were compared to the *Healthy People 2010* target objectives where available.

Self-Rated Health Status

A person's own subjective rating of his/her health can provide information which may not be available from objective measures such as a physician's examination or laboratory tests. When rating one's own health, for example, a person may consider symptoms which may not be diagnosed by health professionals. The self-rating may reflect improvement or decline of a person's health status over time rather than his/her current health status. It also may be influenced by his/her engagement in a healthy lifestyle such as eating healthy or exercising regularly.

Figure 6 contrasts the self-rated health status of Illinois adults with and without disability. Adults with disability were less likely to rate their own health status as "excellent" or "very good" compared to their counterparts without disability. While few adults without disability rated their health as "poor," 17.8 percent of adults with disability did so.

Figure 6. Self-Rated General Health Status by Disability Status



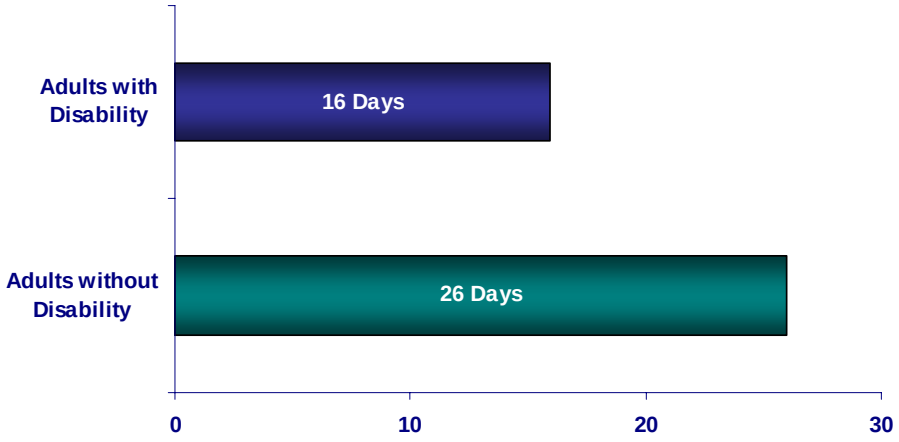
Source: 2001-2003 ILBRFSS

Healthy Days

Counting the number of days that a person is healthy is another approach to measuring a person's self-perception of his/her health. Healthy days are defined as the number of days within the past 30 days that the person feels no physical symptoms and no mental and emotional distress. Quantifying the self-perceived health status in the form of healthy days provides a concrete measure of health.

Figure 7 summarizes the average number of healthy days between Illinois adults with and without disability. Adults with disability had an average of 16 healthy days a month, which indicated that they reported 53.3 percent of all days as healthy. In contrast, adults without disability had 26 healthy days in the past 30 days which corresponded to 86.6 percent of all days as healthy.

