



Commentary

A call to action: Preparing a disability-competent health care workforce



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ABSTRACT

People with disabilities make up the largest minority population in the country, yet our health care workforce is unprepared to meet their needs. Two initiatives – and the Alliance for Disability in Health Care Education's Disability Competencies and the Resources for Integrated Care Disability-Competent Care model-provide essential tools to build a health care workforce prepared to meet the health needs of people with disabilities. We note gaps in health education and continuing education curricula, document barriers to progress, and demonstrate how the two initiatives offer a clear roadmap to effect systemic change. Finally, we issue a call to action for health care education, practice, and research to ensure a health care workforce prepared to provide quality health care to people with disabilities.

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Introduction

People with disabilities have high rates of chronic health conditions yet poorer access to health care compared to people without disabilities.^{1,2,3} They report high rates of unmet health care needs, barriers to accessing health care, and dissatisfaction with the health care they receive compared to people without disabilities.⁴

The U.S. health care system is insufficiently prepared to meet the needs of people with disabilities.⁵ Because health care providers across all disciplines will likely encounter people with disabilities in their practice, it is important for every clinician to be comfortable and competent in treating this population.^{5,6,7,8} Improvements in population health and health equity depend on training the health care workforce to provide care across populations.⁹ Without explicit disability training, health care providers are likely to view disability as a negative health outcome and to hold low expectations for the function and quality of life of individuals with disabilities. Disability training can help providers shift from viewing disability as an illness to be prevented or treated to seeing disability in terms of functional limitations that may or may not limit an individual's health and quality of life. Training can address

improving communication and providing accessible, holistic assessment and treatment to individuals with disabilities. Quality of care will improve when providers learn to function as members of an interdisciplinary team in which the person with a disability drives treatment decisions.

The need for disability training for health care providers is well established. Two Surgeons General's reports,^{10,11} two National Academy of Sciences reports,^{12,13} the National Council on Disability Report,¹⁴ and the World Health Organization World Report on Disability⁴ all called for disability training for health care professionals. Some disability and health researchers joined the call for inclusion of disability content in health education to ensure that students across health disciplines gain essential competencies to appropriately care for people with disabilities.^{15,16} Despite these calls, many health care providers remain underprepared to meet the health care needs of people with disabilities.^{5,8}

The term “competency” refers to desired knowledge, skills, and behaviors required to successfully perform the health care role. These expectations are then used to develop learning objectives and corresponding curricula designed to produce the requisite knowledge, values, and skills in the learners to achieve these competencies.¹⁷

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Researchers in interprofessional health education identified several barriers to including disability content in health education curricula. They cite the reliance on local advocates to champion disability content as the biggest barrier.⁷ Time constraints and lack of resources to address disability were noted, particularly in light of the many competing areas for representation in the curriculum.^{7,18} Further, school accreditation requirements and professional licensure examinations do not measure disability competence. In addition to these barriers, we suggest that the lack of systemic organizing framework has impeded the development of disability competence across the health care workforce. We propose the following broad milestones toward disability-competent care.

1. Collectively decide what health care providers need to understand about disability (core competencies) in order to provide quality health care to individuals with disabilities.
2. Change training and licensure requirements to ensure interprofessional health care students receive disability training.
3. Develop evidence-based curricular elements to convey disability competencies.
4. Develop robust protocols to evaluate disability competence in students and health care providers.
5. Evaluate the impact of disability training on the delivery of disability-competent care and the impact of disability-competent care on health outcomes for individuals with disabilities.
6. Explore health care delivery models and incentive structures to promote the provision of disability-competent care within health systems and with health insurance providers.

