

## Public Health Live – T<sup>2</sup>B<sup>2</sup>

### Disability and Health: Implications for Public Health Practice

### Guest Speakers

- Introductions by:  
Barbara Devore  
Deputy Director, Center for Community Health New York  
State Department of Health
- Speakers:  
Margaret A. Turk, MD  
Professor, Department of Physical Medicine &  
Rehabilitation and Pediatrics SUNY Upstate Medical  
University
- Andrea Haenlin-Mott  
ADA Coordinator for Facilities Services at  
Cornell University
- Theresa Paeglow  
Program Manager, New York State Department of Health  
Disability and Health Program

### Thanks to our Sponsors:

- School of Public Health, University at Albany
- NYS Department of Health
- NYS Community Health Partnership

#### Special Thanks to

- NYS Association of County Health Officials
- NYS Nurses Association

### Evaluations

Please visit

**[www.t2b2.org](http://www.t2b2.org)**

to fill out your evaluation and post test.

Nursing Contact Hours, CME, CHES  
are available.

*Thank you!*

### 2005 Surgeon General's Call to Action to Improve Health and Wellness for Persons with Disabilities

"Individuals with disabilities are newborn infants, children, teens, working-age adults and older adults of all races and ethnicities. They live in towns, cities and country areas. They attend schools and places of worship, vote, marry, have children, work and play. They also need health care and health promotion programs for the same reasons we all do: to stay well, to be active and to participate in community life."

Opening Message, DHHS Secretary Michael O. Leavitt

**Behavioral Risk Factor Surveillance System Screener questions:**

“Are you limited in any way in any activities because of physical, mental, or emotional problems?”

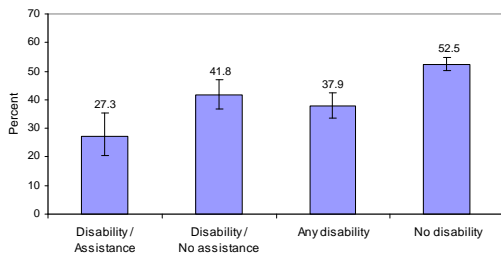
“Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?”

**Behavioral Risk Factor Surveillance System Follow-up questions:**

“Because of any impairment or health problem, do you need the help of other persons.....”

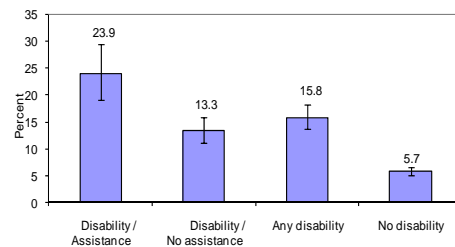
- With your personal care needs, such as eating, bathing, dressing, or getting around the house?”
- In handling your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?”

**Meets recommended physical activity, by disability status**



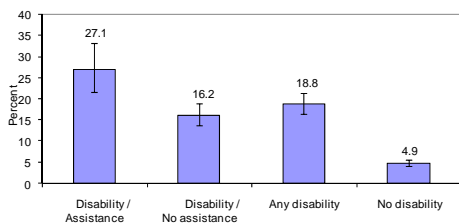
Note: Error bars represent 95% confidence intervals  
SOURCE: 2005 NYS BRFSS (split sample)

**Diabetes, by Disability Status**



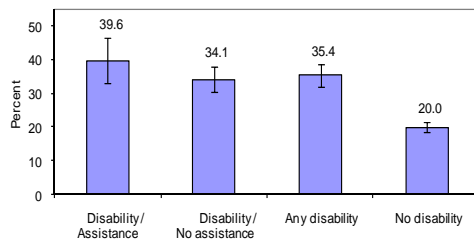
Note: Error bars represent 95% confidence intervals  
SOURCE: 2006 NYS BRFSS (split sample)

**History of Cardiovascular Disease, by Disability Status**



Note: Error bars represent 95% confidence intervals  
SOURCE: 2006 NYS BRFSS

**Obesity, by disability status**



Note: Error bars represent 95% confidence intervals  
SOURCE: 2006 NYS BRFSS

### Example of Universal Design



The Center for Universal Design, North Carolina State University  
[http://www.design.ncsu.edu/cud/about\\_ud/udprinciplestext.htm](http://www.design.ncsu.edu/cud/about_ud/udprinciplestext.htm)

### Disability Statistics

- 50+ million people in the US report some kind of disability
- No national US disability surveillance program exists
- Multiple surveys, exclusions by age/living situation; heterogeneous data and difficult comparisons with existing surveillance
- U.S. epidemiologic data may not capture the full picture of disability



