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- These are the views of the author and not those of Oregon State University.

What determines Public Health Decisions and Actions?

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What determines Public Health Decisions and Actions?



What is Public Health's Responsibility if we know that a specific group ...

- Is 2.5 times more likely to delay or forgo needed medical care?
- Experiences chronic disease up to 5 times the rate of same-aged peers?
- Reports unemployment rates more than double that of their peers?

Disabilities—An Unrecognized Disparity Population

- I. The Many Faces of Disability**
- II. Documenting Disability-related Disparities**
- III. Disparities and Determinants**
- IV. What can we do?—Public Health Actions**

I. The Many Faces of Disability



I. The Many Faces of Disability



I. The Many Faces of Disability



I. The Many Faces of Disability



I. The Many Faces of Disability



I. What Is Disability?

☐ Impairment in body function or structure

- E.g., retinal detachment, missing limb

Limitation in activity

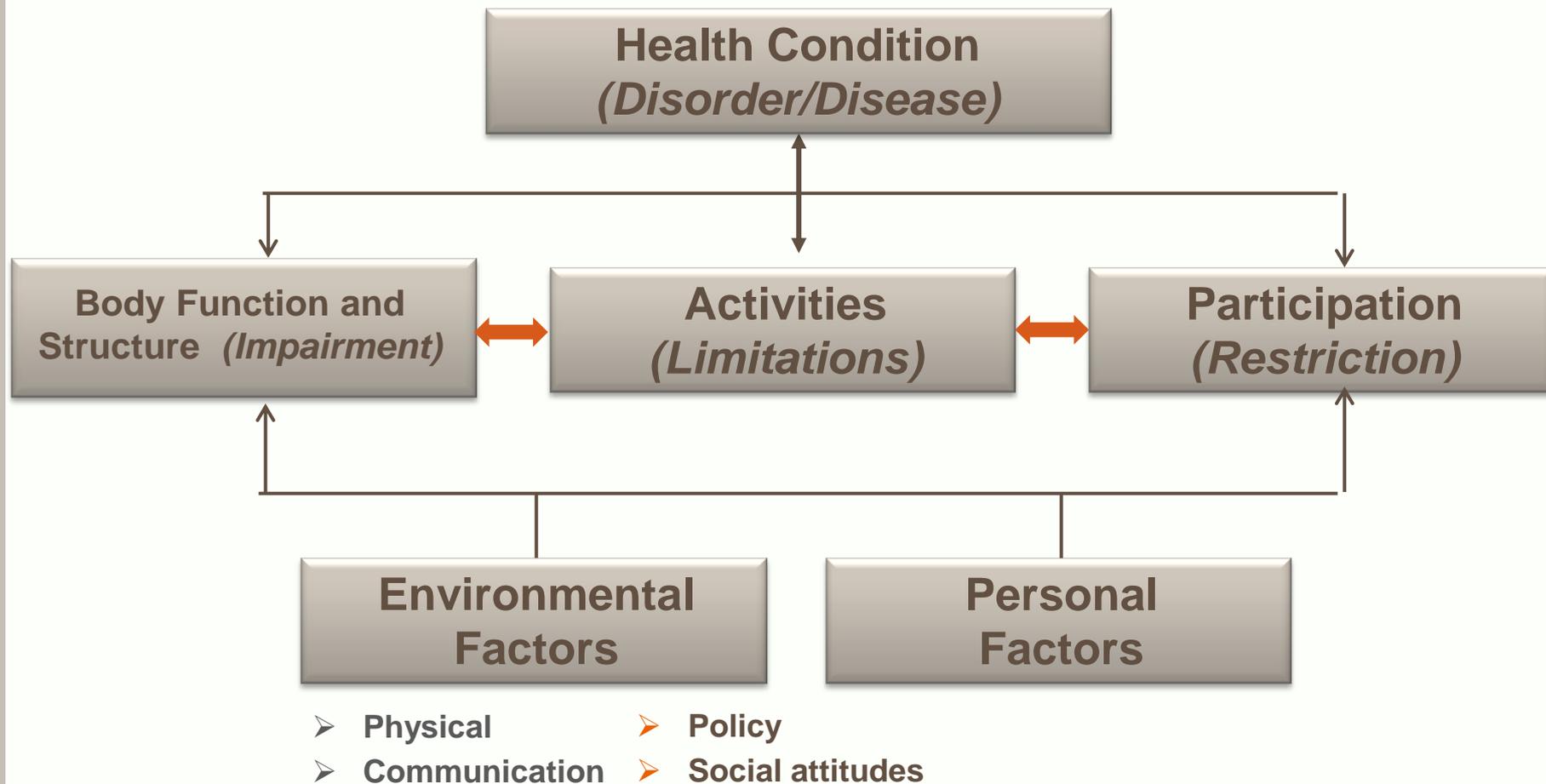
- E.g., difficulty seeing, hearing, walking, or problem-solving

Restriction in participation in daily and societal activities

- E.g., cooking a meal, driving an automobile

World Health Organization, 2001

I. International Classification of Functioning, Disability, and Health



I. Disability and Society

- ❑ Disability is not the health condition of a person
- ❑ It is the limitation experienced in the context of the community and society in which the individual lives

Societal and environmental accommodations are critical for people with limitations to engage in various daily activities

I. Defining Disability in Data

- Differing definitions, conflicting data
- HP2010 and HP2020 Objectives
- New HHS disability identification standards

Data Collection Standards - Disability Status (Yes or No)

1. Are you deaf or do you have serious difficulty hearing?

2. Are you blind or do you have serious difficulty seeing, even when wearing glasses?

3. Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions? (5 years old or older)

4. Do you have serious difficulty walking or climbing stairs? (5 years old or older)

5. Do you have difficulty dressing or bathing? (5 years old or older)

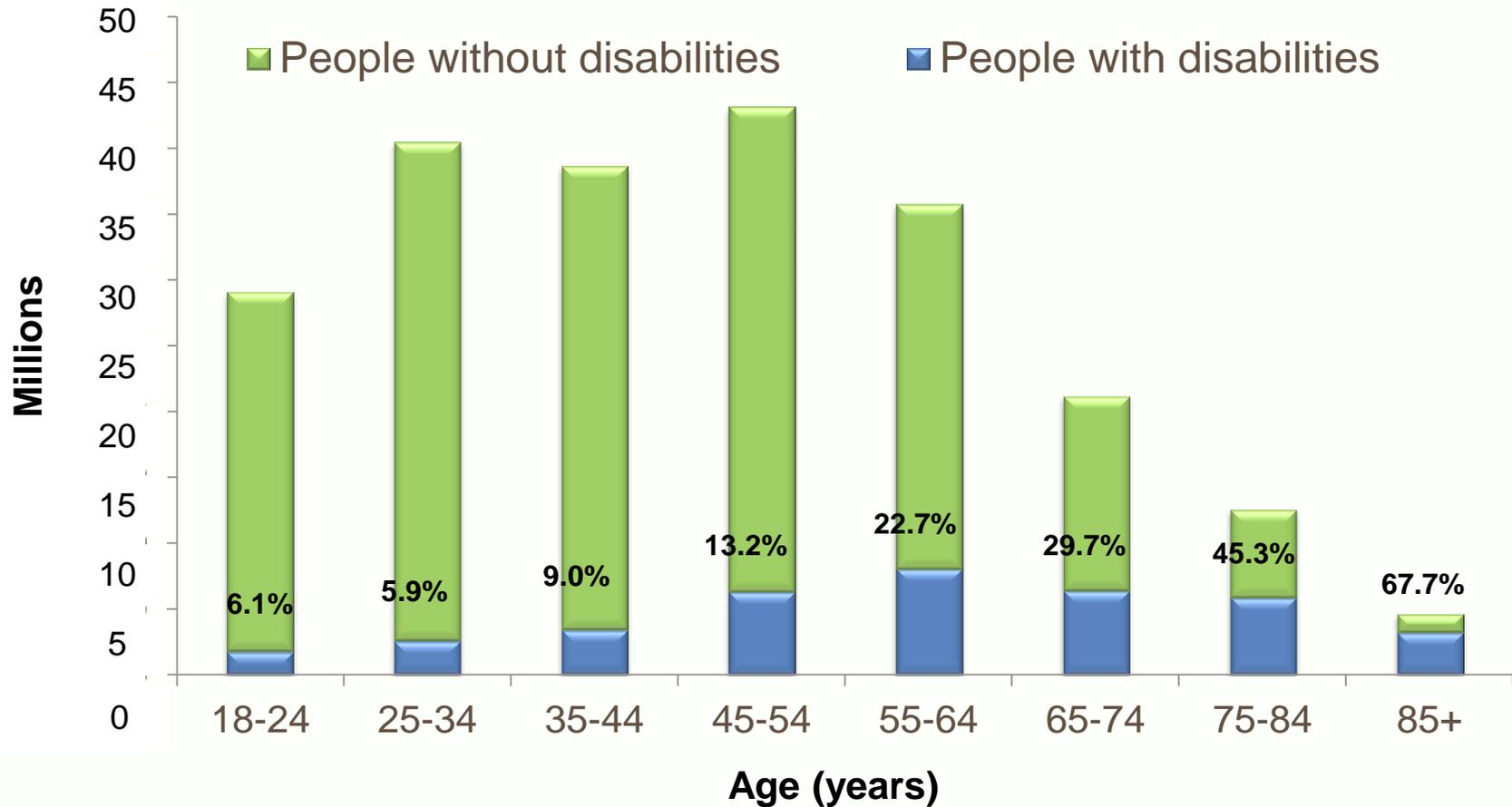
6. Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping? (15 years old or older)

I. Disability Prevalence

- **One Billion people globally live with disability (WHO, 2011)**
- **~15% of the world's population**
- **~12-13% in U.S. report serious limitation**

Adults with and without Disabilities by Age Group United States, 2010

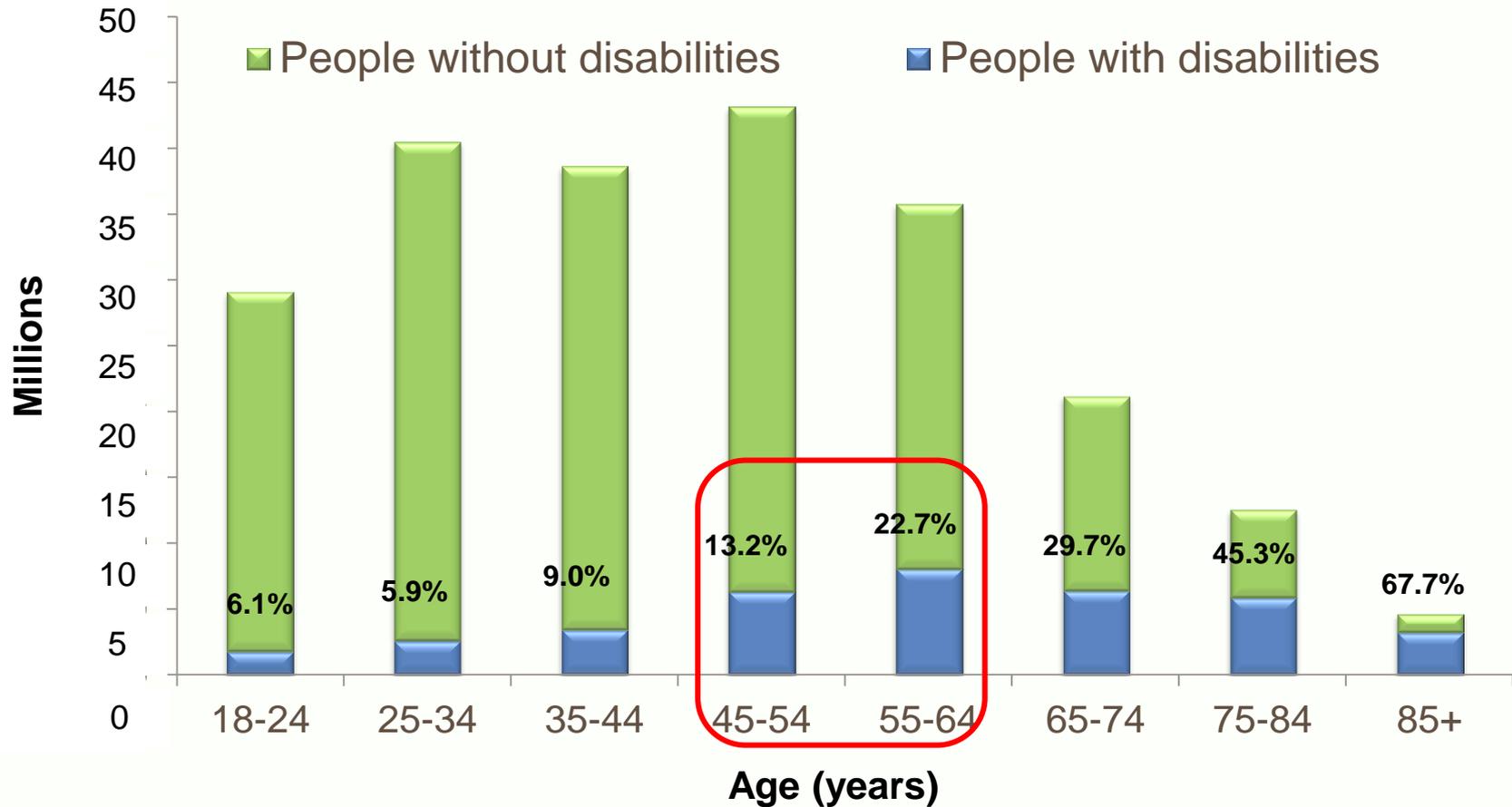
(Weighted Population Estimates)



National Health Interview Survey, 2010, http://www.cdc.gov/nchs/nhis/about_nhis.htm

