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Disability Within US Public Health School and Program Curricula

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Abstract

Objective—To describe the percentage of US public health schools and programs offering graduate-level courses with disability content as a potential baseline measurement for *Healthy People 2020* objective DH-3 and compare the percentage of public health schools that offered disability coursework in 1999 with those in 2011.

Design—In 2011, using SurveyMonkey.com, cross-sectional information was collected from the deans, associate deans, directors, or chairpersons of master of public health–granting public health schools and programs that were accredited and listed with the Council on Education for Public Health. Two rounds of follow-up were conducted at 4-month intervals by e-mails and phone calls to program contacts who had not responded. The responses from schools and programs were calculated and compared.

Results—There were 78 responses (34 schools and 44 programs) for a response rate of 63%. Fifty percent of public health schools and programs offered some disability content within their graduate-level courses. A greater percentage of schools than programs (71% vs 34%; $P = .003$) offered some graduate-level disability coursework within their curricula. The percentage of schools that offered disability coursework was similar in 1999 and 2011.

Conclusion—This assessment provides a potential baseline measurement for *Healthy People 2020* objective DH-3. Future assessments should focus on clarifying disability content within courses and identifying capacity to offering disability training within public health schools and programs.

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Keywords

curricula; disability; health objectives; Healthy People; public health competencies

Objective

People with disabilities currently represent 18.7% (about 56.7 million people) of the US population.[1] People with disabilities are more likely than people without disabilities to engage in some behaviors that put their health at risk, such as inadequate physical activity and cigarette smoking, and are at a high risk for poor health outcomes such as hypertension, obesity, falls-related injuries, and depression.[2,3] Understanding and addressing these health issues will require a trained work-force that has sufficient skills in disability surveillance, evidence-based health promotion practices, health policy and law, health communication, environmental design, planning and evaluation, social science, and preventive health services. This range of interdisciplinary skills is consistent with those acquired by completing studies within a Council on Education for Public Health (CEPH)–accredited public health school or program.[4] Typically, public health schools are major single entities within colleges and universities whereas public health programs are located within academic departments. As of spring 2011, there were a total of 122 master of public health (MPH)–granting public health schools (n = 49) and programs (n = 73) located within the United States and territories, accredited and listed with the CEPH.[5] It was unknown how many included disability course-work in their curriculum.

A 1999 assessment of 30 CEPH-accredited public health schools found that 73% offered graduate-level courses (eg, “courses on maternal and child health, and aging and long-term care”) with substantial disability content, 60% offered 1 or more graduate-level courses dealing exclusively or nearly exclusively with disability, 13% offered a track or concentration in disability, 10% offered a dual-degree or a multidisciplinary program that highlighted disability, and 30% planned to increase coverage of topics related to disability.[6] While the 1999 assessment provided initial information about CEPH-accredited public health schools, it did not include CEPH-accredited public health programs.

Since the 1999 assessment, the public health profession’s commitment to addressing health disparities experienced by people with disabilities has increased as evidenced in *The Future of Disability in America*,[7] *The Current State of Health Care for People With Disabilities*,[8] *The Surgeon General’s Call to Action to Improve the Health and Wellness of Persons With Disabilities*,[9] *Healthy People 2010*,[10] and *Healthy People 2020* (*HP2020*), which includes objective DH-3 to “increase the proportion of U.S. Master of Public Health programs that offer graduate-level courses in disability and health.”[11] The definition of “courses in disability and health” includes various courses, tracks or dual-degree programs that teach the 10 essential public health services (http://www.cdc.gov/nphpsps/essentialservices.html) and that have disability content either exclusively or comprehensively, substantially, in concentration, or as a highlight. At the launch of *HP2020*, this objective lacked a baseline measurement for public health schools and programs.

The primary objective in this study was to describe the percentage of US public health schools and programs that offer graduate-level courses with disability content as a potential baseline measurement for *HP2020* objective DH-3.[11] Secondary objectives are to compare the percentage of public health schools and programs that offer disability coursework and compare the percentage of public health schools that offered disability coursework in 1999 with those in 2011.