Figure 7. Number of Healthy Days During the Past 30 Days by Disability Status



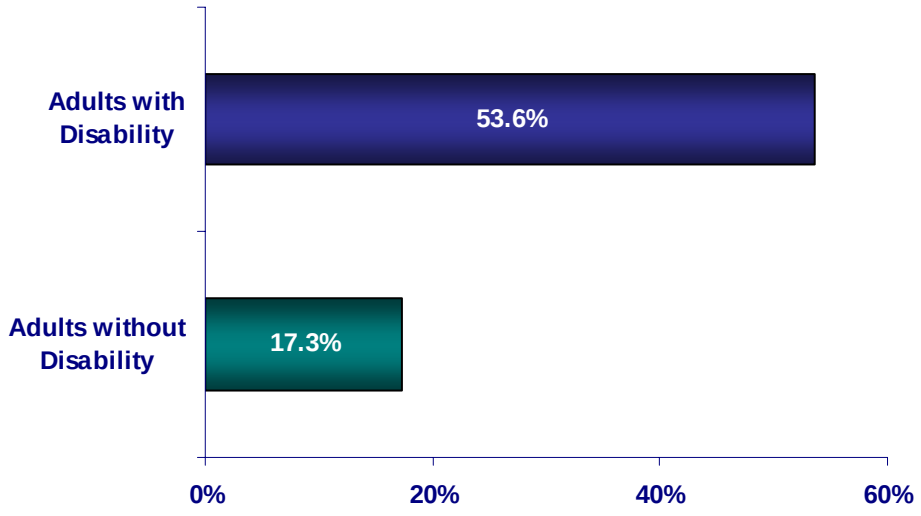
Source: 2001-2003 ILBRFSS

Arthritis

Arthritis includes more than 120 rheumatic diseases and conditions affecting the joints, the surrounding tissues and other connective tissues.[14] Common symptoms of arthritis include pain, stiffness and swelling, not just in joints but also in other supporting structures of the body such as muscles, tendons, ligaments and bones. Because of these symptoms, many adults with arthritis experience difficulties conducting daily activities and need assistance from others. In fact, arthritis is the leading cause of disability in the nation,[2] and 40 percent of Illinois adults with arthritis reported having limitations in daily activities.[14]

Figure 8 shows the prevalence gap of arthritis across the two groups with and without disability. More than half (53.6 percent) of adults with disability reported having doctor-diagnosed arthritis. The rate, 17.3 percent, was lower for those without disability.

Figure 8. Prevalence of Arthritis by Disability Status



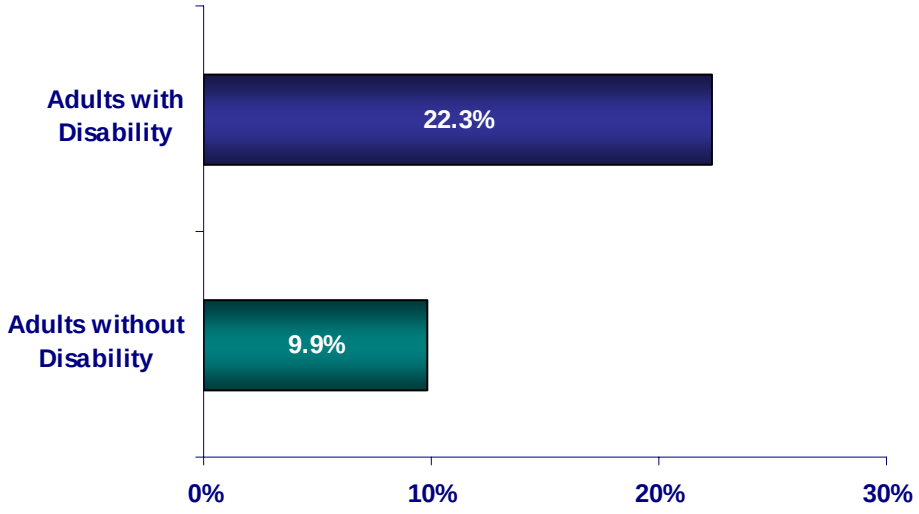
Source: 2001-2003 ILBRFSS

Asthma

Asthma is one of this country's most common lung diseases, and is associated with significant morbidity and mortality. In 2002, an estimated 20 million people of all ages and races had asthma, and in the past 20 years, the number of Americans with asthma has more than doubled.[15] The burden of asthma is greater among children, Hispanics and African Americans.

Figure 9 shows the prevalence of doctor-diagnosed asthma between Illinois adults with and without disability. About one in every four adults with a disability in Illinois has asthma versus one in every 10 for those without disabilities. The asthma prevalence for adults with disability is more than two times higher than for adults without disability.

