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*Understanding Health Disparities
among People with Disabilities:
Core Health Indicators*

Michael H. Fox, Sc.D.

Division of Human Development and Disability
National Center for Birth Defects and Developmental Disabilities
Centers for Disease Control and Prevention

Kimberly G. Phillips, MA

University of New Hampshire
Institute on Disability

Key Points

- ❑ **Major health gaps exist between people with and without disabilities on leading indicators of health, illustrating poorer health among people with disabilities**
- ❑ **CDC-funded programs show promise of helping to reduce these gaps and improve the health of people with disabilities**
- ❑ **CDC looks to build upon these promising practices to further reduce health disparities and improve the overall health of people with disabilities**

Division of Human Development and Disability Priorities

- ❑ **Reduce disparities in key health indicators, including obesity, in children, youth and adults with disabilities.**
- ❑ **Identify and reduce disparities in health care access for persons with disabilities.**
- ❑ **Improve developmental outcomes of all children.**
- ❑ **Ensure that all newborns are screened and assessed for hearing loss and receive appropriate intervention according to established guidelines.**
- ❑ **Incorporate disability status as a demographic variable into all relevant CDC surveys.**

What do we mean by key health indicators? The HP2020 Leading Health Indicators



What is the relationship between health indicators and health status?

Health Indicators Measure Health Status

- ❑ **Health indicators contribute to a person's current state of health, defined as a state of complete physical, mental, and social well-being and not just the absence of sickness or frailty. They may be biological, socioeconomic, psychosocial, behavioral, or social in nature.**

Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, N.Y., 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

What are health disparities?

Health Disparities

- ❑ Health **differences** closely linked with **social, economic, and/or environmental disadvantage**
- ❑ Health disparities adversely affect groups of people who have **systematically experienced greater obstacles to health** based on their:
 - Racial or ethnic group; religion; socioeconomic status; gender; age; **mental health; cognitive, sensory, or physical disability**; sexual orientation or gender identity; geographic location; or **other characteristics historically linked to discrimination or exclusion.**

What Causes Health Disparities?

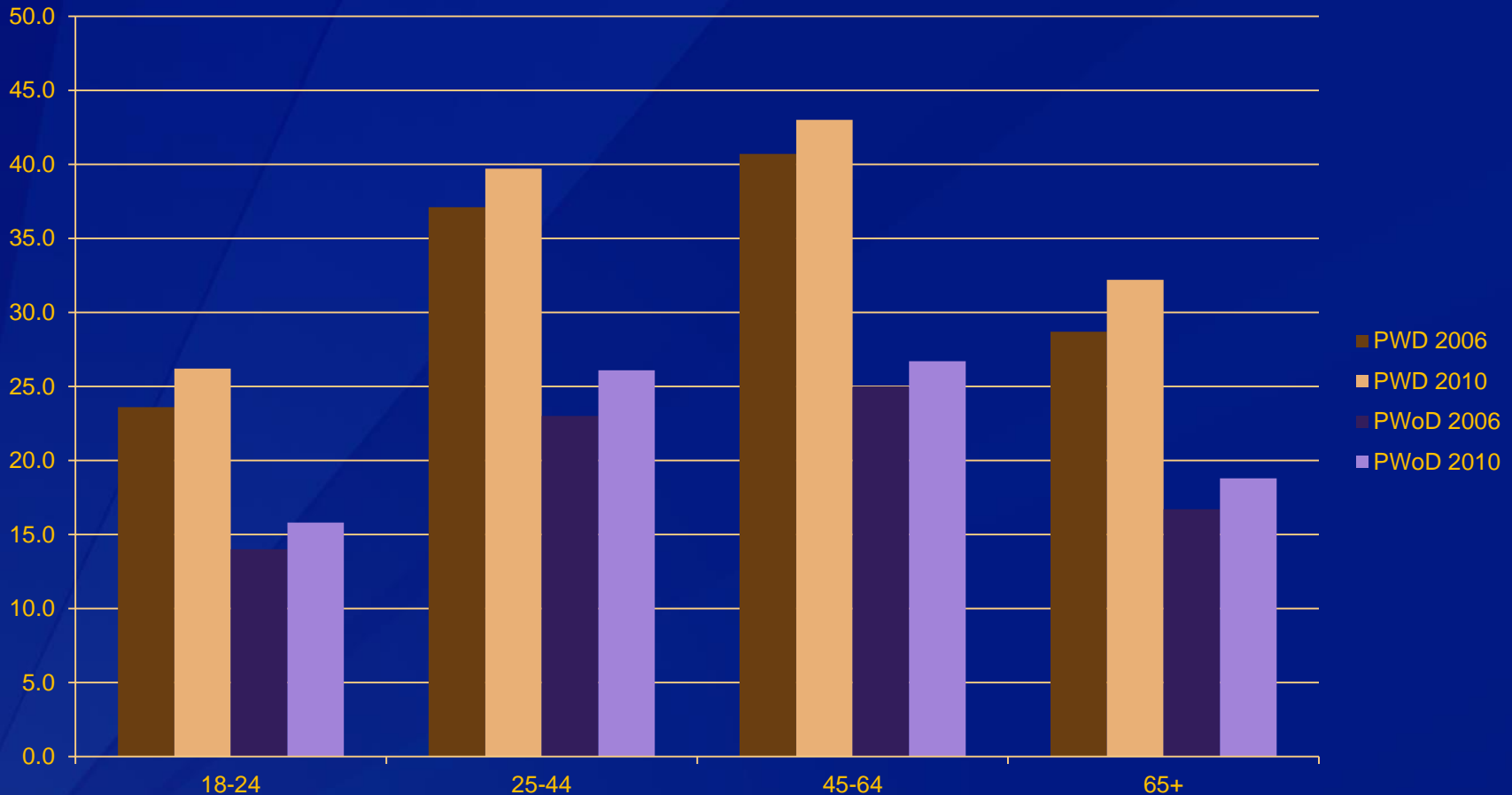
- ❑ **Social, economic, and/or environmental disadvantage**
 - Inadequate policies and standards
 - Inadequate funding
- ❑ **Systematically experiencing greater obstacles to health**
 - Problems with service delivery
 - Lack of accessibility
- ❑ **Characteristics historically linked to discrimination or exclusion**
 - Negative attitudes
 - Lack of consultation and involvement
 - Lack of data and evidence

**Examples of Differences in Health Status
("Health Disparities")
for People with Disabilities**

Defining disability in the Behavioral Risk Factor Surveillance System (BRFSS) Survey

- ❑ **Disability is defined as a “yes” response to either of the following survey questions:**
 - Are you limited in any way in any activities because of physical, mental, or emotional problems?
 - 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?
- ❑ **Only adults 18 and older participated in the survey**