In this paper, we share two complementary efforts toward achieving the first milestone: that of determining what is essential for health care providers to understand about disability in order to provide quality healthcare to individuals with disabilities. The disability population is diverse, spanning all ages and types of functional limitation (mobility, sensory, mental health, developmental), making it difficult to coalesce around common disability competencies. These two initiatives address interprofessional health care training, targeting students and health care providers across health professions including medicine, nursing, social work, etc. The first initiative established a consensus set of learning objectives, or core competencies, that are essential to providing quality health care to people with disabilities. The second initiative focused on the continuing education training needs of practicing health care providers in supporting people with disabilities. Although independently developed with slightly different objectives, these two initiatives share the goal of improving health care for people with disabilities by educating the health care workforce. These initiatives serve as a necessary first step toward promoting disability content in health care education and practice.

Disability training for future health care professionals

To guide disability training for future health care providers, the Alliance for Disability in Health

To access a copy of the Core Competencies on Disability for Health Care Education, please visit: <https://go.osu.edu/disabilitycorecompetencies>.

Competencies for Health Care Education” (Disability Competencies) in 2015. The Alliance is a not-for-profit organization comprised of interdisciplinary health educators committed to integrating disability content and experiences into health care education and training programs. The Disability Competencies provide a set of learning objectives targeting specific, measurable skills and behaviors required to provide quality health care to individuals with disabilities. Disability stakeholders, including people with disabilities, disability advocates, family members, disability and health professionals, and interprofessional health educators, participated in a study to refine and come to a consensus on the Disability Competencies. The Delphi study involved engaging a group of stakeholders to review and offer feedback on the draft competencies. The competencies were revised based on this feedback and sent back to stakeholders for a second round of reviews. This Delphi approach was modified to include health educators in the second round of feedback.¹⁹ After two iterations of revisions, an overwhelming majority (90%) agreed or strongly agreed that the Disability Competencies addressed the range of knowledge, attitudes, and skills necessary to care for people with disabilities and that the competencies were important (95%) and clear (90%). Importantly, stakeholders reported that the competencies were applicable to the care of people across the full range of disability types (83%) and were relevant to education across health disciplines (91%). Based on this feedback, the research team determined that consensus was reached. The Disability Competencies provide a roadmap to guide the development and evaluation of disability curriculum in interprofessional health education programs.

Disability training for practicing health care professionals

The Disability-Competent Care (DCC) model provides a structure to deliver training in disability competence for the existing health care workforce. The Centers for Medicare & Medicaid Services' Medicare-Medicaid Coordination Office developed the model as part of a larger effort to support health plans, health systems, and providers to expand their capacity to deliver integrated care to people dually eligible for Medicare and Medicaid. Integrated care refers to efforts aimed to coordinate across acute, primary, behavioral health, and long-term care. Many people with disabilities are dually eligible for Medicare and Medicaid. Between 56 and 75% of people dually eligible for Medicare and Medicaid have disabilities^{20,21} and 70% report three or more chronic conditions.²² People who are dually eligible experience poor health outcomes, lack of routine screenings, higher readmissions, poor disease management, communication difficulty with health care providers, and high health care spending.²³ While the DCC model was developed in response to the need for better quality care for individuals dually eligible for Medicare and Medicaid, it has broader application to prepare the workforce to support all people with disabilities.

The DCC model addresses the whole person, not just his or her diagnosis or condition. People with disabilities and experts in service provision, advocacy, and policy informed the model alongside individuals from pioneering managed care programs serving people with disabilities (Community Mental Health Group/Commonwealth Care Alliance, Massachusetts; Community Health Partnership, Wisconsin; and Independence Care System, New York). Model development employed the following process:

1. Defining the values and purpose of disability-competent care;
2. Identifying and describing the main components of disability-competent practice as delivered by health care providers and health plans;

Care Education (the Alliance) drafted the “Core Disability

3. Developing detailed knowledge and action steps for providers and plans to achieve competence associated with each core component;
4. Field testing with several provider and plan entities; and
5. Refining the model based on input from external reviewers.