### Disability Defined

#### Traditional

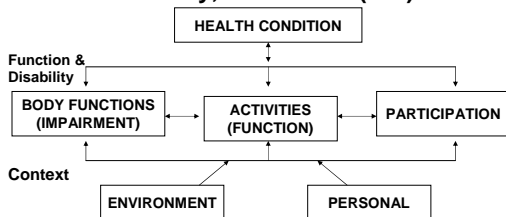
- Pathology or diagnosis, most often motor impairment implied
- No consideration for life with disability
- No conceptualization of health with disability, and no understanding of health perceptions
- No attention to environmental/attitudinal barriers or quality of life
- Unclear interrelationship between chronic conditions or illnesses and disability

### Disability Defined

#### Traditional

- Primary condition
- Pathology
- Associated condition
- Secondary condition
- Comorbidity
- Risk Factors
- Aging
- Cerebral Palsy
- Brain injury
- Seizure, ID/MR
- Early pain complaint
- Diabetes, HTN
- Smoking, CP type
- Deconditioning

### Disability Defined: International Classification of Functioning, Disability, and Health (ICF)



Recent definition and surveillance focuses on activity and limitations.

### Disability Defined: Example Using ICF

<b>Health Condition: Post-Acute Stroke</b>		
<b>Body function, Structure</b> Lt hemi; Poor motor control, balance; Pain, weakness, atrophy; Left field cut; Contractures; Changed cognition	<b>Activities</b> Unable to dress or shower independently; Unable to cook; Walks short distances with walker/brace; At times needs help rising from a chair	<b>Participation</b> Unable to drive, grocery shop, work; Needs help organizing the day; Difficulty getting out of the house; Has not continued hobbies (e.g., fishing, bowling, photography)
<b>Environment</b> No home exercise equipment; Transporter spouse; Needs accessible equipment, health club; Home is accessible	<b>Personal</b> Age; Additional health conditions; Marital status and support; Insurance covers therapy, not health club; Some discretionary income; Non-smoker, no alcohol	

## Disability Statistics, 2004

Subjects	Global*	Sensory	Physical	Cognitive	Self-Care	Work
5-15yrs	2.8	0.5	0.5	2.3	0.4	NA
16-20yrs	1.3	0.3	0.3	0.9	0.1	0.4
21-64yrs	20.2	4.7	12.7	7.0	3.3	11.7
>64yrs	13.5	5.5	10.3	3.7	3.2	NA
Total	37.9	9.5	23.8	13.8	7.1	NA

Disability most prevalent in middle age  
Excludes those in LTC, Dorms, Group Homes

\*All numbers reported in millions  
SOURCE: The Future of Disability in America, 2007; from US Census Bureau

## Disability Statistics: Pediatrics

Limitation*	1997	2001	2004
Global 0-17y	6.6%	6.7%	7.0%
ADL 5-17y	0.55%	0.44%	0.65%
Walk 5-17y	0.25%	0.23%	0.29%
SpecEd 5-17y	6.2%	6.7%	7.1%

Increasing disability in infants and children - lifespan also increasing.

\* Only includes chronic conditions  
SOURCE: The Future of Disability in America, 2007; from NHIS data

## Disability Statistics: Common Chronic Conditions\*

Ages 0-17	Ages 18-64	Ages 65+
<ul style="list-style-type: none"> <li>• Speech problems</li> <li>• Asthma, breathing</li> <li>• MR/ID, other DD</li> <li>• Mental/behavior</li> <li>• ADD/ADHD</li> <li>• LD</li> </ul>	<ul style="list-style-type: none"> <li>• Mental illness</li> <li>• Arthritis/MSK</li> <li>• Heart/circulatory</li> <li>• Diabetes</li> <li>• Lung</li> <li>• Fracture/joint injury</li> </ul>	<ul style="list-style-type: none"> <li>• Senility</li> <li>• Lung</li> <li>• Diabetes</li> <li>• Vision</li> <li>• Hearing</li> <li>• Heart/circulatory</li> <li>• Arthritis/MSK</li> </ul>

\*SOURCE: The Future of Disability in America, 2007; from 2002, 2003 NHIS data

## Disability and Health

- Common myth: Disability = poor health
- Medical advances have increased lifespan with disability
- Quality of life and perception of health may not equate in disability
- Paradigm shift from disability and illness to health and wellness



## Disability and Health: Developmental Disabilities

- NYS Group homes, n = 1371, ID/MR, CP, DS, Sz
- CVD, MSK, Lung conditions increase and Psych/Behavior problems decrease with age
- Compared to NHANES, less CVD risk factors - healthier or health status poorly identified
- High BMI in ID/DS, yet obesity not reported
- Replicated Taiwan/Israel

JanickiMP et al, JIntellDisabResearch, 2002

## Disability and Health: Developmental Disabilities

- Cerebral Palsy:
  - Severity predicts mortality and number of additional health conditions
  - Pain, fatigue common secondary conditions
  - Modest decrease in function middle age and later