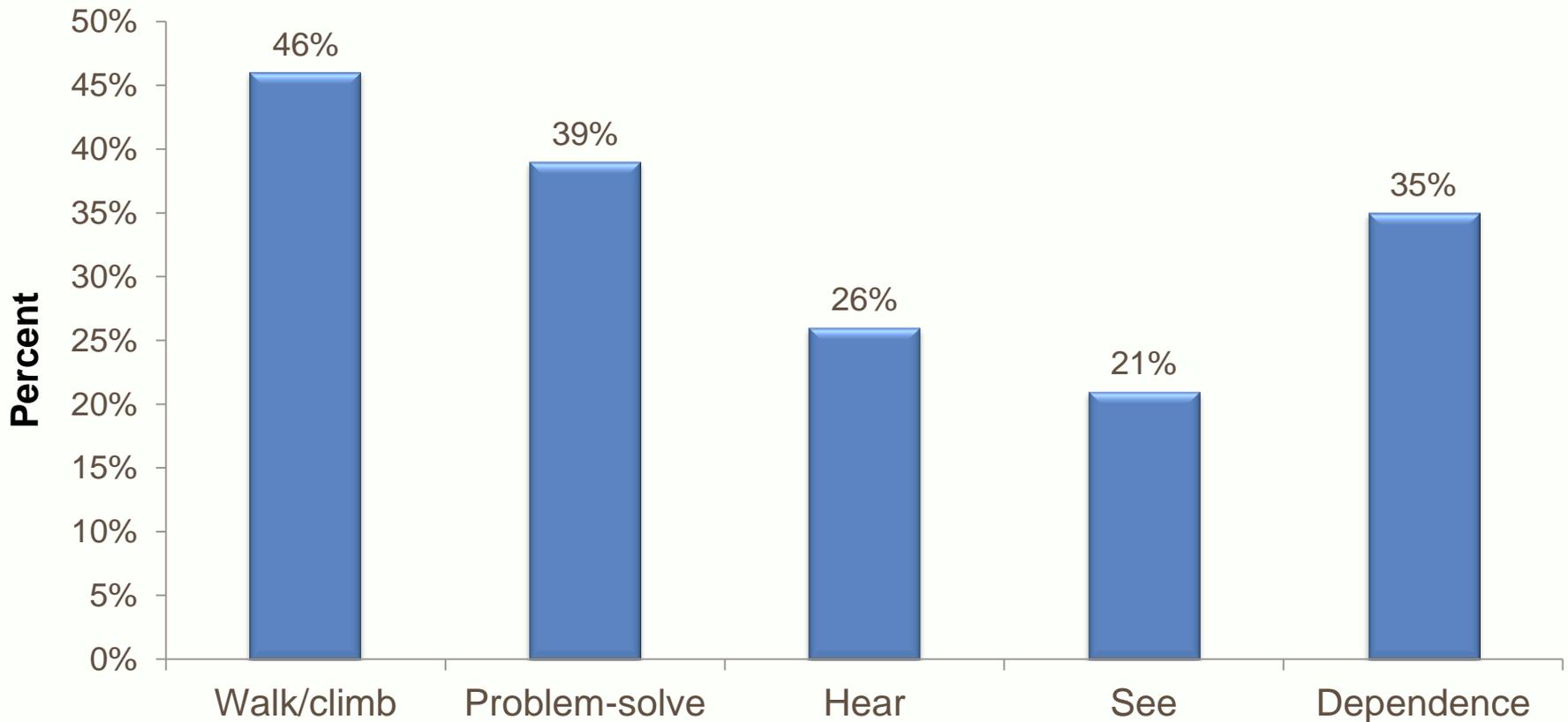
Adults with and without Disabilities by Age Group United States, 2010

(Weighted Population Estimates)



National Health Interview Survey, 2010, http://www.cdc.gov/nchs/nhis/about_nhis.htm

Prevalence of Functional Limitations among U.S. Adults



Co-occurring disabilities: Total >100%

II. Determining “Disparity”

Disparity Requirements:

1. Health differences that are linked to a history of social, economic or environmental disadvantage;
2. These differences in health outcomes are at the population level; and
3. These differences are regarded as avoidable

II. Determining “Disparity”

Disparity Requirements:

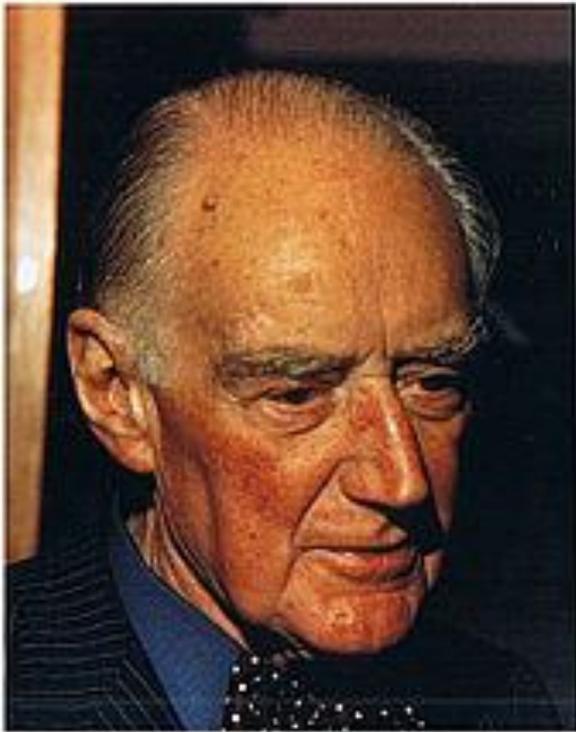
- **Health differences that are linked to a history of social, economic or environmental disadvantage;**
- These differences in health outcomes are at the population level; and
- These differences are regarded as avoidable

II.1. How Did We Get Here?

- **Poor health**
- **Unmet health care needs**
- **Chronic conditions**
- **High unemployment**
- **High poverty**



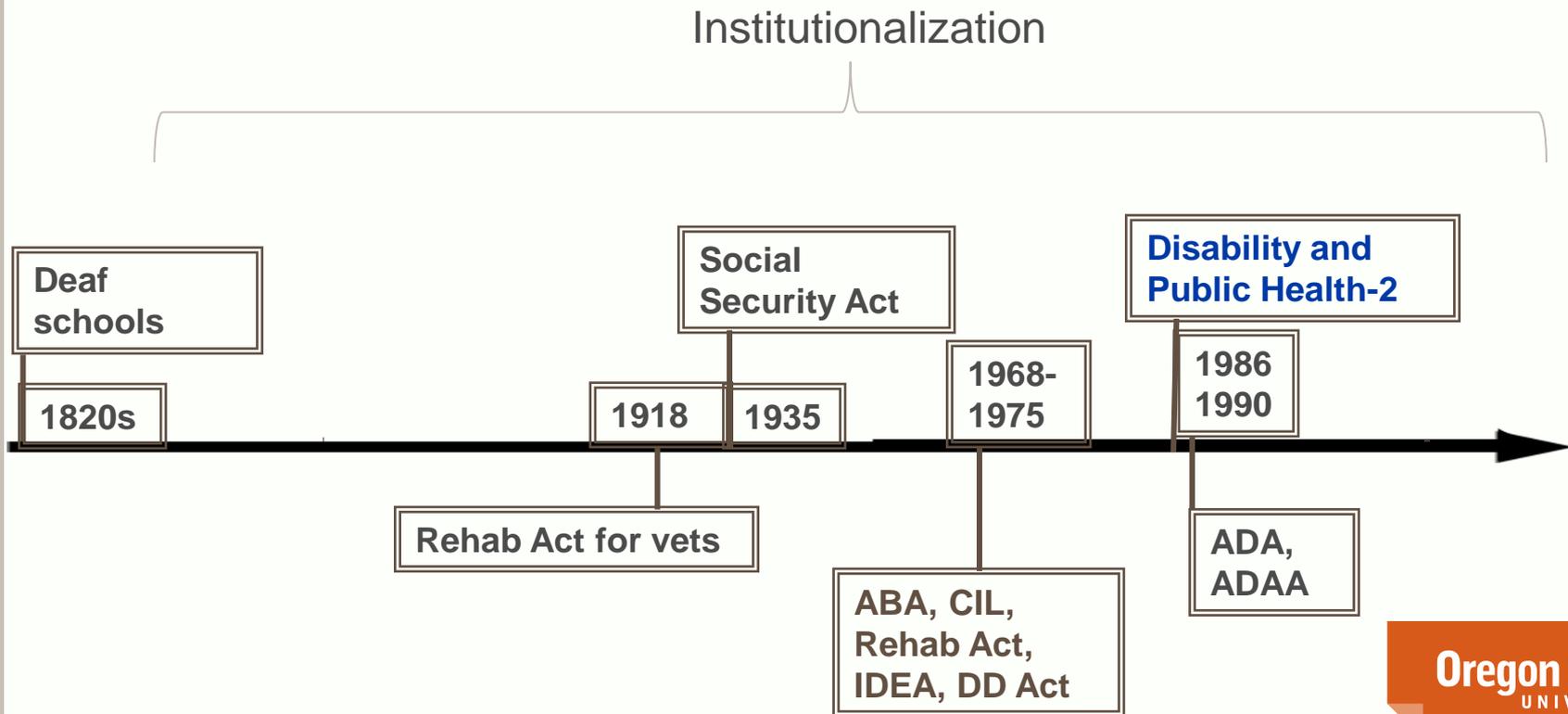
Ila. Redefining the Unacceptable



The landmarks of political, economic and social history are the moment when some condition passed from the category of the given into the category of the intolerable. I believe that the history of public health might well be written as a record of successive re-defining of the unacceptable.

(Sir Charles Geoffrey Vickers, 1958)

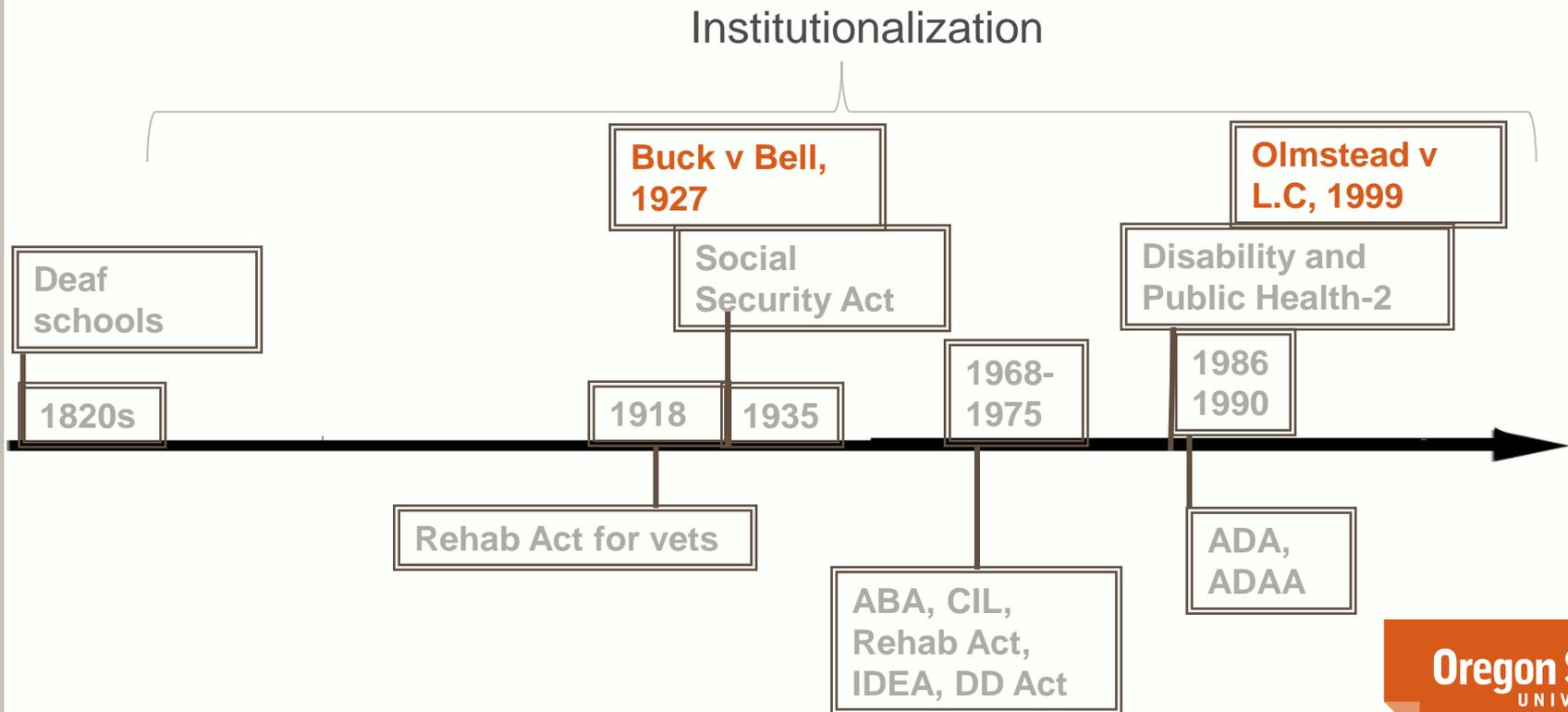
Brief Timeline of Disability in the U.S.



