Addressing Health Inequities through Title VII Training Program

Training Clinicians to Close the Gaps in Health Equity

Advisory Committee on Training in Primary Care Medicine and Dentistry

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HRSA
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Advisory Committee on Training in Primary Care Medicine and Dentistry (ACTPCMD)

Addressing Health Inequities through Title VII Training Programs:

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Twentieth Annual Report
to the
Secretary of the United States
Department of Health and Human Services
and the
Congress of the United States

January 2023

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The views expressed in this report are solely those of the Advisory Committee on Training in Primary Care Medicine and Dentistry and do not represent the perspectives of the Health Resources and Services Administration nor the United States Government.

Authority

The Advisory Committee on Training in Primary Care Medicine and Dentistry (ACTPCMD) is a Federal advisory committee under the auspices of the Health Resources and Services Administration (HRSA), an agency of the U.S. Department of Health and Human Services (HHS). HRSA is the primary Federal agency for improving access to health care by strengthening the health care workforce, building healthy communities, and achieving health equity. The ACTPCMD is authorized by sections 222 and 749 of the Public Health Service Act (PHSA) (42 U.S.C. §§ 271a, 749), as amended by section 5303 of the Patient Protection and Affordable Care Act (ACA).

The ACTPCMD was established under the authority of section 748 of the 1998 Health Professions Education Partnerships Act. The ACTPCMD provides advice and recommendations on policy and program development to the Secretary of the U.S. Department of Health and Human Services (Secretary) and is responsible for submitting an annual report to the Secretary and Congress concerning the activities authorized under sections 747 and 748 of the PHSA, as amended. Reports are submitted to the Committee on Health, Education, Labor, and Pensions of the Senate and the Committee on Energy and Commerce of the House of Representatives. In addition, the ACTPCMD develops, publishes, and implements performance measures and longitudinal evaluations, as well as recommends appropriations levels for programs authorized under Part C of Title VII of the PHSA, as amended.

Committee Members

Mark D. Schwartz, MD
Professor and Vice Chair
Department of Population Health
NYU School of Medicine
New York, NY

Jason M. Spangler, MD, MPH
Executive Medical Director and Head, Global
    HTA Policy Strategy & Engagement
Global Government Affairs & Policy
Amgen, Inc.
Washington, DC

Wanda H. Thomas, MD, FAAP
Associate Professor
Department of Pediatrics
Pediatric Hospitalist
AHEC Program Director
Louisiana State University Health
Shreveport, LA

Louise T. Veselicky, DDS, MDS
Associate Vice President for Academic Affairs
West Virginia Health Sciences Center
Morgantown, WV

Federal Staff

Shane Rogers
Designated Federal Official
Division of Medicine and Dentistry
Bureau of Health Workforce
Health Resources and Services Administration

Jennifer Holtzman, DDS, MPH
Subject Matter Expert
Dental Officer
Bureau of Health Workforce
Health Resources and Services Administration

Al Staropoli
Federal Contractor/Technical Writer
President, Medical Communications and Marketing

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Sincerely,

Sandra Snyder

Sandra M. Snyder, DO
Chair, ACTPC

Executive Summary

The goal of many institutions in our health care system is to help individuals live longer and achieve better health. Many strategies have been developed over the years to achieve this, including prevention, patient education, eating a healthy diet, being physically active, and reducing excessive consumption of tobacco and alcohol. Nonetheless, differences in health outcomes are still observed across different communities including by race, ethnicity, gender, ability, age, class, sexual orientation, and gender identity.

These health differences (or health disparities) in outcomes are so prevalent and persistent that a significant amount research has been conducted beyond clinical care. Some of the current research indicates that closing the gap in disparities will not happen solely by opening more hospitals or clinics.

In fact, some models—such as the one developed by the County Health Rankings & Roadmaps—posit that medical care only accounts for 20% of the modifiable contributors to a population's healthy outcomes. The other 80% are related to factors such as physical environment, health behaviors, social factors, and economic factors. This would imply that improving these factors for all groups could have a significant impact on health.

Many of the above factors can be improved by improving health equity, which can be defined as "the absence of disparities or avoidable differences among socioeconomic and demographic groups or geographical areas in health status and health outcomes such as disease, disability, or mortality."

This report focuses on three areas of health equity: 1) Training the workforce in the treatment and care for patients with intellectual and developmental disabilities or other special health care needs, 2) Supporting the development and implementation of curricula to train the workforce on health equity and cultural humility, and 3) Encouraging the funding of applicants that successfully recruit learners and faculty from underrepresented backgrounds.

