

# Disability Perceptions and Experiences in the State of Florida: 2010 Florida Behavioral Risk Factor Surveillance System (BRFSS)

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**Disability Perceptions and Experiences in the State of Florida: Results from the  
2010 Florida Behavioral Risk Factor Surveillance System (BRFSS)**

A Report of the Florida Office on Disability and Health at the University of Florida

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## Introduction:

Adult disability is a common experience. Based on data from the Survey of Income and Program Participation (SIPP), about 22% of people in the United States live with disability, representing approximately 48 million people (1). As the population continues to age and older Americans move full-time or seasonally to our state, this number will likely rise. In order to serve the growing number of Floridians with disabilities, a well-organized, visible office – the Florida Office on Disability & Health, or FODH – was established at the University of Florida (UF) through a grant from the Centers for Disease Control & Prevention (CDC website <http://cdc.gov/ncbddd/dh/default.htm>).

The mission of FODH is to maximize the health, well-being, participation, & quality of life, throughout the lifespan, of all Floridians & their families living with disability (web site at <http://fodh.php.ufl.edu/>). One primary activity that supports this mission is increasing epidemiologic capacity in Florida with analysis of existing and new important data regarding persons with disabilities. Partners of the FODH provide recommendations and feedback about what data are needed. During strategic planning for FODH, Partners recommended collecting data on disability perceptions and experiences in Florida for support of future public awareness campaigns (FODH Strategic Plan <http://fodh.php.ufl.edu/about/pdf/FODH%20Strategic%20Plan%20March%202009.pdf>). During 2010, FODH supported a module of questions added to the Florida Behavioral Risk Factor Surveillance System (BRFSS), a random digit dialed survey of adult Floridians that is supported partly by the CDC. Because of the importance of selecting these questions, we partnered with the University of Florida Survey Research Center (UFSRC) to pilot test potential questions.

UFSRC conducts research on consumer perception and behavior, including a monthly Florida Consumer Confidence Index (FCCI). The UFSRC also provides various levels of survey assistance to research groups including designing the sample, wording of questions, and conducting the survey. The UFSRC assisted the FDOH with a telephone survey of adult Florida residents assessing their attitudes toward people with disabilities. It was of particular interest to determine if the attitudes toward people with disabilities were different between those with and those without disabilities. Results of the pilot study can be seen here: <http://fodh.php.ufl.edu/files/2011/05/Disability-Perceptions-and-Experiences-in-the-State-of-Florida.pdf>. As noted in the report, some pilot fielded questions did not provide useful information, and were dropped or adapted for clarity. The results of the pilot provided the basis for final module questions fielded in the Florida 2010 BRFSS.

## Methods:

The BRFSS is a random-digit-dialed telephone survey conducted by each state's health department in collaboration with the CDC (see <http://www.cdc.gov/brfss/>). A nationally standard questionnaire is used every year to conduct the survey, with questions added by individual states based on each state's specific data needs. All community-dwelling, non-institutional, civilian adults aged 18 years and older are eligible to participate in the BRFSS. One adult is interviewed in each randomly-selected household (2).

Every year, the standard BRFSS includes two questions that measure prevalence of disability. Respondents in this report of the BRFSS were considered to have a disability if they answered “yes” to one or both of the following questions: “Are you limited in any way in any activities because of physical, mental, or emotional problems?” and, “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? [Include occasional use or use in certain circumstances.]” This definition is consistent with CDC’s definition of disability (3) and also consistent with the World Health Organization’s broad definitions of impairment and function (4). Respondents that answered “yes” to either of the above questions were classified as a person with disability (PWD). Respondents that answered “no” to both questions were classified as being a person without disability (PWOD).

Six questions measuring perceptions of disability were included on the 2010 Florida BRFSS. These questions were asked of all respondents, and we compared perceptions of PWD and PWOD. The questions were:

1. In the past 12 months, how often have other people’s attitudes toward you been a problem at home?
2. In the past 12 months, how often have other people’s attitudes toward you been a problem outside of the home, such as during social activities like shopping or at school or work?
3. In the past 12 months, how often did you experience prejudice or discrimination?
4. If you are talking to a blind person, it is all right to use words such as “see” or “look” in a conversation? [respondent indicates level of agreement]
5. You should avoid asking people who have disabilities questions about their disabilities. [respondent indicates level of agreement]
6. Overall, how much contact would you say you have had with people who have disabilities?