**"INJUSTICE ANYWHERE IS A THREAT
TO JUSTICE EVERYWHERE."**
Martin Luther King, Jr.



Legal Cases in Timeline of Disability



II.1. History of Disadvantage

Prevention and Institutionalization

→ to Paternalism and Charity

→ to Rights and Inclusion

II.2. Disability-Related Health Disparities

Disparity Requirements:

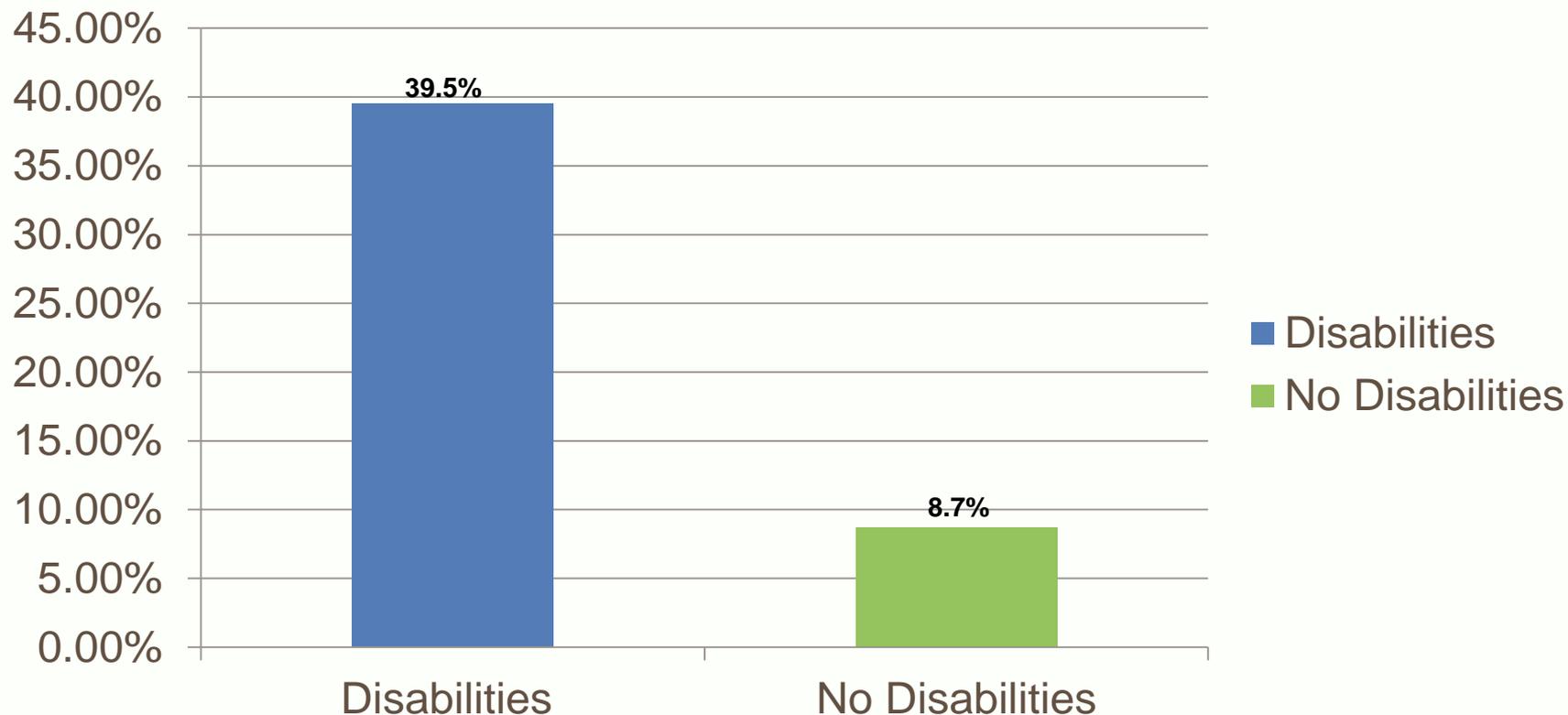
- Health differences that are linked to a history of social, economic or environmental disadvantage;
- **These differences in health outcomes are at the population level;**
- These differences are regarded as avoidable

II.2. Disability-Related Health Disparities—Data Sources

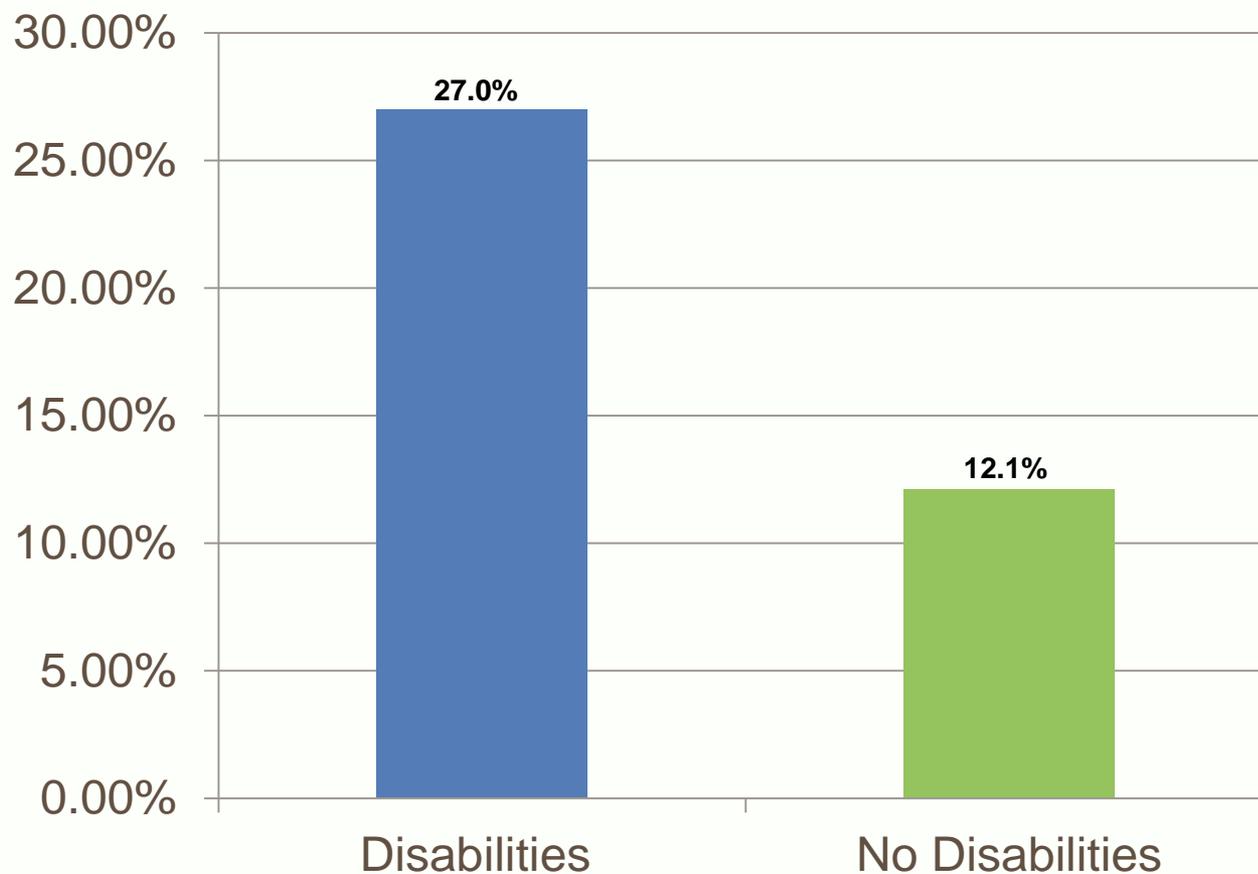
- National population data
- Multiple definitions of Disability
- Data Warehouse for HP2020

Percentage Adults Indicating Fair/Poor Health By Disability Status BRFSS 2010

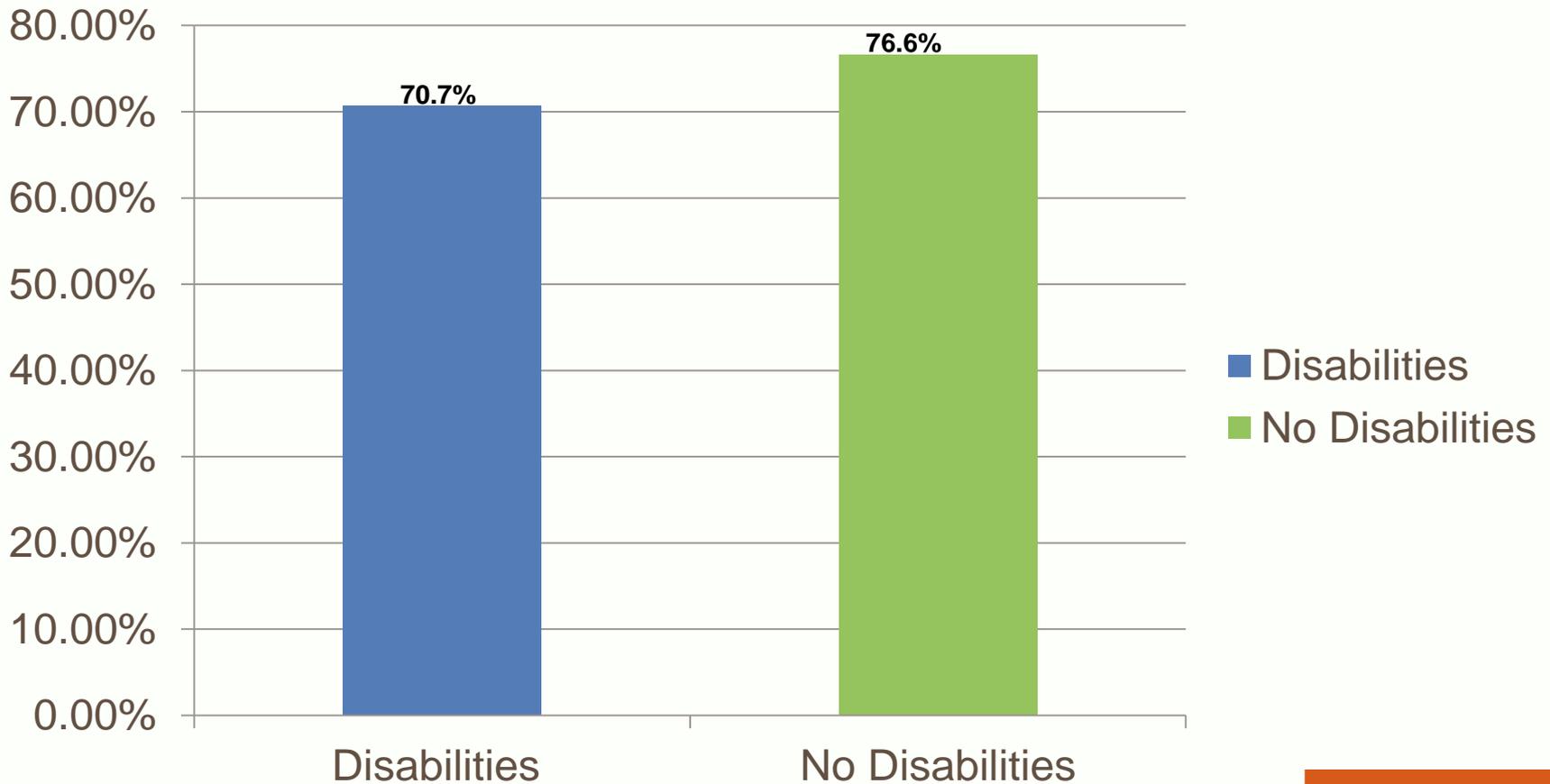
Fair/Poor Health



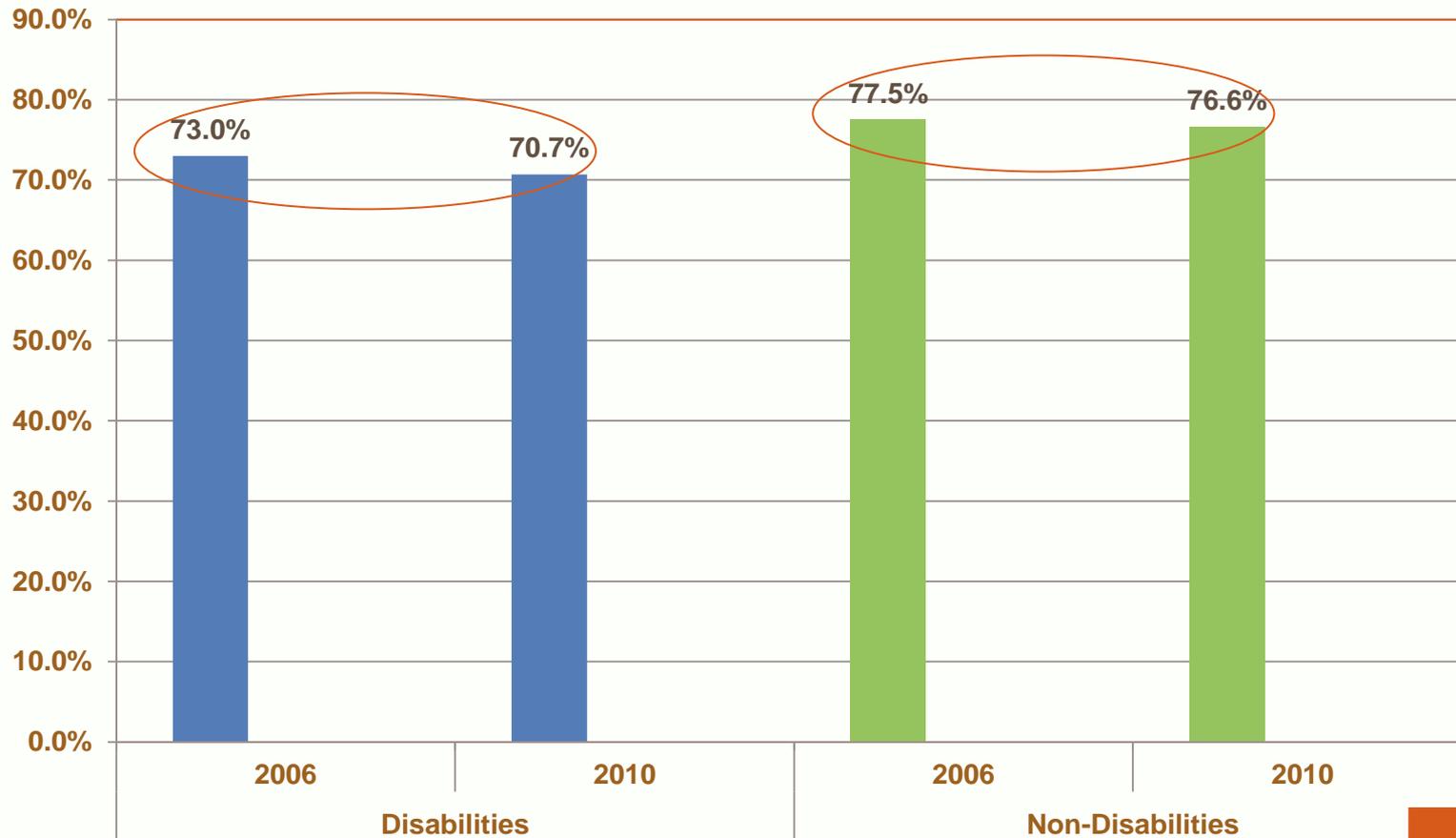
Percent with Unmet Medical Need due to Cost by Disability Status, BRFSS 2010



