Including People with Disabilities:

Public Health Workforce Competencies

DISABILITY IN PUBLIC HEALTH

AUCD

ASSOCIATION OF UNIVERSITY CENTERS ON DISABILITIES

RESEARCH, EDUCATION, SERVICE

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Association of University Centers on Disabilities
1100 Wayne Avenue, Suite 1000
Silver Spring, MD 20910
www.aucd.org aucdinfo@aucd.org
Andrew J. Imparato, Executive Director

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Development Committee (2010-2011)

Jacqui Butler, MPA, Deputy Director, Disability and Health Branch, NCDBDD, CDC

Roberta Carlin, MA, MS, JD, Executive Director, American Association on Health and Disability (AAHD)

Charles Drum, MPA, JD, PhD, Institute on Disability, University of New Hampshire (UNH)

Librada Estrada, MPH, CHES, CPCC, ACC, Association of Maternal and Child Health Programs (AMCHP)

Susan Goeckler, PhD, MCHES, Directors of Health Promotion and Education (DHPE)

Adriane K. Griffen, DrPH, MPH, MCHES, Association of University Centers on Disabilities (AUCD)

Nancy Guenther, MST, California Department of Public Health (CDPH)

Lori Haskett, BA, Kansas Department of Health and Environment, Safe States Alliance

Susan Havercamp, PhD, The Ohio State University Nisonger Center

George Jesien, PhD, Association of University Centers on Disabilities (AUCD)

Anju Khubchandani, MA, American Psychological Association (APA)

Gloria Krahn, PhD, MPH, Oregon State University, College of Public Health and Human Sciences

Melissa Lewis, MPH, Association of State and Territorial Health Officials (ASTHO)

Jennifer Li, MHS, National Association of City and County Health Officials (NACCHO)

Don Lollar, EdD, OHSU Institute on Development and Disability

Amber Norris Williams, Safe States Alliance

John Patton, BA, National Association of Chronic Disease Directors (NACDD)

Ellen Pliska, MPH, CPH, Association of State and Territorial Health Officials (ASTHO)

Tom Quade, MPH, MA, Health Commissioner for Marion County (OH) General Health District, American Public Health Association Board of Directors

Sharon Romelczyk, MPA, Association of University Centers on Disabilities (AUCD)

Sarah Yates, JD, National Association of City and County Health Officials (NACCHO)

Work Group (2015-2016)

Kruti Acharya, MD, University of Illinois Chicago (UIC)

Kathleen Amos, MLS, Public Health Foundation (PHF)

Benjamin Byington, BS, Cincinnati Children's Hospital

Kayla Diggs Brody, MPH, Partnership the People with Disabilities, Virginia Commonwealth University (VCU)

Karma Edwards, MSPH, National Association of Chronic Disease Directors (NACDD)

Courtney Frantz, BS, The Ohio State University, Nisonger Center

Andrea Garcia, BA, Kansas State University (KSU)

Adriane K. Griffen, DrPH, MPH, MCHES, Association of University Centers on Disabilities (AUCD)

Shannon M. Haworth, MA, Association of University Centers on Disabilities (AUCD)

Gloria Krahn, PhD, MPH, Oregon State University, College of Public Health and Human Sciences

Zipporah Levi-Shackleford, MEd, Va-LEND, Virginia Commonwealth University (VCU)

Lisa Rossignol, MA, Family to Family Health Information Center (FFHIC)

Lisa Sinclair, MPH, Centers for Disease Control and Prevention (CDC), National Center on Birth Defects and Developmental Disabilities (NCBDDD)

Rachel Tanenhaus, MPH, Massachusetts Department of Health

Sharon Williamson, MPH, DrPH, CHES, CIRS-A/D, Georgia Department of Behavioral Health and Developmental Disabilities

Tracy White, MSN, BSN, Partnership for People with Disabilities, Virginia Commonwealth University (VCU)

Advisory Group (2015-2016)

Candace Aaron, Georgia LEND Program, Georgia State University

Cheryl Archbald, MD, MPH, APHA Governing Councilor, Community Health Planning and Policy Development (CHPPD) Section

Nelson Atehortua, PhD, MPH, Utah Valley University

Jose Cordero, MD, MPH, University of Georgia, College of Public Health

Susan Havercamp, PhD, Ohio State University Medical Center (OSUMC)

Alice Lenihan, MPH, RD LDN, Special Olympics

Kendall Leser, PhD(c) MS, National Association of City and County Health Officials (NACCHO)

Jennifer Li, MHS, National Association of City and County Health Officials (NACCHO)

Chris Mackey, BS, National Center on Health, Physical Activity and Disability (NCHPAD)

John Patton, BA, National Association of Chronic Disease Directors (NACDD)

Lauren Ramos, MPH, Maternal Child Health Bureau (MCHB), Health Resource and Services Administration (HRSA)

Tyler Reimschisel, MD, Vanderbilt University

Michelle Schladant, PhD, Mailman Center for Child Development, University of Miami

Janet Shouse, BJ, Vanderbilt Kennedy Center

Ed Trevathan, PhD, Baylor University

Monica Uhl, MA, Partnership for People with Disabilities, Virginia Commonwealth University (VCU)

Lead Authors

Shannon M. Haworth, MA, Association of University Centers on Disabilities (AUCD)

Adriane K. Griffen, DrPH, MPH, MCHES, Association of University Centers on Disabilities (AUCD)

Executive Summary

Compared to people without disabilities, people with disabilities are at a higher risk for poor health outcomes such as hypertension, obesity, falls-related injuries, and depression.[1] Knowledge about the health status and public health needs of people with disabilities is essential for addressing these and other health disparities. However, most public health training programs do not include curricula on people with disabilities and methods for including them in core public health efforts. There is a clear need for public health efforts to reduce health disparities among people with disabilities. This may be achieved by building a stronger public health workforce skilled in ways to include people with disabilities in all public health efforts.

Including People with Disabilities: Public Health Workforce Competencies outlines recent advances in knowledge and practice skills that public health professionals need to include people with disabilities in the core public health functions - Assessment, Policy Development and Assurance. This document provides strategies to meet the competencies and real examples of how people with disabilities can be successfully included in public health activities. These competencies align with existing broad public health competencies, and compliment them. These existing competencies include those developed by the Association of Schools and Programs of Public Health, Masters in Public Health Core Competencies; Public Health Accreditation Board; Public Health Foundation Core Competencies for Public Health Professionals, Council on Linkages Between Public Health and Academia, and the 10 Essential Public Health Services. In addition, they foster workforce capacity-building priorities, such as the Healthy People 2020, Disability and Health Objective DH-3.

The *Competencies* have been developed by a national committee comprised of disability and public health experts. Work to develop the Competencies began in 2010 through a previous cooperative agreement between the CDC's National Center on Birth Defects and Developmental Disabilities (NCBDDD), Disability and Health Branch and the Association of University Centers on Disability (AUCD). This work continued in 2015 with a cooperative agreement with the Office of the Director, CDC (ODCCDC), NCBDDD and the Office for State, Tribal, Local and Territorial Support (OT), and concluded in 2016. The *Competencies* aim to expand workforce skills and practices to ultimately enable public health professionals to successfully develop programs and activities that include people with disabilities.

The Significance of Disability in Public Health

Because the term disability can be used in different contexts by health professionals, disability advocates, or others there is not one single definition of the term "disability." The term disability is defined by the Americans with Disabilities Act (ADA) as "physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an

impairment."[2] The International Classification of Functioning, Disability and Health (ICF) describes disability as "an umbrella term for impairments, activity limitations and participation restrictions."[3] Disabilities can be physical, communicative, cognitive, or mental.

People with disabilities comprise a significant portion of the communities that public health professionals serve. People with disabilities are our coworkers, neighbors, family members, friends, and community members. Data show that over 56.7 million Americans have a disability, making up about 19% of the American population.[4] Anyone can acquire or experience a disabling condition in their lifetime. The risk of acquiring a disability can increase as people age, as does the possibility of severe disability and the need for assistance.

Chronic and Secondary Conditions

People with disabilities are more likely to experience preventable chronic health conditions such as, diabetes and heart disease, and are considerably more likely to be obese when compared with people without disabilities (37.6% compared to 23.8% of people without disabilities).[1]

People with disabilities are also at risk for other health conditions called secondary conditions. These health problems related to a disability can be prevented as well as treated. *Secondary condition* can be defined as "any additional physical or mental health condition that occurs as a result of having a primary disabling condition."[5] Common secondary conditions may include bowel or bladder problems, fatigue, injury, depression, obesity, pain, and pressure sores or ulcers.[6] Other problems can include pain, and a greater risk for certain illnesses such as flu, Methicillin-resistant Staphylococcus aureus (MRSA), or musculoskeletal disorders.[6]

Health Disparities

There are many misconceptions about people with disabilities. Healthy People 2020 identifies four that emerge: (1) all people with disabilities automatically have poor health, (2) public health should focus only on preventing disabling conditions, (3) a standard definition of "disability" or "people with disabilities" is not needed for public health purposes, and (4) the environment plays no role in the disabling process.[7] These misconceptions have led to a lack of health promotion and disease prevention activities targeting people with disabilities and an increase in the occurrence of secondary conditions.[8]

State and national data demonstrate disparities in health for people with disabilities and suggest that having a disability can create risks for other preventable health issues. They experience disparities in routine public health areas like health behaviors, preventive services and chronic conditions.[7] Compared to people without disabilities, people with disabilities are less likely to report having recommended preventive screening, including mammograms and colorectal cancer screening, and are less likely to have received dental care in the past year.[1]

They are also more likely to engage in unhealthy behaviors like smoking at a much higher prevalence rate (28.3%) than people without disabilities (16.1%).[1]

The health of people with disabilities should be relatively comparable to those without disabilities. Similar to the general population, it is critical that individuals with disabilities are given the information to make healthy choices on how to prevent illness. Activities such as physical activity, smoking cessation, healthy eating, and preventive screenings should be promoted and accessible to all Americans, as there is a range of health benefits for people with and without disabilities.[9]

Despite legislative actions like the American's with Disabilities Act (ADA) (see Policy and Disability) many barriers to accessing and participating in healthy lifestyle activities still exist for people with disabilities. Barriers may include such factors as inaccessible health care facilities or health screening equipment, discriminatory attitudes, poverty, and lack of knowledge among people with disabilities or their health care providers, and cost. People with disabilities are more than twice as likely to report cost being a barrier to health care (27.4% compared to 12.5% of people without disabilities).[1] Lack of knowledge or experience on how to interact and communicate with people with disabilities may lead to false assumptions, generalizations, or a lack of trust among people with and without disabilities. Such barriers prevent achieving maximum health.

How are the lives of people with disabilities affected?

People with disabilities are particularly vulnerable to deficiencies in health care services. Depending on the group and setting, persons with disabilities may experience greater vulnerability to secondary conditions, co-morbid conditions, age-related conditions, engaging in health risk behaviors and higher rates of premature death.

Secondary conditions

Secondary conditions occur in addition to (and are related to) a primary health condition, and are both predictable and therefore preventable. Examples include pressure ulcers, urinary tract infections, osteoporosis and pain.

Co-morbid conditions

Co-morbid conditions occur in addition to (and are unrelated to) a primary health condition associated with disability. For example the prevalence of diabetes in people with schizophrenia is around 15% compared to a rate of 2-3% for the general population.

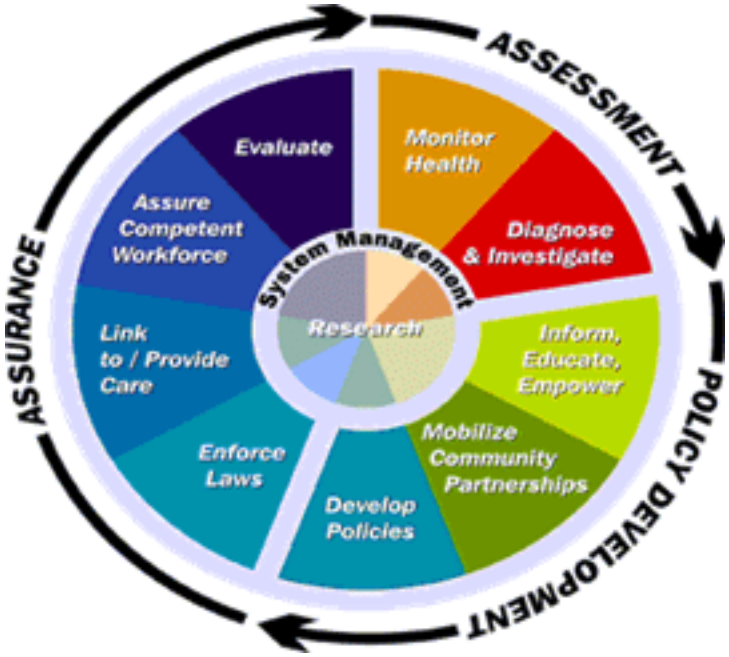
Age-related conditions

The aging process for some groups of people with disabilities begins earlier than usual. For example some people with developmental disabilities show signs of premature aging in their 40s and 50s.

