Acknowledgments

This report is based on a presentation requested by the Interagency Committee on Disability Research (ICDR) in 2010. ICDR was created in 1978 to promote interagency disability research coordination and collaboration, and enhance communication and information sharing among federal agencies and stakeholders conducting rehabilitation research programs and activities. Dr. Brian Armour of the National Center for Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention (CDC), contributed data, and Willi Horner-Johnson, PhD, and Genia Taitano, MPH, of the Center on Community Accessibility, Oregon Health & Science University, conducted data analysis for the original presentation.

The current report was supported in part by the Disability and Rehabilitation Research Project: Health and Health Care Disparities Among Individuals with Disabilities Project (Health Disparities Project), Grant/Cooperative Agreement Number H133A100031, from the National Institute on Disability and Rehabilitation Research (NIDRR), United States Department of Education. The Health Disparities Project is located at the University of New Hampshire, with collaborators at Oregon Health & Science University, and the University of Missouri at Kansas City. The project is guided by a national expert panel that includes:

- Gloria Krahn, PhD, MPH, Division of Human Development and Disability, National Center for Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention;
- Glenn Fujiura, PhD, University of Illinois at Chicago;
- Lisa Iezonni, MD, MSc, Massachusetts General Hospital and Harvard University;
- Henry Ireys, PhD, Mathmatica Policy Research;
- Elena Andresen, PhD, Oregon Health & Science University; and
- Jana Peterson, MPH, PhD, University of Missouri at Kansas City.

The contents of this report are solely the responsibility of the authors and do not necessarily represent the official views of NIDRR or the project’s expert panel.

Copyright © 2011 Institute on Disability, University of New Hampshire. ALL RIGHTS RESERVED. No part of this copyrighted work may be modified, reproduced, or used in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, web distribution, or information storage and retrieval systems—without the written permission of the UNH Institute on Disability.

For permission to use this material, submit a request to contact.iod@unh.edu.
# Table of Contents

Introduction ................................. 2
Data Source ................................................................. 2
What do we mean by “disability”? ......................... 2

**Disability and Race/Ethnicity in the United States** ................................................................. 3

How many people in the United States have a disability? ......................... 3
How many people in the United States are from each racial/ethnic group? ......................... 3
Socio-Economic Status: Disability and Race/Ethnicity ............................................. 3
Health Status ............................................................ 4
Health Behaviors ......................................................... 4
Obesity and Diabetes ..................................................... 5
Cardiovascular Disease .................................................... 5
Health Care Access ....................................................... 6

**Discussion** ................................................................. 6

Disability and Health Indicators ............................................. 6
People of Color with Disabilities ............................................ 7
Children with Disabilities and Health Disparities ............................................. 7
Re-Thinking Disability and Race .............................................. 7

**Conclusion** ................................................................. 8

References ................................................................. 9
Introduction

The basic purpose of this chart book is to answer the question of whether working age (18-64) people with disabilities in the United States experience health disparities similar to those experienced by members of racial and ethnic minority groups in the United States. Because of the perception that disability is solely an aging phenomenon, we limited our analysis to people of working age. Relatively little research has been conducted comparing the health of people with disabilities to that of people from racial and ethnic minority groups. However, research has consistently documented that, as a group, people with disabilities experience worse health than the general population. Specifically, people with a variety of physical and cognitive disabilities are more likely to experience poorer health status, potentially preventable secondary conditions, chronic conditions, and early deaths.1-6

At the same time, the last two decades have demonstrated that disability and ill health need not be synonymous.2 Many of the health challenges experienced by people with disabilities are preventable given access to medical care, attention to health promotion and disease prevention, and improved social circumstances.

People with disabilities have also been described as the largest underserved minority group who demonstrate evidence of health disparities.3 The larger purpose of this chart book, then, is to explore the role of disability in the context of national efforts to address health disparities. Are the socio-economic and health experiences of people with disabilities similar to other recognized minority groups in the United States, such as underserved racial and ethnic groups? Data from the White racial group is presented as a referent and is not specifically discussed in this report, with the exception of racial and ethnic composition in Figure 2.