Figure 9. Prevalence of Asthma Among Illinois Adults by Disability Status



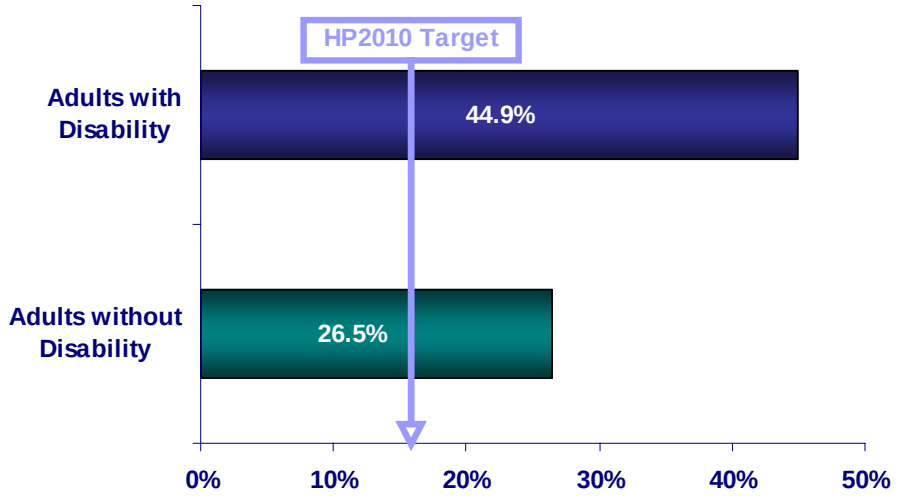
Source: 2001-2003 ILBRFSS

High Blood Cholesterol

People with high blood cholesterol have a higher risk of heart disease. Because high blood cholesterol does not cause symptoms, many people are unaware that their cholesterol level is too high.

Figure 10 shows the prevalence of high blood cholesterol among Illinois adults with and without disability. Of those with disability who had their cholesterol level checked, 44.9 percent were told by health professionals that their cholesterol was high. Among adults without disability who had their cholesterol level checked, the rate of high blood cholesterol was lower (i.e., 26.5 percent). The national target objective in *Healthy People 2010* (i.e., Objective 12-14) is to reduce the proportion of adults with high total blood cholesterol to 17 percent (as shown by the blue arrow in the figure) by the year 2010.

Figure 10. Prevalence of High Blood Cholesterol Among Illinois Adults by Disability Status



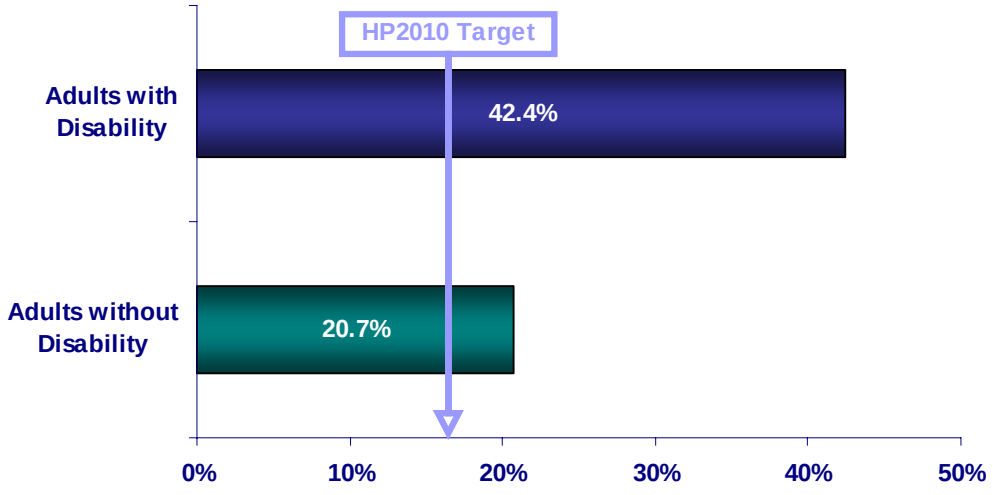
Source: 2001-2003 ILBRFSS

High Blood Pressure

High blood pressure is called "the silent killer" because it usually has no symptoms. Nearly one in three American adults has high blood pressure, which is defined as a blood pressure reading of 140/90 mmHg or higher.[16] High blood pressure increases the workload on the heart and blood vessels and can lead to heart disease, stroke, kidney problems and even blindness. Once high blood pressure develops, it usually lasts a lifetime. However, it can be treated and controlled through medication and adopting a healthy lifestyle.

Shown in **Figure 11** is the prevalence of high blood pressure among Illinois adults across the two groups with and without disability. The prevalence for adults with disability, 42.4 percent, is twice as high as that for adults without disability, 20.7 percent. When compared to the *Healthy People 2010* target (i.e., Objective 12-9), people with disabilities have a substantially higher prevalence of high blood pressure compared to people without disability.