Source: World Health Organization (WHO). Disability and Health

Policy Development and Health Promotion

Many community health promotion programs do not reach or include people with disabilities in their program design. Increased risk for serious health conditions, coupled with existing barriers, underscore the importance of including people with disabilities in public health efforts. Development and implementation of health promotion interventions for people with disabilities must be supported by the public health community. Inclusive public health programs would more effectively reach underserved populations and promote a reduction of health disparities experienced by people with disabilities.[10] Many health promotion interventions already in place for the population at large may be easily adapted to the needs of people with disabilities.[11] One reason for the lack of inclusion may be due to the lack of training. During public health training, very few students have received specific training on how to incorporate people with disabilities leaving a gap in Essential Public Health Service 8 - Assure a Competent Public and Personal Health Care Workforce.



Source: http://www.cdc.gov/nphpsp/essentialservices.html

Development of the Competencies

Stage 1. (2011-2012) Creation of the competencies.

The Development Committee, a national work committee comprised of 21 experts representing state, local and university-based public health practices, identified and drafted the four competencies, based on existing public health literature, public health curricula, and other public health competencies and standards. This committee provided their expertise on content development, researched competencies, standards, and curricula, and created the competencies based on this research and their content knowledge. Public health partners (National Association of County and City Health Officials (NACCHO), American Public Health Association (APHA), and others) were utilized for their expertise and help in disseminating the draft product to solicit feedback from their networks. The document was then updated and vetted by the Development Committee.

Stage 2. (2015-2016) Revise the competencies, solicit review and comment for the revised version, create a final document and disseminate to the current public health workforce.

To revise the document, AUCD reached out to public health professionals from the former competencies Development Committee as well as other recognized disability experts and organizational leaders to review, discuss and revise the Stage 1 draft. A Work Group and Advisory Group assisted with the review and revision of the *Competencies*. The Work Group assisted with researching public health competencies, standards, and curricula. The Advisory Group assisted with the review of the revisions. Professional partners including the APHA Disability Section and the Alliance provided guidance and input, solicitation of feedback, and help with dissemination.

AUCD's public health team completed a crosswalk with other health related competencies and standards. The competencies seamlessly aligned with other public health competencies and strategies including the Maternal and Child Health (MCH) Leadership Competencies, Public Health Foundation (PHF) Competencies, Public Health Accreditation Board (PHAB) Domains and Standards, and the Association of Schools and Programs of Public Health (ASPPH) Master of Public Health Core Competencies, and the Council on Linkages between Public Health and Academia.

Once the updated draft was reviewed and approved by the Work Group and Advisory Group, AUCD's public health team, groups of public administrators, practitioners, academic professionals, and policy makers reviewed and assessed the four competencies, learning objectives and resources for clarity, relevance, potential implementation, use, placement, fit, and gaps. The updated version was assessed through a review and comment period, which included in-depth interviews with key stakeholders, small group discussions, and online assessments with public health professionals at national, state, and county levels. With feedback from over 120 public health professionals from disability and public health nonprofit organizations, universities, state and local health departments, federal and state agencies, as well as local partners, the *Competencies* were then updated and disseminated in 2016.

The Competencies

Competency 1: Discuss disability models across the lifespan

Competency 2: Discuss methods used to assess health issues for people with disabilities

Competency 3: Identify how public health programs impact health outcomes for people with disabilities

Competency 4: Implement and evaluate strategies to include people with disabilities in public health programs that promote health, prevent disease, and manage chronic and other health conditions

How to Use This Resource

The *Competencies* provide foundational knowledge about the relationship between public health programs and health outcomes among people with disabilities, and are primarily designed for professionals already working in the public health field but can also be used for public health workforce training. Practitioners may use this document to understand which competencies are needed to enhance disability inclusion skills among staff engaged in practice-based public health efforts. The Competencies can also be embedded into existing public health curricula and training programs. The *Competencies* fit seamlessly within the larger domains of the core public health functions - Assessment, Policy Development and Assurance.

Organization

- The **Executive Summary** provides an overview of disability and the significance of disability in public health.
- Each **Competency** contains:
  - **Background information**
  - **Learning Objectives**
  - **Calls to Action**
- The **Learning Objectives** under each competency help the public health professional to conceptualize how to implement the competency.
- The **Calls to Action** include examples so public health professionals can take action in a meaningful way right now.
- The **References** supply supporting information for citations within the document.
- The **Appendices** provides a glossary, resources for implementing and embedding these competencies into existing public health curricula, and training programs. Also included are charts that show the alignment of the four competencies and how they seamlessly align with other competencies and standards (including the Public Health Accreditation Board (PHAB), the Public Health Foundation (PHF), and the 10 Essential Public Health Services, Council on Linkages between Public Health and Academia).

Competency 1: Discuss disability models across the lifespan

People with disabilities are individuals who have some type of limitation in mobility, cognition, vision, hearing, or other disorders.[11] Disability is not defined by any specific health condition, but whether that condition actually creates significant limitations for an individual affecting their daily lives and functioning.

Disability models can be used as guidelines or tools to help define impairments and limitations associated with disability, and provide a basis for strategies to meet the needs of people with disabilities.[12] No one model can completely describe the disability experience because disability itself is complex and the experiences of people with disabilities will vary widely.[13] There are several primary models of disability. Having knowledge of these models will help public health professionals more effectively interact with and support people with disabilities, as well as understand the relationship between the disability and people's everyday lives.[14]

Learning Objectives

1.1 Compare and contrast different models of disability

Several models of defining disability have been developed to try to address the many types of disabilities. Models of disability provide a reference for society as programs and services, laws, regulations and structures are developed, which affect the lives of people living with a disability. The primary models of disability used are the Medical Model, Functional Model, and Social Model.

Medical Model	Functional Model	Social Model
• Disability as a consequence of a health condition, disease or caused by a trauma	• Disability is caused by physical, medical or cognitive deficits	• A person's activities are limited not by the impairment or condition but by environment
• Disrupt the functioning of a person in a physiological or cognitive way	• Limits functioning or the ability to perform functional activities	• Barriers are consequences of a lack of social organization

Medical Model - The medical model describes disability as a consequence of a health condition, disease or caused by a trauma that can disrupt the functioning of a person in a physiological or cognitive way.[14] This model is a conceptualization of disability as a condition a person has and focuses on the prevention, treatment or curing of the disabling condition.

Functional Model - This model is similar to the medical model in that it conceptualizes disability as an impairment or deficit. Disability is caused by physical, medical or cognitive deficits. The disability itself limits a person's functioning or the ability to perform functional activities.

The **International Classification of Functioning (ICF)** is the World Health Organization's (WHO) framework for measuring health and disability at both individual and population levels. WHO published ICF in 2001 to provide standard language for classifying changes in body function and structure, activity, particilation levels, and environmental factors that influence health. Learn more

At the Individual Level...	• For the assessment of individuals: What is the person's level of functioning? • For individual treatment planning: What treatments or interventions can maximize functioning? • For the evaluation of treatment and other interventions: What are the outcomes of the treatment? How useful were the interventions? • For communication among physicians, nurses, physiotherapists, occupational therapists, and other health workers, social service workers, and community agencies • For self-evaluation by consumers: How would I rate my capacity in mobility or communication?
At the Institutional Level...	• For educational and training purposes • For resource planning and development: What health care and other services will be needed? • For quality improvement: How well do we serve our clients? What basic indicators for quality assurance are valid and reliable? • For management and outcome evaluation: How useful are the services we are providing? • For managed care models of health care delivery: How cost-effective are the services we provide? How can the service be improved for better outcomes at a lower cost?
At the Social Level...	• For eligibility criteria for state entitlements such as social security benefits, disability pensions, workers' compensation, and insurance: Are the criteria for eligiblity for disability benefits evidence based, appropriate to social goals, and justifiable? • For social policy development, including legislative reviews, model legislation, regulations and guidelines, and definitions for anti-discriminatior legislation: Will guaranteeing rights improve functioning at the societal level? Can we measure this improvement and adjust our policy and law accordingly? • For needs assessments: What are the needs of persons with various levels of disability - impairments, activity limitations, and particpation restrictions? • For environmental assessment for universal design, implementation of mandated accessibililty, identification of environmental facilitators and barriers, and changes to social policy: How can we make the social and build environment more accessibilie for all persons, those with and those without disabilities? Can we assess and measure improvement?

Social Model - This model focuses on barriers facing people with disabilities instead of concentrating on impairments and deficits of the person with a disability. In this model a person's activities are limited not by the impairment or condition but by environment and barriers are consequences of a lack of social organization.[14]

Example: Mark is 32 and is employed as a computer programmer at a manufacturing company. He was involved in a car accident at 21 years of age that resulted in a lower limb amputation. He uses a motorized scooter to get around locally, and drives an adapted van. He has a secondary health condition of Type 2 Diabetes. When visiting medical doctors, the care Mark receives is impacted by the way in which his disability is perceived. His Endocrinologist sees Mark's physical disability as an illness or deficit that prevents him from living a healthy life (Medical Model of Disability) and does not recommend the same interventions that he would for a person without disabilities like a diet and exercise program. His primary care doctor does not have an accessible examination table or wide enough aisles for his scooter and views his difficulty getting on the examination table as a functional limitation (Functional Model of Disability) Mark faces as the result of the disability. His dietician recommends a program of diet and exercise as an intervention for his diabetes, but his local gym is not accessible for people with mobility issues. This creates a barrier for him to exercise regularly (Social Model of Disability).

1.2 Apply model(s) of disability for a particular scope of work or population served.

Over 60 various definitions of "disability" have been generated for legislative and policy uses. Definitions of disability often vary by agency for the purpose of establishing eligibility criteria for services and programs. Definitions vary because the legislative and policy outcomes often differ.

Example: Joe works at the local Social Security Administration office and uses an agency specific disability definition to determine eligibility of persons applying for Social Security Disability Insurance benefits. Francine works at the Health and Human Services Agency. She is a nurse and uses an agency specific definition of disability to determine eligibility of adults for long term services and supports.

Example: Civil rights legislation emphasizes a broad definition of disability, such as in the ADA, while the definition of disability used to determine eligibility for Social Security is a much narrower definition.

The Role of Caregivers

While implementing the Competencies, it is important to understand disability and health disparities, but also the role of family and caregivers in the lives of people with disabilities. Most people with disabilities can live and function independently, but some may have caregivers. Caregivers may be parents, siblings, and other family members, friends, paid attendants, staff, or others who help support people with disabilities and may at times communicate their wishes for them. More than 65 million people in the US serve as caregivers for family members who have a disability or are seniors in need of assistance, according to the Family Caregiver Alliance, and the

number of caregivers is expected to grow in the coming years.[15] These caregivers are an important part of the lives of people with disabilities and may also need to be included along with the person with a disability in any communications about health and planning efforts. Learn more

Disability Etiquette

Most people with disabilities can live and function independently, but some may have caregivers who may help them communicate or be involved in other ways. Even though this may be the case, it is proper etiquette to still address the person with a disability when communicating. Learn more

Patient Centered Care and Family Centered Care

As a professional, be aware of the Patient Centered Care model, and the Family Centered Care to help facilitate including people with disabilities in communications, planning and program efforts.

Patient Centered and Family Centered Care are approaches to the planning and delivery of health care. It is a partnership between health care providers, patients, and the families or caregivers. In the Patient Centered Care model the patient or person receiving services and supports is an equal team member. In the Family Centered Care model the family and caregivers are also team members who have a role in ensuring the health and safety of the patient, or person receiving services. Learn more

Cultural Competence (from The National Center for Cultural Competence)

Cultural competence is a set of congruent behaviors, attitudes, and policies that come together in a system, agency or among professionals and enable that system, agency or those professions to work effectively in cross-cultural situations.

The word **culture** is used because it implies the integrated pattern of human behavior that includes thoughts, communications, actions, customs, beliefs, values and institutions of a racial, ethnic, religious or social group. The word **competence** is used because it implies having the capacity to function effectively.

Five essential elements contribute to a system's institution's, or agency's ability to become more culturally competent, which include:

1. Valuing diversity
1. Having the capacity for cultural self-assessment
1. Being conscious of the dynamics inherent when cultures interact
1. Having institutionalized culture knowledge
1. Having developed adaptations to service delivery reflecting an understanding of cultural diversity

Learn more

Call to Action

You can make a difference in your daily work. Here are a few strategies to help you take action in a meaningful way now.