Several training resources are available promoting the concepts and implementation of the DCC model on the *Resources for Integrated Care* website. Resources include webinars, fact sheets, briefs, and tools. Two self-assessment tools provide practical guidance for providers and health plans on incorporating DCC into care practices: 1) the Disability-Competent Care Self-Assessment Tool (DCCAT) assists health plans and health systems to evaluate their current ability to meet the needs of individuals with functional limitations and to identify strategic opportunities for improvement; and 2) the DCC-Self-Paced Training Assessment Review Tool (DCC-START) further assists by directing providers to tailored resources to meet their unique training needs.

To access a DCC resource and training, please visit the RIC website: <https://www.resourcesforintegratedcare.com/>

Alignment of disability competencies and DCC model

Although developed independently, the core values and learning objectives of Disability Competencies and the DCC model align closely. Both the Disability Competencies and the DCC model share the central value of supporting person-centered, quality health care.

To further understand content alignment, we (C.N.B. and S.H.) developed a point-by-point crosswalk aligning the learning objectives embedded in the DCC model pillars with the competencies and sub-competencies in the Disability Competencies (see [Table 1: Specific Areas of Alignment](#)). Both models address interprofessional health education training on individuals with newly acquired, progressing, and stable disabling conditions. Both emphasize the importance of recognizing disability as a demographic characteristic as opposed to a negative health outcome. Professionalism and person-centered care in the context of disability as a marginalized cultural identity is common to both models. Accessible health care as a civil right and health care access barriers are addressed at procedural, physical, attitudinal, communication and programmatic levels. Both models address developing and integrating responsive, team-based primary care including the delivery of preventative care, managing common secondary conditions, and identifying abuse, neglect and exploitation. DCC pillar 5 and sub-competencies within Disability Competencies highlight the importance of identifying care coordination needs across the spectrum of services, care transitions, and leveraging community supports. Although long-term services and supports fell outside the health care scope of the Disability Competencies, the importance of community supports, care coordination, and referrals needed to establish flexible long-term services and community supports are addressed. Finally, both models address behavioral health as a critical component of integrated health care.

[Fig. 1](#) illustrates the structure of the Disability Competencies and the DCC model. The Disability Competencies comprise specific learning objectives across six core competencies, as well as guiding principles and values that underlie the core disability competencies. The seven DCC model pillars provide an organizational context for DCC resources and training materials. Developed for

pre-service health education, the Disability Competencies form the roots of the tree while the DCC pillars form the branches into different aspects of continuing education in health care delivery. Together they offer the key organizing structure to inform disability content in both education and practice.

Call to action

The time is now to press for systemic change toward disability competence in interprofessional health education. Two initiatives, a broad consensus on core disability competencies and the DCC model, establish a foundation, a place to begin to effect real change toward a disability-competent health care workforce. Innovative disability curricula, including the DCC training, have been developed, piloted, and published for training in medicine,^{24–27} nursing,^{28,29} social work³⁰ and allied health professionals³¹ and yet, disability content is largely absent from health care training programs.^{7,8} Systemic changes are needed to create a disability-competent health care workforce. We believe that disability content should be required for accreditation of all health care training programs. We believe that disability competence should be evaluated (e.g., on board exams) as a criterion for promotion and graduation of health care training programs. We believe that licensure boards should require disability competency for attaining and maintaining professional licensure. Finally, we believe innovative incentive structures and integrated care elevate the potential for the delivery of disability-competent care. Health equity for people with disabilities depends on these bold changes.

We call for changes to health care education, health provider practices, and research to take the next steps. We offer the following feasible action steps toward a disability-competent health care workforce.

1. Education: Ensure all health care students receive disability training.
 - a. We call on health care educators and training leaders to embed disability competencies in program learning objectives and integrate disability content in existing curricula. Anticipate resistance on the basis that the curriculum is very full with many competing content demands. However, disability competencies align closely with current educational goals and standards and the best way to integrate disability content is to fold it into existing discussions of health disparities, cultural competence, interprofessional care, and social determinants of health. Educators must have discretion of how to incorporate disability-learning objectives into their health education program. The disability competencies framework will enable all schools to consider where different elements are addressed, where gaps exist, and how to generate novel combinations of competencies within the curriculum.
 - For example, the Council on Social Work Education, the accrediting body for social work, included disability as an aspect of diversity in the 2015 Educational and Policy Standards. Resources for Integrated Care collaborated with this accrediting body to map measurable disability learning objectives to established Council for Social Work Education competencies and providing specific teaching resources to guide disability training in social work education. The *Curricular Resource on Issues of Disability and Disability Competent-Care* guide and supporting materials, including a video introducing the guide, are available online.³²
 - In a similar vein, alignment between the Disability Competencies and the core competencies for interprofessional

