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Commentary: Chronic Conditions and Disability

Research contributions and implications

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Abstract

Distinguishing and characterizing the terms ‘‘chronic conditions’’ and ‘‘disability’’ is important to the quality of public health research. Research has documented that people with disabilities experience higher prevalences of chronic conditions than the general population; however, these differences are rarely attributable to the pre-existing disability, and instead likely stem from preventable environmental factors. In this paper we describe contributions from the research as well as the need for a paradigm shift to effectively address the unique public health needs of people with disabilities. In addition, we describe evidence of support for such a paradigm shift. We intend for this paper to invite discussion in the field about methods to elicit the changes necessary in public health research for improved policy and practice that better address the public health needs of people with disabilities. Published by Elsevier Inc.

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Many people commonly link[1] the terms ‘‘chronic condition’’ and ‘‘disability’’; some even mistakenly use the concepts synonymously. The terms, however, each have unique meaning and are not interchangeable. Distinguishing and characterizing these terms is important to the quality of public health research. The purpose of this paper is to make the distinction between these terms, and to identify the implications of this distinction for public health research.

Distinguishing the concepts of disability and chronic conditions

The conceptual framework of disability currently preferred by most disability advocates and researchers is one in which disability is *related to* but *separate from* health, not wholly integrated within it, as the medical model posited. This perspective began more than 25 years ago; but, more recently, the disability community’s adoption of the International Classification of Functioning (ICF, 2009), the World Health Organization’s (WHO) ‘‘framework for health and disability,’’ demonstrates support for this preference, and continued development. The ICF emphasizes disability as an outcome of the ‘‘interactions between health conditions (diseases, disorders and injuries) and contextual factors,’’[2] rather than viewing disability as a cause of poor health; this definition views disability not only as a physical and medical dysfunction but also includes social influences. In this model, even though the concepts of chronic conditions and health are contextually linked, the WHO makes no reference to health in its definition of disability per se, (disability is ‘‘… impairments, activity limitations, and participation restrictions… reflecting an interaction between features of a person’s body and features of the society in which he or she lives (p.1)’’[3]); the WHO goes on to emphasize that people with and without disabilities have the same health needs. Additionally, the U.S. Surgeon General’s Call to Action to Improve the Health and Wellness of Persons with Disabilities endorsed this distinction between disability and health by clearly stating that people with disabilities are capable of leading healthy lives.[4]

Although disability does not equate with chronic health conditions, there is an intersection between the two. The extent to which chronic health conditions and disability overlap empirically remains unknown, in part because it depends on how we define disability and chronic conditions.

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Similar to WHO, the Americans with Disabilities Act of 1990 (ADA) defines disability broadly and focuses on function (i.e., physical or mental impairment that substantially limits that person in one or more major life activities, or the record or perception of having such an impairment).[5] In fact, the ADA incorporates multiple approaches to defining disability, including functional, categorical, and social.[6] Thus, given these broad definitions, people with a chronic condition may experience some form of disability, but not every person with a disability, just like those without disability, experiences a chronic health condition.

Relationship between chronic disease and disabilities

In understanding the relationship of chronic health conditions and disability, it is useful to think about causality and its directions. Specifically, chronic health conditions can cause the development of a disability. In fact, the Centers for Disease Control (CDC) report that chronic diseases are the leading causes of death and disability in the United States.[7] Alternatively, there usually is not a causal relationship in the other direction: disability typically does not *cause* chronic health conditions, although disability may set the stage for or make a person more vulnerable to secondary conditions, or influence the age of onset of the chronic condition. For example, a person with a spinal cord injury might develop osteoarthritis at an early age due to overuse of joints while propelling a manual wheelchair. However, it is primarily with the influence of social determinants, genetic predisposition, and health behaviors that a person with a disability, just as a person without a disability develops chronic health conditions. We contend that what elevates the importance of the relationship between disability and chronic health conditions is that people with disabilities are disproportionately affected by the negative effects of social mediating factors which place them at higher risk for developing them. These issues affect people with disabilities across the lifespan, although the data presented here address only adults aged 18 and above.