Changes in Obesity by Disability Status and Age 2006 & 2010 BRFSS



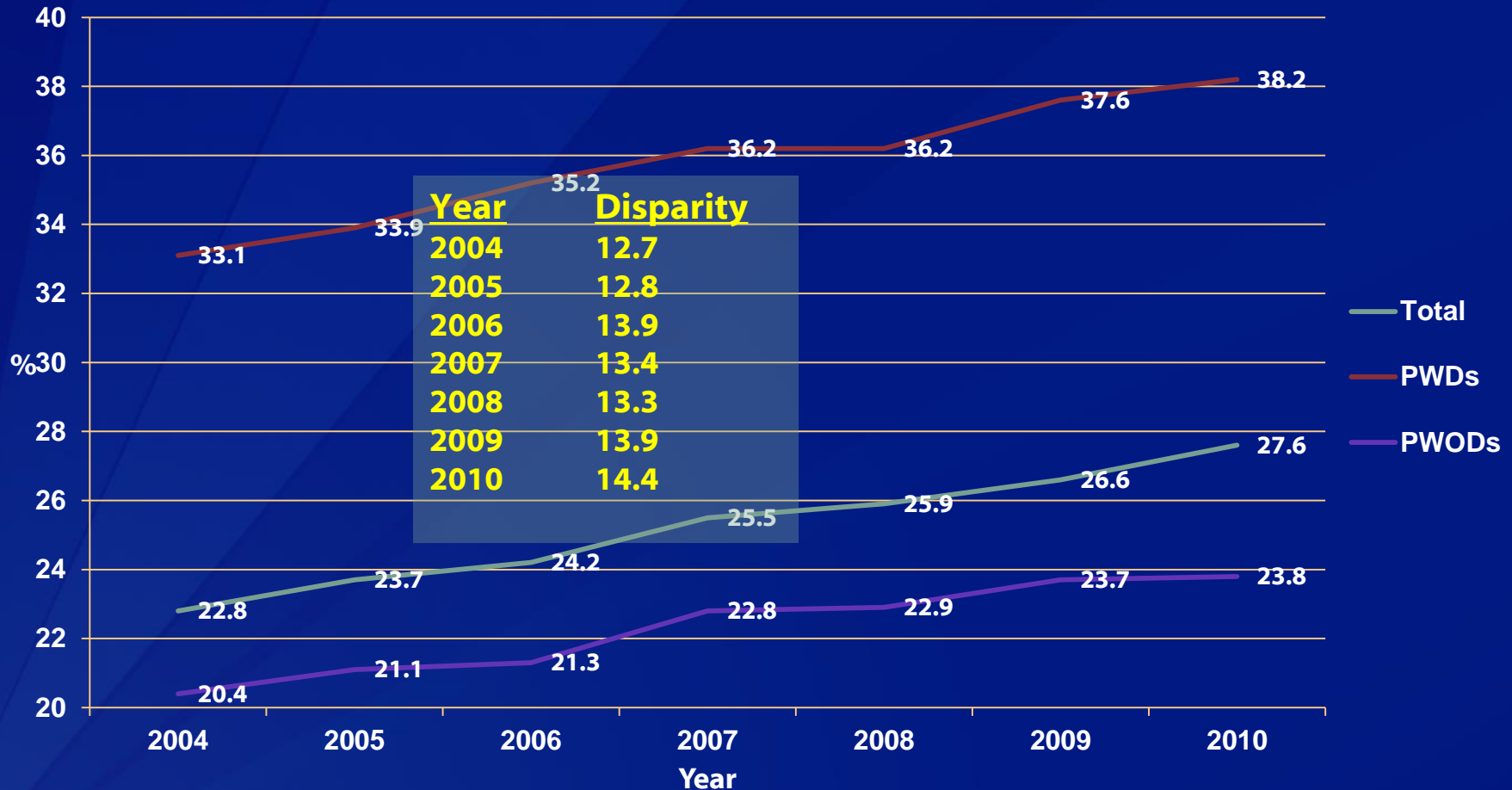
Body Mass Index (BMI) is calculated as weight in Kilograms/height² in Meters. For adults, BMI of 18.5-24.9 is considered "normal or healthy weight." BMI ≥ 30 kg/m² is considered "obese."

PWD = People with Disabilities; PWD = People without Disabilities

How have disability obesity disparities changed over time?

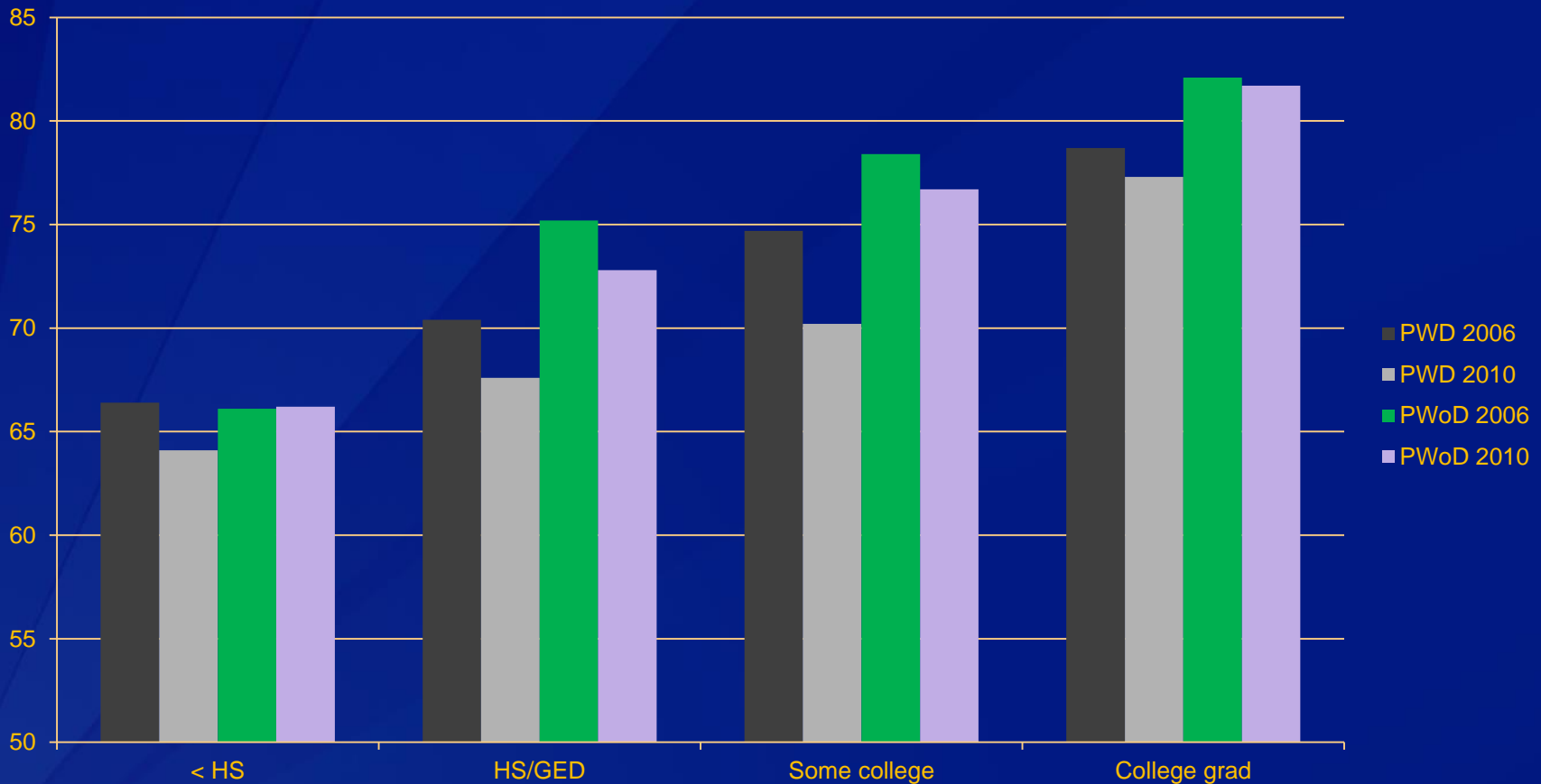
Adult Obesity Prevalence by Disability Status