Design

Institutional review board determination did not require a human participant protocol approval because the data are programmatic and typically available to the public. In spring 2011, we contacted the deans and associate deans, directors, or chairpersons of MPH-granting public health schools and programs that were accredited and listed with the CEPH.[5] Public health schools or programs that were not accredited by fall 2011, did not offer an MPH, or were located outside of the United States and territories were not included. Included in the e-mail correspondence was a description of the assessment and its purpose as well as a link to the online instrument developed through SurveyMonkey.com. The e-mail previewed the 5 assessment questions (Table 1) to enable the contacts to gather relevant information before opening the link.

The 5 assessment questions were based on those originally asked by Tanenhaus and colleagues[6] with 2 modifications (Table 2). In the first question, “nearly exclusively” was replaced with “comprehensively” to imply coverage of disability within essential public health topics such as surveillance, interventions, health policy, and legislation. An original question, “Do other components of your school or program’s curriculum provide systematic treatments of disability? That is, more than an occasional passing or reference?” was eliminated because of overlap of “systematic treatments” with questions 2 and 3. To allow for qualitative remarks about the courses offered, each question was followed by an open-ended request to “please specify.”

Two rounds of follow-up at 4-month intervals were conducted by e-mails and phone calls to program contacts who did not respond through the online assessment or by return e-mail. Responses received by e-mail were entered manually into the online assessment. Responses were tabulated in Microsoft Excel. Statistical analyses were completed using SAS 9.3 (SAS Institute, Cary, North Carolina). The percentage of schools and programs that answered affirmatively to each question in the 2011 assessment as well as the percentage of schools that answered affirmatively to identical questions in the 1999 and 2011 assessments were compared and tested to determine whether they were statistically significantly different. Since the expected cell counts for some of the questions were fewer than 5, the Fisher exact test was used to evaluate the differences in responses. *P* values of .05 or less were considered statistically significant.

Results

Table 1 compares school and program responses to questions from the 2011 assessment. There were 78 respondents (34 schools and 44 programs) for a response rate of 63%. The

regional response rates were as follows: Northeast (70%), Midwest (76%), South (57%), and West (63%). The response rates were 69.4% among the schools and 60.3% among the programs. Of the 78 respondents, 39 (50%) said “yes” to at least one of questions 1 to 4, indicating that they offered some disability coursework (Table 1). A significantly higher percentage of schools than programs responded “yes” to at least one of questions 1 to 4 and “yes” to offering other graduate-level courses with substantial disability content. The percentage of affirmative responses decreased as the learning approach, referenced within each question, became more complex, for example, one course with substantial content versus exclusive content versus a dual degree versus a track.

Qualitative remarks indicated various approaches to disability coursework. Thirty-six respondents (46%) dealt substantially with disability (eg, as part of courses on child health, aging, women’s health, case management, mental health, epidemiology, special populations, health disparities, social dimensions of public health, neurology and pain, education, health policy, Medicare, nutrition, or occupational safety and environmental health). Nineteen respondents (24%) offered at least one course dealing exclusively or comprehensively with disability. Examples of the course titles were *Disability and Public Health*, *Adaptation to Loss and Disability*, *Introduction to Disability*, *Children With Special Health Care Needs*, and *Disability and Community*. Eight respondents (10%) offered dual-degree programs highlighting disability (eg, physical therapy/MPH, master in social work/MPH). Four respondents (5%) offered a track or concentration in disability (eg, graduate certificate in disabilities and developmental disabilities). Additional reported approaches to disability coursework included seminars, continuing education, or within another school (eg, allied health), department (eg, maternal and child health), or program (eg, master in social work). Twenty-one respondents (27%) indicated plans to increase coverage of topics related to disability (eg, injury and epidemiology, and healthy aging).