Data from population-based surveys and state and local data sources demonstrate that people with disabilities have chronic disease prevalences that are substantially higher than those without disability.[8–10] Fig. 1 depicts our findings from the Medical Expenditures Panel Survey (MEPS)[8] showing that people with cognitive limitations or physical disabilities have significantly higher prevalences for arthritis, asthma, cardiovascular disease, diabetes, high blood pressure, high cholesterol, and stroke. People with cognitive limitations (CL) or physical disabilities (PD) are not only more likely to be obese, but if obese, these groups had significantly higher BMI scores than those with no disabilities.[8] Similarly, Froehlich-Grobe et al found significantly higher BMI scores for wheelchair users.[11]

Moreover, our research showed that people with disabilities are more likely than those with no disability to

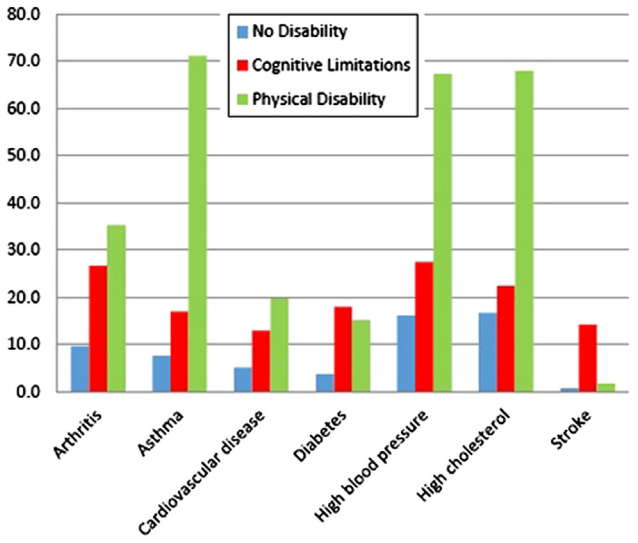

Fig. 1. Age-adjusted prevalence[2] (per 1000) comparing cognitive limitations or physical disability groups to no disability group.

experience multiple chronic conditions (MCC) (Fig. 2). In addition, prevalences of MCC varied by type of disability (physical, cognitive, hearing, vision, or multiple). Those with more than one type of disability were most likely to have the greatest number of chronic conditions; nearly 33% of people with 2+ types of disability had 4+ chronic conditions.[12,13]

People with disabilities develop chronic conditions at an earlier age when compared to people with no disabilities[14] and die from chronic disease sooner after diagnosis.[10,15] So, even though disability is not synonymous with chronic disease, we know that people with disabilities are severely and negatively impacted by disparate prevalences of chronic conditions.

Although the data do not enable us to know whether the disability preceded or stemmed from the chronic condition, we have evidence to support that these disparities rarely exist

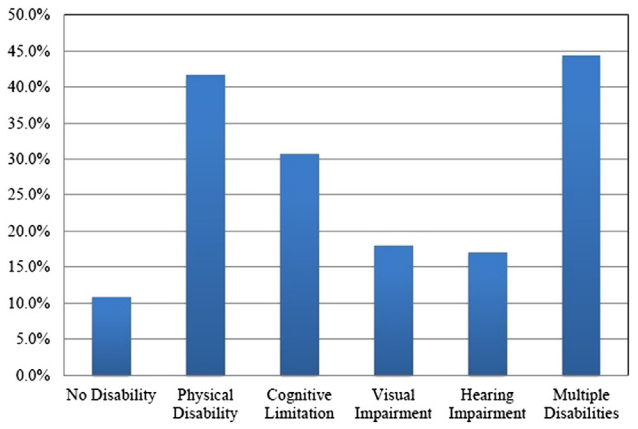

Fig. 2. Age-adjusted multiple chronic condition rates by disability type among adults aged 18–64, MEPS, 2004–2008.