BRFSS 2004-2010



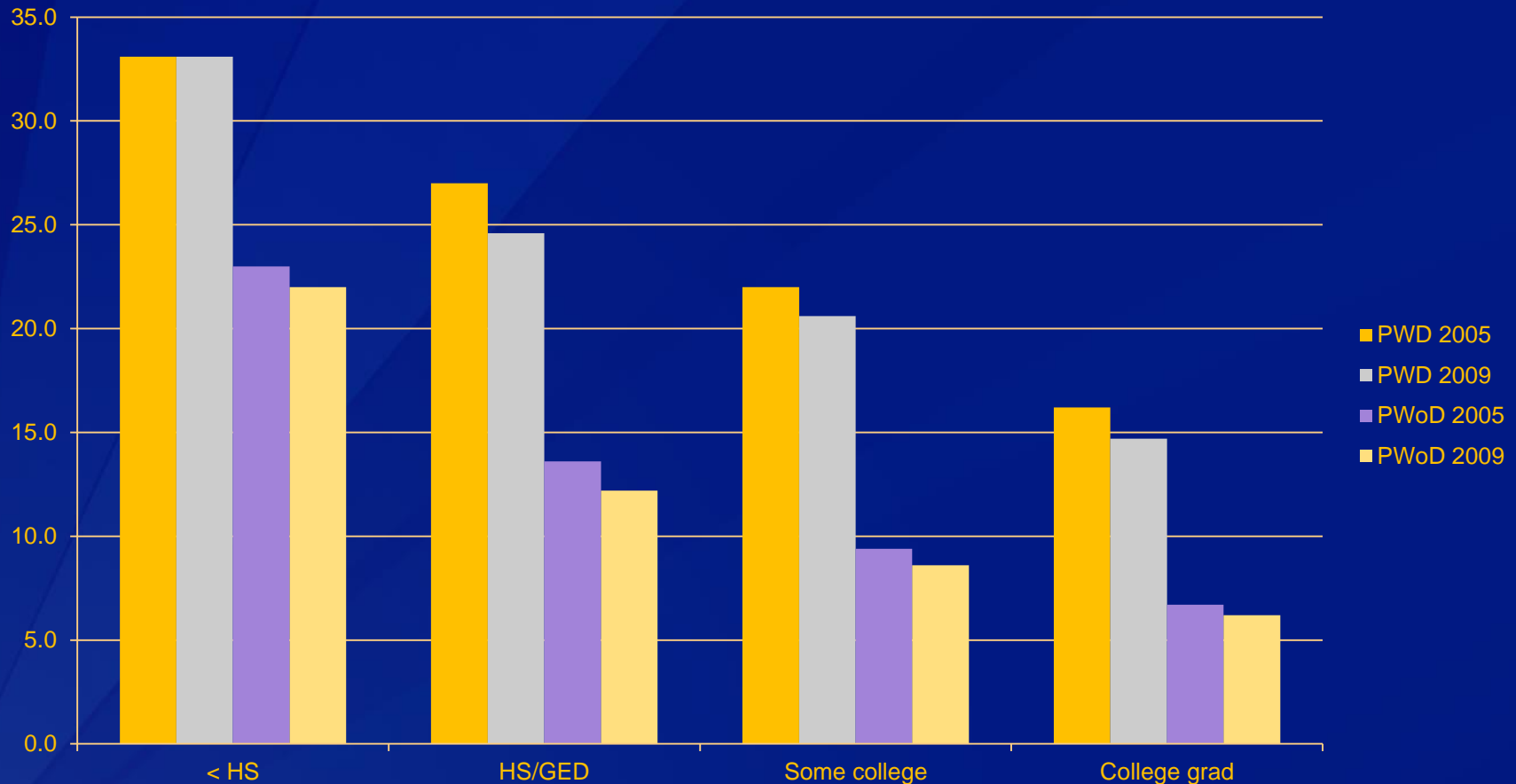
PWD = People with Disabilities; PWoD = People without Disabilities

Changes in Mammography Rates for Women ≥ 40 By Disability Status and Education 2006 & 2010 BRFSS