Data Source

The information in this chart book came from the Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is the nation’s premier public health survey, and was established by the Centers for Disease Control and Prevention (CDC). The BRFSS survey is done every year by each state or territory health department and the results can be aggregated to create a picture of the country’s health. The BRFSS is a telephone survey that asks about health, behaviors that affect health, and access to health care. The survey is random, meaning that any resident might be called. However, some groups of people are not included. Children under age 18 and people who are in an institution, such as a jail or nursing home, are not included in the survey. People who have no telephone, or only have a cell phone, are not included. Individuals who do not speak English or Spanish are not included. Some people who have a disability may not be included because the survey was not made available in alternative formats, the individual could not get to the phone in time, or used a special telephone that sounds to the caller like a fax machine.

The information used for this chart book was collected in 2008. There were approximately 400,000 respondents to the BRFSS. The CDC aggregated the 2008 BRFSS data across all states and territories, and weighted the data by age, sex, race/ethnicity, and non-response and sampling probability to represent the entire adult sample population (www.cdc.gov/brfss).

What do we mean by “disability”?

In the BRFSS survey, people are considered to have a disability if they answer “Yes” to one or both of the following questions:

1. Are you limited in any way in any activities because of physical, mental, or emotional problems?
2. Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?
**Disability and Race/Ethnicity in the United States**

**How many people in the United States have a disability?**

According to the BRFSS, about 36 million adults age 18 to 64 in the United States have a disability.

*This means that nearly 20% of the United States’ adult population in 2008 had a disability* (**Figure 1**).

**Figure 1.** Proportion of working adults in the United States with and without a disability

---

**How many people in the United States are from each racial/ethnic group?**

According to the BRFSS, about 66 million adults age 18 to 64 in the United States are from minority racial/ethnic groups. This is 34.3% of the United States working adult population in 2008.

As displayed in **Figure 2**, the largest minority racial/ethnic group is Hispanics, followed by Blacks, Asians, American Indian/Alaska Native, and Pacific Islanders. Whites constitute nearly 66% of the working adult population in the United States.

If people with disabilities were a formally recognized minority group, at 19% of the population, they would be the largest minority group in the United States.

---

**Socio-Economic Status: Disability and Race/Ethnicity**

It is widely recognized that social, economic, and political resources and structures, called the social determinants of health, have a significant influence on health outcomes. One subset of these—socio-economic status—is the most common and documented social determinant of disease. The BRFSS is limited to a narrow range of socio-economic status questions rather than social determinants. Nevertheless, the BRFSS questions provide useful comparisons, since the questions include whether individuals are employed for wages, have an income of $25,000 or less, and have less than a high school education.

*The lowest proportion of persons employed for wages is found in people with disabilities (43%) (see **Figure 3**), followed by American Indian/Alaska Natives (50%), Hispanics (57%), Blacks (60%), and Asians (64%). The highest proportion of people with annual incomes of less than or equal to $25,000 is found in Hispanics (43%), followed by American Indian/Alaska Natives (35%), people with disabilities (33%), Blacks (32%), and Asians (14%). Similarly, Hispanics have the highest proportion of persons with less than a high school education (31%), followed by American Indian/...*
Alaska Natives (14%), people with disabilities (13%), Blacks (10%), and Asians (6%).

Health Status

Health and wellness are the foundations that allow people to fully participate in many of the most important aspects of life. The BRFSS asks respondents to assess their overall health status (“Would you say that in general your health is: Excellent, Very Good, Good, Fair, or Poor?”).

Forty percent of people with disabilities say their health is fair or poor, compared with 23% of Hispanics, 22% of American Indian/Alaska Natives, 18% of Blacks, and 8% of Asians, as displayed in Figure 4.

Health Behaviors

According to McGinnis, Williams-Russo, and Knickman, who conducted an exhaustive review of the literature, 40% of early deaths are caused by health behaviors such as smoking or being sedentary. The BRFSS asks respondents about physical activity and smoking, among other health behaviors.

People with disabilities have the highest proportion of people who reported being sedentary (not exercising recently) at 37%, as displayed in Figure 5. Asians have the smallest proportion of people who are sedentary (23%), followed by American Indian/Alaska Natives (30%), Blacks (31%), and Hispanics (32%).
People with disabilities also have the highest proportion of current smokers (29%), followed by American Indian/Alaska Natives (23%), Blacks (22%), Hispanics (16%), and Asians (9%).