1. Identify policy changes to include people with disabilities in public health efforts.

Action Example: Programs designed to be inclusive at the outset expand reach, ensure accessibility and are more cost effective than retrofitting or modifying inaccessible programs. Adults with disabilities in New York are 35% more likely to characterize their health as fair or poor compared with adult New Yorkers without disabilities. New York State (NYS) also has the highest disability-associated health expenditures of any state in the country—more than $40 billion. The Disability and Health Program (DHP) within the New York State Department of Health (NYSDOH) initiated a policy change to ensure public health programs are integrating the needs of people with disabilities into initiatives. The Inclusion Policy, which proposes including people with disabilities in the initial stages of procurement development, became a requirement in 2009 for programs and services released by the NYSDOH Center for Community Health (CCH). The DHP worked with the CCH to integrate disability components into a variety of public health programs, including tobacco cessation, food security, adolescent pregnancy prevention, and obesity prevention. With this effort, approximately $123.5 million is saved annually.

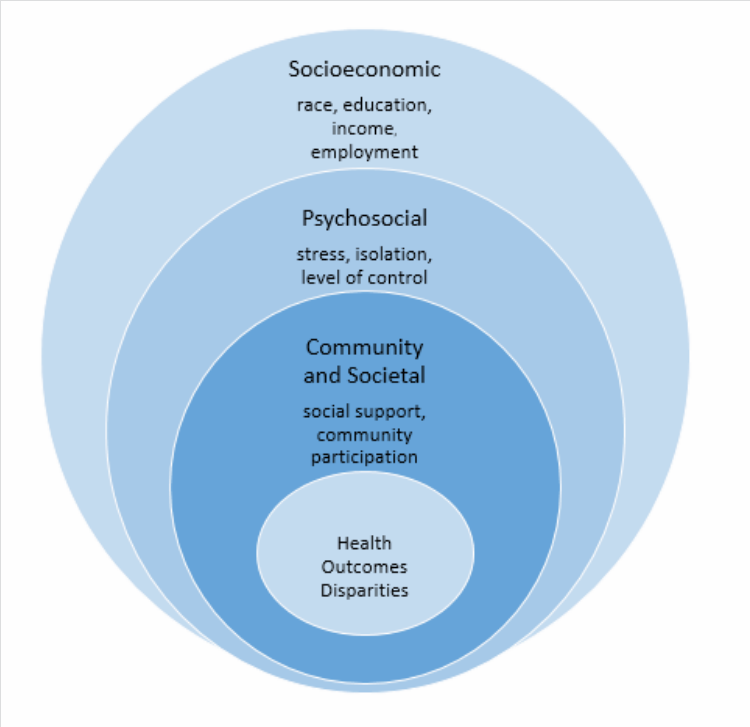
2. Identify the most appropriate definition of disability to tailor public health efforts to the audience.

Action Example: The University of Delaware's Center for Disabilities Studies initiated a partnership with the Nemours/Alfred I. duPont Hospital for Children (AIDHC), Christiana Care Health System, Inc., and the Delaware Division of Public Health with the goal of improving health care transition for Children with Special Health Care Needs (CSHCN). According to the National Survey on Children with Special Health Care Needs (CSHCN),[1] 13% of all children in the U.S. under the age of 18 have a special health care need.[1] Coordinated services are critical for these children as they prepare to transition to the adult health care system. However, data show that only 41% of Delaware's estimated 34,500 children with special health care needs receive transition preparation. Since establishing the Division of Transition of Care in February 2010, AIDHC has prepared more than 150 children and young adults for transition through consultation, medical history summaries and referrals to an adult health care provider.

Social Determinants of Health and Health Disparities

Having a disabling condition should not imply that a person is unhealthy. A long-held challenge is the understanding of public health circumstances, beyond the disabling condition itself, that influence health and quality of life.

Having an understanding of social determinants of health can provide a foundation and framework for understanding health disparities that are faced by people with disabilities.[14] Social determinants of health can be described as social, economic and political systems that can intersect and overlap and contribute to disparities in health care and access to education, employment and of other aspects of a life.[14, 16] These determinants can be categorized as socioeconomic, psychosocial, and community and societal.[14]



Understanding Disability and Health

There are many factors that determine or influence one's health. Healthy People 2020 organizes the social determinants of health around 5 key domains: (1) Economic Stability, (2) Education, (3) Health and Health Care, (4) Neighborhood and Built Environment, and (5) Social and Community Context.7 Within each of these domains, compared to individuals without disabilities, individuals with disabilities are more likely to experience challenges, like finding a job, receiving preventive health care services, being able to visit homes in the neighborhood, using fitness facilities, using health information technology, and obtaining sufficient social-emotional support.[7] They effect all aspects of life (including access to health care, employment, housing, social participation, transportation and education) and predict health outcomes for people with disabilities and other groups who may be disadvantaged. [14, 17] Learn more.

Competency 2:
Discuss methods used to assess health issues for people with disabilities

Having knowledge of methods for public health programs is needed for public health professionals. This knowledge will help public health professionals with planning programs, examining the operations of a program, and conducting activities that improve health outcomes for people with disabilities.[18]

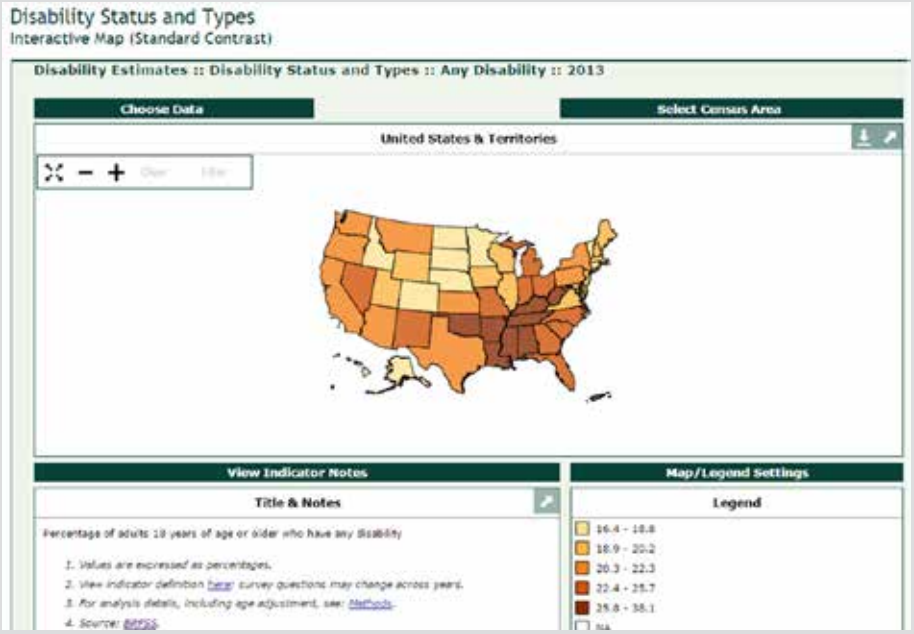
Learning Objectives

2.1 Identify surveillance systems used to capture data that includes people with disabilities

Defining disability is a significant challenge for public health. Surveillance systems must have some way of identifying people with disabilities, in order to produce comparative data on people with and without disabilities. There are surveillance systems that monitor the health and behaviors of people with disabilities that are a useful source of disability related data. Having disability and health data will help public health programs create and achieve health goals, determine the prevalence of disease, and target resources for better health outcomes. One commonly used surveillance system is the Behavioral Risk Factor Surveillance System (BRFSS). States can use the BRFSS to monitor public health trends and needs, identify risks, and assess health care access. Learn more

Disability and Health Data System (DHDS)

The CDC's Disability and Health Data System (DHDS) is an online source of state-level data on adults with disabilities. Users can access information on five functional disability types: cognitive (serious difficulty concentrating, remembering or making decisions), mobility (serious difficulty walking or climbing stairs), vision (serious difficulty seeing), self-care (difficulty



Source: http://dhds.cdc.gov/

dressing or bathing) and independent living (difficulty doing errands alone). Information on limitation status (use of special equipment or activity limitation because of physical, mental, or emotional problems) is also available.

Data on more than 30 health topics among adults with or without disabilities can be explored in DHDS, including smoking, physical activity, obesity, hypertension, heart disease, and diabetes.

Example: The State Disability and Health Grantees are charged with presenting states with data on the health of people with and without disabilities in their states, using data captured by the Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is an annual random digit dial telephone survey (landline, cell) administered in every state to adults living in the community. The survey also collects information about behaviors that affect health (such as smoking and exercise), health care practices (such as getting a flu shot), and access to health care (such as having health insurance). BRFSS is one of many surveillance systems commonly used to present data on people with disabilities and provide support for funding and sustainability of public health programs.

2.2 Recognize that disability can be used as a demographic variable

Recognizing disability as a demographic variable can help public health professionals to specifically target this population for health interventions with the goal of helping people with disabilities achieve health equity.[19] For example, many health reports that capture information on health disparities typically do not include disability status as a demographic indicator. For example, of the 42 topic areas in Healthy People 2020, only 10 included objectives for disability[7], however, a standardized definition or indicator of disability would demonstrate need for tailored public health programs and policy development.[20]

Example: In 2011, the Department of Health and Human Services (DHHS) was charged with implementing Data Collection Standards, through the Affordable Care Act (ACA). The standards for collection and reporting of data on race, ethnicity, sex, primary language and disability status in population health surveys are intended to help federal agencies refine their population health surveys in ways that will help researchers better understand health disparities and identify effective strategies for eliminating them. Learn more

Call to Action

1. Integrate disability information into existing surveillance systems

Action Example: By integrating disability status and disability identifiers across surveys, public health professionals will be able to use existing surveillance data sets to compare the health outcomes and health disparities of people with disabilities across multiple data systems.[19]

Uncovering the Power of Data: Disability and Health Data Systems (DHDS)

2. Facilitate the coordination of disability surveillance methods and data

Action Example: The Centers for Disease Control and Prevention's (CDC) National Center on Birth Defects and Developmental Disabilities (NCBDDD), with assistance from the Association of University Centers on Disabilities (AUCD), convened a meeting in September 2009 to consider the feasibility of conducting population surveillance of the health status of adults with Intellectual Disabilities (ID). From this meeting, key questions for pursuing an action plan emerged. Other results of the meeting included a whitepaper, a consensus to find better ways to identify the population with ID in the United States, and six "Call to Action" items.

In 2010, the CDC funded a translational research project entitled Health Surveillance of Adults with Intellectual Disabilities. The study sought to gather and catalogue health indicators in the population of adults with ID, to provide methodologically sound investigation of health disparities as well as to establish accurate and valid benchmarks for health improvement in this population. A result of this project funding, in 2010 the University of Massachusetts Center for Developmental Evaluation and Research (CDDDER), in collaboration with the Human Services Research Institute (HSRI), developed Expanding Surveillance of Adults with Intellectual Disability in the U.S. which is a foundational work to coordinate and enhance health surveillance of adults with intellectual disability.

Find the BRFFS Coordinator in your state.

Competency 3: Identify how public health programs impact health outcomes for people with disabilities

Over 56.7 million Americans have a disability, making up about 19% of the American population.[4] This means that people with disabilities are a large part of the communities that public health professionals serve. People with disabilities experience barriers to access health services. People with disabilities experience more chronic health problems than the general population. People with disabilities have the right to be able to access and interact with their environment without barriers, and receive health interventions and services just like the general population.[7]

This competency is important because it will help provide awareness for public health professionals that disability is a part of the human experience and a focus of public health should be the promotion of health to people with disabilities, and the identification and reduction of health disparities of people with disabilities.[11] Public health organizations and professionals should always include people with disabilities in health promotion and planning efforts to help reduce health disparities and improve the health outcomes of people with disabilities.

Learning Objectives

3.1 Recognize health issues of people with disabilities and health promotion strategies that can be used to address them.

People living with a disability remains a largely unaddressed population in public health. People with disabilities may experience barriers to the access of health care screenings, interventions, and overall health care. Adults with both disabilities and chronic conditions receive fewer preventive services and are in poorer health than individuals without disabilities who have similar health conditions. People with disabilities need health care programs just like the general population to stay healthy, and be a part of the community. They have the right to tools and information to be able to make healthy choices to prevent illness, as well as make decisions about their health care. Public health promotion efforts can positively affect the health and wellbeing of people with disabilities.[7]

Preventive screenings and health promotion for people with disabilities could ultimately reduce secondary conditions, reduce national and individual costs, and improve quality of life. Specific health promotion strategies for people with disabilities can impact their health and wellbeing across the lifespan.

Preventive health care services are an important aspect of living a healthy life for all people, yet inaccessible facilities and equipment often prevent people with disabilities from receiving adequate care. Women 40 years of age or older with a disability were less likely to have had a mammogram (72.2%) than were women without a disability (77.8%).[21] Significantly fewer women with a disability (78.9%) reported receiving a Pap test during the previous 3 years compared to women without a disability (83.4%).[21]

Example: An example of health promotion activities for people with disabilities is the Montana Living Well with a Disability Program. The program is designed to help people with a disability strengthen existing skills to live well. The program includes a workshop comprised of eight, two hour sessions that introduce a process for setting and clarifying goals, as well as teaching skills for generating, implementing, and monitoring solutions.