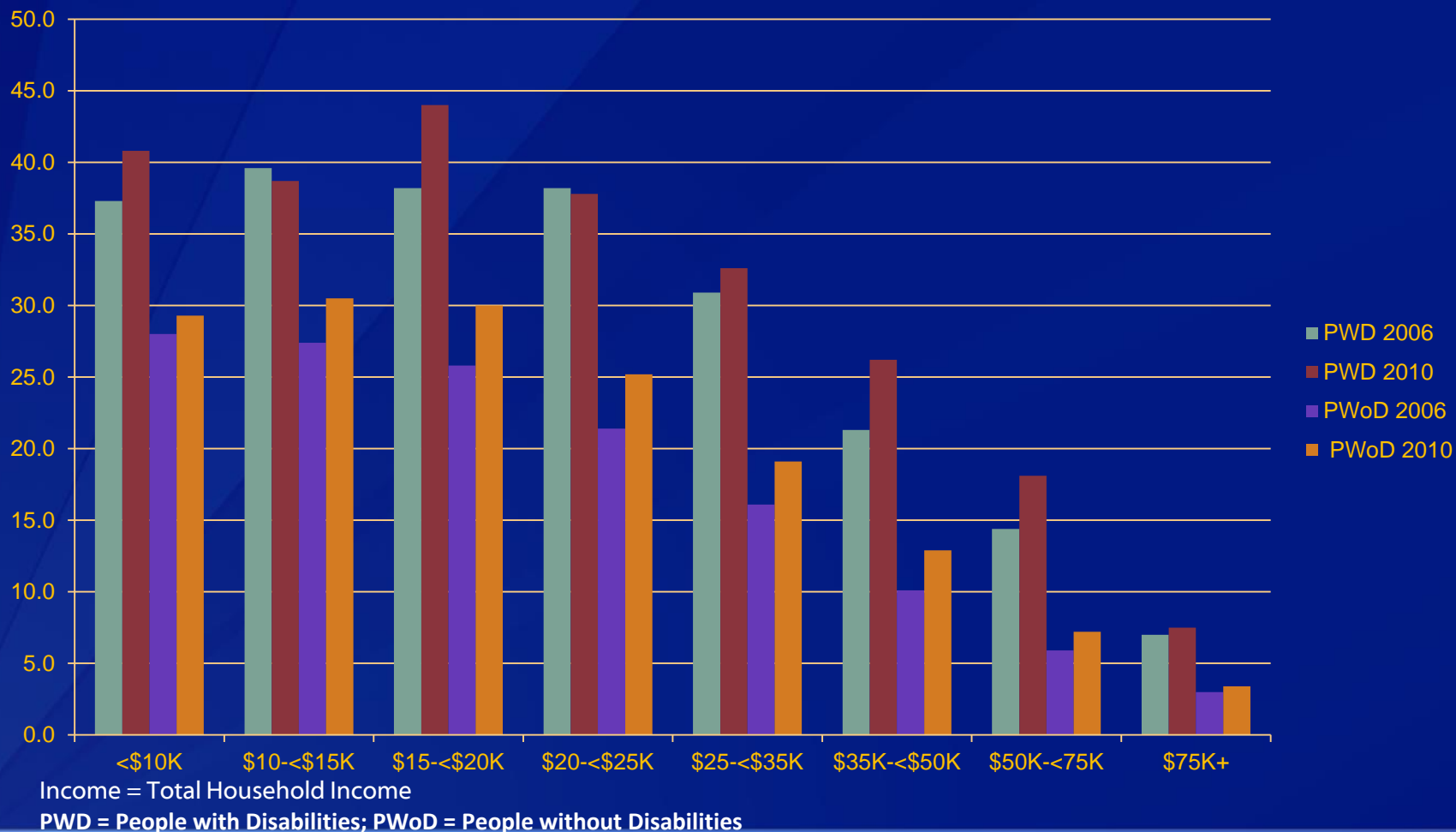
PWD = People with Disabilities; PwOD = People without Disabilities

Changes in Physical Inactivity by Disability Status and Education 2005 & 2009 BRFSS

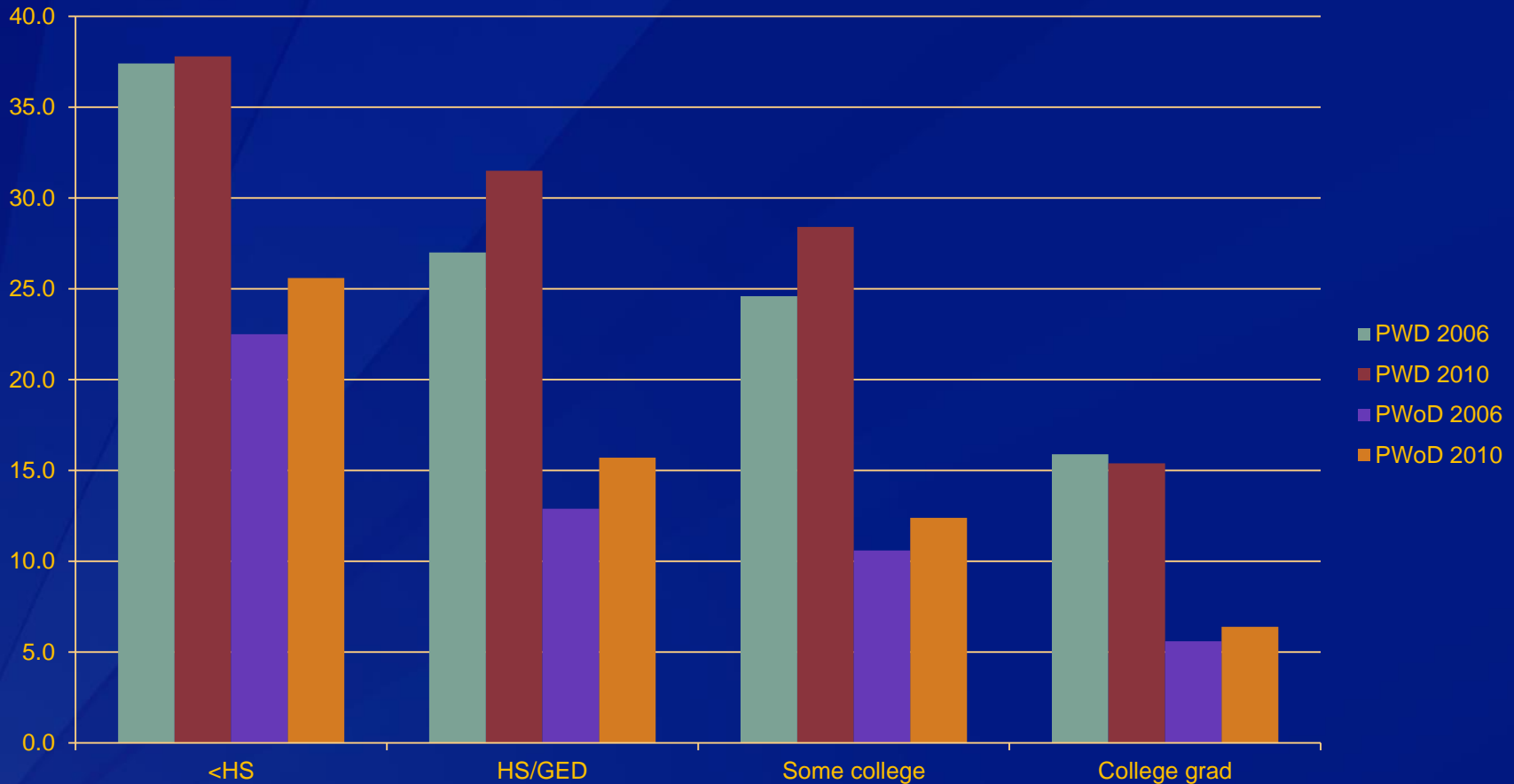


PWD = People with Disabilities; PWoD = People without Disabilities

Changes in Cost as a Barrier to Seeking Health Care By Disability Status and Income 2006 & 2010 BRFSS