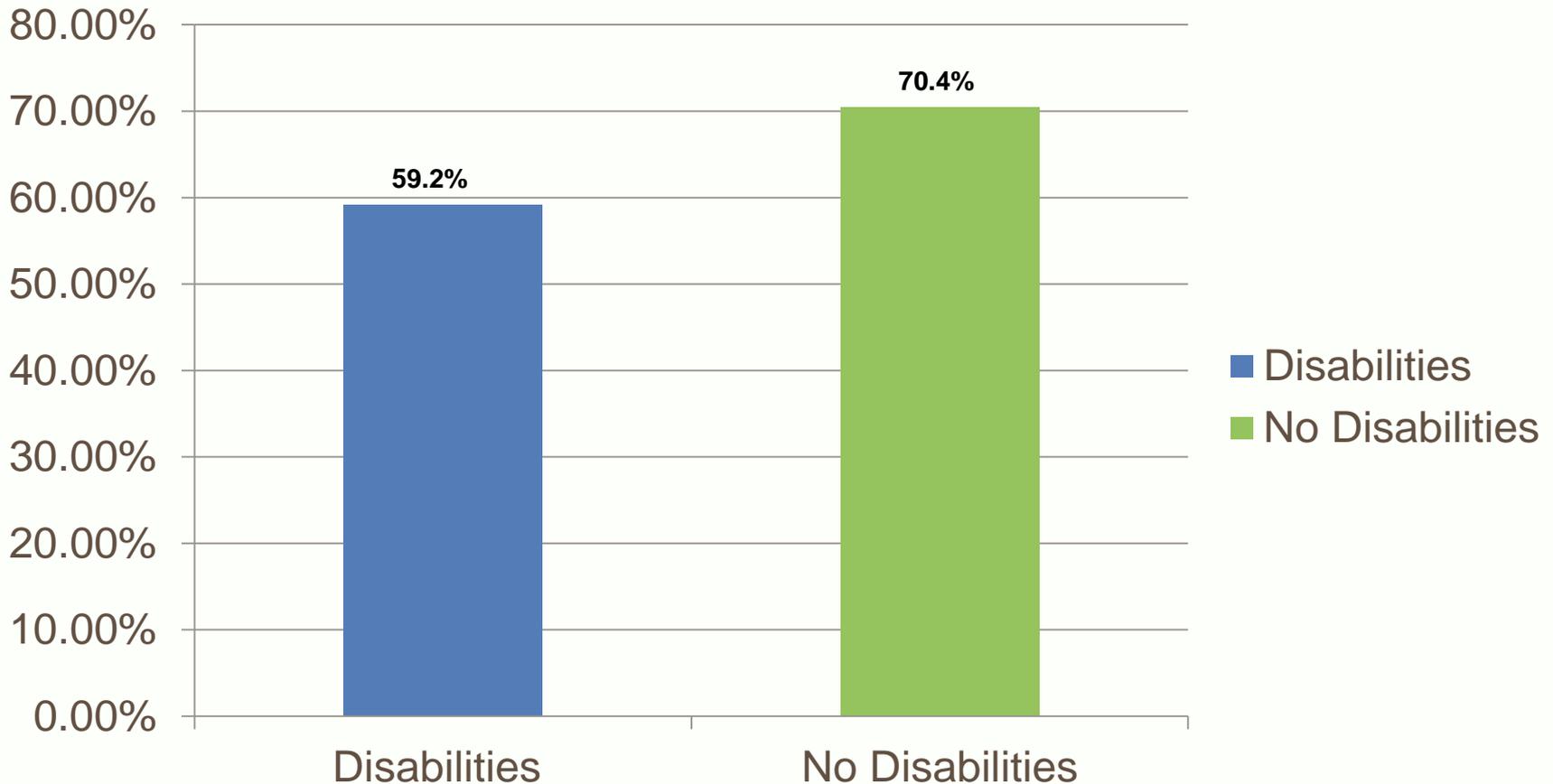
Percent Women 40+ Mammography in Past 2 Years by Disability Status, BRFSS 2010