3.2 Use laws as a tool to support people with disabilities.

People with disabilities have the same rights to access and civil rights as people without disabilities. Due to the history of discrimination against people with disabilities, the health disparities experienced, and their lack of access to housing, health care, transportation, and employment, there have been many laws and regulations enacted to protect their civil rights and ensure equal access and opportunities for people with disabilities. Foundational knowledge about laws and regulations that protect people with disabilities is essential to providing appropriate public health services, but also to avoid breaking laws and encroaching on the civil rights of people with disabilities.

Policy and Disability

Americans with Disabilities Act (ADA)	Prohibits discrimination on the basis of disability in employment, State and local government, public accommodations, commercial facilities, transportation, and telecommunications. It also applies to the United States Congress. To be protected by the ADA, one must have a disability or have a relationship or association with an individual with a disability.[13]
Affordable Care Act (ACA)	The law puts in place comprehensive health insurance reforms and consumer protections with the intention of increasing affordable health care access for all.[14]
Medicaid	Authorized by Title XIX of the Social Security Act, Medicaid was signed into law in 1965 alongside Medicare. All states, the District of Columbia, and the U.S. territories have Medicaid programs designed to provide health coverage for low income people.

Medicare	Authorized in 1965, it covers medical care and prescription drugs for people 65 years of age and older, as well as people with disabilities. Americans younger than age 65 with amyotrophic lateral sclerosis (ALS) are allowed to enroll in Medicare upon diagnosis.
Children's Health Insurance Program (CHIP)	Provides health coverage to eligible children, through both Medicaid and separate CHIP programs. CHIP is administered by states, according to federal requirements. The program is funded jointly by states and the federal government.

Learn more

Example: Jane works at the local health department on preventative screening programs for women. She gets a call from Sandra who has mobility challenges and uses a wheelchair. Sandra is interested in a well woman visit at a gynecologist office, but the exam table is inaccessible. Jane is familiar with the Americans with Disabilities Act (ADA) and realizes Sandra may be experiencing access barriers to routine screenings because of lack of compliance with regulations set by the ADA. Jane refers Sandra to resources on the ADA and community contacts to assist her with filing a complaint. She also directs Sandra to accessible medical offices in her local area.

Health Literacy

People with disabilities must frequently interact with the health care system, therefore, health literacy becomes an issue that defines their quality of life.[24] Health literacy determines whether a person can obtain, process, and understand basic health information and services that are needed to make suitable health decisions, and also includes the ability to navigate complex health care systems.[16]
Learn more

3.3 Recognize accessibility standards, universal design, and principles of built environment that affect the health and quality of life for people with disabilities.

Offices, parks, health care facilities, schools, or any other public spaces should be built to meet the needs of all of the people who will use the space. For people with disabilities, getting health care can be difficult because of lack of access.[6] One way to increase accessibility for people with disabilities is through universal design. The intent of universal design is to simplify life for everyone by making products, communications, and the physical environment more usable by as many people as possible at little or no extra cost. Universal design benefits people of all ages and abilities.[6]

Example: Iowa's public health department is responsible for providing appropriate shelter during an emergency situation for all its residents, including those with disabilities. For the safety of people with disabilities, it is critical to consider the accessibility of designated refuge centers, such as schools. Until recently, the City of Des Moines had only one elementary school, one middle school and one high school that met Americans with Disabilities Act (ADA) accessibility requirements. In 2011, the Disability and Health Program of the Iowa Department of Public Health (IDPH) partnered with Polk County Emergency Management (PCEM) to evaluate disaster shelters for ADA accessibility compliance. IDPH surveyed each property and recommended temporary and long-term modifications to improve accessibility. As a result, the Des Moines Public Schools System committed to upgrading 62 of 63 district schools to make the facilities accessible for people with disabilities.

Example: The South Carolina Interagency Office of Disability and Health (SCIODH) partnered with the S.C. Office of Rural Health, and the Centers for Disease Control and Prevention's (CDC) breast and cervical cancer program, Best Chance Network, to conduct an accessibility assessment of facilities, educate facility staff on how to provide equitable services, and acquired funding for facility modifications. Response has been positive with all 46 counties in South Carolina having been assessed with specific modification recommendations for medical facilities for American Disabilities Act (ADA) compliance.

3.4 Explain how public health services, governmental programs, and non-governmental/ community-based organizations interact with disability.

Public health professionals should have an understanding of the responsibilities, services and resources government and non-governmental agencies provide, as well as what community based organizations are responsible for providing for people with disabilities. A basic understanding of national and local services for people with disabilities, as well as the agencies and organizations that provide those services, and where to receive more information is needed to be able to provide information to people with disabilities in their communities on what programs and services they may be eligible for, services they are entitled to by law, and where to receive these services.

Example: The Pan-American Health Organization/World Health Organization (PAHO/WHO) defined the **Essential Public Health Functions** (EPHF) which are the fundamental set of actions that should be performed in order to achieve public health's central objective: improving the health of populations. State and/or local health departments have the responsibility to provide services to all community members including people with disabilities since they have a higher incidence of chronic health problems. State and/or local health department professionals need to be aware of this responsibility and be involved in activities to ensure people with disabilities are included in programs, including:

- The promotion of equitable access to necessary health services for all citizens
- The development of actions geared toward overcoming access barriers to public health interventions and toward linking vulnerable groups to health services
- The monitoring and evaluation of access to necessary public and private health services, adopting a multi-sectoral, multi-technical and multicultural approach in conjunction with various agencies and institutions to resolve the injustices and inequalities in the utilization of services.
- The close collaboration with governmental and non-governmental organizations to promote equitable access to necessary health services.

3.5 Describe how communities (places where people live, work, and recreate) can adapt to be fully inclusive of disability populations.

Having an understanding of the environments where people with disabilities live, work, and recreate is essential to understanding challenges, needs and appropriate resources for people with disabilities in the community.

Example: The Kansas Disability and Health Program (DHP) recruited Kansans with disabilities to participate in state-level public health advisory councils. These participants comprise the DHP Advisory Board. The Advisory Board met with chronic disease managers to address health care barriers for people with disabilities. By involving people with disabilities as part of their Advisory Board, DPH hopes all of their programs will reflect different perspectives and personal experiences with disability, and better address the needs of people with disabilities in the community.

Call to Action

Given that the U.S. population is aging, disability estimates are expected to increase. Now is the time to take action and engage in creative partnerships with strategic partners.

1. Include people with disabilities in public health program planning and design.

Action Example: California's Living Healthy with a Disability Program: Tobacco Cessation Program for People with Disabilities serves a critical role in providing needed services to people with disabilities who are not usually targeted in state health promotion efforts. The California Department of Public Health (CDPH) and the California Smokers' Helpline (Helpline) began a collaboration to reach more people with disabilities. Activities included training for Helpline staff on how to work with PWD, revisions to Helpline materials and programmatic standards to ensure accessibility, and collaborating with disability organizations and health care insurers to disseminate Helpline information to clients with disabilities.

2. Use data to demonstrate the need for and impact of programs for people with disabilities.

Action Example: The Community Health Inclusion Index (CHII), is an evaluation tool for improving inclusion of people with disabilities in community health initiatives. The information collected through the CHII can be used by public health professionals and community programs to understand the needs in their communities and develop new initiatives for improving healthy, active living among people with disabilities. A recent study on the CHII was co-authored by the Institute on Disability and Human Development at the University of Illinois at Chicago; the University of Alabama at Birmingham/Lakeshore Foundation Research Collaborative; and the National Center on Birth Defects and Developmental Disabilities (NCBDDD) at the Centers for Disease Control and Prevention (CDC). Learn more

Competency 4: Implement and evaluate strategies to include people with disabilities in public health programs that promote health, prevent disease, and manage chronic and other health conditions

People with disabilities experience more chronic health problems than people without disabilities.[1] Having access to health promotion and preventative services is essential for people with disabilities for improved health outcomes. People with disabilities should be included in health promotion efforts, and disease prevention and management. It is not only the law, but it supports the commitment of public health professionals to ensure the reduction of health disparities.[25] In order for professionals to understand the needs of people with disabilities, they need to partner with them in public health efforts. This competency will help professionals to have foundational knowledge on program planning and health promotion that included people with disabilities.

Learning Objectives

4.1 Describe factors that affect health care access for people with disabilities.

People with disabilities may experience barriers to health care access. Some of these barriers include: high cost of services, limited services, physical barriers, and a lack of skills and knowledge on the part of health care providers.[26]

Access to comprehensive, quality health care services is important for the

achievement of health equity and for increasing the quality of a healthy life for everyone.[7] Health care access is a twofold issue. People with disabilities also need to be health literate and advocate for themselves regarding barriers to health care and access. (See Health Literacy) Also, health care professionals and public health professionals need to be aware of barriers to accessing health care for people with disabilities and create an inclusive atmosphere for communication.

Example: With support from the Centers for Disease Control and Prevention (CDC), the Illinois Disability and Health Program collaborated with the Southern Illinois University School of Medicine in Springfield (SIU) to develop a disability awareness course for second-year medical students. The goal was to build a foundation of communication skills for better care and interaction with patients with disabilities. A panel presentation focused on the experiences of five people with disabilities: a person with visual impairment, a person with hearing impairment, a person with speech impairment, a person with a mobility limitation, and the parent of a child with a developmental disability. Each described their experiences accessing health care and offered tips on cultural sensitivity and disability etiquette. The program will continue to recruit additional health professional training programs and assist them in adding this important component to their curriculum. With awareness training available early in their careers, the next generation of medical providers will be able to reduce the barriers that people with disabilities currently face.

4.2 Describe strategies to integrate people with disabilities into health promotion programs.

Integrating people with disabilities into public health promotion campaigns is essential to decreasing health disparities for this population. There are many resources for strategies to include people with disabilities in health promotion that are available for public health professionals to review. Being familiar with these strategies will aid in inclusion efforts. Learn more

Here are a few resources to get started.	
NACCHO	Tips and Strategies for Successful Integration of People with Disabilities into Local Public Health Promotion Programs. Link
CDC Grand Rounds	Public Health Practices to Include Persons with Disabilities Link
ASTHO	State Strategies for Promoting Wellness and Healthy Lifestyles for People with Disabilities. Link

Example: Montana's Disability and Health Program has taken a multi-pronged approach in addressing health care barriers faced by women with disabilities in

Montana. MDHP disseminated CDC's Right to Know Campaign materials to share experiences some women have had trying to access women's health services, and raise awareness about cancer and other health risks all women face. MDPH also developed *Every Woman Matters: A Montana Multi-media Event Highlighting the Importance of Breast Cancer Screening among Women with Physical Disabilities*, which showcases local stories from women with disabilities to the community. They also worked with mammography facilities throughout Montana to evaluate facility and customer service accessibility and create a Mammography Directory which provides information on mammography service providers by city. Materials developed and disseminated strategically target multiple audiences to raise awareness and better incorporate people with disabilities into health promotion programs.

Barriers to Health Care Access for People with Disabilities

People with disabilities encounter a range of barriers when they attempt to access health care including the following:

Prohibitive costs

Affordability of health services and transportation are two main reasons why people with disabilities do not receive needed health care in low-income countries - 32-33% of non-disabled people are unable to afford health care compared to 51-53% of people with disabilities.

Limited availability of services

The lack of appropriate services for people with disabilities is a significant barrier to health care. For example, research in the Uttar Pradesh and Tamil Nadu states of India found that after the cost, the lack of services in the area was the second most significant barrier to using health facilities.

Physical barriers

Uneven access to buildings (hospitals, health centers), inaccessible medical equipment, poor signage, narrow doorways, internal steps, inadequate bathroom facilities, and inaccessible parking areas create barriers to health care facilities. For example, women with mobility difficulties are often unable to access breast and cervical cancer screening because examination tables are not height-adjustable and mammography equipment only accommodates women who are able to stand.

Inadequate skills and knowledge of health workers

People with disabilities were more than twice as likely to report finding health care provider skills inadequate to meet their needs, four times more likely to report being treated badly and nearly three times more likely to report being denied care. Learn more

Source: Disability and Health, World Health Organization (WHO)

4.3 Identify emerging issues that impact people with disabilities.

There are many issues to be aware of that impact the lives of people with disabilities. These emerging issues should be considered when planning public health programs.

Emerging Issues:

Housing - For many people with significant and long-term disabilities safety and accessibility in housing is an issue. As the population ages the incidence of people with disabilities may increase, and so will the danger of falls and injury. For people with mobility issues, having housing that is accessible and safe (entrances with no steps, no lead paint in older homes, wide entrances) is a daunting task. Also having communities that are safe and accessible is also a challenge (curb cut outs, sidewalks, accessible exercise facilities, and parks).

Emergency Preparedness – Mobility and other challenges for people with disabilities can add difficulty when emergencies arise. Emergency preparedness for people with disabilities that take into account challenges and issues is essential for public safety.

Building Healthy Communities for Active Aging - As people age they may experience some form of disability. Also as people who have disabilities age their needs change as well. Older people with disabilities need sustainable environments free of hazards and accessibility challenges.