Table 2 compares school responses to questions from the 1999 and 2011 assessments. The response rate among schools was higher in 1999 (86%)[7] than in 2011 (69.4%). In comparing responses to identical questions, there were no statistically significant differences between the percentage of schools that responded “yes” in 1999 and 2011. The percentage of schools that responded “yes” to at least one of questions 1 to 4 was not reported in the 1999 assessment; thus, no overall comparison was made with the 2011 schools.

Discussion

This assessment of public health schools and programs showed that 50% offered some disability content within their MPH curricula. This estimate provides a potential baseline measurement for *HP2020* objective DH-3.[11] A higher percentage of public health schools than programs responded that they offered some disability content. This overall difference is likely due to a single significant difference in the percentage of schools and programs that offer “courses that deal substantially with disability,” suggesting that schools might focus more on covering disability topics within existing courses.

Comparisons between the 1999 and 2011 school responses to identical questions must be interpreted with caution. Information about the individual schools that responded to the 1999

assessment is unavailable. The individual schools that responded in 1999 might overlap with those that responded in 2011, but the extent to which the same schools responded cannot be determined. Nevertheless, the lack of statistically significant differences between the 1999 and 2011 responses to identical questions suggests that the current practice of public health schools to offer disability courses is similar to that in 1999.

There were an estimated 10 000 graduates from CEPH-accredited public health schools and programs in 2009.[12] As indicated by the results, disability studies are not a universal offering in US public health schools and programs, representing a missed opportunity to facilitate disability competencies among public health graduates. Disability competencies for public health professionals are currently not well defined. However, relevant competencies might be derived from examples in the clinical literature,[13] for example, understanding the conceptual framework of disability in the context of human diversity, illness, life span, and the constructed social and cultural environments.

Additional resources are available to help administrators develop and implement disability course-work in graduate public health schools and programs. Planning language is available in the national goals, specifically *HP2020* objective DH-3,[11] and disability-related accreditation requirements.[14,15] Existing disability programs[16] and a 6-step process to developing disability curriculum for medical students[17] might serve as models for developing and implementing public health disability coursework. Format options might be derived from existing courses such as the online Public Health Certificate in Interdisciplinary Disability Studies program (http://phcids.uconn.edu/). Recently developed public health disability textbooks are available to provide course content.[18,19] The Association of Schools and Programs of Public Health, Association for Prevention Teaching and Research, and the Association of Accredited Public Health Programs might be able to help identify experts among their membership who can teach public health disability course content. While start-up resources for developing staff expertise and implementing disability and health course-work are limited, they might be available through partnerships or competitive funding opportunities (eg, CDC-RFA-DD07-702).[20] Such resources can especially assist those public health schools and programs that expressed plans to increase coverage of disability topics. These resources are intended to represent potential ways either to integrate disability content into existing public health courses or to add a stand-alone disability and health course.

Limitations

This assessment had 4 key limitations. First, we excluded public health schools or programs that were not accredited, that were accredited but located outside of the United States and territories, or that offered only master of science in public health or master of science degrees. Although including them might have provided a broader assessment of public health disability course offerings, this measurement was designed to align with *HP2020* objective DH-3 that specifies MPH degrees. Second, if schools or programs chose not to participate in this assessment due to lack of disability course content, our results could reflect an overestimate in the percentage of US public health schools and programs that offer disability content. Concerted outreach is needed among schools and programs in South and

West regions to expand their participation in future assessments. Third, the questions were not pretested for clarity or interpretation. Qualitative responses lacked details about course content, learning objectives, or competencies. Fourth, the 1999 and 2011 assessments are limited by their designs that include use of cross-sectional information, as well as different outreach methods and questions asked in the 2 years. Because of the lack of information about which schools participated in the 1999 assessment, longitudinal observations cannot be ascertained.