In 2010, The Florida BRFSS sampled and interviewed 35,109 respondents. Based on the criteria mentioned above, 11,999 respondents were classified as a person with disability (PWD), and 22,889 were classified as a person without disability (PWOD). Two hundred and twenty one respondents to the BRFSS did not give enough information to determine their disability status and were excluded from the analysis in this report. Descriptive percentages and 95% confidence intervals (CI) of the demographic characteristics of Floridians overall, as well as the demographic characteristics of people with and without disabilities are provided in table 1. Additionally, descriptive percentages and 95% CIs of each of the above questions compared by disability status, and for Florida overall, are provided in tables 2 through 7. All analyses were conducted using SAS 9.2 procedures for weighted complex survey data to account for the sampling procedures and for unit non-response (SAS Institute, Inc., Cary, North Carolina). The University of Florida Institutional Review Board approved this project as exempt.

**Results:**

In this sample, PWD were older on average (56 years old) than PWOD (49 years old). A greater proportion of PWD were White non-Hispanic (75% of PWD vs. 68% of PWOD), and a smaller proportion of PWD were Hispanic (11% of PWD vs. 17% of PWOD). A greater proportion of PWOD were college graduates (40% of PWOD vs. 30% of PWD). A higher proportion of PWD had an annual household income of less than \$20,000 (26% of PWD vs. 11% of PWOD).

**Table 1.** Sociodemographic descriptive characteristics (weighted) of persons with and without disability, Florida Behavioral Risk Factor Surveillance System, 2010.

	<b>No Disability (PWOD) n=22,889</b>	<b>PWD* n=11,999</b>
	Percent (95% confidence interval)	
<b>Gender</b>		
Women	50.8 (49.3, 52.3)	53.4 (51.1, 55.6)
Men	49.2 (47.7, 50.7)	46.6 (44.4, 48.9)
<b>Age mean (±Standard Error)</b>	48.7 (0.24)	56.1 (0.43)
<b>Age Groups</b>		
18-24	7.7 (6.7, 8.9)	3.7 (2.5, 5.6)
25-34	11.8 (10.8, 12.9)	7.5 (6.3, 9.0)
35-44	21.3 (20.0, 22.7)	12.9 (11.3, 14.6)
45-54	26.7 (25.2, 28.2)	23.9 (21.9, 26.1)
55-64	13.1 (12.3, 13.9)	19.4 (18.0, 20.9)
65 and older	19.4 (18.6, 20.3)	32.6 (30.8, 34.4)
<b>Race and Ethnic Groups</b>		
White, non-Hispanic	67.7 (66.1, 69.2)	75.4 (73.0, 77.7)
Black, non-Hispanic	10.7 (9.7, 11.8)	9.6 (8.2, 11.3)
Hispanic	16.8 (15.5, 18.3)	10.8 (9.0, 13.0)
Other race, non-Hispanic	4.7 (4.1, 5.5)	4.1 (3.3, 5.2)
<b>Education</b>		
Less than High School	7.0 (6.3, 7.9)	9.0 (7.8, 10.3)
High School Graduate	26.3 (25.0, 27.6)	28.1 (26.2, 30.0)
Attended College	26.7 (25.4, 28.1)	32.9 (30.8, 35.1)
College Graduate	40.0 (38.5, 41.5)	30.0 (28.1, 32.0)
<b>Annual Household Income</b>		
Less than \$20,000	11.3 (10.4, 12.2)	26.2 (24.2, 28.2)
\$20,000 - \$24,999	7.5 (6.7, 8.4)	10.4 (9.1, 11.9)
\$25,000 - \$34,999	9.0 (8.1, 10.0)	8.6 (7.6, 9.7)
\$35,000 - \$49,999	12.5 (11.6, 13.5)	11.9 (10.6, 13.3)
\$50,00 or more	46.0 (44.4, 47.5)	27.7 (25.8, 29.7)
Missing	13.8 (12.8, 14.8)	15.2 (13.6, 16.9)

\*PWD = Person with Disability. Defined here as limited in any activities because of physical, mental, or emotional problems, or having a health problem that requires use of special equipment.