Table 1
Demonstrates specific alignment between the Disability Competencies and the DCC Pillars.

Core Topic	Disability Competency	DCC Pillar
Importance of recognizing disability as a demographic characteristic as opposed to a negative health outcome	1	1
Professionalism and person-centered care in the context of disability as a marginalized cultural identity	2	2
Accessible health care as a civil right; and access barriers occurring at procedural, physical, attitudinal, communication and programmatic levels	3	3
Developing and integrating responsive, team-based primary care including the delivery of preventative care, managing common secondary conditions, and identifying abuse, neglect and exploitation	5,6	4
Importance of identifying care coordination needs across the spectrum of services	4.5	5
Facilitating care transitions	6.1	5
Leveraging community supports	4.5, 5.1, 5.2, 6.4, 6.5	5,6
Addressing behavioral health needs	5.10	7

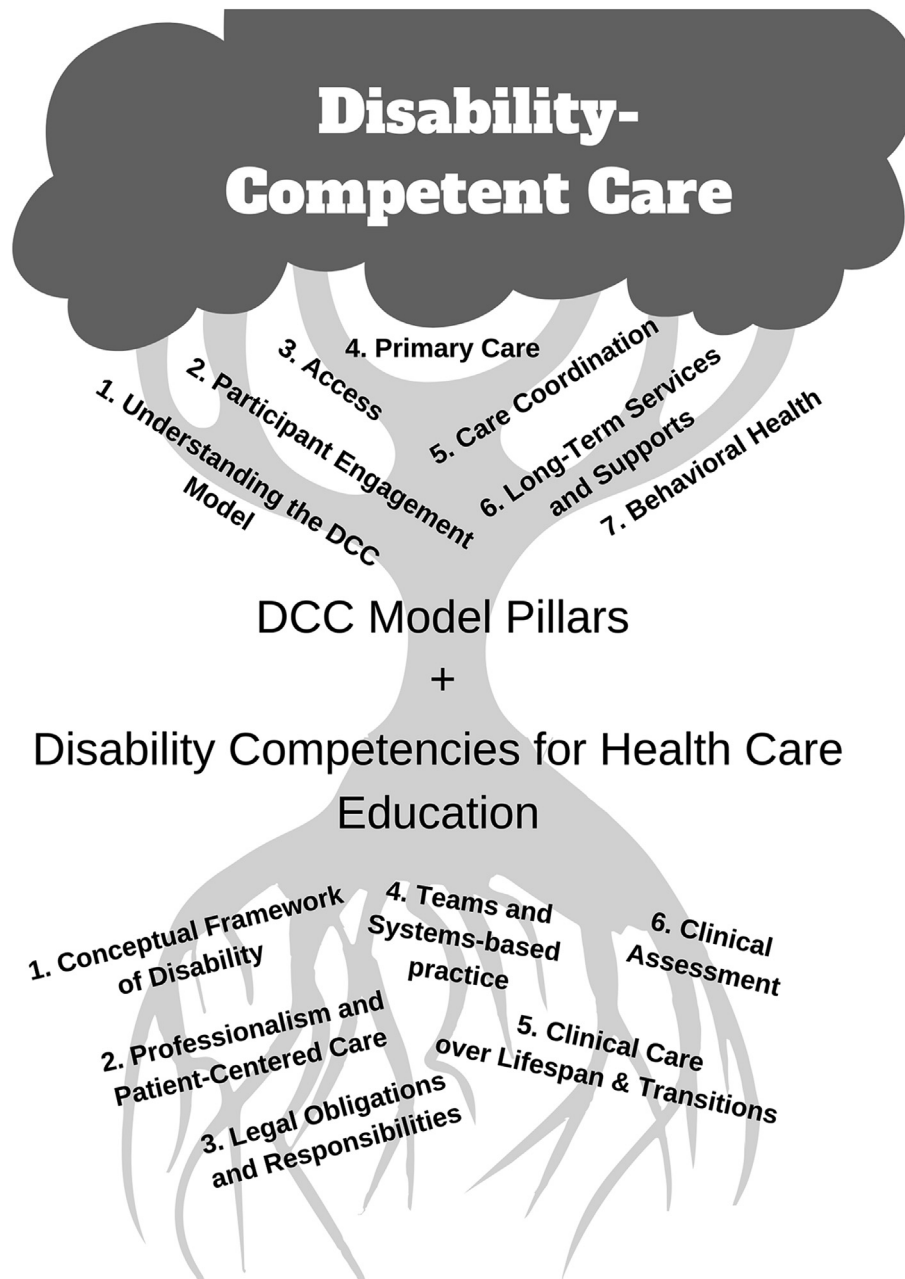


Fig. 1. Disability competencies and disability competent care model.

collaborative practice and for medical education will facilitate the inclusion of disability standards in professional training.³³

- Guided by the Disability Competencies, The Ohio State University College of Medicine introduced a disability thread, weaving disability content into all four years of its undergraduate medicine curriculum.
- b. We call on members and leaders of professional health education associations to join the early adopters highlighted below in endorsing the disability competencies and resolving to include disability objectives in health profession accreditation and licensure requirements. If disability competence were required for program accreditation and health provider licensure, disability content would be systematically delivered to all health care students. We call on the following associations of influence to take action: Association of American Colleges of Medicine, Association of American Colleges of Nursing, American League of Nursing, American Psychological Association, and the Interprofessional Education Collaborative.
 - For example, American Speech-Language-Hearing Association and the Accreditation Council for Education in Nutrition and Dietetics endorsed the disability competencies and resolved to increase attention to health inequities of people with disabilities and to the importance of graduate and post-graduate disability training for health professionals.