### Obesity and Diabetes

Inactivity is linked to obesity, as well as diabetes. BRFSS respondents are asked to report their weight and height; body mass index (BMI) is calculated based on these measurements (there are some limitations in applying BMI to persons with certain types of disabilities). Obesity is equal to a BMI of 30 or higher. Respondents are also asked if a doctor has ever told them that they have diabetes.

People with disabilities report the highest prevalence of obesity (38%), followed by Blacks (36%), American Indian/Alaska Natives (33%), Hispanics (27%), and Asians (8%), as displayed in Figure 6.

People with disabilities also report the highest prevalence of diabetes (15%), followed by American Indian/Alaska Natives (11%), Blacks (10%), Hispanics (7%), and Asians (6%).

### Cardiovascular Disease

The BRFSS asks respondents if a doctor, nurse, or other health professional has ever told them that they had a stroke, angina or coronary heart disease.
People with disabilities report the highest prevalence of stroke, coronary heart disease, and heart attack (5%, 7%, and 7%, respectively, as displayed in Figure 7), followed by American Indians/Alaska Natives (4%, 4%, and 6%, respectively), Blacks (3%, 2%, and 3%, respectively), Hispanics (1%, 2%, and 2%, respectively), and Asians (1%, 1%, and 1%, respectively).

Health Care Access

One of the fundamentals to ensuring good health is access to medical care. The BRFSS asks respondents if they have health care coverage (including health insurance, prepaid plans such as HMOs, or government plans such as Medicare), how long it has been since they have seen a doctor for a routine check-up, and if there was a time in the past 12 months when they needed to see a doctor but could not because of cost.

As displayed in Figure 8, Hispanics were the largest group to report not having health insurance (26%), followed by American Indian/Alaska Natives (26%), Blacks (20%), people with disabilities (17%), and Asians (12%). American Indian/Alaska Natives were the largest group who had not had a recent routine check-up (39%), followed by Hispanics (38%), Asians (33%), people with disabilities (31%), and Blacks (23%).

The largest group citing cost as a barrier to receiving health care was people with disabilities (28%), followed by Hispanics (25%), American Indian/Alaska Natives (24%), Blacks (22%), and Asians (12%).

Discussion

Disability and Health Indicators

As presented on the previous pages, the prevalence rates of the various health indicators selected from the BRFSS vary among racial/ethnic groups and people with disabilities. People with disabilities have the least desirable prevalence rates for ten of the fourteen selected health indicators. Because of the high prevalence of disability in the general population, health promotion efforts targeted to this group have the potential to have a significant, favorable impact on public health in the United States and may contribute significantly to reductions in more expensive acute medical care. For example, many of the innovative CDC-funded state offices of disability and health have been implementing evidence-based health promotion programs targeting persons with disabilities. 

![Figure 7. Prevalence of cardiovascular events/disorders among racial/ethnic groups and people with disabilities](image)
People of Color with Disabilities

While people with disabilities are treated as a group separate from racial/ethnic groups in this analysis, disability can be found in all of the race/ethnicity categories. Individuals from minority racial/ethnic groups who also have disabilities confront an enormous health disparity amplifying phenomenon.

For example, the percentage of Blacks without a disability that report that their health is fair or poor is 11% compared to 50% of Blacks with disabilities. For Asians with and without disabilities, the percentage reporting fair or poor health increases from 6% to 38% and for American Indians/Alaska Natives from 9% to 52%. Finally, the percentage of Hispanics without a disability that report their health is fair or poor is 19% compared to 50% of Hispanics with a disability. This demonstrates a significant need for culturally appropriate health promotion and prevention efforts.

Children with Disabilities and Health Disparities

The focus of this report has been on working age adults in the United States; BRFSS data are not available for those under age 18. It is important to note, however, that health disparities exist in children, as well. Children and adolescents with physical and cognitive disabilities have a higher prevalence of being overweight or obese. This health risk can lead to further morbidity and complicates the health care needs of the overweight or obese individual. There are also disparities in health care access and utilization between types of disabilities (developmental disabilities versus physical disorders). Children with disabilities and special health care needs grow up. There is a critical need to address disparities experienced by children with disabilities and develop health transition plans to minimize the effect of disparities that may occur in adulthood.