Figure 11. Prevalence of High Blood Pressure Among Illinois Adults by Disability Status



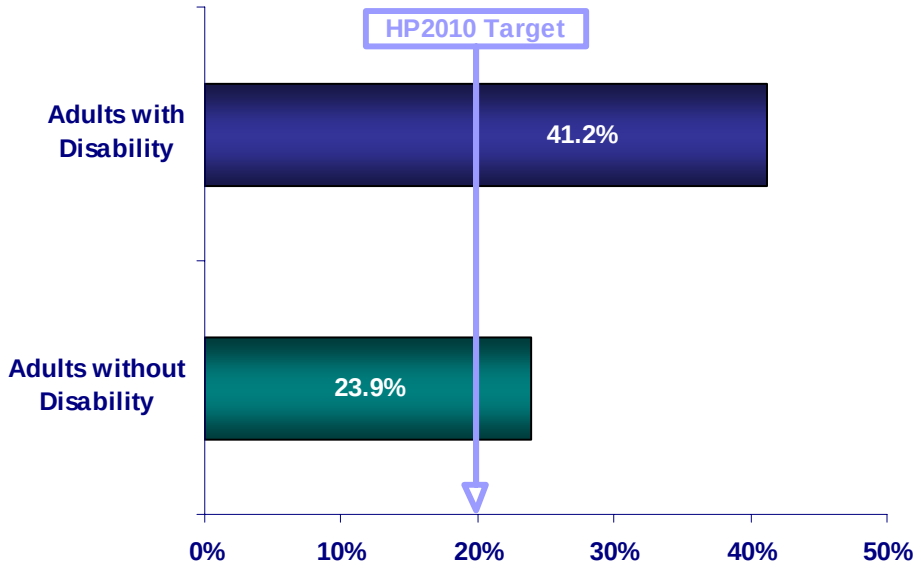
Source: 2001-2003 ILBRFSS

Exercise

Exercise is defined as physical activity that is planned or structured. It involves repetitive bodily movement done to improve or maintain one or more components of physical fitness such as cardiorespiratory endurance, muscular strength, muscular endurance, and flexibility. Physical fitness is the outcome of regular exercise.

Figure 12 compares the proportion of Illinois adults who have *not* exercised (i.e., not participated in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise, other than regular job, during the past 30 days) by their disability status. The proportion who did not exercise was higher for adults with disability than adults without disability, 41.2 percent vs. 23.9 percent, respectively. To meet the *Healthy People 2010*'s goal of 20 percent (i.e., Objective 22-1), the proportion of adults with disability in Illinois needs to be reduced to less than half of the current proportion.

Figure 12. Proportion of Adults With No Exercise Past 30 Days by Disability Status



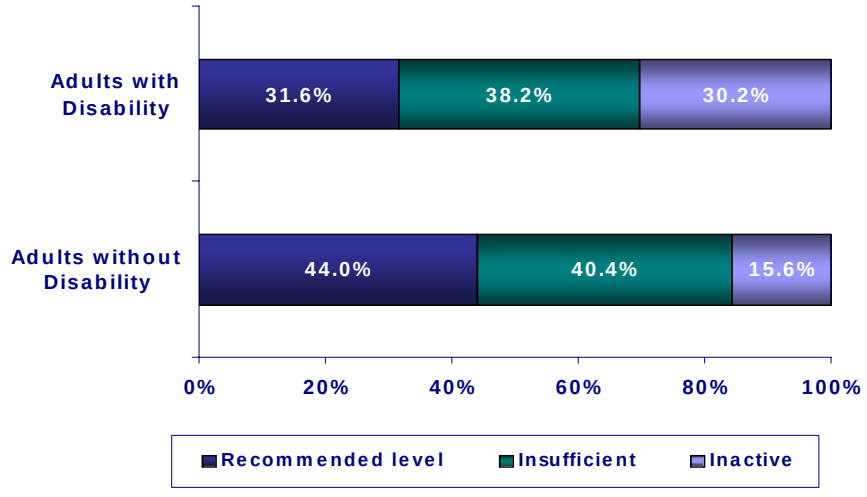
Source: 2001-2003 ILBRFSS

Recommended Level of Physical Activity

Regular participation in physical activity can help individuals live a longer and healthier life. It also can help individuals achieve and maintain a healthy weight and lower the risk for chronic disease. Additionally, physical activity can help relieve stress and provide an overall feeling of well-being.