Percent Women 40+ Mammography Past 2 Years by Disability Status BRFSS 2006, 2010

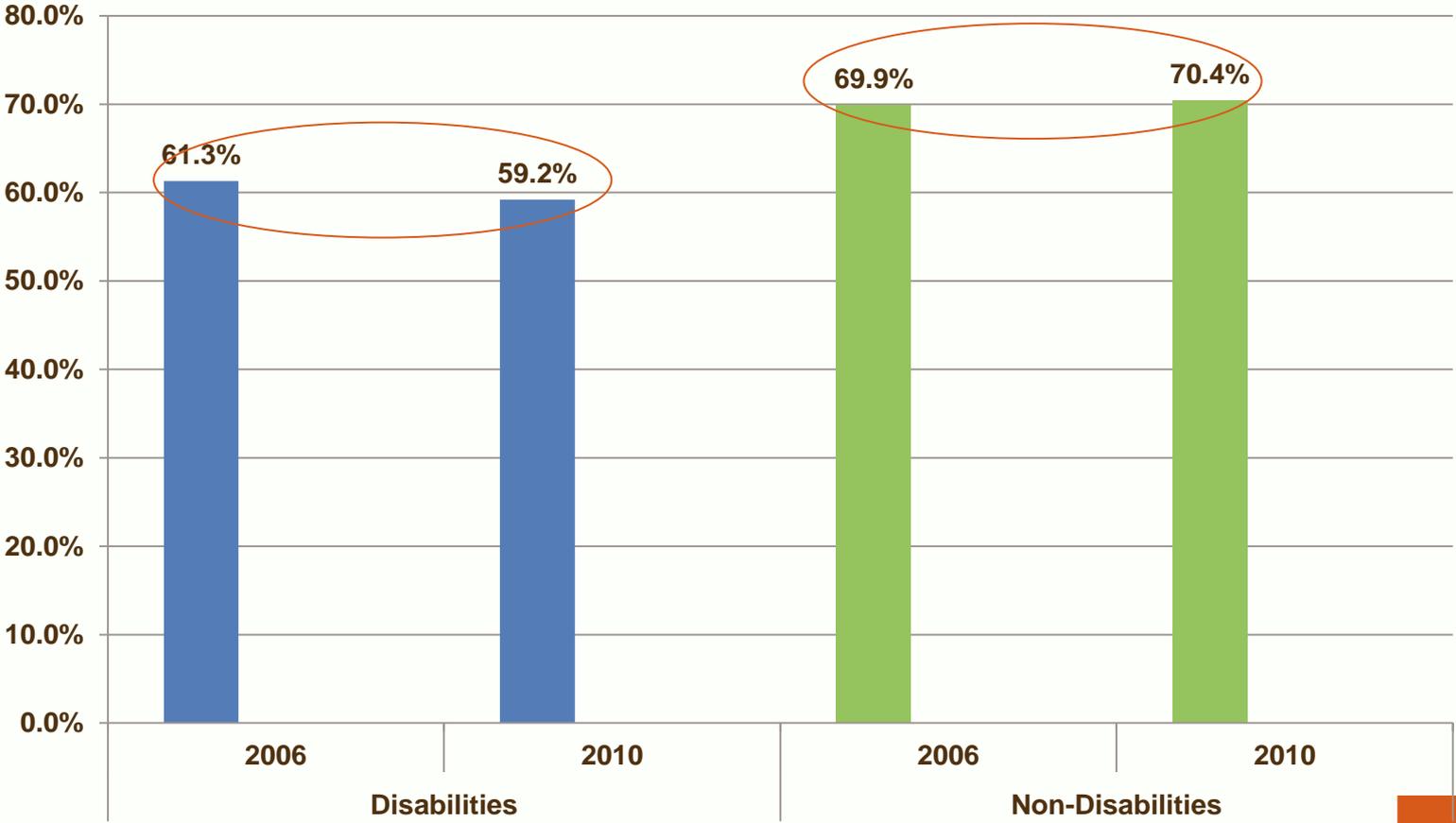


Percent Dental Visit by Disability Status, BRFSS 2010

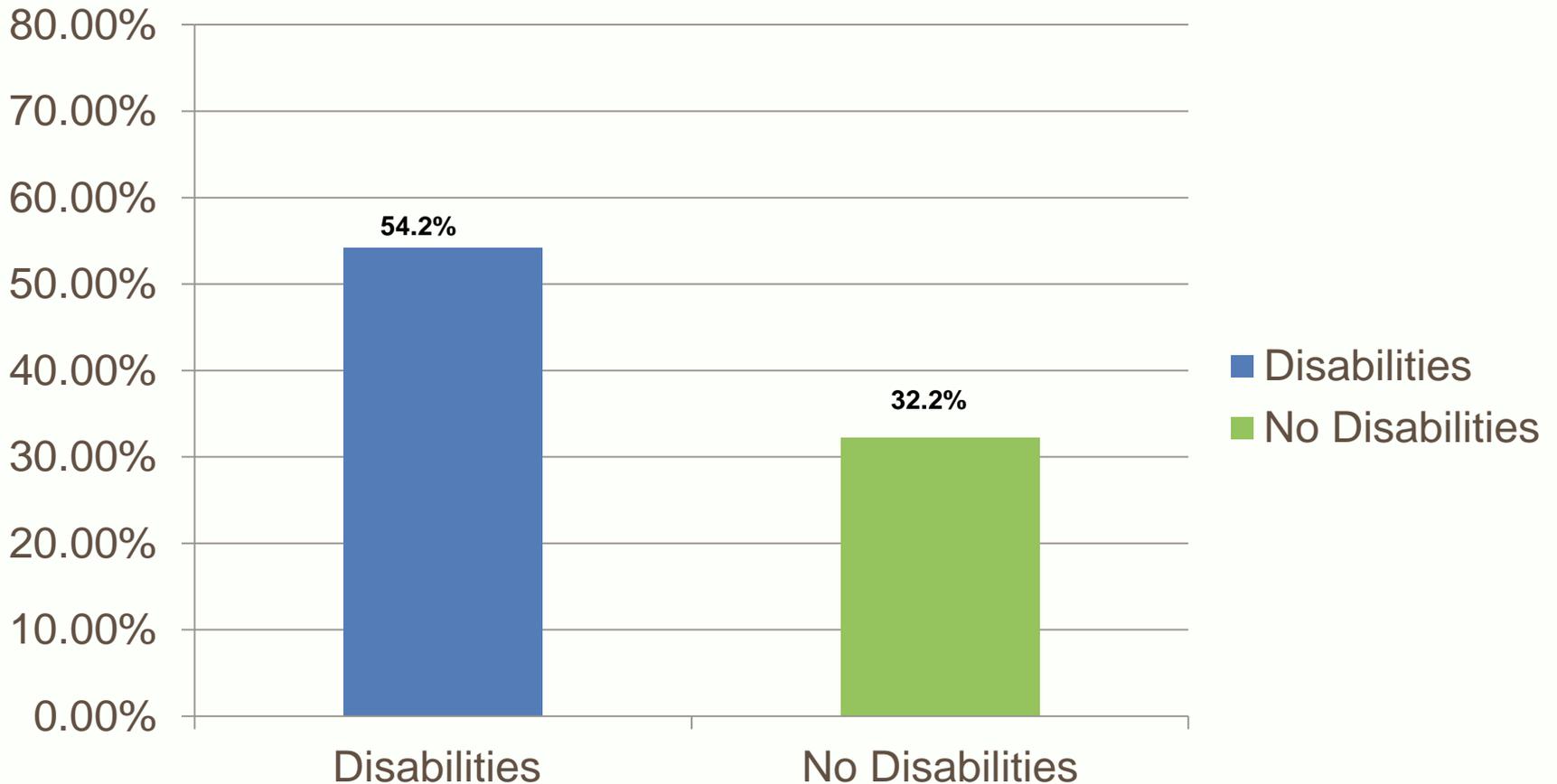


Percentage Dental Visit by Disability Status

BRFSS 2006, 2010

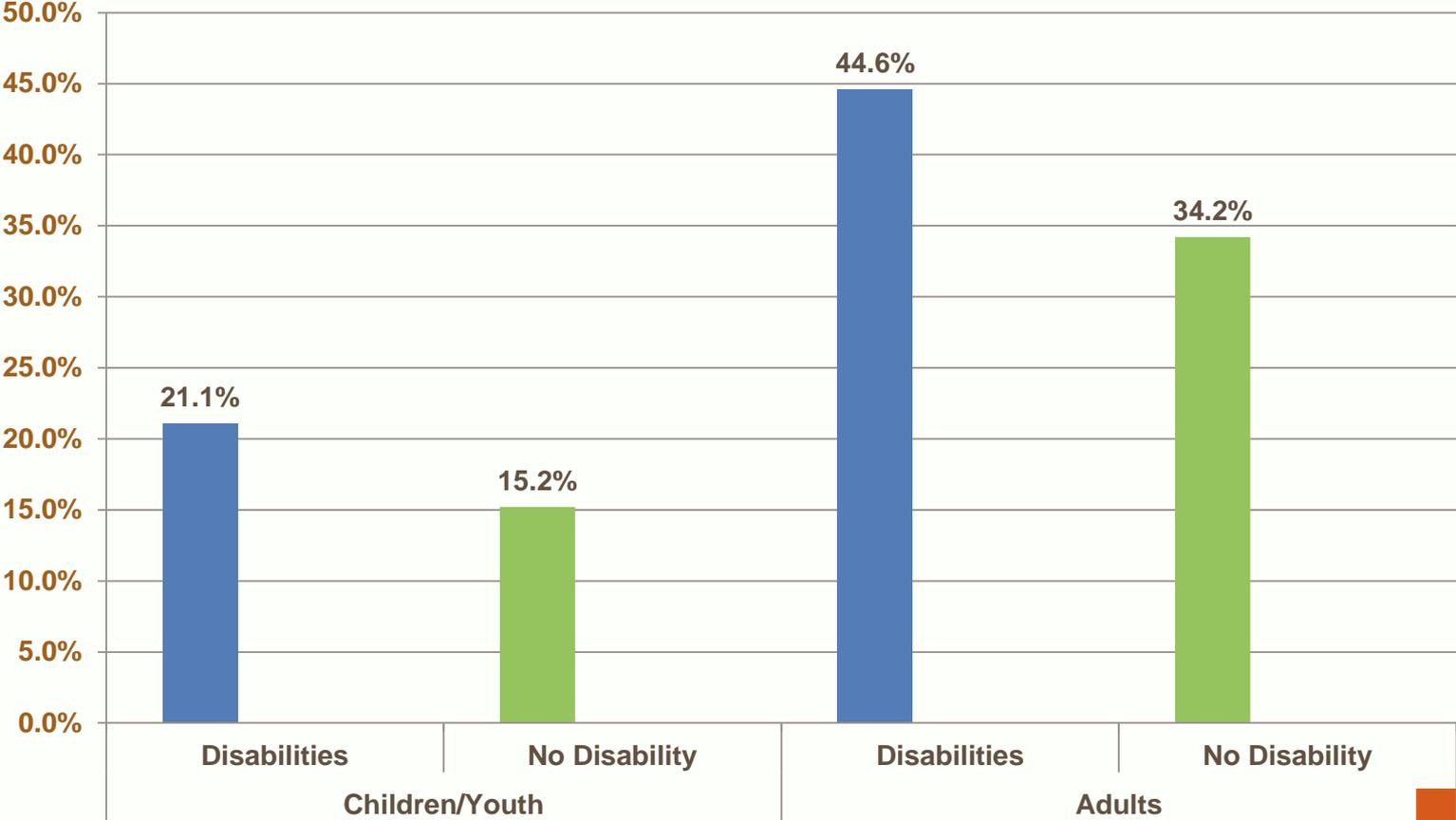


Percent with No Physical Activity, NHIS 2008

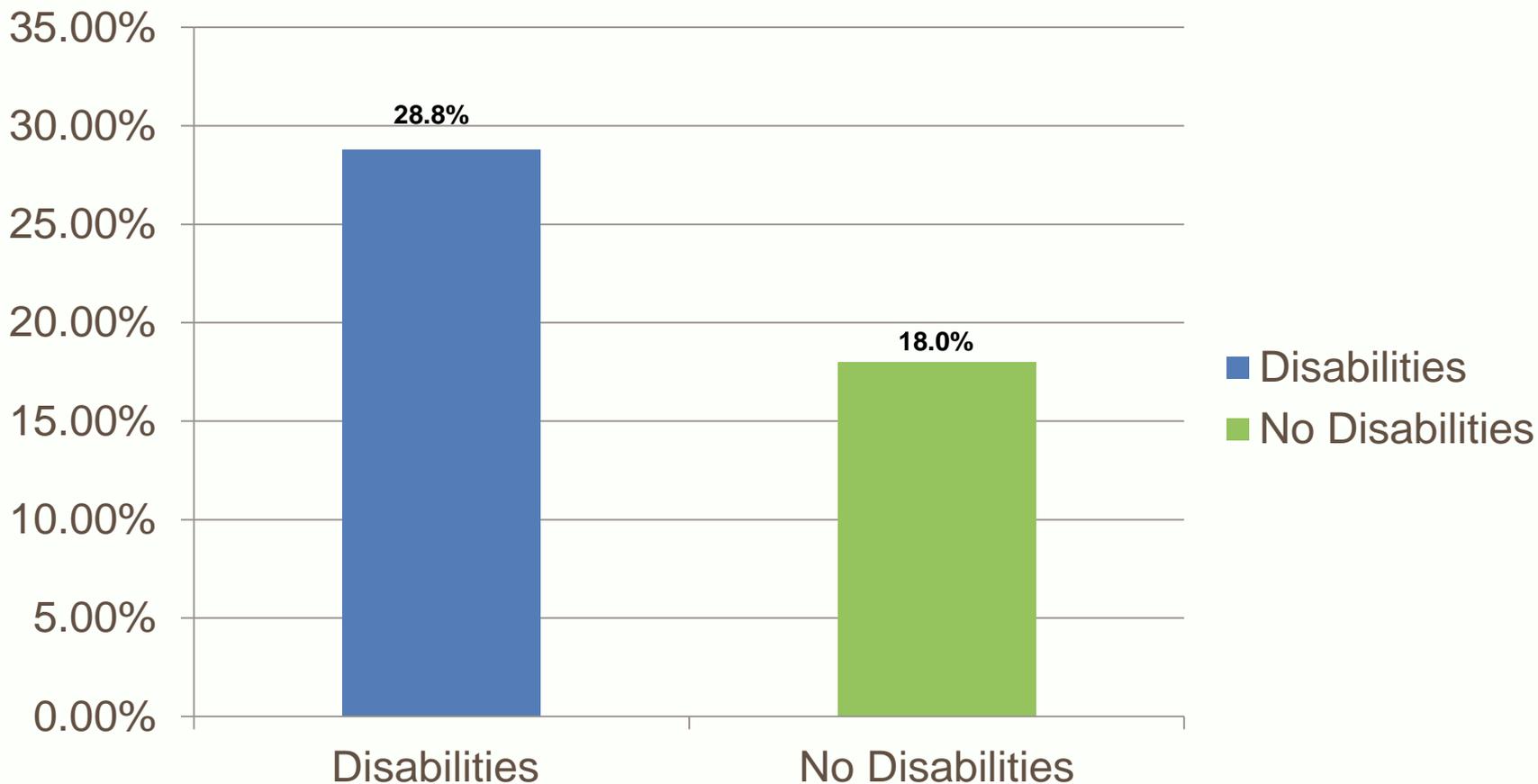


Percentage Obesity by Disability Status

NHANES 1999-2010;2009-10



Percent Smoking* by Disability Status, NHIS 2010

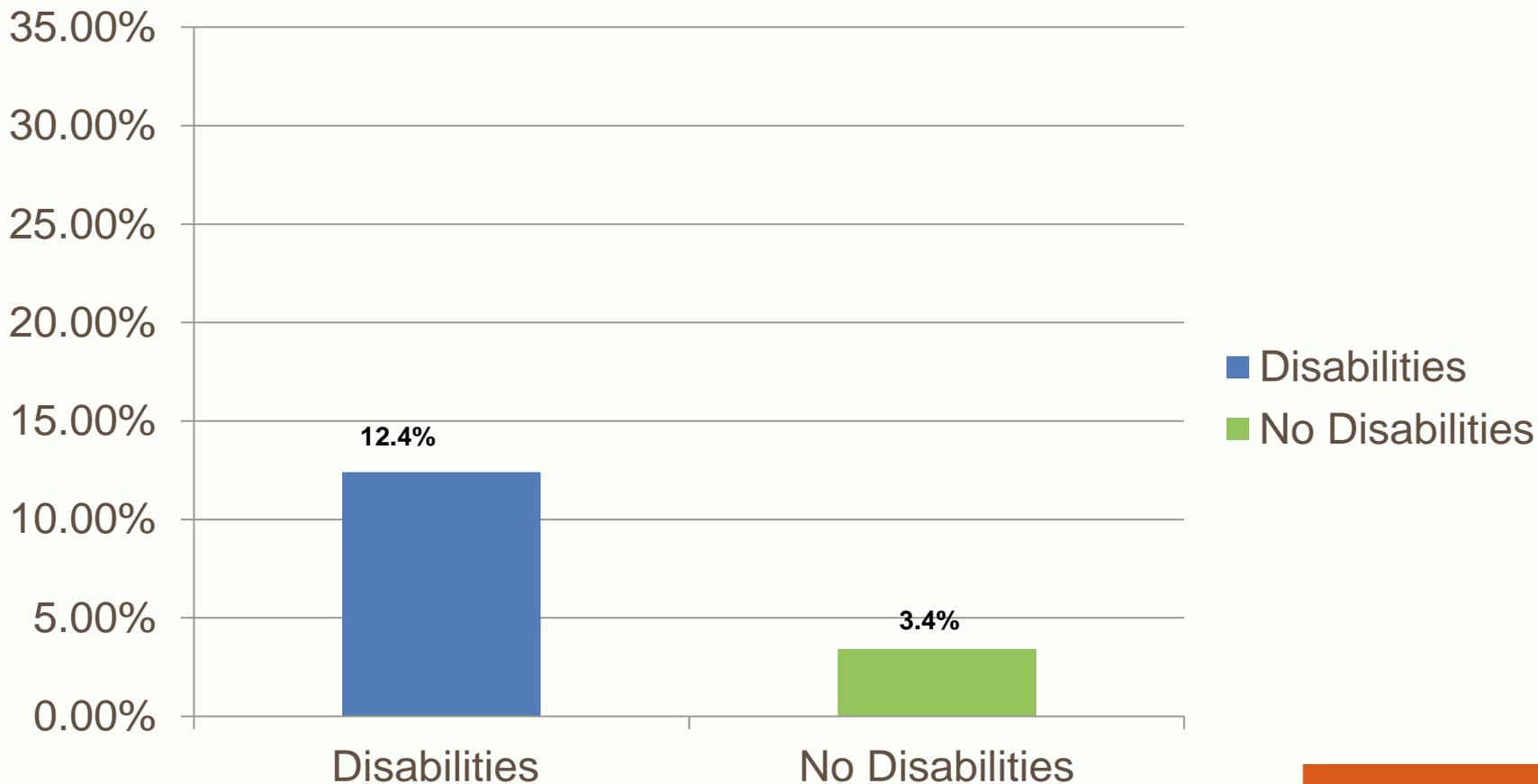


*100 cigarettes in lifetime and currently smoke

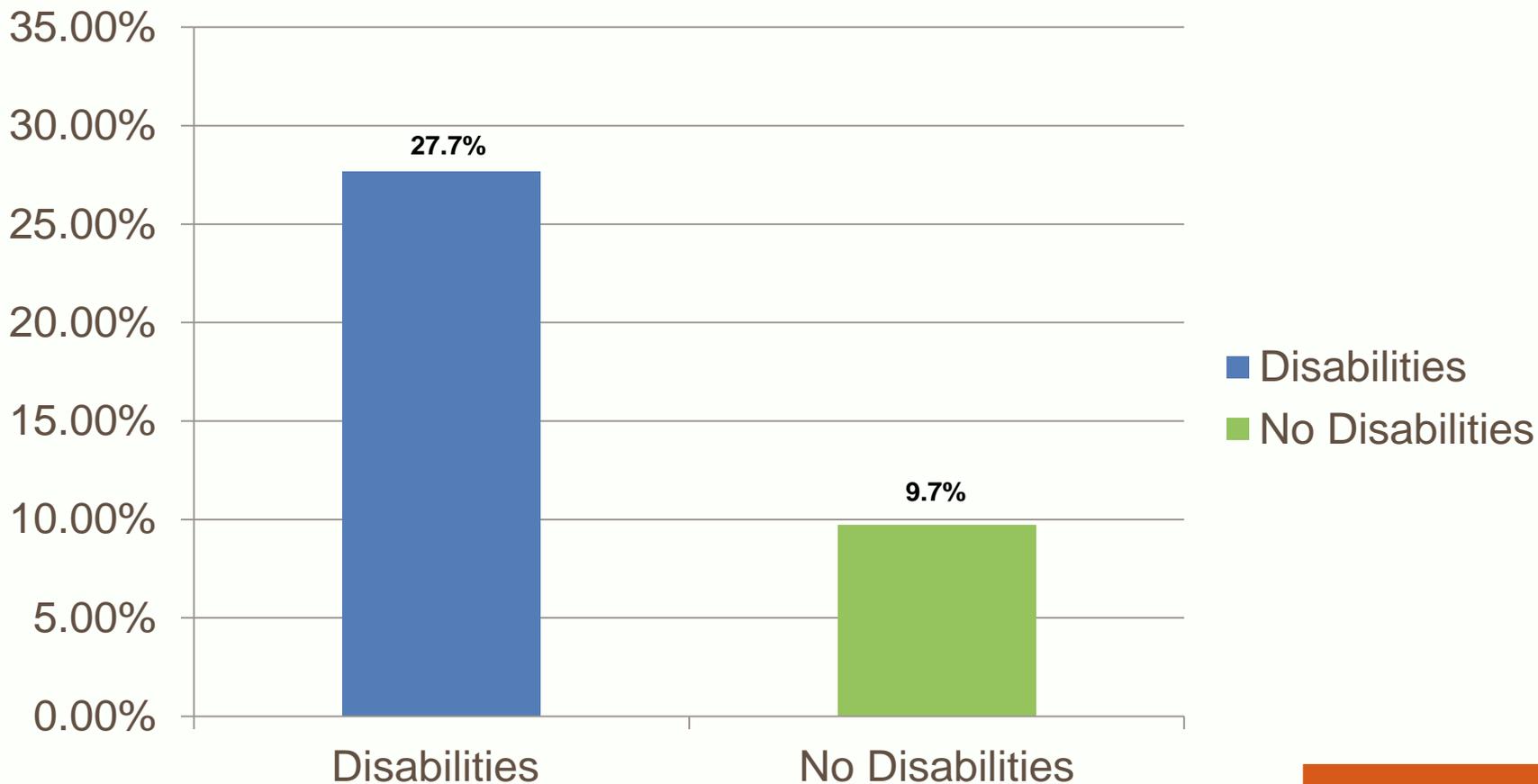
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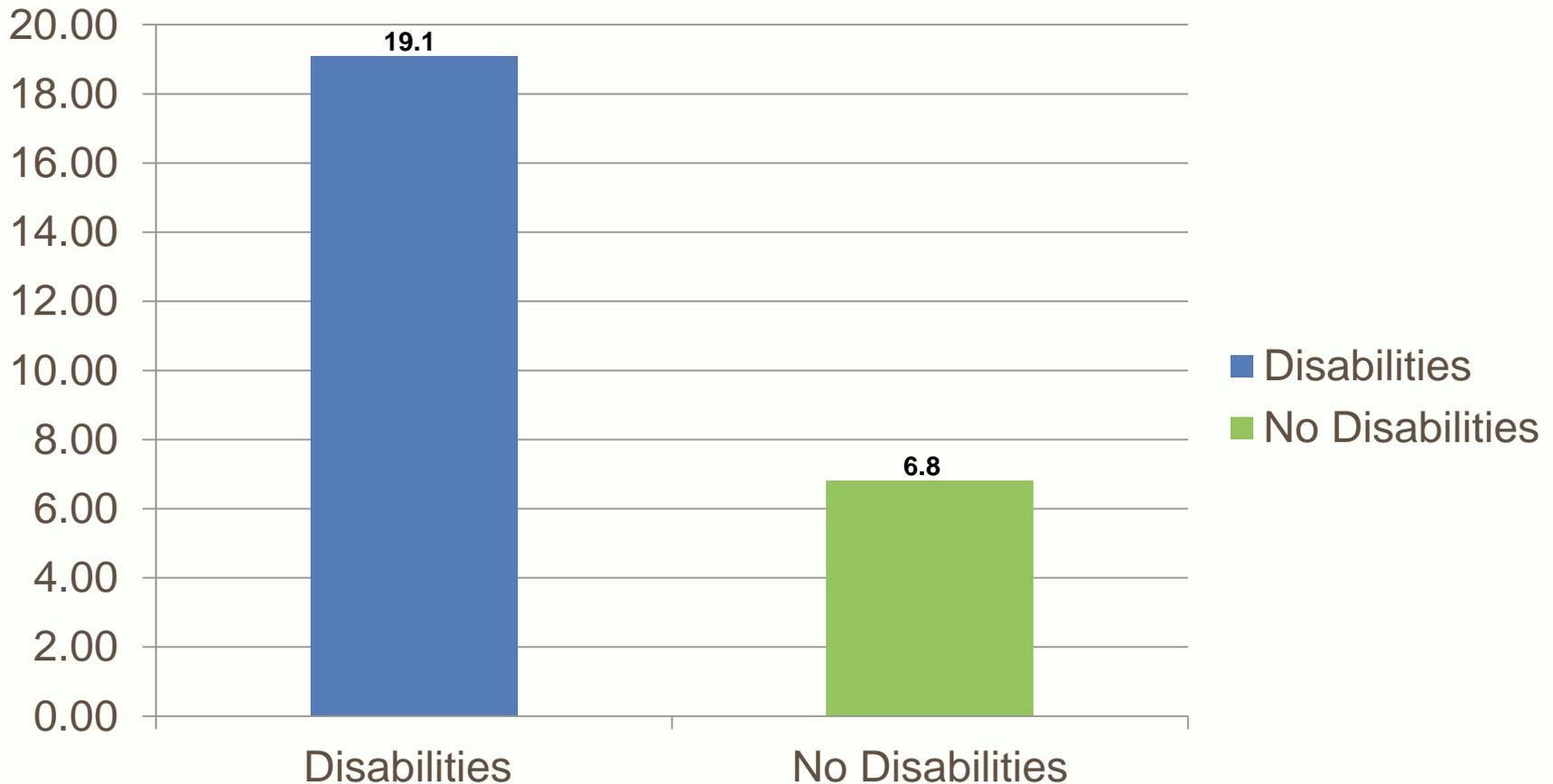
Percent Cardiovascular Disease Ages 18-44 years by Disability Status, NHIS 2009-11