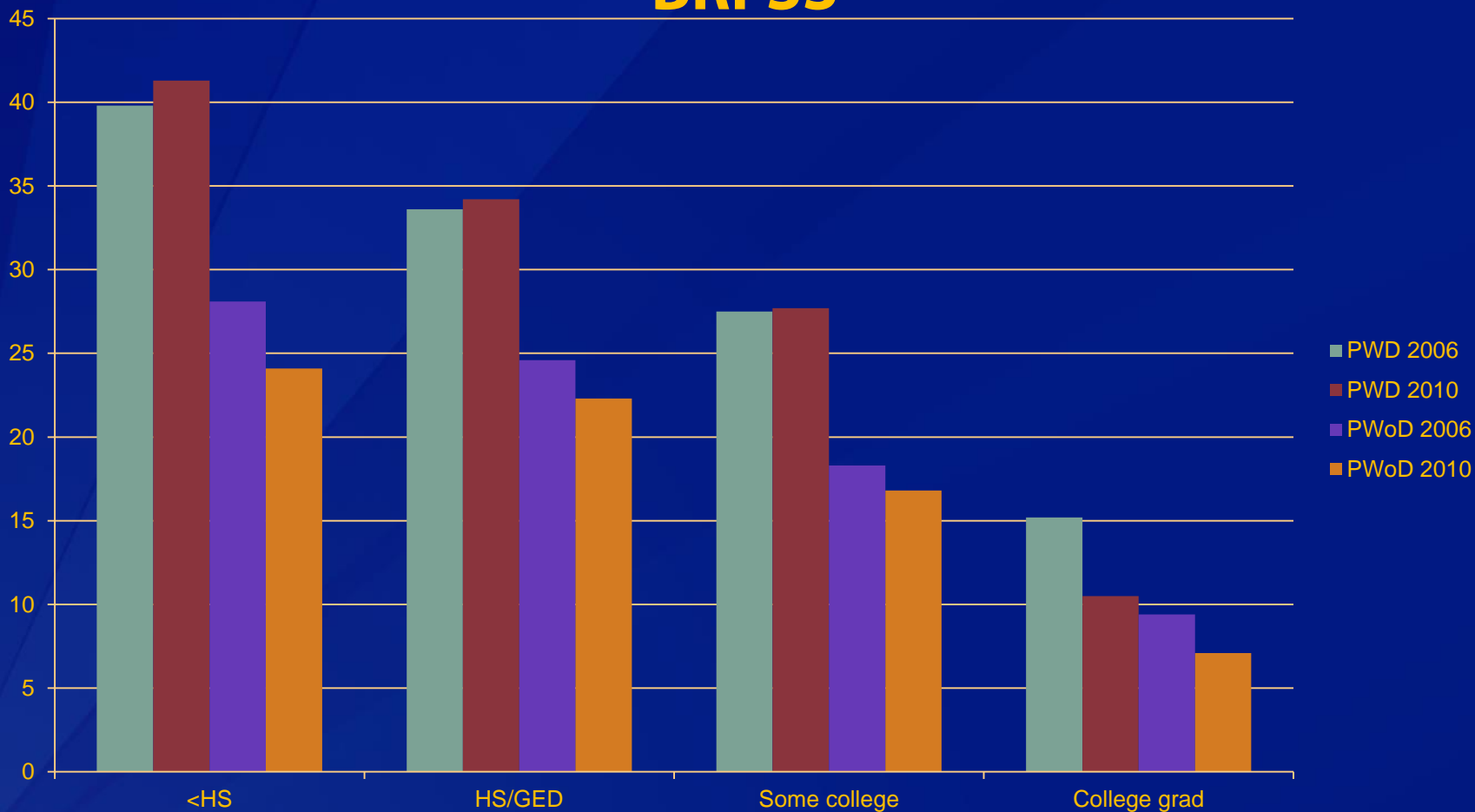
Changes in Cost as a Barrier to Seeking Health Care By Disability Status and Education 2006 & 2010 BRFSS



Income = Total Household Income

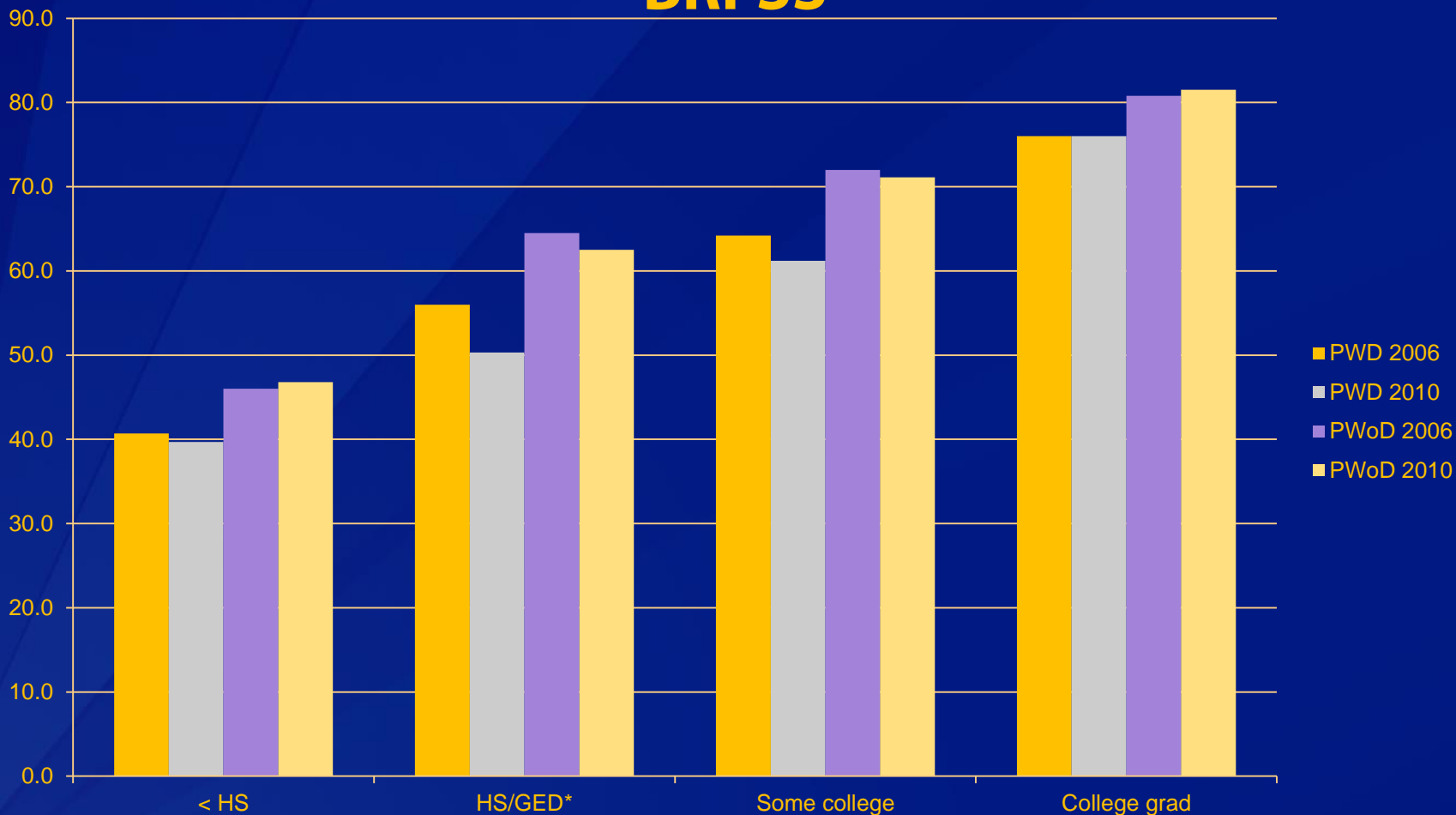
PWD = People with Disabilities; PWoD = People without Disabilities