Conclusion

Fifty percent of CEPH-accredited public health schools and programs offered courses with disability content in 2011, a potential baseline measurement for *HP2020* objective DH-3.[11] Despite reported plans among schools to increase coverage in 1999, the percentage of schools that offer disability coursework has not changed in the last 12 years. This might suggest that while there is some desire to have such content, actual administrative plans, resources, and efforts have not been sufficient to achieve that goal or that the schools with those plans in 1999 did not respond to the 2011 assessment. Schools and programs that are planning to include disability content can use national goals, accreditation language, and published materials to facilitate their plans. Obtaining staff and funds to implement public health disability coursework will likely require collaboration. Future assessments should focus on clarifying disability competencies and course content; coverage of disability legislation, finance, or independent living and community integration; and capacity to offer disability and health coursework.

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References

1. Brault, MW. Americans With Disabilities: 2010. Current Population Reports P70-131. Washington, DC: US Census Bureau; 2012. http://www.census.gov/prod/2012pubs/p70-131.pdf [Accessed August 21, 2013]
2. Centers for Disease Control and Prevention. DATA2010: The Healthy People 2010 Database. Hyattsville, MD: Centers for Disease Control and Prevention; 2010. http://wonder.cdc.gov/data2010/focus.htm [Accessed August 28, 2013]
3. Centers for Disease Control and Prevention. Disability and Health Data System (DHDS). Atlanta, GA: Centers for Disease Control and Prevention; 2012. http://dhds.cdc.gov [Accessed December 26, 2012]
4. Rosenstock L, Helsing K, Rimer BK. Public health education in the United States: then and now. Public Health Rev. 2011; 33(1):39–65.

5. Council on Education for Public Health. Accredited Schools and Programs. Silver Spring, MD: Council on Education for Public Health; 2011. http://ceph.org/accredited [Accessed March 15, 2011]
6. Tanenhaus RH, Meyers AR, Harbison LA. Disability and the curriculum in US graduate schools of public health. Am J Pub Health. 2000; 90(8):1315–1316. [PubMed: 10937018]
7. Field, MJ.; Jette, AM., editors. Institute of Medicine. The Future of Disability in America. Washington, DC: National Academies Press; 2007. p. 162-182.http://www.nap.edu/catalog.php?recordid=11898 [Accessed October 10, 2013]
8. National Council on Disability. The Current of State of Health Care for People With Disabilities. Washington, DC: National Council on Disability; 2009. http://www.ncd.gov/publications/2009/Sept302009#Gaps [Accessed October 10, 2013]
9. US Department of Health and Human Services, Office of the Surgeon General. The Surgeon General's Call to Action to Improve the Health and Wellness of Persons With Disabilities. Washington, DC: Office of the Surgeon General; 2005. http://www.ncbi.nlm.nih.gov/books/NBK44667 [Accessed October 10, 2013]
10. US Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2010: Disability and Secondary Conditions. Washington, DC: Office of Disease Prevention and Health Promotion; 2010. http://www.cdc.gov/nchs/data/hpdata2010/hp2010final_review_focus_area_06.pdf [Accessed March 15, 2013]
11. US Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2020: Disability and Health (Objective DH-3). Washington, DC: Office of Disease Prevention and Health Promotion; 2010. http://www.healthypeople.gov/2020/topicsobjectives2020/pdfs/disability.pdf [Accessed March 15, 2013]
12. Council on Education for Public Health. Data on CEPH Accreditation. Silver Spring, MD: Council on Education for Public Health; 2012. http://ceph.org/assets/CEPHstatisticsFAQ.pdf [Accessed February 13, 2013]
13. Kirschner KL, Curry RH. Educating health care professionals to care for patients with disabilities. JAMA. 2009; 320(12):1334–1335. [PubMed: 19773571]
14. 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. http://www.ceph.org/pdf/SPH-Criteria-2011.pdf [Accessed November 1, 2011]
15. Commission on Dental Accreditation. Accreditation Standards for Dental Education Programs (Standard 2–23). Chicago, IL: American Dental Association; 2004. http://www.ada.org/sections/educationAndCareers/pdfs/currentpredoc/pdf [Accessed December 12, 2013]
16. Taylor, SJ.; Zubal-Ruggieri, R. Academic Programs in Disability Studies. Syracuse, NY: Syracuse University; 2012. http://disabilitystudies.syr.edu/resources/programsinds.aspx [Accessed March 21, 2013]
17. Symons AB, McGuigan D, Akl EA. A curriculum to teach medical students to care for people with disabilities: development and initial implementation. BMC Med Educ. 2009; 9:78. [PubMed: 20042110]
18. Lollar, DJ.; Andresen, EM., editors. Public Health Perspectives on Disability: Epidemiology to Ethics and Beyond. New York, NY: Springer Publisher; 2011.
19. Drum, C.; Krahn, G.; Bersani, H., Jr, editors. Disability and Public Health. Washington, DC: American Public Health Association; 2009.
20. Centers for Disease Control and Prevention, Disability and Health Program. Health Promotion for People With Disabilities, Module E. Atlanta, GA: Centers for Disease Control and Prevention; 2007. CDC RFA-DD07-702. http://www.grants.gov