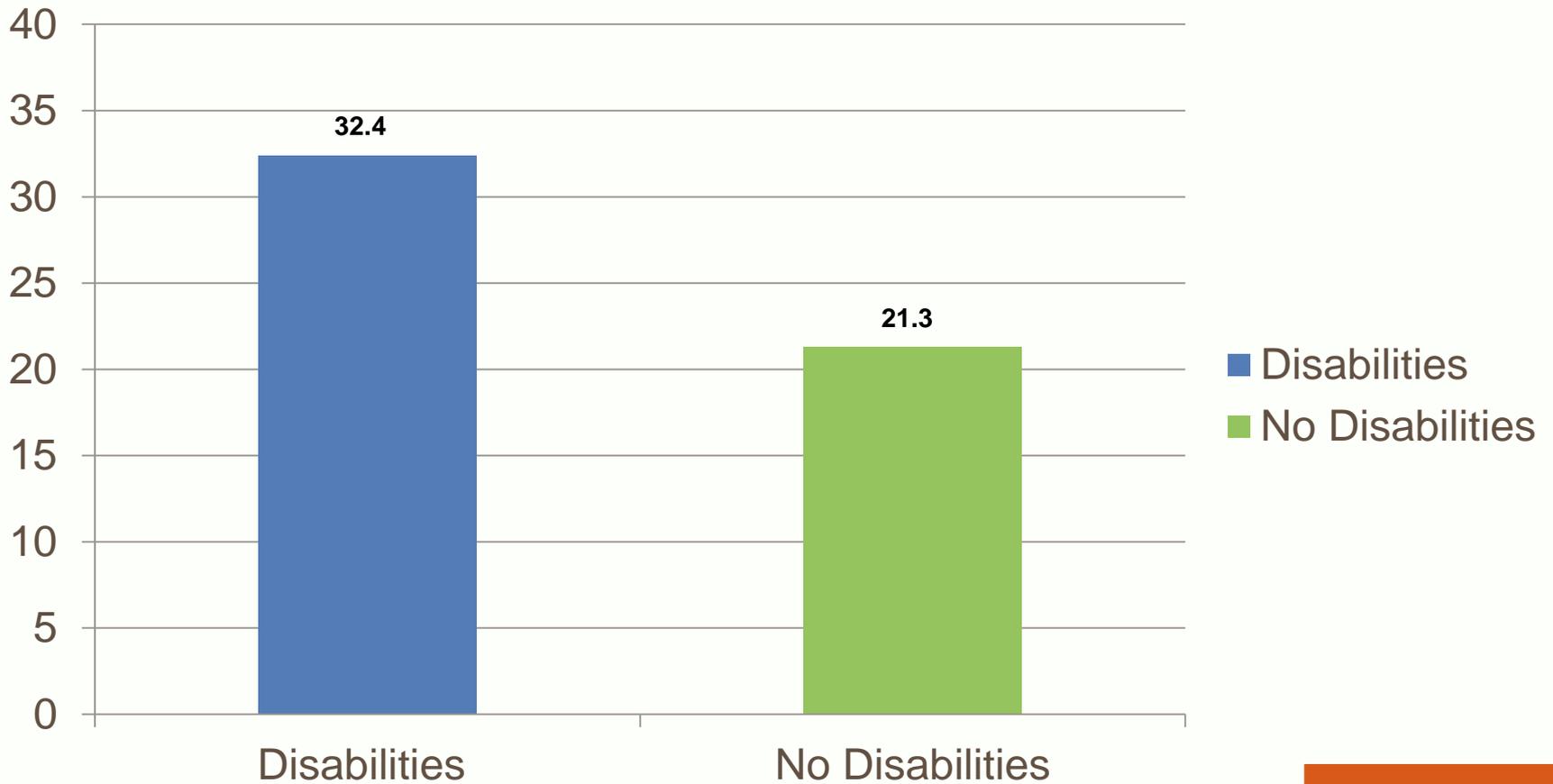
Percent Cardiovascular Disease Ages 45-64 years by Disability Status, NHIS 2009-11



Annual # New Cases of Diabetes per 1,000 by Disability Status, NHIS 2010



Victim of Violent Crime per 1,000 by Disability Status, NCVS, 2007



II.2. Population Differences

- **Major differences in:**

- Health care access
- Health behaviors
- Chronic diseases
- Victimization

❑ **Health care costs associated with disability estimated at about \$400 billion/year**

- $> \frac{1}{4}$ quarter of all health expenditures
- Medicaid and Medicare programs incur about 70% of these costs

II.3. Disability-Related Health Disparities

Disparity Requirements:

- Health differences that are linked to a history of social, economic or environmental disadvantage;
- These differences in health outcomes are at the population level;
- **These differences are regarded as avoidable**

II.3. Arguments around preventable disparity

- “Of course their health is poor, they’re disabled.”
- “How do you know what came first—the disability or the poor health outcome?”

II.3. Approaches to document preventable disparities

1. Demonstrate differences prior to when poor health outcomes might be expected

E.g., obesity in childhood

E.g., smoking in early adulthood*

E.g., cancer rates**

**Courtney-Long, Stevens, Caraballo, Ramon, Armour, 2014;*

*** Lapidus, Austin, Bersani, Small, 2001.*

II.3. Approaches to document preventable disparities

2. Select an outcome where you would expect equivalence

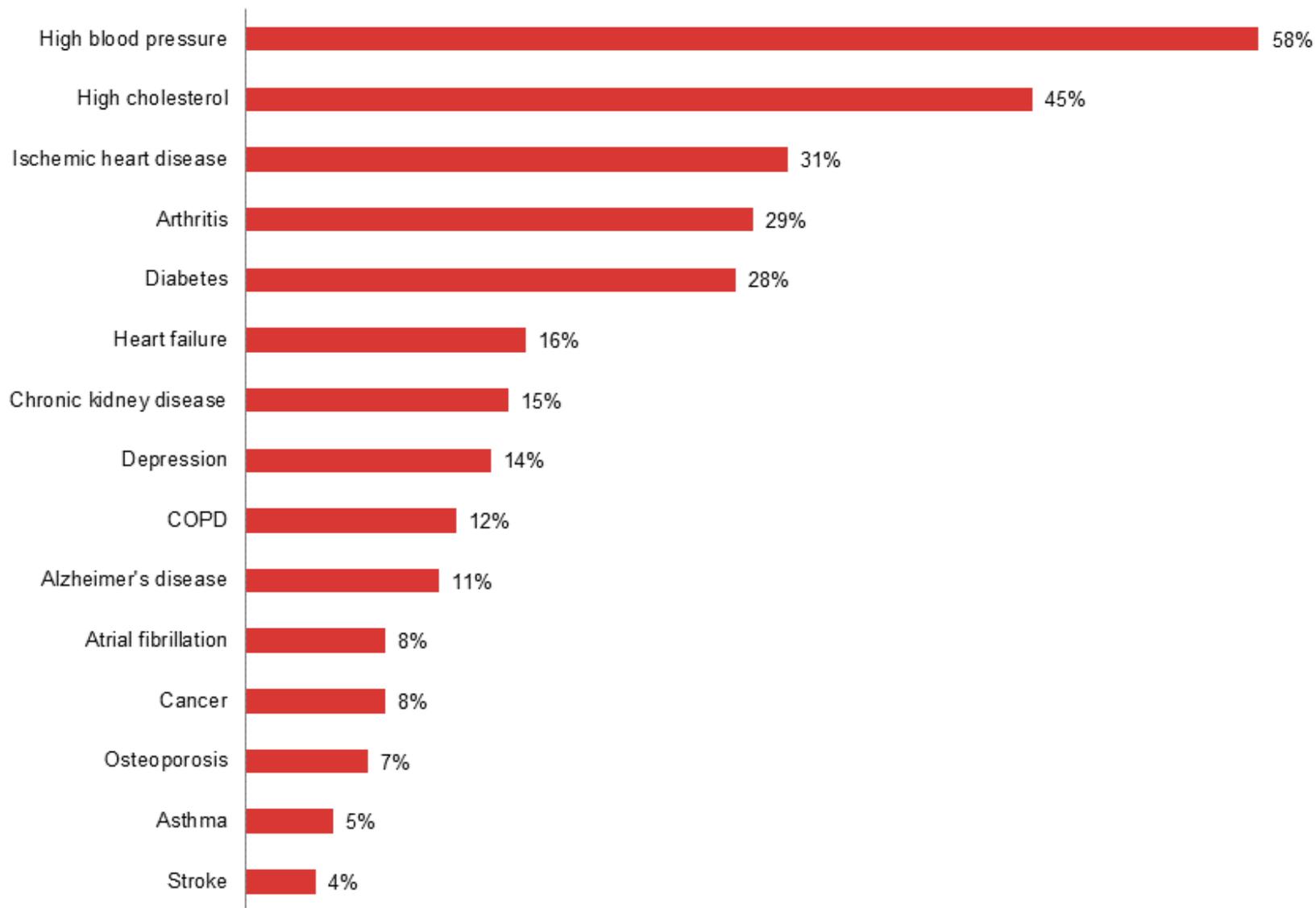
E.g., clinical preventive services

E.g., chronic disease

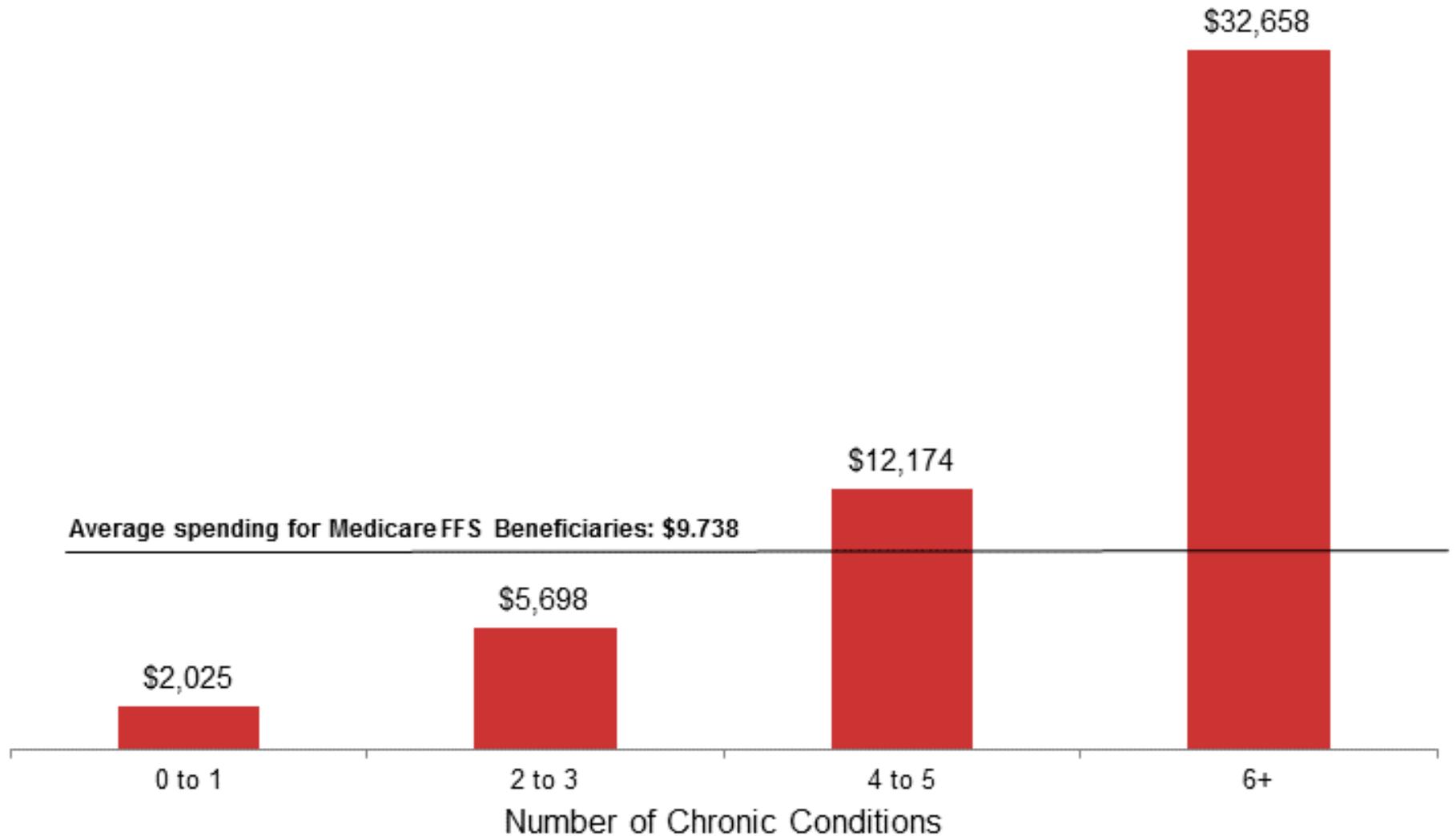
II.3. The Example of Chronic Disease and Disability