Changes in Smoking Rates By Disability Status and Education 2006 & 2010 BRFSS



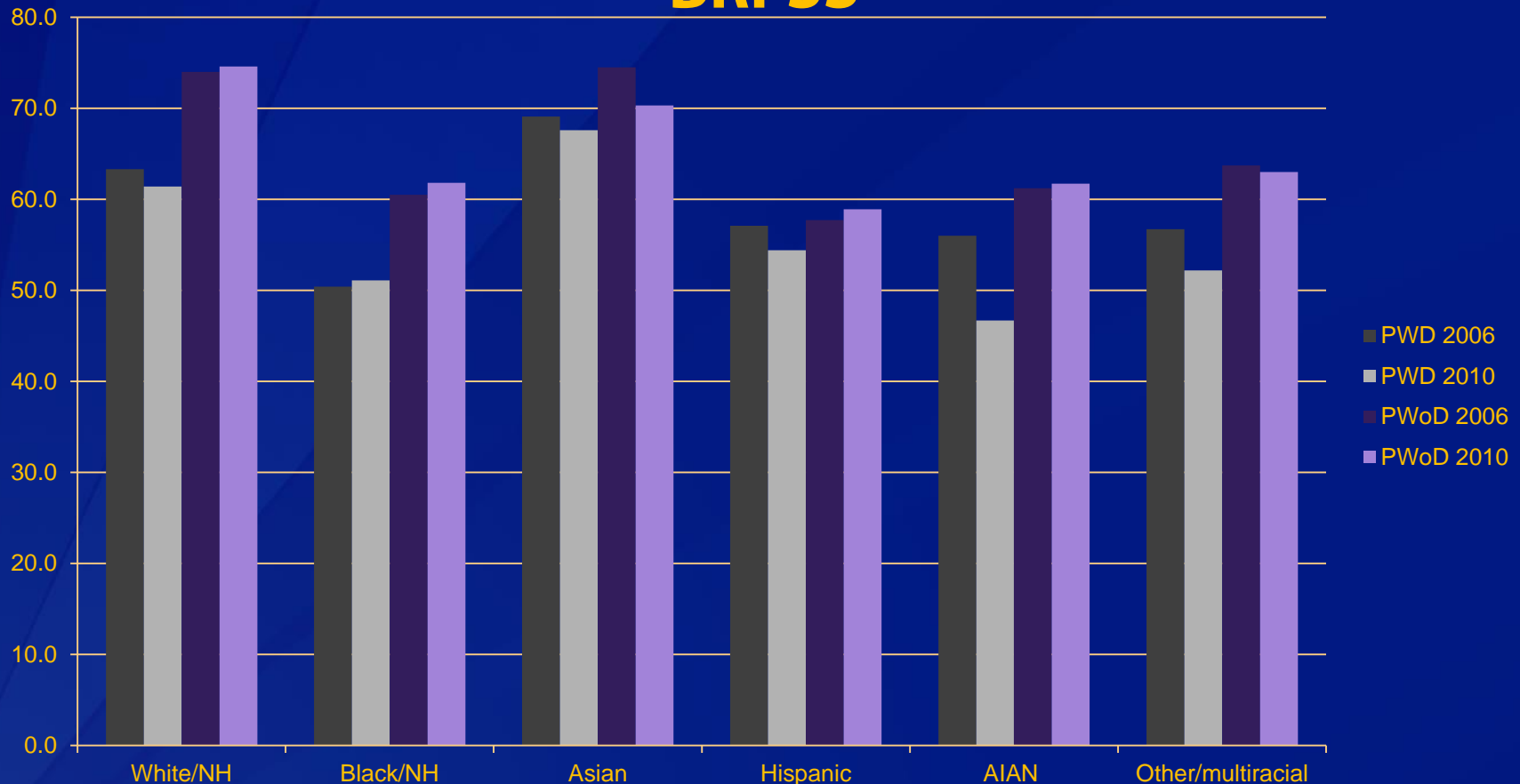
PWD = People with Disabilities; PwOD = People without Disabilities

Changes in Adult Dental Visits By Disability Status and Education 2006 & 2010 BRFSS



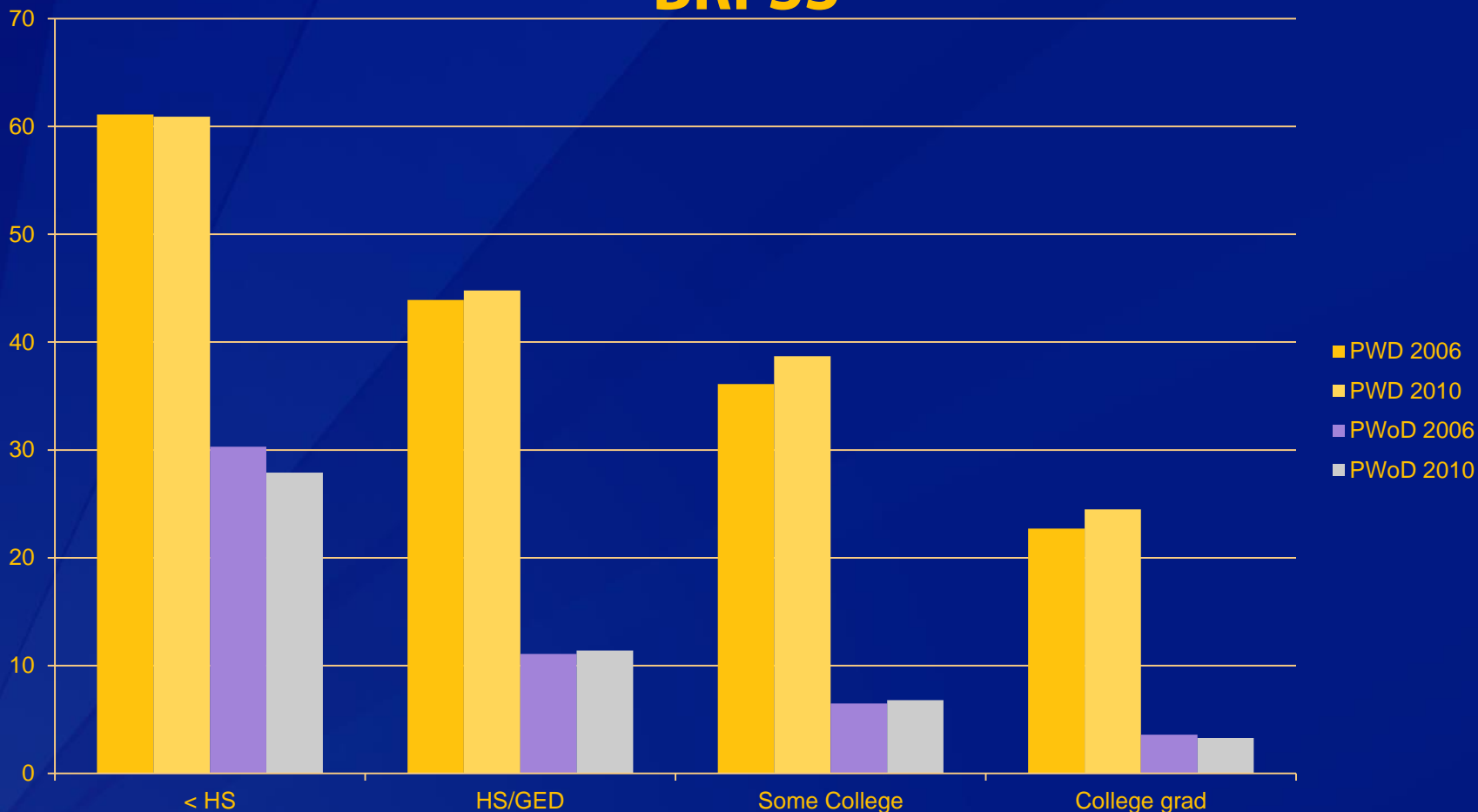
PWD = People with Disabilities; PWoD = People without Disabilities