 - Similarly, the American Medical Association resolved to support efforts to develop and implement curriculum on the care and treatment of people with developmental disabilities (HOD Resolution A-17 315).
 - The Commission on Dental Accreditation approved standards that will require all U.S. dental schools to train students to care for individuals with intellectual and developmental disabilities beginning in 2020.
- c. We ask members and leaders of health and allied health professional associations to promote disability-competent care by providing disability continuing education training at professional meetings and through links to online continuing education training on disability such as *Resources for Integrated Care*.
- 2. Practice: Increase disability-competent care among health care providers.
 - a. We call on health care providers to develop or adapt your own disability-competent practices and training.
 - Health plans and providers can access a suite of free products on the *Resources for Integrated Care* (RIC) website supporting disability-competent care including topic summaries, resource documents, informational webinars, and self-assessment tools. Free continuing education credits are available for some webinars. As mentioned earlier, two assessment instruments are available through RIC to assess the training and DCC capabilities or health plans and organizations.
 - There is growing interest among health plans and providers in supporting individuals with disabilities, however, organizational and financial barriers often hinder the pace of change. Appropriate incentives implemented by health plans via their provider networks could help address these barriers.
 - b. We call on health insurance plans to incentivize disability-competent care practices.
 - Health plan participants were at the center of the Provider Accessibility Initiative, an innovative partnership between the Centene Corporation and the National Council on

Independent Living to improve access to physically and programmatically accessible health care and services for individuals with disabilities and their companions. The initiative, which won the CMS 2019 Health Equity Award, removes disability-related barriers in healthcare through on-site accessibility reviews of provider offices, competitive grants to providers, and listing disability access information in provider directories.