Preventive Screening - People with disabilities have a greater incidence of chronic disease than people without disabilities.[1] Because of this there is a greater need for people with disabilities to have access to preventative screenings for chronic health issues. Because of issues like access and cost there may be barriers to preventative screening that public health professionals should be aware of to help decrease health disparities for people with disabilities.

Transportation - People with disabilities may have difficulty accessing transportation services. Transportation is vital for people with disabilities to access health care, employment and life in the community.

Emerging Issues in Disability and Health

There are three critical emerging issues in disability and health:

The first is the need for *better disability health data* to inform policy and program development regarding critical issues of health disparities and health equity. A solution is to ensure that standard disability items are included in all public health surveillance instruments and that data is analyzed for individuals with disabilities where disability is in the data source.

The second is the need to increase the *implementation of evidence-based*

health and wellness programs that have been demonstrated to be effective among people with disabilities in community settings, including adequate strategies for preparedness and response for individuals with disabilities. Related to this is the need to translate existing evidence-based interventions demonstrated to be effective in clinical settings for people with disabilities to community programs. A solution is to add people living with disabilities to community-based health promotion efforts where possible.

The third is the need to *improve environmental designs and public infrastructure*. Solutions include:

- Ensuring the accessibility of technology, health information technology tools and systems, broadly defined, for people with physical, sensory, and cognitive disabilities. This includes electronic health records and personal health records as well as wearable technologies and home monitoring systems.
- Designing homes and community spaces that are fully accessible to individuals with disabilities.
- Ensuring that professional degree programs offer coursework in disability and health.

Source: Healthy People 2020, Topics & Objectives, Disability and Health

Examples:

Housing

In Montana, one in four adults has a mobility limitation, and many require special equipment for mobility. However, fewer than 20% of Montana homes are "visitable" and finding accessible housing is a major challenge for people with disabilities who want to live independently in the community. A lack of accessibility in a home can lead to greater possibility of falls, decreased independence, and isolation. Learn more

Emergency Preparedness

The Oregon Office on Disability and Health (OODH) developed the "Ready Now! Emergency Preparedness Toolkit" and a complementary interactive training for people with disabilities living independently and semi-independently in the community. "Ready Now!" encourages self-reliance, teaching people with disabilities how to prepare and care for themselves in case of an emergency. Participants learn to identify emergency situations, develop personal contact lists, and assemble "to-go bags" and "72-hour kits," care for their pets and service animals during an emergency, develop evacuation plans, and update emergency

preparedness plans regularly. Learn more

Building Healthy Communities for Active Aging

The CDC Healthy Aging Research Network (HAN) brought together diverse communities and multi-disciplinary expertise from across the country to identify and address health promotion needs for healthy aging, with particular focus on populations that bear a disproportionate burden of illness and disease. Strong partnerships at local, regional and national levels were fundamental to HAN's successes. Through these partnerships, HAN delivered on a mission to:

- Better understand the determinants of healthy aging in diverse populations and settings;
- Identify, develop and evaluate programs and policies that promote healthy aging; and
- Translate and disseminate research into effective and sustainable public health programs and policies throughout the nation.

The Building Healthy Communities For Active Aging - National Recognition Program supported by the U.S. Environmental Protection Agency (EPA) encourages and rewards existing and new communities to design senior friendly neighborhoods and environments with an emphasis on physical fitness and activity using "smart growth" and "active aging" concepts so that seniors can "age in place." Learn more

Preventive Screening

The Right to Know Campaign is a breast cancer education project developed by the Centers for Disease Control and Prevention (CDC). The campaign uses health promotion materials to target and encourage women with physical disabilities to get a mammogram.

The Oregon Office on Disability and Health (OODH) takes this campaign one step further by promoting breast cancer screenings for women with ALL types of disabilities, including women with sensory and/or cognitive disabilities. Oregon does this by ensuring that all activities, educational materials and trainings include information targeting women with all forms of developmental, cognitive and intellectual disabilities. In addition, OODH provides trainings and resources to health care professionals on how they can best serve the needs of women with various types of disabilities. Learn more

Transportation

In Gainesville, Florida, the fixed-route bus system is the city's primary form of public transportation. Although individuals with disabilities are offered a reduced fare, or are able to ride free of charge (if they have an ADA identification card), many have to rely on expensive and limited paratransit services instead of riding the bus. In a partnership between the Center for Independent Living of North Center Florida and the University of Florida's College of Public Health, students used a Bus Stop Checklist published by Easter Seals Project Action to conduct a systematic accessibility assessment of the 254 bus stops located

along four bus routes. Of the 254 bus stops assessed, only 15 (5.9%) met the criteria necessary to be deemed accessible. The findings were presented at a community meeting and again during a City Commission meeting, which prompted a motion carried that required the Regional Transit System to submit a report on the current ADA compliance of their bus stops, along with cost estimates for making suggested improvements. Learn more

4.4 Define how environment can impact health outcomes for people with disabilities.

There is a direct relationship between how the environment where people live, work and recreate in affects their physical and mental health outcomes. Environment is a social and physical determinant of health.[7] Poor health outcomes can be made worse because of the interaction between people with disabilities with their social and physical environments.[7]

Physical determinates of health related to environments include built environments like transportation and buildings, worksites, recreational settings, housing and neighborhoods, as well as physical barriers. Social determinates of health related to environments include availability of resources, employment, and healthy foods, exposure to crime and violence, social supports, transportation options, and socioeconomic conditions. Knowledge of the relationship between environment and health outcomes is essential to decreasing health disparities among this population. To put this in context, a "visitable" home is one which has at least one zero-step entrance, a bathroom on the main floor, and hallways and doorways wide enough to accommodate a wheelchair.

Example: Concrete Change is an international coalition organization formed in Atlanta that advocates for structural and legislative shifts that promote basic home access. Concrete Change provides information and resources on making all homes accessible to everyone such as information for builders, contractors, realtors, architects and others. Their website includes information about visitability, a movement to change home construction practices so that virtually all new homes offer a few specific features to make them easier for people with disabilities to live in or visit. Concrete Change worked with the City of Atlanta to pass the nation's first visitability law, which required that all public housing be accessible. Atlanta now has more than 500 single family homes with visitability features.

4.5 Apply evaluation strategies (needs assessment, process evaluation, and program evaluation) that can be used to demonstrate impact for people with disabilities.

People with disabilities are more likely to experience chronic health problems and health disparities.[1, 6, 7, 10, 20] Having an understanding of program and process evaluations will increase the capacity of public health professionals to create and manage programs targeted at reducing health disparities for people with disabilities.

Example: The Special Olympics Healthy Athletes program has provided more than 1.6 million free health screenings in more than 130 countries to people with intellectual disabilities. The Special Olympics Healthy Athletes® program offers health services and information to athletes with significant health care needs. In the process, Special Olympics has become the largest global public health organization dedicated to serving people with intellectual disabilities. Data collection is incorporated at every phase of planning and implementation, which is then aggregated to demonstrate progress towards the goal of reducing health disparities for people with disabilities. Data on the health of athletes collected through free health screenings is used to demonstrate the need for the program's health and medical services provided by program volunteers. Both Healthy Athlete program participants and volunteers report on their satisfaction and increase in knowledge during and after the program, and provide feedback on program success and worth. Findings from these combined strategies are used to educate policymakers, expand research and programming, and promote greater awareness of health disparities and needs.[27]

Call to Action

Acknowledging and addressing barriers that people face will help you tailor your efforts to reach and effectively serve all populations in your community. Use these strategies to start conversations and change in your community.

1. Identify and connect with key partners at various levels.

Action Example: The Disability and Health Program of the Iowa Department of Public Health (IDPH) partnered with Polk County Emergency Management (PCEM) to evaluate disaster shelters for ADA accessibility compliance. IDPH's partnership with and support from county-level government led to improved accessibility in designated emergency shelters across the state. IDPH continues to partner with disability-related organizations and government agencies to positively impact the lives of people with disabilities.

2. Network with non-traditional partners.

Action Example: The Learn the Signs. Act Early. Ambassador project is a collaborative effort on behalf of CDC's National Center on Birth Defects and Developmental Disabilities (NCBDDD), the Health Resources and Services Administration's (HRSA) Maternal and Child Health Bureau (MCHB), and the Association of University Centers on Disabilities (AUCD). Act Early Ambassadors serve as state liaisons to the Learn the Signs. Act Early. Campaign. In Tennessee, the Act Early Ambassador has collaborated with the Tennessee Department of Health to develop a digitally recorded web training presentation for the Home Visiting Program. The presentation was designed to be included in training program options for Home Visiting workers.

In Wisconsin, the Ambassador worked with Wisconsin's Head Start Collaboration Office and the Wisconsin Surveillance on Autism and Other Developmental Disabilities System, which resulted in a successful collaboration on the purchase of Wisconsin customized Learn the Signs. Act Early. materials, used for statewide dissemination. In this case, the Wisconsin University Center for Excellence in Developmental Disabilities acted as the fiscal agent, which enabled several agencies to leverage their individual funds into a single print order and purchase materials at a lower cost.

3. Engage community partners in support of lifestyle changes and supports.

Action Example: In 2016 the Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities focused on the importance of physical activity for people of all ages and abilities. The purpose of the Call to Action is to increase walking across the United States by calling for improved access to safe and convenient places to walk and wheelchair roll and by creating a culture that supports these activities for people of all ages and abilities.

The Call to Action includes five strategic goals to promote walking and walkable communities in the United States: make walking a national priority; design communities that make it safe and easy to walk for people of all ages and abilities; promote programs and policies to support walking where people live, learn, work, and play; provide information to encourage walking and improve walkability; and fill surveillance, research, and evaluation gaps related to walking and walkability. Action by multiple sectors of society, as well as by families and individuals, will be needed to achieve these goals.

Action Example: The Michigan Disability and Health Program, in collaboration with the National Center on Health, Physical Activity and Disability (NCHPAD), hosted an inclusive fitness workshop, attended by over 50 fitness professionals from around the state. Presenters from NCHPAD discussed facility accessibility and inclusiveness, the increased importance of exercise for people with disabilities, and condition-specific concerns. People with disabilities volunteered to be part of the hands-on portion of the workshop, allowing the fitness professionals to work with real people and real lifestyle challenges.

4. Support the inclusion of people living with disabilities in clinical preventive health services.

Action Example: To help Local Health Departments (LHD's) successfully include people with disabilities in their public health practice, the National Association of County and City Health Officials (NACCHO) developed Strategies for Successfully Including People with Disabilities in Health Department Programs, Plans, and Services. This resource provides a disability inclusion checklist and a detailed list of strategies that LHDs can implement to become more inclusive of people with disabilities in health promotion programing and emergency preparedness planning.

Checklist to Use when Creating Programs, Products, or Services

Does my agency…

- ❑ Involve people with disabilities in planning?
- ❑ Ask people with disabilities about the accommodations needed to make programs accessible to them?
- ❑ Ask for feedback from people with disabilities to learn how to improve programs and services?
- ❑ Budget to accommodate people with disabilities?
- ❑ Raise awareness about the importance of including people with disabilities in public health efforts?
- ❑ Use data to understand the health needs of people with disabilities?
- ❑ Collect appropriate demographic data that includes people with disabilities?
- ❑ Partner with local/national organizations that work with people with disabilities?
- ❑ Complete inclusive emergency preparedness exercises/drills with community partners?
- ❑ Subscribe to NACCHO's Health and Disability e-newsletter to get the latest news and tools for including people with disabilities?