Changes in Adult Dental Visits By Disability Status and Race/Ethnicity 2006 & 2010 BRFSS



PWD = People with Disabilities; PwoD = People without Disabilities

Changes in Fair/Poor Health By Disability Status and Education 2006 & 2010 BRFSS



PWD = People with Disabilities; PwOD = People without Disabilities

Multivariate Analysis

- ❑ **Logic models with each health indicator* as the outcome controlling for the following variables:**

Age

Number of family members

Sex

Race/Ethnicity

Education

Employment

Income

- ❑ **Also included as independent variables:**

Disability

Year

Interaction term: Disability*Year

* Obesity, mammography, physical inactivity, cost as a barrier to care, smoking, dental visits, fair/poor health

Multivariate Results

□ For *both time periods*:

- PWD have higher odds than PWoD for the following:
 - Cost barrier to care
 - Obesity
 - Physical Inactivity
 - Smoking
 - Self-rated fair/poor health
- PWD have lower odds than PWoD for the following:
 - Mammography (women 40 or older)
 - Dental visit in past year
- All odds ratios are statistically significant

□ For **both people with and without disabilities**:

- Higher odds in 2006 vs. 2010 for:
 - Mammography
 - Physical Inactivity (2005 vs. 2009)
- Lower odds in 2006 vs. 2010 for:
 - Cost barrier to care
 - Obesity

Differences in odds ratios for time

- **Current smoking: No change for PWD, decrease for PWoD**

	aOR	95% CI
2006 vs. 2010 (Disability)	1.05	0.99, 1.10
2006 vs. 2010 (No disability)	1.19	1.15, 1.23

- **Fair/poor health: No change for PWD, decrease for PWoD**

	aOR	95% CI
2006 vs. 2010 (Disability)	0.98	0.93, 1.02
2006 vs. 2010 (No disability)	1.06	1.01, 1.11

- **Dental visit in past year: Decrease for PWD, no change for PWoD**

	aOR	95% CI
2006 vs. 2010 (Disability)	1.08	1.03, 1.13
2006 vs. 2010 (No disability)	1.03	1.00, 1.06

For additional information

- ❑ **Fact sheets showing estimates at a state level can be found:**
 - **CDC's Disability and Health website at:**
<http://www.cdc.gov/ncbddd/disabilityandhealth/healthstatus.html>
 - **Or go to www.CDC.gov and search on "disability health status"**

Promising Practices

CDC's Division of Human Development and Disability

Funded Disability and Health Programs

<http://www.cdc.gov/ncbddd/disabilityandhealth/programs.html>



Promising Practices: CDC-funded Disability and Health Programs

Physical Activity-Alabama

- Scale Back Alabama (SBA) is a state wide weight-loss public awareness campaign
- Assess SBA sites for inclusiveness for people with disabilities
- Implement in three sites which employ or serve people with disabilities

Adaptive Physical Education (PE) Training-Alabama

- Provide state-wide training in adapted PE methodology to PE teachers.
- Conduct baseline and follow-up assessments of all students K-12.

Promising Practices: CDC-funded Disability and Health Programs

Nutrition- Michigan



http://www.michigan.gov/mdch/0,4612,7-132-2940_2955_54051---,00.html

- Promote the use of NuVal, a nutritional evaluation system used by Meijer food stores.
- Train health educators to provide tools and techniques for using NuVal as a tool to assist in disease prevention and management among people with disabilities.

Promising Practices: CDC-funded Disability and Health Programs

Mammography–Montana



<http://everywomanmatters.ruralinstitute.umt.edu/EWM.html>

- *Right to Know & Every Woman Matters* are public awareness campaigns to encourage women 40+ years with mobility impairments to have screening mammograms.
- Includes updating the Montana Mammography On-Line Directory which provides information on accessible mammography facilities in Montana.

Promising Practices: CDC-funded Disability and Health Programs

Tobacco Cessation–Illinois



www.idph.state.il.us/idhp/

- *Illinois Tobacco Quitline: Provides Tobacco Cessation materials for People with Disabilities*
- Coordinating training for Helpline staff
- Revised Quitline materials specifically for People with Disabilities

Promising Practices: CDC-funded Disability and Health Programs

Improve Access to Preventive Screenings-New Hampshire

http://www.iod.unh.edu/Projects/dph/project_description.aspx



- Implement Outpatient Health Care Usability Profile (OHCUP) and Mammogram Outpatient Health Care Usability Profile (MOHCUP) to identify barriers in primary and preventive care facilities.
- Partner with NH Department of Public Health Services "Let No Women be Overlooked Breast and Cervical Cancer Program" to assess mammography facilities.
- Provide technical assistance to facilities on how to make improvements

National Public Health Practice and Resource Centers

- National Public Health Practice and Resource Centers (NPHPRC) are devoted to promoting health, preventing disease and improving the quality of life of individuals living with disabilities. Their primary mission is to provide information, education, and consultation on disease prevention, and promote health and wellness for people with specific conditions who live with associated disabilities. Their efforts are targeted to health care professionals, people with disabilities, caregivers, media, researchers, policymakers and the public.

Promising Practices: CDC Partnerships targeting healthy weight

<http://www.cdc.gov/ncbddd/disabilityandhealth/partnerorganizations.html>



Paralysis Resource Center



Promising Practices: Increasing Exercise and Good Eating Habits among People with Disabilities



**The National Center on Health,
Physical Activity and Disability**

<http://www.nchpad.org/>

NCPAD is a public health practice and resource center dedicated to providing improved nutrition, physical activity and health promotion for people with disabilities.