- **Mortality, Morbidity and Quality of Life are all threatened by chronic diseases**
- **6 of top 10 causes of death in general population**
- **Primary Driver of health care costs in U.S.**
- **Generally considered preventable and manageable.**

Percentage of Medicare FFS Beneficiaries with the 15 Selected Chronic Conditions: 2010



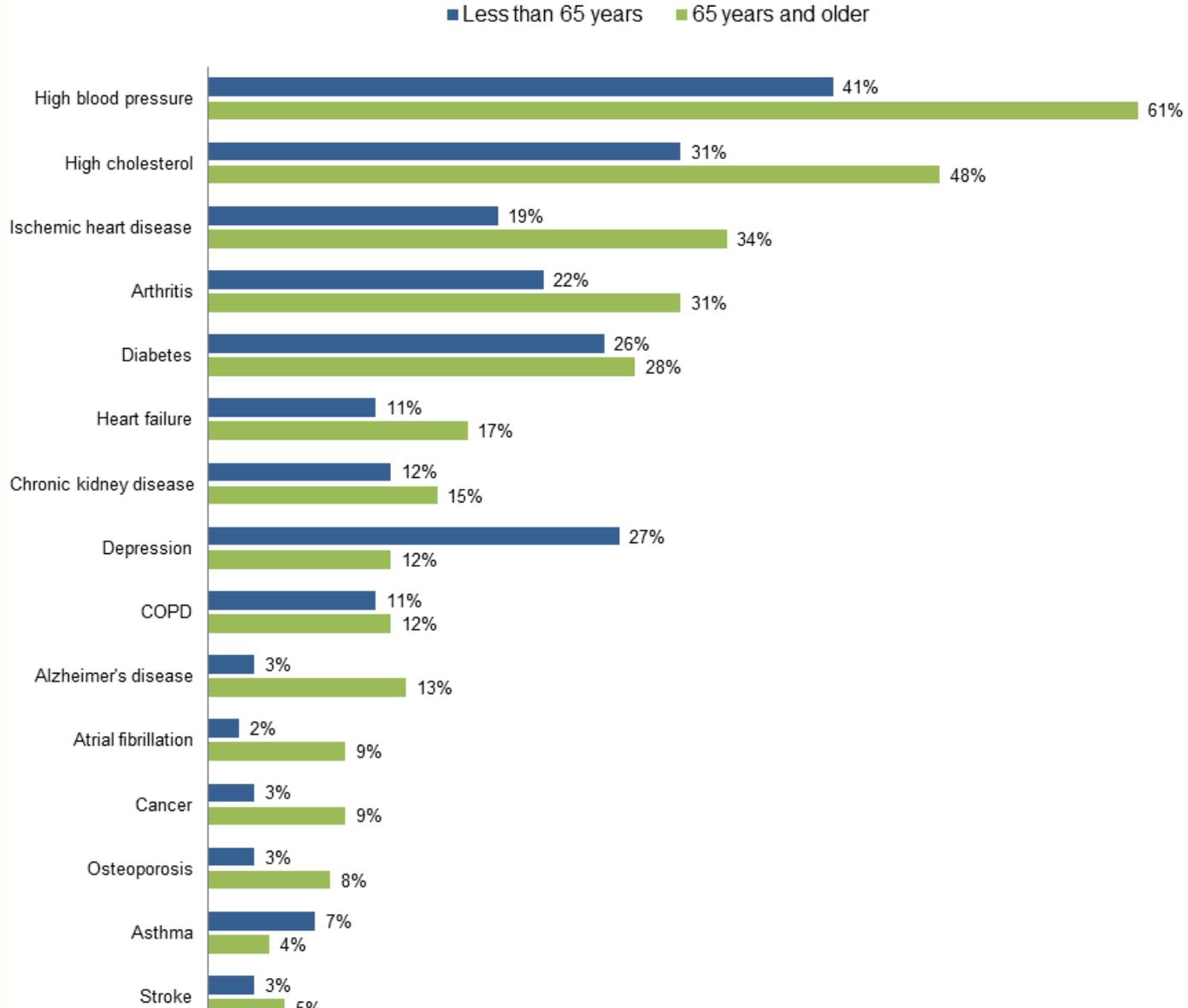
Per Capita Medicare Spending for Medicare FFS Beneficiaries by Number of Chronic Conditions: 2010



Source: Centers for Medicare and Medicaid Services.

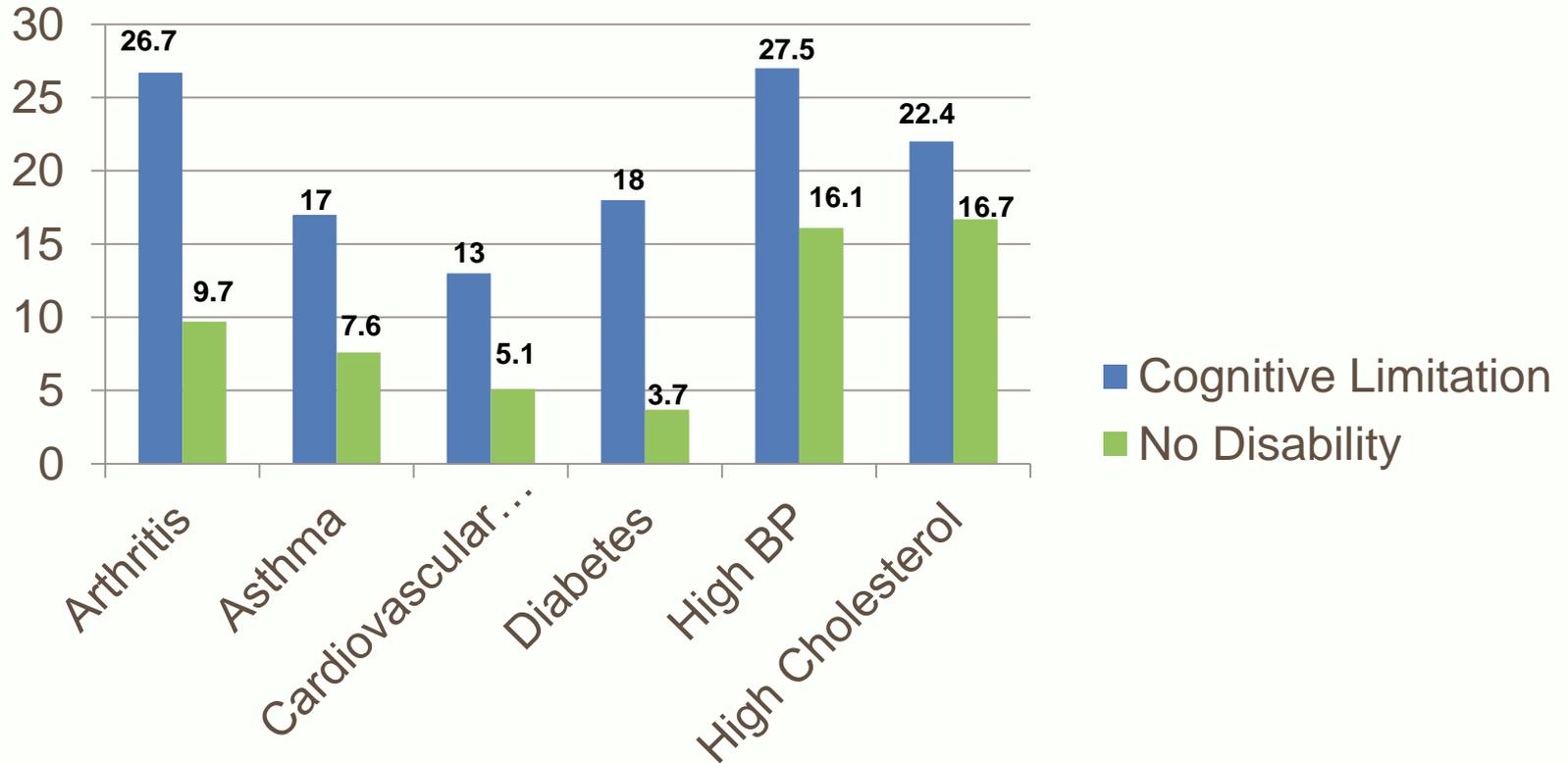
Chronic Conditions among Medicare Beneficiaries, Chart book: 2012 Edition Baltimore, MD. 2012.

Percentage of Medicare FFS Beneficiaries with the 15 Selected Chronic Conditions by Age: 2010



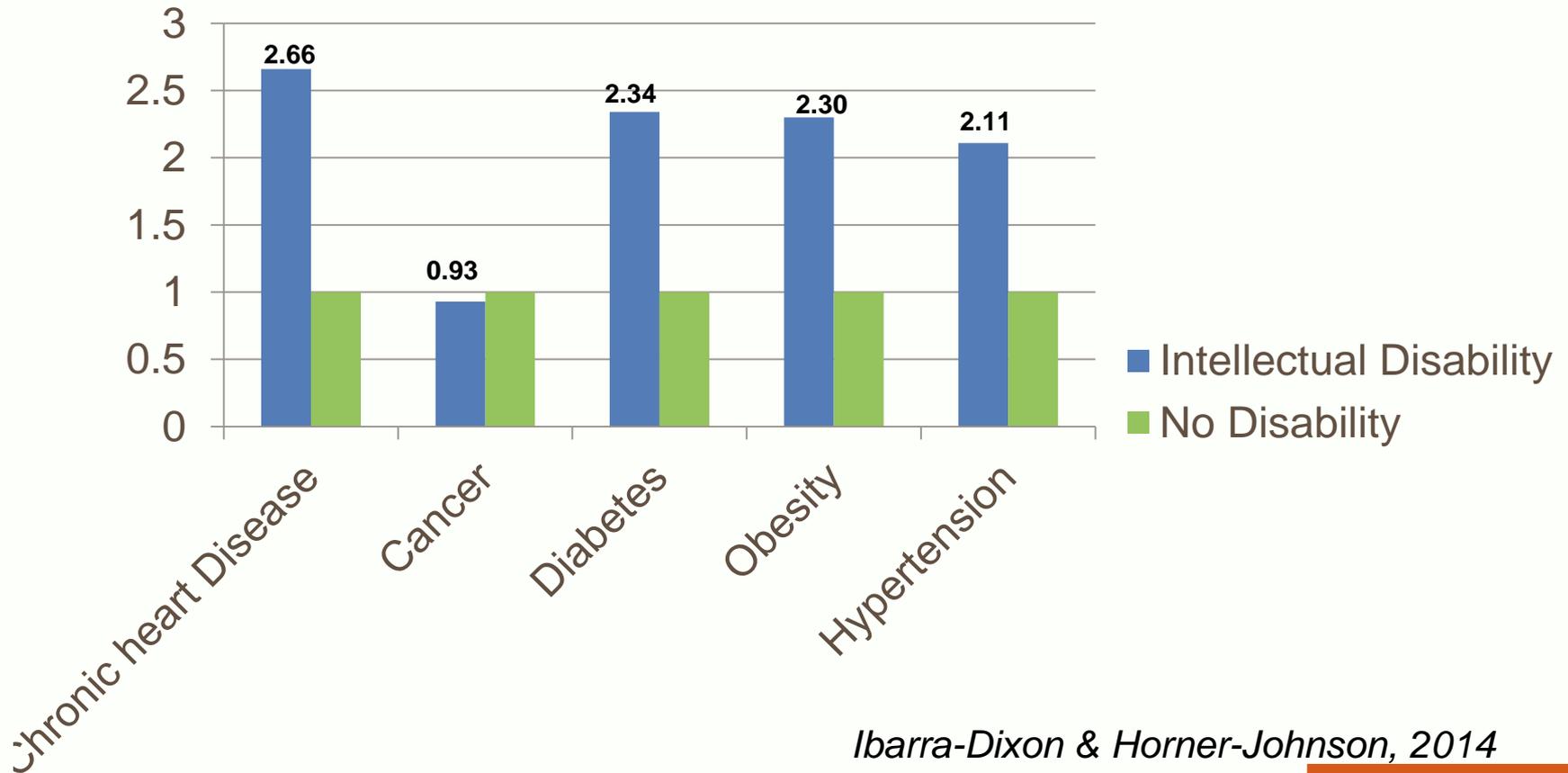
Source: Centers for Medicare and Medicaid Services. Chronic Conditions among Medicare Beneficiaries, Chart book: 2012 Edition Baltimore, MD. 2012.