- The California Department of Healthcare Services mandates a physical accessibility review requiring all Medicaid managed health plans in the state to conduct provider reviews using a standardized tool.³⁴ The Inland Empire Health Plan implemented an Accessible Clinics Project identifying clinics in need of improved accessibility. Based on these data, grants were awarded to providers for the purchase of accessible exam tables and weight scales in geographical regions lacking accessible health care. The plan also conducted non-punitive site-visits to providers to promote accessibility.
- 3. Research: Establish a disability-competent care evidence base.
 - a. We call on researchers to evaluate the impact of disability training on the provision of disability-competent care and the relationship between disability competent care and the health and health care outcomes of patients with disabilities.
 - b. Rigorous evaluation will guide revisions- and improvements to-the Disability Competencies and the DCC model.

Conclusion

A disability-competent workforce will deliver higher quality health care to individuals with disabilities by ensuring person-centered support, greater access to care, more appropriate health screening and follow up, team-based coordinated care, and improved responsiveness to care needs. The Disability Competencies and the DCC model provide a foundation and road map towards a disability-competent health care workforce. The time is now to leverage these resources to ensure that all health care and allied professionals are prepared to meet the health needs of people with disabilities.

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Declaration of competing interest

The authors have no conflicts of interest to report.

References

1. Armour BS, Swanson M, Waldman HB, Perlman SP. A profile of state-level differences in the oral health of people with and without disabilities. In: 2004. *Public Health Reports*. vol. 123. 2008:67–75. the U.S.
2. Reichard A, Stolze H, Fox MH. Health disparities among adults with physical disabilities or cognitive limitations compared to individuals with no disabilities in the United States. *Disability and Health Journal*. 2011;4:59–67.
3. Haverkamp SM, Scott HM. National health surveillance of adults with disabilities, adults with intellectual and developmental disabilities, and adults with no disabilities. *Disability and Health Journal*. 2015;8:165–172.
4. World Health Organization. *World Report on Disability 2011*. Geneva: Switzerland: World Health Organization; 2011.
5. Ankam NS, Bosques G, Sauter C, et al. Competency-based curriculum development to meet the needs of people with disabilities: a call to action. *Acad Med*.