14 Weeks to a Healthier You

<http://www.ncpad.org/14weeks/>



Promising Practices: Increasing Obesity Awareness among People with Limb Loss

❑ Implications of Amputees Being Overweight

- When weight increases, stresses are multiplied exponentially at joint surfaces.
- Excess weight compounds the orthopedic and cardiovascular effects of an amputee.
- The already overtaxed cardiovascular system of a person with leg amputation doesn't need the additional burdens associated with obesity



*"...I am, for the most part,
incredibly well-off"*

Promising Practices: Assessing Weight & Promoting Good Eating Habits among People with Intellectual Disabilities

- ❑ **Building communities of sports, joy & social change...**
 - Community participation through athlete leadership, unified sports, family empowerment, health programming, research, advocacy and volunteerism
 - <http://www.specialolympics.org>



BE A FAN OF ACCEPTANCE, DIGNITY, AND THE HUMAN RACE.



Promising Practices: Disseminating Information on Health through Public Health Practice and Resource Centers

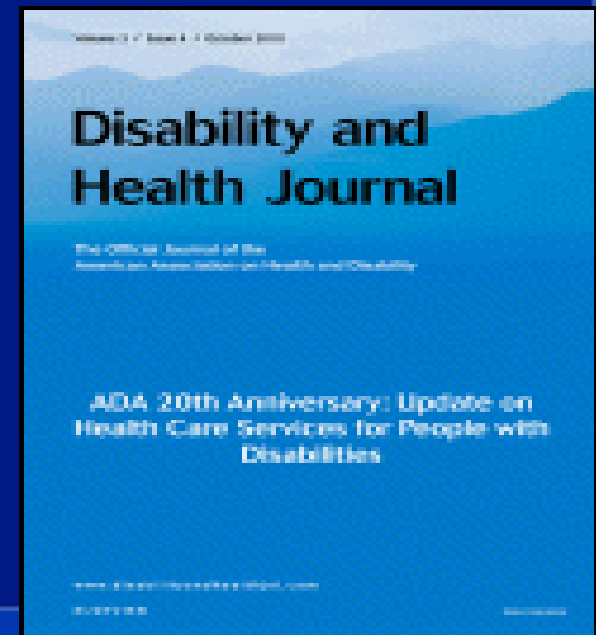


Paralysis Resource Center

- **There is an epidemic of obesity in the U.S. People with disabilities are even more prone to carrying excess weight due to a combination of changed metabolism and decreased muscle mass, along with a generally lower activity level. There are compelling reasons to shed the extra pounds.**
- **Research shows that people in wheelchairs are at risk for shoulder pain, joint deterioration, even rotator cuff tears, due to the amount of stress they place on their arms. The more weight to push, the more stress on the shoulder. Plus there's the risk the skin faces: as people gain weight, skin folds develop which trap moisture, greatly increasing the risk of skin sores.**



- **Research pertaining to obesity and people with disabilities**
- **Publications, organizations and programs pertaining to obesity and people with disabilities**



Moving Forward: Targeting a Reduction in Health Disparities



Michael Fox – MHfox@cdc.gov
Elizabeth Courtney-Long – ECourtneyLong@cdc.gov
Jacqui Butler – zbn1@cdc.gov

For more information please contact Centers for Disease Control and Prevention

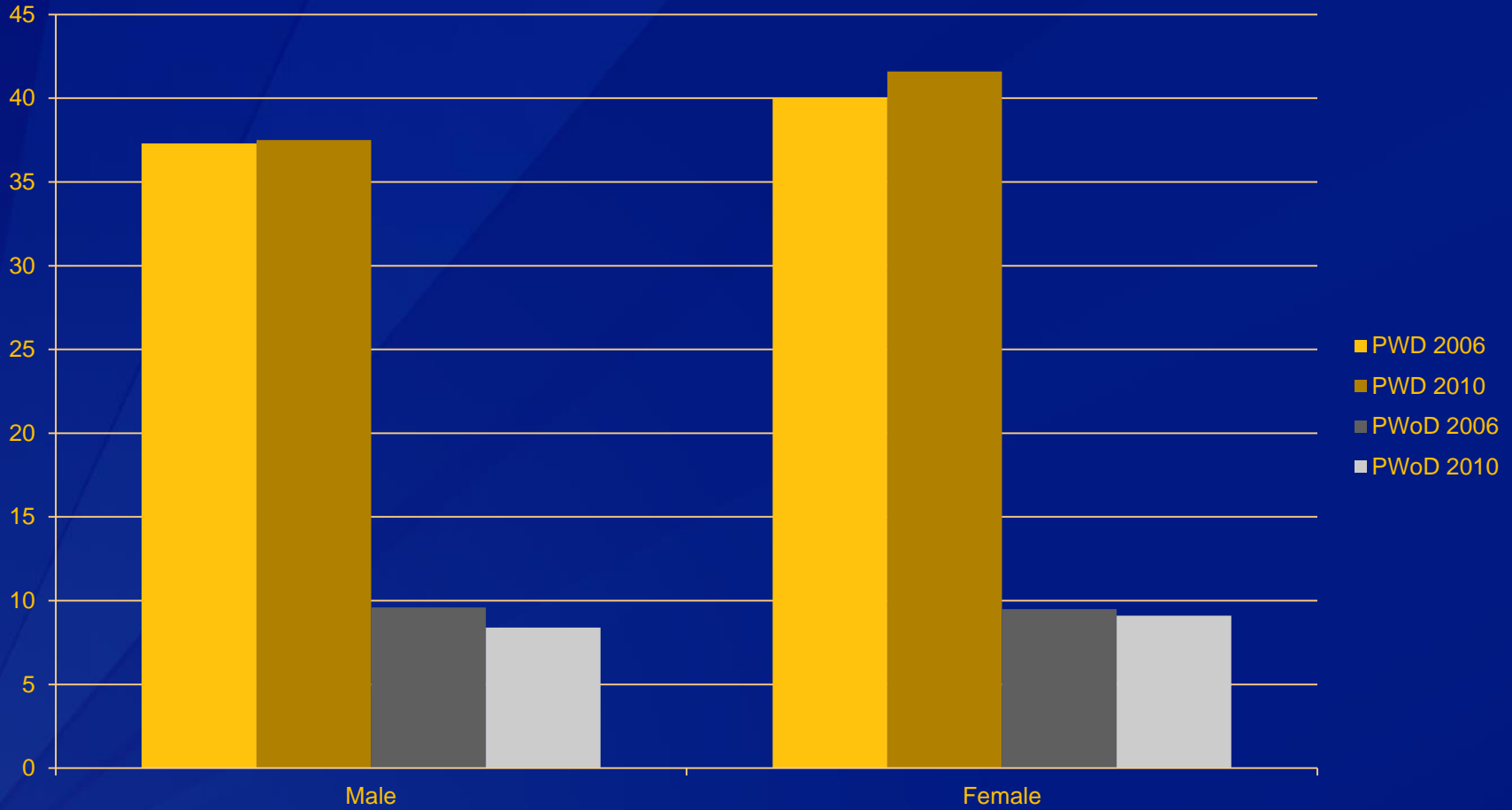
1600 Clifton Road NE, Atlanta, GA 30333

Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov Web: <http://www.cdc.gov>

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Changes in Fair/Poor Health By Disability Status and Gender 2006 & 2010 BRFSS



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