BlairE et al, DevelMedChildNeuro, 2001  
StraussD et al, NeuroRehabil, 2004  
TurkMA et al, ArchPhysMedRehabil, 1998

JahnsenR et al, DevelMedChildNeuro, 2003  
RosascoMIL et al, PosterUofR, 2008  
DaySM et al, DevelMedChildNeuro, 2007

## Disability and Health: Spinal Cord Injury

- **Spasticity, pain, UTI, pressure ulcers most prevalent**  
Noreau et al, AmJPhysMedRehab, 2000.
- **Health conditions reported relate to age, years post injury (YPI), impairment severity**
  - **CVD, high blood pressure, lung conditions increase with age and autonomic dysreflexia, urinary tract infections, heterotropic ossification, psych distress, addiction decrease with age**
  - **Pressure ulcers, AD, HO increase YPI and bowel problems, HBP, psych distress decrease YPI**  
Hitzig et al, AmJPhysMedRehab, 2008.
- **Heart disease a leading cause of death**  
Lammertse, TopSpinalCordInjuRehab, 2001.



## Disability and Health: Prevention through Screening

- **NHIS 1994, n = 77,437**
  - **Mobility impairments: as likely to receive pneumonia, flu vaccines, but less likely to receive other services**
  - **Women with severe mobility impairments: Less likely to receive Pap smear and mammography**  
IezzoniLI et al, AmJPubHealth, 2000.
- **Survey comparison 100 women with disability (WWD), 50 women without disability (WW/O)**
  - **WWD less knowledgeable of CVD risks and no screening**
  - **Risks: ↓physical activity and postmenopausal status common WWD**  
CapriottiT, RehabilNurs, 2006.

## Disability and Health: Health Promotion Programs

- **50 subjects with ID with special screening, 50 age/gender matched**
  - **Health need detection higher for ID subjects, needs met/monitored**  
Cooper SA et al, JIntellDisabRes, 2006.
- **28 children, 6-14yrs, 16wk community-based program BIW, pre and post test**
  - **Improved functional mobility, no formal therapy**  
Fragala-PinkhamMA et al, PedPhysTher, 2006.
- **137 WWD, 8wk HPP, post immediate and 3mos**
  - **Improved health behaviors, measures physical health not psych; self-efficacy mediated effect**  
Robinson-WhelenS et al, Women'sHealthIssues, 2006.

## Disability and Health: Screening and Health Promotion

- **Barriers for People with Disabilities (PWD)**
  - **Fatigue and pain - most common secondary conditions across disabilities**
  - **Insurance and Disability Waiver**
  - **Theoretic base used (macro vs micro approach)**

## Disability and Health: Screening and Health Promotion

- **Barriers for People with Disabilities (PWD)**
  - **Attitudinal issues**
  - **Concept of health for PWD**
  - **Environmental accessibility**

BeckerH&StuifbergenA, FamCommHealth, 2004  
HallL et al, InternationJofRehabilResearch, 2003  
FoxM&KimM, FamCommHealth, 2004  
StuifbergenA&RobertsG, ArchPhysMedRehab, 1997  
HughesRB et al, RehabilPsychia, 2003  
DrumC et al, DisabilHealthJ, 2008

## Barrier Removal Priorities

1. Provide access from public sidewalks, parking, or public transportation
2. Provide access to those areas where goods and services are made available to the public
3. Provide access to restroom facilities
4. Take any other measures necessary to provide access

## 1. Provide Access from Public Sidewalks, Parking, or Public Transportation

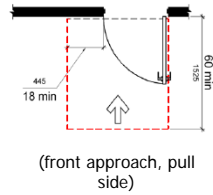


Figure illustrates maneuvering clearance at a swinging door.



This woman is having difficulty getting through two doors positioned too close for maneuvering.



**2. Provide Access to those Areas Where Goods and Services are Made Available to the Public**

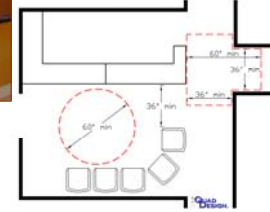
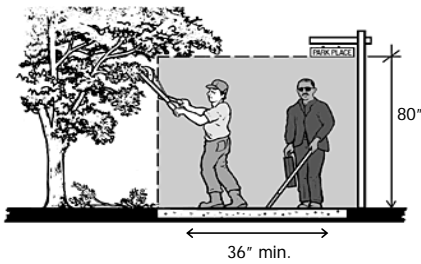
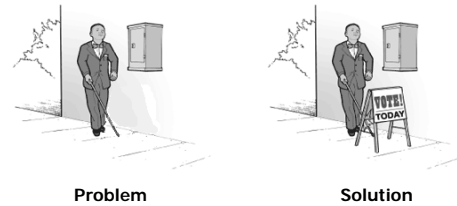


Figure illustrates typical space requirements for wheelchair access to services. Minimum turning diameter and T-turn dimensions are shown, as well as maximum counter height.