Re-Thinking Disability and Race

It is increasingly clear that disability is a complex social experience that, independent of the physical aspects of one’s underlying condition or impairment, can contribute to poorer health outcomes. The root of this phenomenon, however, may well be based on the common observation that “It’s not my disability that’s my problem; it’s how other people treat me because of my disability.” Much like the experiences of more recognized disparity groups such as racial and ethnic minorities, this observation links disability to discrimination and the byproducts of discrimination: a lack of economic resources, power, and social standing. In much the same way that early cumulative exposure to discrimination among African American women

Figure 8. Prevalence of health care access indicators among racial/ethnic groups and people with disabilities

<table>
<thead>
<tr>
<th></th>
<th>No Health Insurance</th>
<th>No Recent Check Up</th>
<th>Cost Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability</td>
<td>17%</td>
<td>31%</td>
<td>28%</td>
</tr>
<tr>
<td>Black</td>
<td>20%</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Asian</td>
<td>12%</td>
<td>33%</td>
<td>12%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>26%</td>
<td>39%</td>
<td>24%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>36%</td>
<td>38%</td>
<td>25%</td>
</tr>
<tr>
<td>White</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
</tr>
</tbody>
</table>
contributes to a “weathering” impact on later health status,\textsuperscript{15} discrimination against persons with disabilities may contribute to a similar “wear and tear” effect on health status.

The impact of the social determinants on health has emerged from the analysis of the distribution of mortality and morbidity among social groups. The research has demonstrated a striking consistency: the lower the social group, the higher the mortality and morbidity.\textsuperscript{16} From the perspective of the social determinants of health, disability is similar to racial social groups because of the presence of discrimination and limitations in resources, power, and social standing. Thus, this report documents a range of health disparities experienced by persons with disabilities, many of them at least as challenging as disparities experienced by racial and ethnic minorities.

Some criticism has emerged regarding the BRFSS definition of disability for being too broad. In the same way that racial categories are not homogenous, neither are disabilities. For example, “Hispanic” as a racial category includes people who originated from Mexico, Puerto Rico, Cuba, and Central and South America. The social experience of an individual from Brazil is significantly different from that of an individual from Cuba, but both are “Hispanics.” Similarly, there are many different cultures and tribal origins for American Indians and Alaska Natives and cultures and countries of origin for “Asians” and “Blacks,” and more complex phenomena such as the differential impact of being light skinned versus dark skinned. In this sense, the broad definition of disability in the BRFSS serves the same purpose as race/ethnicity demographic variables: it creates a baseline for assessing the social experience of these phenomena.

At the same time, it is important to understand the role that having different types of disabilities plays in the larger disparities milieu. For example, persons with certain types of disabilities may experience more significant disparities than others. The Health Disparities Project is addressing this issue by conducting a systematic scoping review of all peer-reviewed literature published between 2000 and 2009 that documents disparities in health care utilization (limited to clinical preventive services) and health outcomes (top ten leading causes of death) among persons with a range of disabilities. In addition, the project is conducting two series of regression modeling studies using the Medical Expenditure Panel Survey data. The first series of studies will identify factors that relate to health care access among persons with a range of disabilities. The second series of studies will extend these analyses examine factors associated with health outcomes for persons with a range of disabilities.

**Conclusion**

As we begin the second decade of the twenty-first century, agencies responsible for improving the health of the millions of people with disabilities in the United States are at a pivotal point. From a singular focus on preventing disability, the last twenty years have been marked by national efforts to promote the health and improve the quality of life of persons who already experience disability. The 2000s included not one but two reports from the United States Surgeon General recognizing the historical exclusion of people with disabilities from public health programs and the unmet health care needs of persons with disabilities\textsuperscript{17,18} and led to the inclusion of people with disabilities into *Healthy People 2010*\textsuperscript{19}, the nation’s road map for public health. The stark facts presented in this report should illustrate the need for careful planning on how the United States will address the health disparities experienced by persons with disabilities into the next decade. The time is now for a national plan to address health disparities experienced by persons with disabilities.
References

6ibid. at endnote 2.