Figure 13 compares participation in regular physical activity between people with and without disability across the three categories: Recommend level (i.e., either 30 minutes or longer of moderate physical activities five or more days a week or 20 minutes or longer of vigorous physical activities three or more days a week, or both), Insufficient level (i.e., more than 10 minutes of moderate or vigorous activities per week, but less than the Recommended level), and Inactive level (i.e., less than 10 minutes of moderate or vigorous activities per week). Compared to adults without disability, the proportion of adults with disability who met the recommendation was two-thirds of their counterparts without disability; 31.6 percent vs. 44.0 percent, respectively. The proportion of physically inactive adults with disability was twice as high as that of adults without disability.

Figure 13. Participation in Physical Activity at Recommended Level



Source: 2001-2003 ILBRFSS

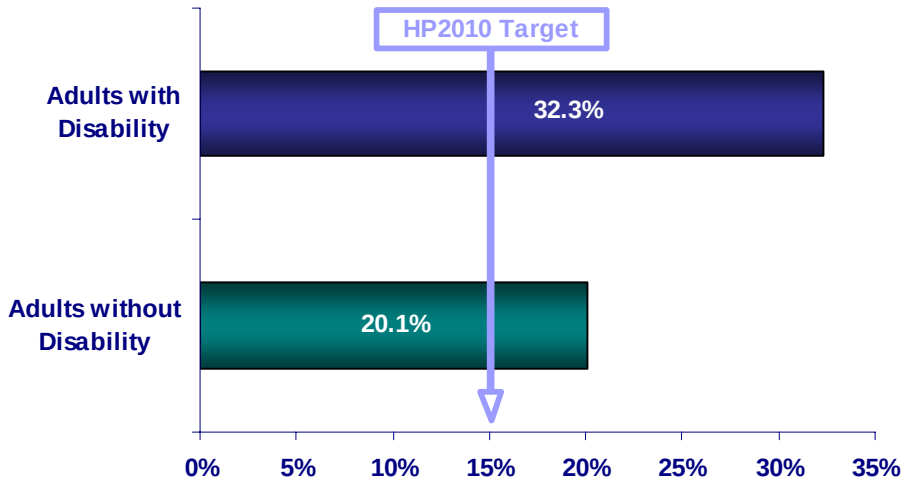
Obesity

Obesity contributes to various chronic diseases and health conditions. It substantially increases the risk of heart disease, diabetes, arthritis, various forms of cancer, high blood pressure and high cholesterol. Because obesity is often associated with one's eating and exercise habits, it is considered one of the preventable causes of death in the United States.

In addition to health consequences, obesity also has an economic and social impact. Persons who are obese are more likely to experience difficulty participating in various life activities such as employment and recreation, and are more likely to experience social isolation, stigma, discrimination and lower self-esteem.

Figure 14 underscores the discrepancy in the obesity rate among Illinois adults with and without disability. Using the weight for height index (i.e., Body Mass Index) of 30 or above as a measure of obesity, 32.3 percent of Illinois adults with disability were obese. The rate for Illinois adults without disability was 20.1 percent. The *Healthy People 2010* target objective is to reduce the rate to 15 percent by the year 2010 (i.e., Objective 19-2).