Compared to people without disability, PWD were more likely to have problem's with peoples attitudes at home in the past 12 months (33% of PWD vs. 25% of PWOD, table 2). PWD were also more likely to have problems with other people's attitudes outside of the home in the past 12 months (34% of PWD vs. 29% of PWOD, table 3). In addition, PWD were more likely to report experiencing prejudice or discrimination in the past 12 months (32% of PWD vs. 22% of PWOD, table 4).

**Table 2.** Respondent’s frequency (weighted) of problems with other people’s attitudes at home in the past 12 months, 2010 Florida Behavioral Risk Factor Surveillance System.

	<b>No Disability (PWOD)</b> n=18,180	<b>PWD*</b> n=9,686	<b>FL Overall</b> n=28,035
<b>Overall Prevalence</b>	Percent (95% confidence interval)		
Ever	24.9 (23.3, 26.5)	33.1 (30.5, 35.8)	27.1 (25.7, 28.4)
Never	75.1 (73.5, 76.7)	66.9 (64.2, 69.5)	72.9 (71.6, 74.3)

\*PWD = Person with Disability. Defined here as limited in any activities because of physical, mental, or emotional problems, or having a health problem that requires use of special equipment.

**Table 3.** Respondent’s frequency (weighted) of problems with other people’s attitudes outside of home† in the past 12 months, 2010 Florida Behavioral Risk Factor Surveillance System.

	<b>No Disability(PWOD)</b> n=18,201	<b>PWD*</b> n=9,743	<b>FL Overall</b> n=28,120
<b>Overall Prevalence</b>	Percent (95% confidence interval)		
Ever	29.2 (27.6, 30.9)	34.4 (31.7, 37.0)	30.6 (29.2, 32.0)
Never	70.8 (69.1, 72.4)	65.6 (63.0, 68.3)	69.4 (68.0, 70.8)

†Outside the home may include things like social activities, shopping, school, or work.

\*PWD = Person with Disability. Defined here as limited in any activities because of physical, mental, or emotional problems, or having a health problem that requires use of special equipment.

**Table 4.** Respondent’s frequency (weighted) of experiencing prejudice or discrimination in the past 12 months, 2010 Florida Behavioral Risk Factor Surveillance System.

	<b>No Disability (PWOD)</b> n=19,012	<b>PWD*</b> n=10,218	<b>FL Overall</b> n=29,408
<b>Overall Prevalence</b>	Percent (95% confidence interval)		
Ever	22.4 (21.0, 23.9)	31.6 (29.1, 34.1)	24.9 (23.6, 26.2)
Never	77.6 (76.1, 79.0)	68.4 (65.9, 70.9)	75.1 (73.8, 76.4)

\*PWD = Person with Disability. Defined here as limited in any activities because of physical, mental, or emotional problems, or having a health problem that requires use of special equipment.

When it came to questions about appropriate use of language around people with disabilities, there was no significant difference in responses by disability status. People with disabilities were slightly more likely to agree that words such as “see” and “look” are alright to use when talking to a person who is blind (68% of PWD vs. 66% of PWOD, table 5), and slightly more likely to agree that asking PWD about their disabilities should be avoided (39% of PWD vs. 37% of PWOD, table 6). Interestingly, only 50% of PWD reported having quite a bit or a great deal of contact with a person with disability. By comparison 37% of PWD reported having quite a bit or a great deal of contact with a PWD (table 7). One reason why 50% of people classified as having a disability may not report having a lot of contact with other persons with disability is because some respondents may not self-identify as a person with disability, and may not identify others with similar limitations as PWD, although they report having limitations and/or using special equipment.

**Table 5.** Proportion of respondents (weighted) who believe it is alright to use words such as “see” or “look” when talking to a person who is blind, 2010 Florida Behavioral Risk Factor Surveillance System.