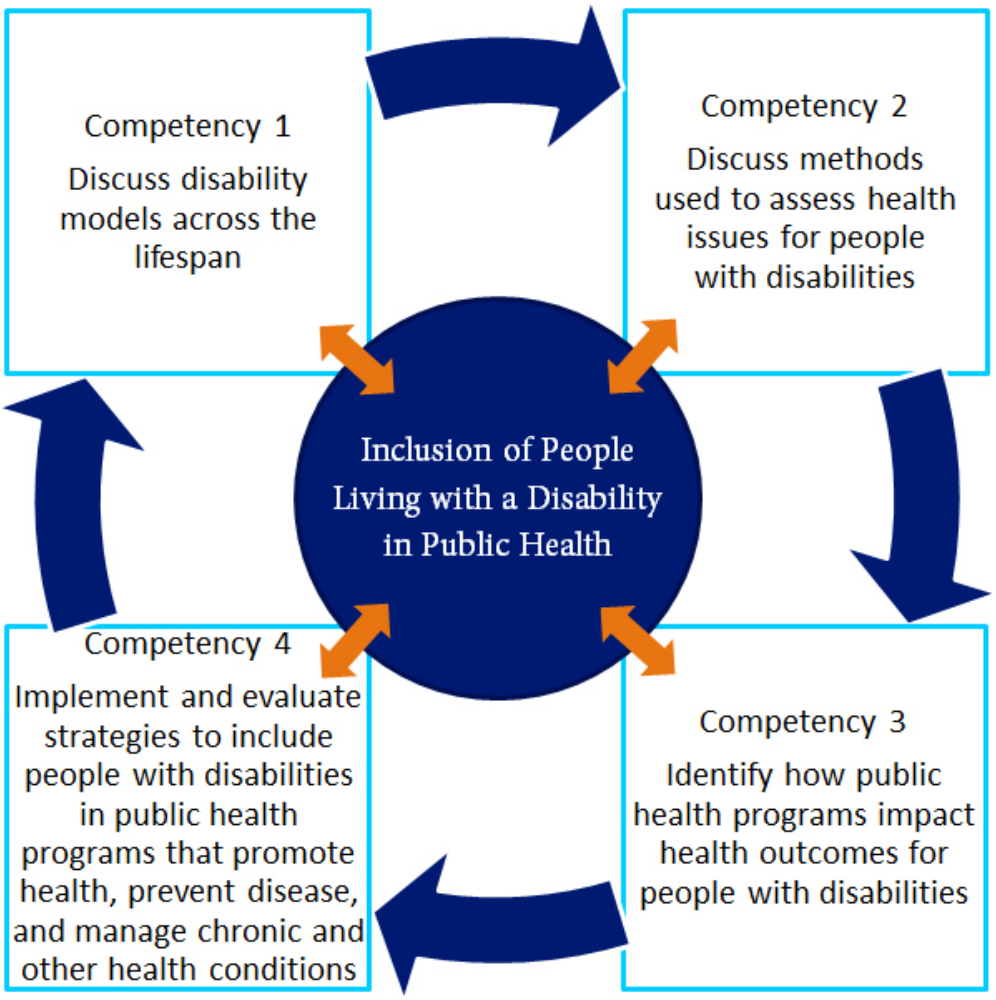
Source: Strategies for Successfully Including People with Disabilities in Health Department Programs, Plans, and Services. NACCHO

5. Build evaluation into programmatic efforts.

Action Example: Florida's Office on Disability and Health (FODH) received funding from the CDC specifically to develop health care provider training. The project works with faculty members in the department of medicine at University of South Florida (USF) on incorporating disability training into clinical curriculum for students in the 3rd year of medical school and to measure the growth in knowledge, aptitude, comfort and attitude in providing treatment to individuals with disabilities. Project activities and evaluation criteria were developed specifically to support the goal of increasing the capacity of health care providers in Florida to provide quality health care to individuals with disabilities. Learn more

Conclusion

People with disabilities are at a higher risk for poor health outcomes. There is a clear need for public health efforts to reduce health disparities among people with disabilities. Knowledge about the health status and public health needs of people with disabilities is essential for addressing these and other health disparities.



The four Competencies and associated learning objectives will address the knowledge gaps for public health professionals about disability, and health disparities. They provide foundational knowledge about the relationship between public health programs and health outcomes among people with disabilities. The Competencies can also be embedded into existing public health curriculum and training programs. Learn more

Implementation of these Competencies, and strategies, will build a stronger public health workforce skilled in ways to include people with disabilities in public health planning efforts and reduce health disparities for this population.

Reflective Learning

Reflecting back on what you are learning while implementing the competencies is essential.

Taking time to reflect as a group or individually will enhance learning, collaboration, and proffessional development. Learn more

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5. DHHS. Healthy People 2010 Midcourse Review: Focus Area 6, Disability and Secondary Conditions (n.d.).
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9. Centers for Disease Control and Prevention (CDC). (2014b) . The 10 Essential Public Health Services.
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21. Centers for Disease Control and Prevention (2014). Women with Disabilities and Breast Cancer Screening.
22. U.S. Department of Justice. (2009). A Guide to disability rights laws.
23. U.S. Department of Justice. (2015). Olmstead: Community Integration for Everyone.
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26. World Health Organization. (2015). Disability and Health.
27. Special Olympics Healthy Athletes, Special Olympics International Website.

Appendix A: Glossary of Terms

Accessibility - refers to the design of products, devices, services, or environments for people who experience disabilities.

Behavioral Risk Factor Surveillance System (BRFSS) - the nation's premier system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services.

Built Environment - includes all of the physical parts of where we live and work (e.g., homes, buildings, streets, open spaces, and infrastructure). The built environment influences a person's level of physical activity.

Caregiver - a family member or paid helper who regularly looks after a child or a sick, elderly, or individual with a disability.

Chronic Conditions - is a long-lasting condition (that may be preventable) that can be controlled but not cured.

Cultural Competence - a set of congruent behaviors, attitudes, and policies that come together in a system, agency or among professionals and enable that system, agency or those professions to work effectively in cross-cultural situations.

Disability - an umbrella term, covering impairments, activity limitations, and participation restrictions.

Disability Etiquette - the rules of etiquette and good manners for dealing with people with disabilities are generally the same as the rules for good etiquette in society.

Disability Models - models of disability provide a reference for society as programs and services, laws, regulations and structures are developed, which affect the lives of people living with a disability.

Disability and Health Data System (DHDS) – CDC data system providing state-level health and demographic data about adults with disabilities.

Health Care Access – the ability of individuals to access all aspects of health care services including health insurance, transportation, health provider building access, customer service accommodations, and health care service access

Health Disparity - preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.

Health Literacy - the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.

Health Promotion - the process of supporting people to increase control over, and to improve, their health. It moves beyond a focus on individual behavior towards a wide range of social and environmental interventions.

The International Classification of Functioning (ICF) - a classification of health and health-related domains from the World Health Organization

Learn the Signs. Act Early – a CDC campaign to help parents measure their children's progress by monitoring how they play, learn, speak and act.

Patient and Family Centered Care – approaches to the planning, delivery and evaluation of health care that is grounded in mutually beneficial partnerships among patients, families, and health care practitioners.

Reflective Learning - the process of internally examining and exploring an issue of concern, triggered by an experience, which creates and clarifies meaning in terms of self, and which results in a changed conceptual perspective.

Secondary Conditions- any additional physical or mental health condition that occurs as a result of having a primary health or disability condition

Social Determinants of Health - the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels.

Universal Design - a broad-spectrum of strategies meant to produce buildings, products and environments that are inherently accessible to older people, people without disabilities, and people with disabilities.

Visitability - refers to single-family or owner-occupied housing designed in such a way that it can be lived in or visited by people who have trouble with steps or who use wheelchairs or walkers.

Appendix B: Resources by Topic

Action Learning

Marquardt, M., Optimizing the Power of Action Learning. 2nd Ed. Boston, Nicholas Brealey Publishing, 2011

Agency-Specific Definitions of Disability

Office of Disability Employment Policy (ODEP) - Disability Employment Policy Resource
Social Security Administration – Disability Evaluations Under Social Security
Parent Center Hub
Disabled World – Definitions of Disability

Building Healthy Communities for Active Aging

Environmental Protection Agency (EPA) - Aging
Compendium of Community Aging Initiatives

Barriers to Healthcare Access

Disability and Health - WHO
Access to Health Care Services for Persons with Disabilities: Defining the Barriers to Successful Strategies for Change
Healthy People 2020 - Access to Health Services

Building Healthy Communities for Active Aging

Building Healthy Communities for Active Aging - National Recognition Program
AARP- Livable Communities
CD - Healthy Aging

Caregivers

NARIC – What Can the Fields of Aging and Intellectual and Developmental Disabilities Learn from Each Other to Support Family Caregivers?
AAIDD - Supporting Families of People with IDD

Communication with People with Disabilities

A-Z Disability Etiquette. Independence Australia
American Psychological Association (APA). Enhancing Your Interactions with People with Disabilities
American Psychological Association (APA). Guidelines for Assessment of and

Intervention with Persons with Disabilities.
American Psychological Association (APA). Interacting with Our Members with Disabilities; Using Appropriate Language and Being Sensitive to Accommodation Preferences.
Disability Etiquette. Eastern Paralyzed Veterans Association
Disability Etiquette. Easter Seals
Florida Center for Inclusive Communities. Improving Communication with Patients who have Intellectual and Developmental Disabilities
Effective Communication for Health Care Providers: A Guide to Caring for People with Disabilities
Disability Etiquette
Resource Modules on Health of People with Intellectual Disabilities
Resources for Communicating with Individuals with Disabilities
National Center on Health, Physical Activity and Disability, Inclusive Health Communication Scorecard

Cultural Competence

Definitions of Cultural Competence
American Association for Health Education
The Commonwealth Fund - Cultural Competence in Health Care: Emerging Frameworks and Practical Approaches.
Towards A Culturally Competent System of Care, Volume I. Washington, DC: Georgetown University Child Development Center, CASSP Technical Assistance Center.
Denboba, D., U.S. Department of Health and Human Services, Health Services and Resources Administration (1993). MCHB/DSCSHCN Guidance for Competitive Applications, Maternal and Child Health Improvement Projects for Children with Special Health Care Needs.
Lavizzo-Mourey, R. & Mackenzie, E. (1996). "Cultural Competence: Essential Measurement of Quality for Managed Care Organizations." Annals of Internal Medicine, 124, 919-926.
A Primer for Cultural Proficiency: Towards Quality Health Care Services for Hispanics
National Medical Association Cultural Competence Primer
Developing Culturally Competent Programs for Families of Children with Special Needs (monograph and workbook)
Taylor, T., et al. (1998). Training and Technical Assistance Manual for Culturally Competent Services and Systems: Implications for Children with Special Health Care Needs. National Center for Cultural Competence, Georgetown University Child Development Center.
Tervalon, M. & Murray-Garcia, J. (1998). "Cultural Humility versus Cultural Competence: a Critical Discussion in Defining Physician Training Outcomes in Multicultural Education." Journal of Health Care for the Poor and Underserved, 9 (2) 117-125.
U.S. Department of Health and Human Services, Administration for Children and

Families, Administration on Development Disabilities (2000). Amendments to P.L. 106-402 - The Developmental Disabilities Assistance and Bill of Rights Act of 2000.
U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions
Maternal and Child Health Services Title V Block Grant Program
National Standards for Culturally and Linguistically Appropriate Services in Health Care: Final Report
U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Services

Data and Surveillance

Expanding Surveillance of Adults with Intellectual Disability in the US. Center for Developmental Disabilities Evaluation and Research (CDDER)
Centers for Disease Control and Prevention. Disability and Health Data System (DHDS).
Centers for Disease Control and Prevention. (2009). U.S. Surveillance of Health of People with
Intellectual Disabilities.
Disability Statistics Compendium Rehabilitation Research and Training Center on Disability Statistics and Demographics (StatsRRTC)
Disability and Health Data System (DHDS) Fact Sheet
The Current State of Health Care for People with Disabilities. National Council on Disability
Health Disparities for People with Disabilities. Disability Rights Education & Defense Fund]
Disability and Health Fact Sheet. World Health Organization (WHO)
Prevalence of Disability and Disability Type among Adults, United States – 2013
U.S. Surveillance of Health of People with Intellectual Disabilities
Kraus, Lewis. (2015). 2015 Disability Statistics Annual Report. Durham, NH: University of New Hampshire
Uncovering the Power of Data: Disability and Health Data Systems (DHDS)
At a Glance: Conducting the 2011 Behavioral Risk Factor Surveillance System (BRFSS)
State Disability and Health Programs
Behavioral Risk Factor Surveillance System (BRFSS)
BRFSS State Coordinators
U.S. Department of Health and Human Services Implementation Guidance on Data Collection Standards for Race, Ethnicity, Sex, Primary Language, and Disability Status
Data Standards in HHS Data Collection – Greenberg 2012 National Conference on Health Statistics
Report to Congress – Improving the Identification of Health Care Disparities in Medicaid and CHIP
Health Insurance Marketplace Quality Initiatives

Disability Definitions

WHO – Disabilities
Disabled World - Disability
Stanford - Disability: Definitions and Models
Social Security Administration – Disability Planner

Disability Costs

Cost as a Barrier to Care for People with Disabilities NCBDDD Fact Sheet
Disability & Socioeconomic Status Fact Sheet.
MarketWatch: Illness and Injury as Contributors to Bankruptcy

Disability and Health

Health and Disability Digest. AUCD
Key Findings: Development of a Community Health Inclusion Index: An Evaluation Tool for Improving Inclusion of People with Disabilities in Community Health Initiatives
Community Health Inclusion Index (CHII.) The National Center on Health, Physical Activity and Disability
Health, United States, 2015 - Disability
NACCHO Health and Disability
Public Health is for Everyone Tool Kit
Disability and Health Journal
CDC – Disability and Health
Healthy People 2020 – Disability and Health
WHO – Disability and Health

Disability Models

Definitions of the Models of Disability
Defining Disability Today
Models of Disability: Implications for Practice
Disability: Definitions, Models, Experience
Disability 6.1.1 The four models
Towards a Common Language for Functioning, Disability, and Health – ICF
ICF Checklist