Figure 14. Adults Who Are Obese by Disability Status



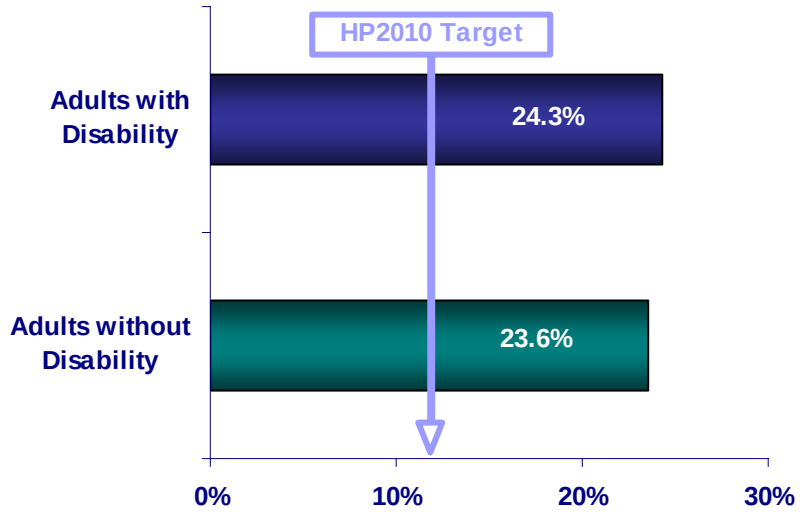
Source: 2001-2003 ILBRFSS

Tobacco Use

Cigarette smoking is the single most preventable cause of disease and death in the United States. It causes heart disease, several forms of cancer and respiratory disease. In Illinois, about 17,000 residents die each year from smoking attributable causes such as cancer, heart diseases and respiratory diseases. Smoking-attributable deaths accounted for an average of 16 percent of all deaths in Illinois between 1997 and 2001.[17]

Figure 15 shows the proportion of Illinois adults who have ever smoked 100 cigarettes and who continue to smoke by disability status. The proportion of current smokers between the two groups was similar. The rates for both groups were twice as high as the *Healthy People 2010* target objective of 12 percent (i.e., Objective 27-1).

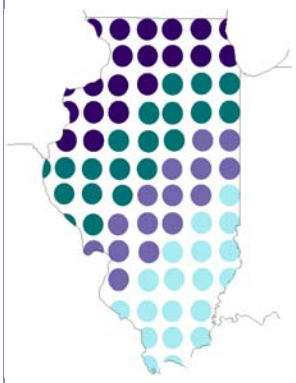
Figure 15. Illinois Adults Who Have Ever Smoked 100 Cigarettes and Continue Smoking by Disability Status



Source: 2001-2003 ILBRFSS

Call to Action

This is the first report to highlight demographic and health characteristics of Illinois non-institutionalized people with disabilities. Understanding the extent of disability and the life circumstances facing our citizens with disability are critical steps to planning effective health promotion and prevention strategies for this large, but under-studied sub-population in the state.



Having a disability does not necessarily mean the lack of health or poor health. People with disabilities can benefit from disease prevention and health promotion efforts as much as those without disability would. Because people with disabilities are at an increased risk of developing additional health conditions (i.e., secondary conditions), practicing disease prevention and health promotion may be more critical in maintaining health and continuing active life in the community.

Reducing barriers and expanding access to various health services and health promotion programs in the community is a critical and urgent issue in supporting their independence. Traditionally, community health services have not been developed with all of the many needs of people with disabilities in mind. Thus, people with disabilities who want to utilize these services often experience access barriers including inaccessible medical facilities and equipment, transportation barriers, communication barriers, condition invisibility, confusion with other disabilities, service delivery attitudes, personal misconceptions, denial, lack of service awareness, and disability over identification.

Findings from this report suggest that people with disabilities will continue to comprise a major portion of the population base in Illinois and that state and local policymakers need to prepare for a growing population that will require services to remain integrated in their communities. Monitoring and tracking this growing population at the state level will become more critical for future development and implementation of policies and programs that meet the unique needs of state residents with disabilities. The Illinois Disability and Health Program, with funding from Centers for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities, Disability and Health Team, will continue its effort in monitoring health of Illinoisans with disability and informing its findings to various stakeholders who are interested in promoting the health and wellness of citizens with disability.

To learn more about the Disability and Health Data Report, the Illinois Disability and Health Program, and how to become involved, contact the Illinois Department of Public Health, Disability and Health Program at 217-782-3300, TTY 800-547-0466.

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