	<b>No Disability(PWOD)</b> n=17,191	<b>PWD*</b> n=9,242	<b>FL Overall</b> n=26,578
	Percent (95% confidence interval)		
Disagree	33.9 (32.1, 35.7)	32.2 (29.6, 34.9)	33.6 (32.1, 35.1)
Agree	66.1 (64.3, 67.9)	67.8 (65.1, 70.4)	66.4 (64.9, 67.9)

\*PWD = Person with Disability. Defined here as limited in any activities because of physical, mental, or emotional problems, or having a health problem that requires use of special equipment.

**Table 6.** Proportion of respondents (weighted) who believe asking people who have disabilities about their disabilities should be avoided, 2010 Florida Behavioral Risk Factor Surveillance System.

	<b>No Disability (PWOD)</b> n=17,854	<b>PWD*</b> n=9,592	<b>FL Overall</b> n=27,606
	Percent (95% confidence interval)		
Disagree	63.1 (61.4, 64.9)	61.1 (58.6, 63.7)	62.7 (61.3, 64.1)
Agree	36.9 (35.1, 38.6)	38.8 (36.3, 41.4)	37.3 (35.9, 38.7)

\*PWD = Person with Disability. Defined here as limited in any activities because of physical, mental, or emotional problems, or having a health problem that requires use of special equipment.

**Table 7.** Reported amount of contact (weighted) respondents have with people with disabilities, 2010 Florida Behavioral Risk Factor Surveillance System.

	<b>No Disability(PWOD)</b> n=18,258	<b>PWD*</b> n=9,888	<b>FL Overall</b> n=28,326
	Percent (95% confidence interval)		
None or very little contact	26.9 (25.3, 28.6)	17.4 (15.6, 19.3)	24.4 (23.1, 25.7)
Some contact	36.2 (34.4, 37.9)	33.0 (30.6, 35.5)	35.4 (34.0, 36.9)
Quite a bit or more contact	36.9 (35.2, 38.6)	49.5 (47.0, 52.1)	40.2 (38.8, 41.6)

\*PWD = Person with Disability. Defined here as limited in any activities because of physical, mental, or emotional problems, or having a health problem that requires use of special equipment.

### Discussion:

In this sample, weighted to reflect the population of Florida, PWD report that they more often experience problems with people’s attitudes, and that this happens both inside and outside of the home. Additionally, they are more likely to report experiencing prejudice or discrimination than PWOD. This finding is troubling given that the Americans with Disabilities act (ADA) has been in force for over 20 years, and that it was supposed to provide a “clear and comprehensive national mandate” to end disability discrimination (6). Although this act specifically targets institutional discrimination, its intent is clearly to reduce barriers to full participation among people with disabilities. As further evidence of the national importance of ending disability discrimination, one of the objectives of the US Public Health palling document, *Healthy People 2020*, is too reduce the proportion of people with disabilities who encounter barriers to participating in home, school, work, or community activities (7). Our data suggests that in the State of Florida, this objective has not yet been met.

In addition to the legal and ethical implications of prejudice and discrimination towards people with disabilities, there is evidence to support the potential for serious negative health impacts as well. Numerous studies have found that members of discriminated groups report greater life-time and day-to-day stress than those with higher status (8). This discrimination-based stress has been associated with self-reported poorer health, chronic health conditions, high blood pressure, and various psychological disorders (8). Given that the health of people with disability is already compromised, any action that can be taken to limit stress in this group is of great public health importance. Previous results based on the FODH analysis of added questions on the BRFSS demonstrated lower access to healthcare among Floridians with increasing severity of disability (9). While this report cannot examine if discrimination is associated with reduced access to care across the spectrum of disability severity, a future analysis will examine if it contributes to access for the broadly defined group of Florida PWD.

These results also suggest the need for public education that sensitizes the population to disability experience and to PWD. Such a campaign would benefit from a more in-depth examination of disability perceptions and specific problem perceptions that includes PWD and PWOD participants. Public education was recommended by the Partners of FODH, and continues to be a goal supported by the results of this report.

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