- 2019;94(6):781–788.
6. Agaronnik N, Campbell EG, Ressalam J, Iezzoni LI. Exploring issues relating to disability cultural competence among practicing physicians. *Disability and Health Journal*. 2019:1–8.
 7. Seidel E, Crowe S. The state of disability awareness in American medical schools. *Am J Phys Med Rehabil*. 2017;96:673–676.
 8. Trollor JN, Eagleson C, Turner B, et al. Intellectual disability health content within nursing curriculum: an audit of what our future nurses are taught. *Nurse Educ Today*. 2016;45:72–79.
 9. Frenk J, Chen L, Bhutta ZA, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *Lancet*. 2010;376:1923–1958.
 10. U.S. Department of Health and Human Services. *The Surgeon General's Call to Action to Improve the Health and Wellness of Persons with Disabilities*. Washington, DC: U.S.; 2005.
 11. U.S. Public Health Service. *Closing the Gap: A National Blueprint for Improving the Health of Individuals with Mental Retardation*. Washington, DC: U.S.; 2001.
 12. Institute of Medicine. *The Future of Disability in America*. Washington, DC: The National Academies Press; 2007. <https://doi.org/10.17226/11898>. Retrieved from.
 13. Yee S, Breslin ML, Goode TD, et al. *Commissioned Paper: Compounded Disparities Health Equity at the Intersection of Disability, Race, and Ethnicity*. Washington, DC: National Academies of Sciences; 2018. Engineering, and Medicine. Retrieved from <http://nationalacademies.org/hmd/Activities/SelectPops/HealthDisparities/Commissioned-Papers/Compounded-Disparities.aspx>.
 14. National Council on Disability. *National Disability Policy: A Progress Report*. Washington, DC: U.S.; 2009.
 15. Shakespeare T, Iezzoni LI, Groce NE. Disability and the training of health professionals. *Lancet*. 2009;374:1815–1816.
 16. Smeltzer SC, Dolen MA, Robinson-Smith G, Zimmerman V. Integration of disability-related content in nursing curricula. *Nurs Educ Perspect*. 2005;26:210–216.
 17. Gruppen LD, Mangrulkar RS, Kolars JC. The promise of competency-based education in the health professions for improving global health. *Hum Resour Health*. 2012;10:43.
 18. Ogden L, McAllister C, Neely-Barnes S. Integration of disability content into social work education. *J Soc Work Disabil Rehabil*. 2017;16:361–376, 3,4.
 19. Boulkedid R, Abdoul H, Loustau M, Sibony O, Albeti C. Using and reporting the delphi method for selecting healthcare quality indicators: a systematic review. *PLoS One*. 2011;6, e20476.
 20. Centers for Medicare & Medicaid Services Office of Minority Health. How does disability affect access to health care for dual eligible beneficiaries? Data highlight. No 17. Retrieved from https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/Data-Highlight_How-Does-Disability-Affect-Access-to-Health-Care-for-Dual-Eligible-Beneficiaries.pdf; 2019.
 21. Medicaid and CHIP Payment Access Commission. Dually eligible beneficiaries. Retrieved from <https://www.macpac.gov/topics/dually-eligible-beneficiaries/>; 2019.
 22. Medicare and Medicaid Coordination Office. Report to congress. Retrieved from <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/Downloads/FY-2018-Report-to-Congress.pdf>; 2018.
 23. Office of the Assistant Secretary for Planning and Evaluation. Report to Congress: social risk factors and performance under Medicare's value-based purchasing programs. Retrieved from <https://aspe.hhs.gov/pdf-report/report-congress-social-risk-factors-and-performance-under-medicare-value-based-purchasing-programs>; 2016.
 24. Iezzoni LI, Long-Bellil LM. Training physicians about caring for persons with disabilities: "Nothing about us without us!". *Disability and Health Journal*. 2012;5:136–139.
 25. Long-Bellil LM, Robey KL, Graham CL, Minihan PM, Smeltzer SC, Kahn P, Alliance for Disability in Health Care Education. Teaching medical students about disability: the use of standardized patients. *Acad Med*. 2011;86(9):1163–1170.
 26. 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(1):78.
 27. Woodard LJ, Haverkamp SM, Zwygart KK, Perkins EA. An innovative clerkship module focused on patients with disabilities. *Acad Med*. 2012;87(4):537–542.
 28. Thompson TLC, Emrich K, Moore G. The effect of curriculum on the attitudes of nursing students toward disability. *Rehabil Nurs*. 2003;28(1):27–35.
 29. Seccombe JA. Attitudes towards disability in an undergraduate nursing curriculum: the effects of a curriculum change. *Nurse Educ Today*. 2007;27(5):445–451.
 30. Meekosha H, Dowse L. Integrating critical disability studies into social work education and practice: an Australian perspective. *Practice*. 2007;19(3):169–183.
 31. Shakespeare T, Iezzoni LI, Groce NE. Disability and the training of health professionals. *Lancet*. 2009;374(9704):1815–1816.
 32. The Resources for Integrated Care Disability-Competent Care Curriculum Workgroup in Collaboration With the CSWE Council on Disability and Persons With Disabilities & Center for Diversity and Social & Economic Justice. Curricular resource on issues of disability and disability-competent care. Retrieved from <https://www.cswe.org/Centers-Initiatives/Centers/Center-for-Diversity/Educator-Resource/December-2018>; 2018.
 33. Ohio Disability and Health. Disability competencies align with IPEC competencies. Retrieved from <https://nisonger.osu.edu/wp-content/uploads/2018/07/IPEC-Disability-crosswalk.pdf>; 2017.
 34. California Department of Health Care Services, Medi-Cal Managed Care Division. Physical accessibility review survey. Retrieved from <https://www.ccah-alliance.org/PReview/PAR-tool-2011.pdf>; 2011.