TABLE 1

Percentage of US CEPH-Accredited MPH-Granting Graduate Public Health Schools and Programs That Responded "Yes" to Questions About Disability Content Within Course Offerings, 2011

Questions Asked	Schools (n = 34), n (%)	Programs (n = 44), n (%)	Total (N = 78), n (%)	*P* [a]
Responded "yes" to at least one of questions 1–4	24 (71)	15 (34)	39 (50)	.003[b]
1. Does your public health school or program now have at least one graduate-level course dealing exclusively or comprehensively with disability?	11 (32)	8 (18)	19 (24)	.187
2. Does your public health school or program now have other graduate-level courses that deal substantially with disability (eg, courses on aging, or children with special health care needs)?	23 (68)	13 (30)	36 (46)	.001[b]
3. Does your public health school or program offer a graduate-level track or concentration in disability?	2 (6)	2 (5)	4 (5)	1.00
4. Does your public health school or program offer dual-degree or multidisciplinary program that highlight disability (eg, physical/occupation therapy, or physiatry)	5 (15)	3 (7)	8 (10)	.285
5. Does your public health school or program currently plan to increase coverage of topics related to disability?	9 (27)	12 (27)	21 (27)	1.00

Abbreviations: CEPH, Council on Education for Public Health; MPH, master of public health.

[a] *P* values were calculated using the Fisher exact test.

[b] Statistically significant.

TABLE 2

Percentage of US CEPH-Accredited MPH-Granting Graduate Public Health Schools and Programs That Responded "Yes" to Questions About Disability Content Within Course Offerings, 1999 and 2011

Questions Asked	1999 (n = 30),[a] n (%)	2011 (n = 34), n (%)	*P* [b]
Responded "yes" to at least one of questions 1–4	Not reported	24 (71)	Not comparable
1. Does your public health school or program[c] now have at least one graduate-level course dealing exclusively or nearly exclusively with disability? ["nearly exclusively" was changed to "comprehensively" in 2011]	18 (60)	11 (32)	.187
2. Does your public health school or program[c] now have other graduate-level courses that deal substantially with disability (eg, courses on aging, or children with special health care needs)?	22 (73)	23 (68)	.785
3. Does your public health school or program[c] offer a graduate-level track or concentration in disability?	4 (13)	2 (6)	.407
4. Does your public health school or program[c] offer dual-degree or multidisciplinary program that highlight disability (eg, physical/occupation therapy or physiatry)	3 (10)	5 (15)	.713
5. Does your public health school or program[c] currently plan to increase coverage of topics related to disability?	9 (30)	9 (27)	.787

Abbreviations: CEPH, Council on Education for Public Health; MPH, master of public health.

[a] The 1999 data are from a previously published assessment.[6]

[b] *P* values were calculated using the Fisher exact test.

[c] The phrase "school or program" used in the 1999 questions referred to school programs, not CEPH-accredited public health programs.