## **Co-Occurring Disorder-Related Quick Facts: PHYSICAL AND COGNITIVE DISABILITIES**

**Physical and Cognitive Disabilities:** A disability is a motor, sensory, or cognitive impairment that substantially limits one or more major life activities. Loss of a limb or its function, loss or impairment of hearing or sight, or organic or traumatic deficits in brain function are examples of motor, sensory, and cognitive disabilities. By definition, disabilities may limit or complicate participation in substance abuse and mental health treatment, and special arrangements may need to be made in order for people with disabilities to realize maximum benefit from treatment.<sup>1</sup> In addition, disabilities may contribute to substance abuse problems directly (e.g., addiction to pain medication secondary to an injury) or indirectly through other risk factors (e.g., school failure related to learning disabilities).

**Epidemiology:** Based on 2005 data, the National Center for Health Statistics (NCHS) estimates that approximately 34.1 million non-institutionalized Americans (12%) have a condition that limits usual activities.<sup>2</sup>

*Motor Impairments*: Clearly, motor impairments impact access (including transportation) to substance abuse treatment and may also impact ability to participate in some treatment activities. The NCHS estimates that 32.4 million American adults (15%) suffer from some disability related to physical functioning. Of these, approximately half are unable (or find it very difficult) to walk one quarter mile. Up to about 10 percent of older adults (75 years and older) have physical disabilities that impair their ability to engage in simple self-care.<sup>2</sup> Alcohol and drug abuse figure prominently in the etiology of motor disabilities, contributing to one third to one half of traumarelated impairment.<sup>3</sup>

*Sensory Impairments:* Like motor impairments, sensory impairments may impact access to treatment and may limit participation in activities that require reading (e.g., educational materials, contingency contracts), hearing, or speech (individual and group therapies). Impairment of hearing affects 36.5 million American adults (17%), making hearing loss the number one American disability. Vision problems affect 20.3 million adults (9.3%).<sup>2</sup> Although some of these sensory deficits do not substantially interfere with daily activities, the probability of serious impairments increases for individuals over age 40.<sup>3,4</sup>

*Cognitive Impairments:* Cognitive impairments may interfere with an individuals' ability to learn, follow treatment program rules, and participate in treatment activities requiring concentration or periods of sitting quietly (e.g., group). Data on cognitive impairments is most readily available for children and the elderly. Approximately six percent of children under age 18 receive special education or intervention services related to impaired cognitive functioning.<sup>2</sup> Among the elderly, dementia is often thought to be the main cognitive impairment. However, at least one major study of adults aged 65 and over has shown that "cognitive impairment – no dementia (CIND)"—as measured by the modified mini-mental state examination—was twice as prevalent (16.8%) as all dementias combined (8%).<sup>5</sup> The authors note that individuals with CIND may be a largely unrecognized, but costly group of disabled individuals. Data from the National Comorbidity Survey Replication on adults aged 18-44 years estimated a prevalence of

4.4 percent for adult ADHD.<sup>6</sup> Given the high correlation of adult ADHD with substance abuse and mental health problems, this finding is of considerable significance for treatment planning.

*Homeless Persons:* Psychiatric disabilities are a signal feature of homeless populations. However, the incidence and significance of physical and developmental disabilities in this population dictates greater attention to assessment of and treatment planning for a wide range of disabilities in homeless people who abuse substances.<sup>7</sup>

*Posttraumatic Stress Disorder (PTSD):* Armed conflicts around the world have resulted in increased numbers of individuals (both refugees and returning combat veterans) with comorbid physical impairments and PTSD. For example, among Bosnian refugees, associations between war injuries and PTSD persisted for more than three years.<sup>8</sup> There is also evidence to suggest that traumatic brain injury associated with blast concussion may mimic or overlap PTSD–like symptoms.<sup>9</sup> However, the relationship between bodily injury and PTSD appears complex. While a severe combat injury is a major risk factor for PTSD, a variety of other psychological factors appear to mediate this relationship.<sup>10</sup>

*Mental Illness:* The relationship between disabilities and mental health problems (especially depression) is extremely well documented. However, it is also clear that social support and mastery (personal efficacy) can substantially mitigate the effects of disability on mental status.<sup>11</sup>

**Treatment:** Persons with motor, sensory, or cognitive disabilities may be able to participate in any or all aspects of treatment, or may find participation in some activities difficult or impossible. There is no simple formula for determining which activities will present problems for which clients, nor are there formulaic ways to increase ease of participation. Rather, assessment and treatment planning must respond to the needs of the whole person to the extent feasible. As noted in Co-occurring Center for Excellence's (COCE's) Overview Paper #3, *Overarching Principles*,<sup>12</sup> "Each individual's treatment plan must be derived from a careful assessment inclusive of, but not limited to, immediate and acute needs, diagnosis, disability, motivation, and stage of readiness for change."