Emergency Preparedness

American National Standards Institute (ANSI) Homeland Security Standards Panel. Final Workshop Report Emergency Preparedness for Persons with Disabilities and Special Needs
ANSI Homeland Defense and Security Standardization Collaborative (HDSSC)
Association of Schools of Public Health (ASPH). Public Health Preparedness and Response Core Competency Model
Federal Emergency Management Agency (FEMA). Guidance on Planning for Integration of Functional Needs Support Services in General Population Shelters.
Ready Now! Toolkit for Emergency Preparedness for People with Disabilities
Illinois Emergency Management Agency. Emergency Preparedness Tips for Those with Access and Functional Needs
Red Cross Action Checklist for People with Disabilities
Tips for First Responders. Center for Development and Disability
Ready Now! Toolkit for Emergency Preparedness for People with Disabilities (Revised, 2014)

Family Centered and Patient Centered Care

Institute for Patient- and Family-Centered Care
Institute For Patient- and Family-Centered Care Core Concepts
Strategies for Leadership: Patient- and Family-Centered Care
Institute for Healthcare Improvement
Patient- and Family-Centered Care and the Pediatrician's Role
Family-Centered Care: Current Applications and Future Directions in Pediatric Health Care
Definitions of Cultural Competence

Health Care

Access to Medical Care for Individuals with Disabilities. US Department of Justice, Civil Rights Division
The National Center on Health, Physical Activity and Disability Physician's Tool Kit

Health Literacy

Health Literacy and People with Disabilities
NCHHSTP Social Determinants of Health Definitions
Learn About Health Literacy
Quick Guide to Health Literacy
Health Literacy – HRSA
Health Literacy: A Prescription to End Confusion
Tell Others about Health Literacy

Health Promotion

Disparities in Cigarette Smoking among Adults with Disabilities
Disability and Health. Healthy People 2020
Guidelines and Criteria for the Implementation of Community-Based Health Promotion Programs for Individuals with Disabilities. American Journal of Health Promotion: Vol 24, No.2
Impact of Poor Oral Health Care on Overall Health, Especially Among Adults With Disability. Illinois Department of Public Health
Kansas Research and Training Center on Independent Living (RTCIL). Health care Access for Persons with Disabilities, a Continuing Education Course for Physicians, Nurses, Social Workers, Other Health care Professionals and Medical Office Staff.
Women with Disabilities and Breast Cancer Screening
Oral Health and People with Disabilities NCBDDD Fact Sheet
Public Health is for Everyone Toolkit. Association of University Centers on Disabilities (AUCD)
Screening Saves Lives: Breast Health Screening the Right to Know
U.S. Department of Justice (2010). Access to Medical Care for Individuals with Mobility Disabilities
WHO Global Disability Action Plan 2014-2021: Better health for all people with disability
North Carolina's Plan to Promote the Health of People with Disabilities
Frieden TR. Foreword. MMWR Suppl 2016; 65place_Holder_For_Early_Release
Obesity and People with Disabilities NCBDDD Fact Sheet
Physical Inactivity and People with Disabilities NCBDDD Fact Sheet
How I Walk Inclusive Walking Campaign Materials. NCHPAD
Inclusive Healthy Communities Implementation Package (iCHIP)

Housing

Priced Out: The Housing Crisis for People with Disabilities (2010)
Housing Issues for People with Disabilities – The Arc
Disability Rights in Housing
Visit-Ability – Basic Access in EVERY New House
Visit-Ability Train the Trainers Webinar
Visit-Ability - Who Are We
Visit-Ability – Visibility Defined
Psychology Today – Space and Empathy
Visit-Ability – UD E-World

Intervention Evaluation

Using the Evidence Base to Support Healthy Aging
Seeking Best Practices: A Conceptual Framework for Planning and Improving Evidence-Based Practices

Healthy People 2020 Evidence-Based Clinical and Public Health Generating and Applying the Evidence
Developing an Evidence-Based Guide to Community Preventive Services—Methods
A Framework for Public Health Action: The Health Impact Pyramid

Models for Inclusive Planning and Organizational Training

Plan4Health Resource Library
Harris, A., & Enfield, S. (2013). Disability, Equality and Human Rights: A Training Manual for Development and Humanitarian Organisations. Oxfam International
Public Health Partnerships Can Increase State Disability Capacity for Healthcare and Health Promotion (OR UCEDD)
Inclusion Made Easy: A Quick Program Guide to Disability in Development. CBM
Best Practices for Including Individuals with Disabilities in all Aspects of Development Efforts
United Nations
Including People with Disabilities in Emergency Planning: How Are We Doing?
Involving People with Disabilities as Members of Advisory Groups
Community Health Inclusion Sustainability Planning Guide. The National Center on Health, Physical Activity and Disability (NCHPAD)
Effectively Including People with Disabilities in Policy and Advisory Groups
Major Hazards and People with Disabilities. Their Involvement in Disaster Preparedness and Response
Why and How to Include People with Disabilities in Your Emergency Planning Process
Strategies to Incorporate the Voices of People with Significant Disabilities in UCEDD Information Gathering and Operations. AUCD
Eisenbereg, Y. et al. (2015). Development of a Community Health Inclusion Index: An Evaluation Tool for Improving Inclusion of People with Disabilities in Community Health Initiatives. BMC Public Health, 15(1050)

Physical Activity and Obesity

Obesity and People with Disabilities NCBDDD Fact Sheet
Physical Inactivity and People with Disabilities NCBDDD Fact Sheet
Physical Activity & Obesity Resources from the National Center on Health, Physical Activity and Disability. NCHPAD
Before and After Fitness Center Makeover. NCHPAD
Page for Public Health Professionals. NCHPAD
Discover Accessible Fitness. NCHPAD

Policy

ADA Information and Technical Assistance Center
Medicaid – Program History
A Brief History of Medicare in America

Children's Health Insurance Program (CHIP)
CMS' Program History
The Olmstead Decision
Toolkit II: Legal Issues – ADA, Section 504, FERPA. American Psychological Association
Implementing the Affordable Care Act: A Roadmap for People with Disabilities. National Council on Disability (NCD)
Impact - Institute on Community Integration (UCEDD) & Research and Training Center on Community Living

Preventive Screenings

Women's Independence Through Health
Oregon Office of Disability and Health – The Right to Know Campaign
CDC –Disability and Health

Reflective Learning

Turner, E.: Gentle Interventions for Team Coaching-Little Things that Make a Big Difference. Fort Lauderdale, FL. Leadership in Motion (LIM), LLC, 2013.
McLean, S., Feather, J., & Butler-Jones, D.: Building Health Promotion Capacity-Action for Learning, Learning from Action. Vancouver, BC, UBC Press, 2005.
Whitney, D., Tosten-Bloom, A., Cherney, J., & Fry, R. Appreciative Team Building-Positive Questions to Bring Out the Best of Your Team. Lincoln, iUniverse, Inc., 2004.
Cooperrider, D., & Whitney, D. Appreciative Inquiry-A Positive Revolutionary Change. San Francisco, Berrett-Koehler, 2005.
Learning through reflection: The interface of theory and practice in public health
Reflection as part of continuous professional development for public health professionals: a literature review

Social Determinants of Health

Drum, C., Krahn, G., & Bersani, Jr., H. (2009). Disability and Public Health. Models and Approaches to Disability, 27-44. American Public Health Association: Washington, DC.
Centers for Disease Control and Prevention (2014). NCHHSTP Social Determinants of Health.
Fiorati, R. C., & Elui, V. M. C. (2015). Social determinants of health, inequality and social inclusion among people with disabilities . Revista Latino-Americana de Enfermagem, 23(2), 329–336.
U.S. Department of Health and Human Services. (2010). Healthy people 2020

Transition

Six Core Elements of Health Care Transition. Got Transition? National Health Care Transition Center
Transition to Adulthood: Guidelines for Individuals with Autism Spectrum Disorders. Ohio Center for Autism and Low Incidence.
Leadership Education in Neurodevelopmental and Related Disabilities (LEND): Training Our Future Leaders in the Maternal and Child Health Field. February 2012. Association of University Centers on Disabilities
Transition Planning for Students with Chronic Health Conditions. National Association of School Nurses

Transportation

A Study of Bus Stop Accessibility: Public Health Students Working in Partnership with the Center for Independent Living
Quick Bus Stop Checklist
Toolkit for the Assessment of Bus Stop Accessibility and Safety
Institute of Medicine (U.S.) Committee on Disability in America; Field M.J., Jette A.M., editors. The Future of Disability in America. Washington (DC): National Academies Press (US); 2007. G, Transportation Patterns and Problems of People with Disabilities

Universal Design

Kochtitzky, C. & Duncan, R. (2006). Universal Design: Community Design, Public Health, and People with Disabilities. In Morris, Mayra (Ed.), Integrating Planning and Public Health: Tools and Strategies to Create Healthy Places (51-64). Chicago, IL: American Public Health Association.
Guidelines for Use of the Principles of Universal Design. The Center for Universal Design
What is Universal Design?
National Disability Authority – Universal Design

Appendix C: Academic Resources

These resources might be helpful to you in preparing scholarly material or funding applications.

Albrecht, G. L., Seelman, K. D., & Bury, M. (Eds.). (2001). Handbook of disability studies. Thousand Oaks, CA: Sage Publications.

American Association on Health and Disability (AAHD). Health promotion and wellness for people with disabilities

Bersani, H.J. & Lynman, L. (2009). "Governmental policies and programs for people with disabilities." In Drum, Krahn & Bersani.

Calhoun, J. G., Ramiah, K., Weist, E. M., & Shortell, S. M. (2008). Development of a core competency model for the master of public health degree. American Journal of Public Health, 98(9), 1598-1607.

Drum, C.E. (2009). Models and Approaches to Disability. In Drum, Krahn & Bersani.

Drum, C. E., Krahn, G. L., & Bersani, H. Jr. (Eds.). (2009). Disability and Public Health. Washington, DC: American Public Health Association & American Association on Intellectual and Developmental Disabilities.

Iezzoni, L. & Freedman, V. (2008). Turning the Tide: The importance of definitions. JAMA, 299, 332-334.

Institute on Disability, University of New Hampshire. 2014 Annual Disability Statistics Annual Report.

Institute of Medicine (IOM). (2007). The Future of Disability in America. Washington, DC: The National Academies Press.

Kochtitzky, C. S. (2011). Vulnerable Populations and the Built Environment. In Dannenberg, AL., Frumkin, H., and Jackson, RJ. (Eds.), Making Healthy Places: Designing for Health, Well-Being, and Sustainability (129-143). Washington, DC: Island Press.

Lollar, D.J. (2002) Public health and disability: emerging opportunities. Public Health Reports, 117 (2), 131-136.

Lollar, D.J. & Andresen, E.M. (Eds.). (2011). Public Health Perspectives on Disability: Epidemiology to Theics and Beyond. New York, NY: Springer Science Business Media, LLC.

Lollar, D.J. & Crews, J.E. (2003). Redefining the role of public health in disability. Annual Review of Public Health, 24, 195-208.

Lollar, D.J. & Simeonsson, R.J. (2005). Diagnosis to function: classification for children and youth. Journal of Developmental and Behavioral Pediatrics. August, 26:4, 1-8.

World Health Organization (WHO). (2011). International Classification of Functioning, Disability and Health (ICF). Geneva: World Health Organization.

World Health Organization (WHO)/World Bank. (2011). World Report on Disability.

Appendix D: Resources for Embedding the Competencies into a Public Health Curriculum or Training

Accreditation Standards Related to Disability

Council on Education for Public Health. School of Public Health. Accreditation Criteria (Item 1.8). Silver Spring, MD: Council on Education for Public Health; 2011.

Commission on Dental Accreditation. Accreditation Standards for Dental Education Programs (Standard 2–23). Chicago, IL: American Dental Association; 2004.

Assessments of Disability and Health Training Opportunities

Sinclair, L.B., Tanenhaus, R.H., Courtney-Long, E., & Eaton D.K. Disability within U.S. public health schools and program curricula. J Public Health Management and Practice. 2015; 21(4):400–405.

Tanenhaus, R.H., Meyers, A.R., & Harbison, L.A. Disability and the curriculum in the U.S. graduate schools of public health. Am J Pub Health. 2000; 90(8):1315–1316.

Disability and Health Competencies Developed for:

Health Care Practitioners

Kirschner, K.L., & Curry, R.H. Educating health care professionals to care for patients with disabilities. JAMA. 2009; 320(12):1334–1335.

Coursey, R.D., et al. Competencies for direct serviced staff members who work with adults with severe mental illnesses in outpatient public mental health/managed care systems. Psychiatric Rehabilitation Journal. 2000; 23(4):370–377.

Smith, W.T. et al. Disability in cultural competency pharmacy education. Am J Pharmaceutical Education. 2011; 75(2) Article 26. Pages 1−9.

Eddey, G.E. & Robey, K.L. Considering the culture of disability in cultural competence education. Academic Medicine. 2005; 80(7):706−712.

Public Health Practitioners

Textbooks Available to help Learn Disability and Health Competencies

Albrecht, G.L., Seelman, K.D., & Bury, M., (Eds.). Handbook of disability studies. Thousand Oaks, CA: Sage Publications; 2001.