An Accessible Route of Travel is 36" wide minimum, with a vertical clearance of at least 80".



This wall-mounted box is mounted too high to be detectable by a person who is blind. Placing an object, like this sign, under the box provides a way to warn the person before they walk into the side of the box.

**3. Provide Access to Restroom Facilities**

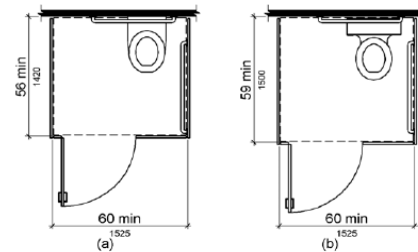


Figure illustrates space requirements for wheelchair accessible bathroom stalls. Additional space required for floor mounted fixture (b).



#### 4. Take any other Measures Necessary to Provide Access



#### Other Aspects of Access

- Alternative Formats
- Large print, Braille, computer files
- Sign Language Interpreters
- Other communication features
- Captioning, assistive listening systems



#### Program Implications



#### Integration Activities



#### New York State Department of Health Disability and Health Program

**Goal: to promote health and quality of life for persons with disabilities**

- Assess the magnitude of disability
- Collaborate with partners organizations that promote the health of people with disabilities
- Develop strategies to improve accessibility of public health programs and services for people with disabilities
- Increase integration of persons with disabilities into existing health promotion and prevention programs

### Inclusion of Persons with Disabilities in Request for Applications/Proposals (Inclusion Policy)

- Applies to all programs located in the Center for Community Health
- Policy approach to integration
- Builds infrastructure to integrate persons with disabilities
- DOH staff my access policy at: [http://cchweb/news/documents/rfp\\_guidance.pdf](http://cchweb/news/documents/rfp_guidance.pdf)

### Inclusion Policy

#### Background and Statement of Need:

- Impact of the health behaviors/risk factors among persons with disabilities

#### Workplan and Methods:

- Needs and perspectives of persons with disabilities are integrated
- Strategies to partner, engage, recruit, organize, enroll, etc., persons with disabilities are identified and described

#### Evaluation and Reporting:

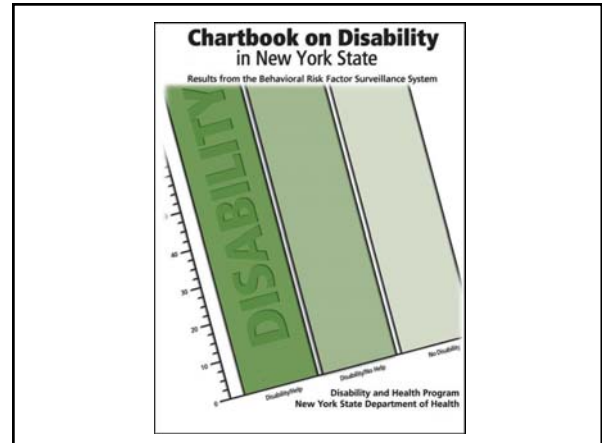
- Indicators of progress/success include measures of impact among persons with disabilities

#### Application review and scoring:

- Scoring schema include assessment of effective integration of persons with disabilities



[www.nyhealth.gov](http://www.nyhealth.gov)



### Resources

Commission on the Quality of Care and Advocacy for Persons with Disabilities

[www.cqcapd.state.ny.us](http://www.cqcapd.state.ny.us)

Developmental Disabilities Planning Council

[www.ddpc.state.ny.us](http://www.ddpc.state.ny.us)

Office of Mental Health

[www.omh.state.ny.us](http://www.omh.state.ny.us)

Office of Mental Retardation and Development Disabilities

[www.omr.state.ny.us](http://www.omr.state.ny.us)

State Education Department

[www.nysed.gov](http://www.nysed.gov)

### Resources

- Independent Living Centers  
[www.vesid.nysed.gov/lsn/ilc/locations.htm](http://www.vesid.nysed.gov/lsn/ilc/locations.htm)
- Self Advocacy Association of NYS (SANYS)  
[www.sanys.org/](http://www.sanys.org/)
- National Center on Physical Activity and Disability (NCPAD)  
[www.ncpad.org](http://www.ncpad.org)

**Contact Information**

**Theresa Paeglow  
Program Manager  
New York State Department of Health  
Disability and Health Program**

e-mail: [tnp01@health.state.ny.us](mailto:tnp01@health.state.ny.us)

Phone: 518-474-2018

Fax: 518-474-3356

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