From a practical perspective, adapting treatment protocols to the needs of persons with disabilities often requires creativity and flexibility. It is important to note that the disabled person can be a key partner since he or she must adapt to similar challenges at work or school, and in family and social settings. Solutions developed to accommodate disabilities in these settings may be directly transferable to the treatment setting.

## Major SAMHSA Activities/Resources:

- Center for Substance Abuse Treatment. *Substance Use Disorder Treatment for People with Physical and Cognitive Disabilities.* Treatment Improvement Protocol (TIP) Series 29
- Rehabilitation Research and Training Center on Drugs and Disability. *Substance Abuse, Disability and Vocational Rehabilitation.* Dayton, OH: 1996

- National Alliance to End Homelessness/Homeless Research Institute, *Vital Mission:* Ending Homelessness among Veterans
- Training Manual to Expand Discussions of Eligibility of Homeless Persons to include Persons with Physical Disabilities, Cognitive Disabilities, and/or Sensory Disabilities, and Persons with Co-Morbid Conditions (in press)
- Northeast Addiction Technology Transfer Center, Issues Facing Returning Veterans, *Resource Links*, 6(1), 2007
- Returning Veterans Workgroup: Draft Strategic Action Plan, March 2007

## **References:**

- Center for Substance Abuse Treatment. (2005). Substance use disorder treatment for people with physical and cognitive disabilities. Treatment Improvement Protocol (TIP) Series 29. (DHHS Publication No. (SMA) 05-4078.) Rockville, MD: Substance Abuse and Mental Health Services Administration.
- 2. National Center for Health Statistics Fast Stats: http://www.cdc.gov/nchs/fastats/disable.htm
- 3. Rahmani, B., Tielsch, J. M., Katz, J., Gottsch, J., Quigley, H., Javitt, J., & Sommer, A. (1996). The cause-specific prevalence of visual impairment in an urban population. The Baltimore Eye Survey. *Ophthalmology* 103(11): 1721-1726.
- Cruickshanks, K. J., Wiley, T. L., Tweed, T. S., Klein, B. E., Klein, R., Mares-Perlman, J., & Nondahl, D. M. (1998). Prevalence of hearing loss in older adults in Beaver Dam, Wisconsin: The Epidemiology of Hearing Loss Study. *American Journal of Epidemiology 148*(9): 879-886.
- 5. Graham, J. E., Rockwood, K., Beattie, B. L., Eastwood, R., Gauthier, S., Tuokko, H., & McDowell, I. (1997). Prevalence and severity of cognitive impairment with and without dementia in an elderly population. *Lancet 349*(9068):1793-1796.
- Kessler, R. C., Adler, L., Barkley, R., Biederman, J., Conners, C., Demler, O., Faraone, S., Greenhill, L., Howes, M. J., Secnik, K., Spencer, T., Ustun, T. B., Walters, E. E., & Zaslavsky, A. M. (2006). The prevalence and correlates of adult ADHD in the United States: Results from the National Comorbidity Survey Replication. *American Journal of Psychiatry 163*: 716-723.
- Anthony, W., Cohen, M., Farkas, M., & Gagne, C. (2002). *Psychiatric rehabilitation* (2<sup>nd</sup> ed.) Boston, MA: Center for Psychiatric Rehabilitation, Sargent College of Health and Rehabilitation Sciences, Boston University.

- Mollica, R. F., Sarajlic, N, Chernoff, M., Lavelle, J., Vukovic, I. S., & Massagli, M. P. (2001). Longitudinal study of psychiatric symptoms, disability, mortality, and emigration among Bosnian refugees. *JAMA* 286(5).
- Trudeau, D. L., Anderson, J., Hansen, L. M., Shagalov, D. N., Schmoller, J., Nugent, S., & Barton, S. (1998). Findings of mild traumatic brain injury in combat veterans with PTSD and a history of blast concussion. *Journal of Neuropsychiatry and Clinical Neuroscience 10*: 308-313.
- Koren, D., Norman, D., Cohen, A., Berman, J., & Klein, E. (2005). Increased PTSD risk with combat-related injury: A matched comparison study of injured and uninjured soldiers experiencing the same combat events. *American Journal of Psychiatry*, 162: 276-282.
- 11. Turner, R. J. & Noh, S. (1988). Physical disabilities and depression: A longitudinal analysis. *Journal of Health and Social Behavior 29*: 23-37.
- Center for Substance Abuse Treatment. (2006). Overarching principles to address the needs of persons with co-occurring disorders. COCE Overview Paper 3. (DHHS Publication No. (SMA) 06-4165.) Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.