Simeonsson, R.J., & McDevitt, L.N. (Eds.). Issues in disability and health: the role of secondary conditions & quality of life. Chapel Hill NC: University of North Carolina, Chapel Hill and North Carolina Office on Disability and Health; 1999.

Drum, C.E., Krahn, G.L., & Bersani Jr, H., (Eds.). Disability and public health. Washington, DC: American Public Health Association; 2009.

Lollar, D.J. & Andresen, E.M. (Eds.) Public Health Perspectives on Disability-Epidemiology to Theics and Beyond, New York, NY, Springer, 2011.

Lenihan, P., et al. (2015). The University of Illinois at Chicago School of Public Health Doctor of Public Health Program: An Innovative Approach to Doctoral Level Practice Leadership Development. American Journal of Public Health, 105(S1), S55-S59.

Operating Models and Guidelines for Teaching Disability and Health Studies and Curriculum

Taylor, S.J., & Zubal-Ruggieri, R. Academic Programs in Disability Studies. Syracuse, NY: Syracuse University; 2012.

Symons, A.B., McGuigan, D., & Akl, E.A. A curriculum to teach medical students to care for people with disabilities: development and initial implementation. BMC Med Educ. 2009;9:78.

World Bank. World Bank inaugural disability and development core course. May 7−11, 2012. Washington, DC.

Sachs, R. Faculty/staff guide: Integrating disability studies into existing curriculum. [community college]

Salloway, J.C. et al. Constructing gerontological curricula for health administration. Journal of Health Administration Education. 1993; 11(1):68−77.

Brandert, K. et al. (2014). A model the training public health workers in health policy: the Nebraska Health Policy Academy. Preventing Chronic Disease, 2, 1-6.

Center for Health Policy Columbia University School of Nursing and Association of Teachers of Preventive Medicine. (2008). Competency to curriculum toolkit: Developing curricula for public health workers.

The Council on Linkages Between Academia and Public Health Practice. Competency Assessments for Public Health Professionals.

Fleckman, J.M., Dal Corso, M., Ramirez, S., Begalieva, M., & Johnson, C.C. (2015) Intercultural competency in public health: a call for action to incorporate training into public health education. Front. Public Health 3:210. doi: 10.3389/fpubh.2015.00210.

Jayatilleke, N., & Mackie, A. (2012). Reflection as part of continuous professional development for public health professionals: a literature review. Journal of Public Health, 35(2), 308-312.

Winskell, K., Evans, D., Stephenson, R., Del Rio, C., & Curran, J. W. (2014). Incorporating Global Health Competencies into the Public Health Curriculum. Public Health Reports, 129(2), 203–208.

Appendix E: Alignment with Other Public Health Competencies and Standards

Alignment with MCH Leadership Competencies and the Essential Public Health Services

Including People with Disabilities Public Health Workforce Competencies	MCH Leadership Competencies	Essential Public Health Services
Competency 1: Discuss disability models across the lifespan	Self: Competency 1 MCH Knowledge Base/Context Wider Community: Competency 12 Policy and Advocacy	1. Monitor health status to identify community health problems. 2. Diagnose and investigate health problems and health hazards in the community. 3. Assure a competent public health and personal healthcare workforce
Competency 2: Discuss methods used to assess health issues for people with disabilities	Self: Competency 1 MCH Knowledge Base/Context Competency 4 Critical Thinking Wider Community: Competency 11 Working with Communities and Systems Competency 12 Policy and Advocacy	8. Assure a competent public health and personal healthcare workforce 9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services. 10. Research for new insights and innovative solutions to health problems.

Including People with Disabilities Public Health Workforce Competencies	MCH Leadership Competencies	Essential Public Health Services
Competency 3: Identify how public health programs impact health outcomes for people with disabilities	Self: Competency 1 - MCH Knowledge Base/ Context Others: Competency 7 Cultural Competency Wider Community: Competency 12 Policy and Advocacy	3. Inform, educate, and empower people about health issues. 8. Assure a competent public health and personal healthcare workforce
Competency 4: Implement and evaluate strategies to include people with disabilities in public health programs that promote health, prevent disease, and manage chronic and other health conditions	Others: Competency 5 Communication Competency 6 Negotiation and Conflict Resolution Competency 7 - Cultural Competency Competency 8 Family-centered Care Competency 10 Interdisciplinary Team Building Wider Community: Competency 11 - Working with Communities and Systems Competency 12 Policy and Advocacy	4. Mobilize community partnerships to identify and solve health problems. 5. Develop policies and plans that support individual and community health efforts. 6. Enforce laws and regulations that protect health and ensure safety. 7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable 8. Assure a competent public health and personal healthcare workforce

Alignment with Core Competencies for Public Health Professionals

The *Including People with Disabilities: Public Health Workforce Competencies* align within the Core Competencies for Public Health Professionals developed by the Council on Linkages between Academia and Public Health Practice. The Core Competencies reflect foundational skills desirable for professionals engaging in the practice, education, and research of public health. These competencies are organized into eight domains, reflecting skill areas within public health, and three tiers, representing career stages for public health professionals. [June 27, 2014]

Source: http://www.phf.org/resourcestools/Documents/Core_Competencies_for_Public_Health_Professionals_2014June.pdf

Core Competencies	Including People with Disabilities: Public Health Workforce Competencies (AUCD and CDC)
Policy Development/ Program Planning Skills **Communication Skills** **Cultural Competency Skills** **Community Dimensions of Practice Skills** **Leadership and Systems Thinking Skills**	**Competency 1**: Discuss disability models across the lifespan **Learning Objectives**: 1.1. Compare and contrast different models of disability 1.2. Define model(s) of disability for a particular scope of work or population served 1.3. Describe the Social Determinants of health and how they affect health disparities for people with disabilities
Analytical/Assessment Skills **Public Health Sciences Skills**	**Competency 2**: Discuss methods used to assess health issues for people with disabilities. **Learning Objectives**: 2.1. Identify surveillance systems used to capture data that includes people with disabilities 2.2. Recognize that disability can be used as a demographic variable

Analytical/Assessment Skills **Community Dimensions of Practice Skills** **Public Health Sciences Skills**	**Competency 3**: Identify how public health programs impact health outcomes for people with disabilities **Learning Objectives**: 3.1. Recognize health issues of people with disabilities and health promotion strategies that can be used to address them 3.2. Use laws as a tool to support people with disabilities 3.3. Recognize accessibility standards, universal design, and principles of built environment that affect the health and quality of life for people with disabilities 3.4. Explain how public health services, governmental programs and non-governmental/ community-based organizations interact with disability 3.5. Describe how communities (places where people live, work and recreate) can adapt to be fully inclusive of disability populations

Community Dimensions of Practice Skills **Public Health Sciences Skills** **Financial Planning and Management Skills** **Leadership and Systems Thinking Skills**	**Competency 4**: Implement and evaluate strategies to include people with disabilities in public health programs that promote health, prevent disease, and manage chronic and other health conditions **Learning Objectives**: 4.1. Describe factors that affect health care access for people with disabilities 4.2. Use strategies to integrate people with disabilities into health promotion programs 4.3. Identify emerging issues that impact people with disabilities 4.4. Define how environment can impact health outcomes for people with disabilities 4.5. Apply evaluation strategies (needs assessment, process evaluation, and program evaluation) that can be used to demonstrate impact for people with disabilities

Alignment with Service Standards in Public Health Departments

10 Essential Public Health Services	Including People with Disabilities: Public Health Workforce Competencies (AUCD and CDC)
Policy Development • Inform, educate and empower people about health issues. • Mobilize community partnerships to identify and solve health problems. • Develop policies and plans that support individual and community health efforts. **Assurance** • Assure a competent public and personal health care workforce.	**Competency 1**: Discuss disability models across the lifespan **Learning Objectives**: 1.1. Compare and contrast different models of disability 1.2. Define model(s) of disability for a particular scope of work or population served 1.3. Describe the Social Determinants of health and how they affect health disparities for people with disabilities
Assessment • Monitor and evaluate health status to identify and solve community health problems. • Diagnose and investigate health problems and health hazards in the community. **Assurance** • Assure a competent public and personal health care workforce.	**Competency 2**: Discuss methods used to assess health issues for people with disabilities. **Learning Objectives**: 2.1. Identify surveillance systems used to capture data that includes people with disabilities 2.2. Recognize that disability can be used as a demographic variable

10 Essential Public Health Services	Including People with Disabilities: Public Health Workforce Competencies (AUCD and CDC)
Assurance • Assure a competent public and personal health care workforce. • Research for new insights and innovative solutions to health problems.	**Competency 3**: Identify how public health programs impact health outcomes for people with disabilities **Learning Objectives**: 3.1. Recognize health issues of people with disabilities and health promotion strategies that can be used to address them 3.2. Use laws as a tool to support people with disabilities 3.3. Recognize accessibility standards, universal design, and principles of built environment that affect the health and quality of life for people with disabilities 3.4. Explain how public health services, governmental programs and non-governmental/community-based organizations interact with disability 3.5. Describe how communities (places where people live, work and recreate) can adapt to be fully inclusive of disability populations

10 Essential Public Health Services	Including People with Disabilities: Public Health Workforce Competencies (AUCD and CDC)
Policy Development • Inform, educate, and empower people about health issues. **Assurance** • Enforce laws and regulation that protest and ensure public health safety. • Link people to needed personal health services and assure the provisions of health care when otherwise unavailable. • Evaluate effectiveness, accessibility, and quality of personal and population-based health services.	**Competency 4**: Implement and evaluate strategies to include people with disabilities in public health programs that promote health, prevent disease, and manage chronic and other health conditions **Learning Objectives**: 4.1. Describe factors that affect health care access for people with disabilities 4.2. Use strategies to integrate people with disabilities into health promotion programs 4.3. Identify emerging issues that impact people with disabilities 4.4. Define how environment can impact health outcomes for people with disabilities 4.5. Apply evaluation strategies (needs assessment, process evaluation, and program evaluation) that can be used to demonstrate impact for people with disabilities

Alignment with Learning Standards in Graduate Programs

The Including People with Disabilities: Public Health Workforce Competencies align within the 12 ASPPH and 5 CEPH Learning Domains.

Source: http://www.aspph.org/wp-content/uploads/2014/06/MPHPanelReportFINAL_2014-01-09-final.pdf

Source: http://ceph.org/assets/PHP-Criteria-2011.pdf

ASPPH Core MPH Domains and CEPH Core Knowledge	Including People with Disabilities: Public Health Workforce Competencies (AUCD and CDC)
Health Policy and Management (ASPPH) **Diversity and Culture (ASPPH)** **Leadership (ASPPH)** **Public Health Biology (ASPPH)** **Systems Thinking (ASPPH)**	**Competency 1**: Discuss disability models across the lifespan **Learning Objectives**: 1.1. Compare and contrast different models of disability 1.2. Define model(s) of disability for a particular scope of work or population served 1.3. Describe the Social Determinants of health and how they affect health disparities for people with disabilities
Biostatistics (ASPPH/ CEPH) **Epidemiology (ASPPH/ CEPH)**	**Competency 2**: Discuss methods used to assess health issues for people with disabilities. **Learning Objectives**: 2.1. Identify surveillance systems used to capture data that includes people with disabilities 2.2. Recognize that disability can be used as a demographic variable

ASPPH Core MPH Domains and CEPH Core Knowledge	Including People with Disabilities: Public Health Workforce Competencies (AUCD and CDC)
Social and Behavioral Sciences (ASPPH/ CEPH) **Communication and Informatics (ASPPH)**	**Competency 3**: Identify how public health programs impact health outcomes for people with disabilities **Learning Objectives**: 3.1. Recognize health issues of people with disabilities and health promotion strategies that can be used to address them 3.2. Use laws as a tool to support people with disabilities 3.3. Recognize accessibility standards, universal design, and principles of built environment that affect the health and quality of life for people with disabilities 3.4. Explain how public health services, governmental programs and non-governmental/community-based organizations interact with disability 3.5. Describe how communities (places where people live, work and recreate) can adapt to be fully inclusive of disability populations

ASPPH Core MPH Domains and CEPH Core Knowledge	Including People with Disabilities: Public Health Workforce Competencies (AUCD and CDC)
Health Services Administration (CEPH) **Professionalism (ASPPH)** **Program Planning (ASPPH)**	**Competency 4**: Implement and evaluate strategies to include people with disabilities in public health programs that promote health, prevent disease, and manage chronic and other health conditions **Learning Objectives**: 4.1. Describe factors that affect health care access for people with disabilities4.2. Use strategies to integrate people with disabilities into health promotion programs 4.3. Identify emerging issues that impact people with disabilities 4.4. Define how environment can impact health outcomes for people with disabilities 4.5. Apply evaluation strategies (needs assessment, process evaluation, and program evaluation) that can be used to demonstrate impact for people with disabilities

Note: The Draft Disability Inclusion Competencies do not align with the ASPPH Environmental Health Sciences Domain of the Core MPH Competencies.

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