Age Adjusted Prevalence Rates for Chronic Health Conditions and Cognitive Limitations, MEPS, 2006



Reichard, Stolzle, Fox, 2011

Adjusted Odds Ratios for Chronic Health Conditions for People with Lifelong Intellectual/Developmental Disabilities



Ibarra-Dixon & Horner-Johnson, 2014

Are People with Disabilities an Unrecognized Health Disparity Population?

Criteria	Met
Health differences that are linked to a history of social, economic or environmental disadvantage	✓
These differences in health outcomes are at the population level	✓
These differences are regarded as avoidable	✓

III. Disparities and Determinants

Health Disparities:

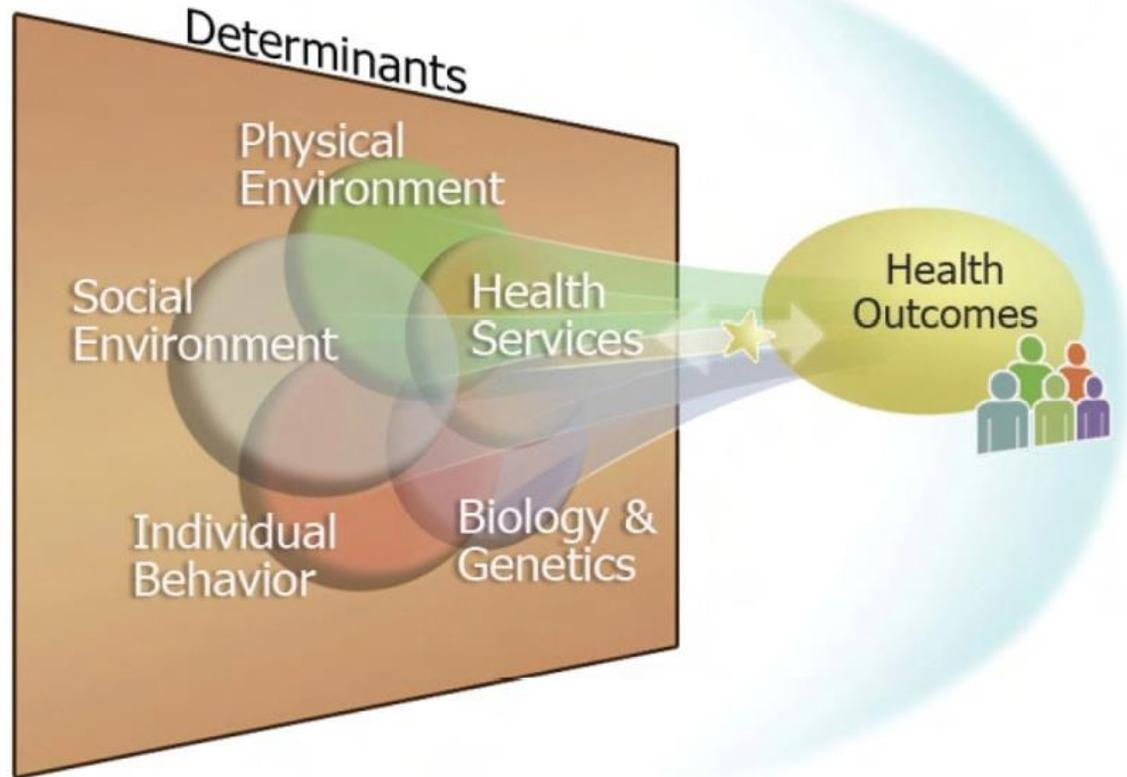
- Framework for Healthy People 2010
- Doorway to program eligibility
- “Easy” to demonstrate and understand

Health Determinants:

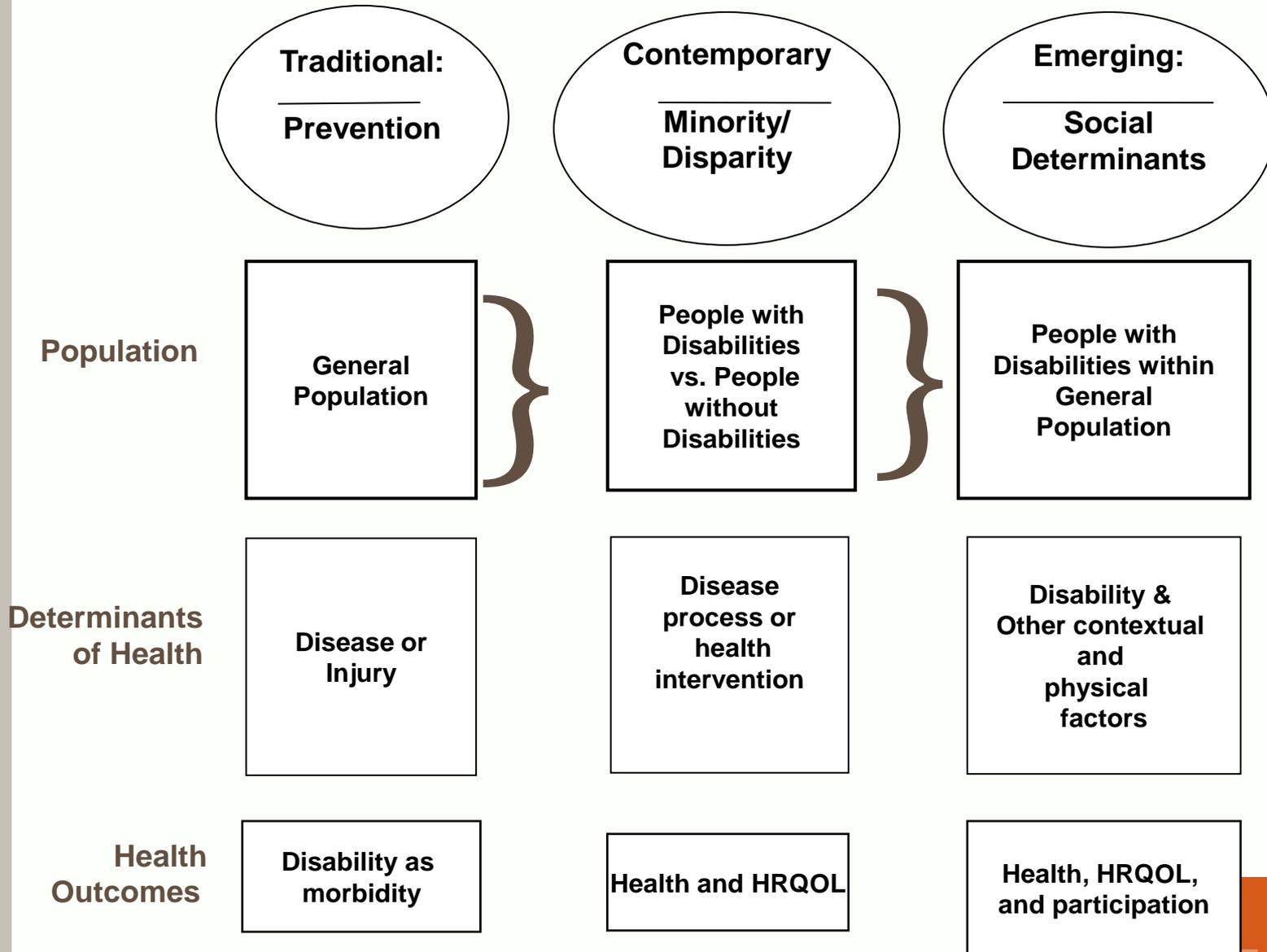
- Framework for Healthy People 2020
- Attention to broader influences on health
- Implications of determinants model

Healthy People 2020

A society in which all people live long, healthy lives



Three Views of Disability in Public Health



III. From Disparities to Determinants Model for Disabilities

Analytic Models:

- From “adjusting for” to considering simultaneously
- From main effects to interactions

Attitude

- Segregation to Inclusion
- Categorical classification to demographic characteristic
- Brings focus to influences of “place”

Social Determinants Data

Determinant	Disability	No Disability
Unemployment (>16 years) ¹	15.0%	8.7%
Employment (>16 years) ¹	17.8%	63.6%
Less than High School education ²	13%	9.5%
Internet Access ³	54%	85%
Household Income < \$15,000 ³	34%	15%
Inadequate Transportation ³	34%	16%

1= CPS, 2011; 2 = BRFSS 2010; 3 = NOD, 2010

Krahn, Walker, Correa-de-Araujo, AJPH in press

IV. What Public Health Actions Can We Take?

National: Disparity status for disability

National, State and Local Actions:

- 1. Access to health care and human services**
- 2. Strengthened health and human services workforce**
- 3. Explicit inclusion of people with disabilities in public health programs and services**
- 4. Data to drive policy and practice**
- 5. Emergency preparedness**

Action 1: Access to Health Care and Human Services

- Health care insurance
- Public health services
- Accessible facilities and equipment

- Community-based services
- Cultural and linguistically appropriate services
- Coordination and navigator services

Action 2: Strengthened Health and Human Services Workforce

- **Policies that support the workforce to provide quality services**
- **Training for current and future workforce on disabilities, and disability inclusion**

Action 3: Explicit Inclusion of People with Disabilities in Public Health Programs and Services

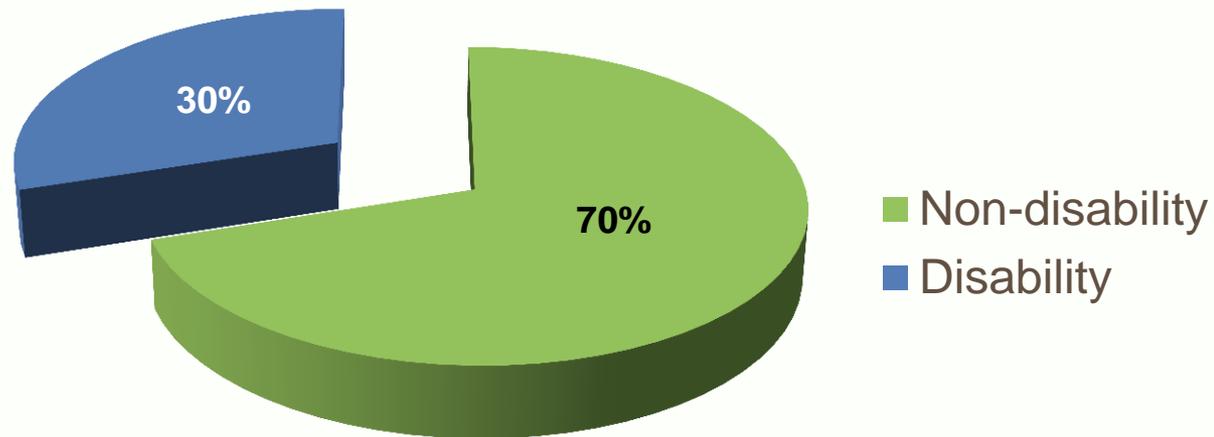
**“Inclusion of people with disabilities wherever possible;
Cross-Disability approach wherever necessary;
Condition-specific where essential”**

Planning for Inclusion:

- Recruitment
- Accessibility
- Accommodation
 - Equipment
 - Supports
- Resources:
 - Oregon Office on Disability and Health:
<http://www.ohsu.edu/xd/research/centers-institutes/institute-on-development-and-disability/public-health-programs/oodh/oodh.cfm>
 - [CDC: http://www.cdc.gov/ncbddd/disabilityandhealth/accessibility.html](http://www.cdc.gov/ncbddd/disabilityandhealth/accessibility.html)

Importance of Inclusion in Interventions

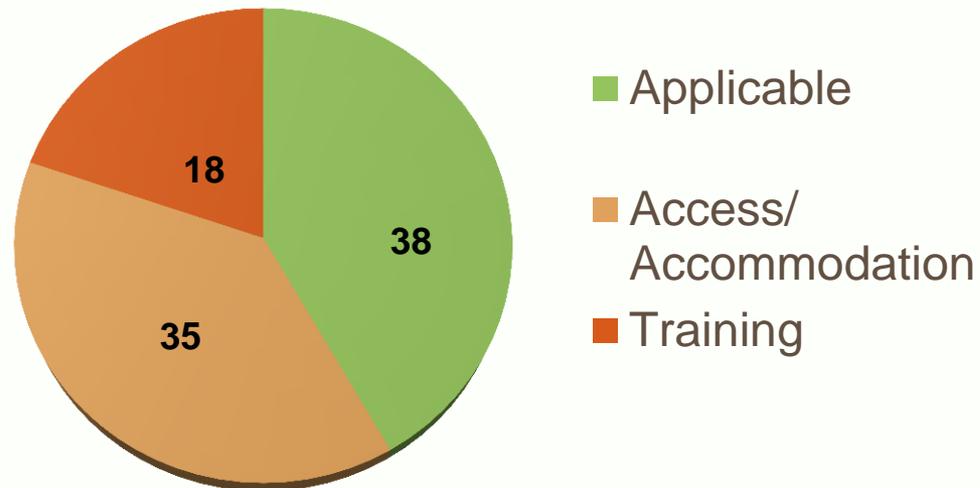
Smokers



Inclusion: The Guide to Community Preventive Services

- Evidence-based community interventions
 - www.thecommunityguide.org
- Reviewed 90 interventions for applicability for people with disabilities

Community Guide Interventions



Action 4: Data to Drive Policy and Practice

- Routine inclusion of disability identifiers
 - Use of HHS disability standards
- Routine analysis by disability status
- Routine monitoring of effectiveness by disability status



Action 5: Emergency Preparedness and Disabilities



Action 5: Emergency Preparedness

- Including people with disabilities in planning for all disasters
- Preparation by communities, first responders
- Preparation and resources for people with disabilities and families
- Resources:
 - Oregon Office on Disability and Health
 - CDC, FEMA

IV. International Public Health Frameworks for Action

- **World Report on Disability—1 Billion people globally (WHO/World Bank, 2011)**
- **Convention on the Rights of People with Disabilities (UN, 2006)**
- **Opportunities for Global Health and Disability**

In Summary,

- There are many faces of disability
- Disability meets all criteria as a disparity population
- People with disability are disadvantaged on key determinants of health
- Public health can take actions in key areas
- The moment has come when the poor health of people with disabilities passes from the category of a Given to the category of the Intolerable.

Time for Action



Take the Plunge!



Thank you!

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