The research presented in this report demonstrates why further support is needed on the three topic areas:

- **Individuals with intellectual and developmental disabilities and/or special health care needs.** Training clinicians in treating and caring for individuals with developmental disabilities and/or special needs is necessary to address the significant health disparities still exist in these groups. Also, studies show that clinicians feel they are not well prepared to treat this population. A survey of 427 medical students in various schools showed that 81% reported that they did not receive any clinical training in the area of

treating patients with disabilities, and 56% felt inadequately prepared to treat this population. However, successful educational interventions do exist, and some have been found to improve the clinician's confidence, communication skills, and competence in the above areas.

- **Training the workforce on health equity and cultural humility.** Despite their importance, health equity, health disparities, and social determinants of health are not always integrated throughout medical or dental school curricula. Although curricula are modified over the years, the above topics are usually sidelined to provide room for the addition of scientific advances, new medical practices, and or other clinical-related content. Training in cultural humility—which has been defined as a process of self-reflection to understand personal and systemic biases, as well as privilege—can help to address health disparities. Studies show that clinicians do not feel competent in these areas. A survey of nearly 2,000 U.S. resident physicians in various specialties found that nearly 50% of them reported "having little or no training in understanding patients from different cultures (50%), how to identify patient's mistrust (56%), and relevant cultural customs (48%)."

- **Recruiting learners and faculty from underrepresented backgrounds.** Data show that the percentage of minority faculty is not representative of their presence in the general population. In 2018, *only 3.6% of full-time medical faculty were African American, 0.2% American Indian or Alaska Native, and 5.5.% of Latino or Spanish origin*. In contrast, the latest Census data estimates that 13.6% of the population identify as African American, 1.3% as American Indian or Alaska Native, and 18.9% as Hispanic or Latino. In addition*, only approximately 4% of the faculty identified in a survey as lesbian, gay, bisexual, or other (non-cisgender)*. However, national estimates showed that close to 10% of the U.S. population identifies as lesbian, gay, bisexual, or other.

The Committee believes that recommendations in these three areas—which are presented below—can foster health equity.

ACTPCMD Recommendations

Recommendation 1
ACTPCMD recommends that HRSA include specific language in Notices of Funding Opportunities (NOFOs) for Title VII Sections 747 and 748 primary care training programs that prioritize funding for the training of medical and dental trainees on the treatment and care of patients with Intellectual and Developmental Disabilities (IDD) and other Special Health Care Needs.

Recommendation 2
ACTPCMD recommends that HRSA include specific language in NOFOs for the Title VII, Sections 747 and 748 primary care training programs, that prioritizes the development and implementation of curriculum that includes health equity and cultural humility to improve the care provided to all individuals irrespective of race, ethnicity, disability, socioeconomic status, religion, gender identity, and sexual orientation, while respecting and recognizing the differences and value that each person brings.

Recommendation 3
To improve diversity within the future primary care workforce, ACTPCMD recommends that Title VII Sections 747 and 748 primary care training programs overtly and explicitly encourage the funding of applicants who successfully recruit learners and faculty from underrepresented backgrounds that better reflect the community of need, and place greater emphasis on specific funding factors currently available within Title VII Sections 747 and 748 authorizations.

Recommendation 4
ACTPCMD recommends that HRSA expand its workforce analysis to include all trainees of federally funded programs by implementing a longitudinal trainee tracking mechanism that uses all available data resources* to assess the numbers and percentages of trainees who have completed a program and are practicing primary care, and of those, how many serve underserved communities and vulnerable populations.

> *Rationale*
> HRSA currently lacks a longitudinal mechanism that tracks Title VII training program graduates beyond their funded training. In order to have a true community impact on population health, HRSA should also employ a longitudinal mechanism that captures interprofessional practice.
>
> *National Provider Identifier (NPI), Drug Enforcement Agency (DEA), American Medical Association (AMA) Masterfile, American Association of Medical Colleges (AAMC), AACOM, NCCPA, ADEA, Medicare and Medicaid (CMS), and other databases

Recommendation 5

ACTPCMD recommends that Congress award funding of Title VII, Sections 747 and 748, primary care training programs at $200 million to ensure the future primary care workforce receives the training and resources necessary to adequately care for the nation's most underserved and vulnerable populations.

> *Rationale*
> As appropriation levels for these programs have essentially remained stagnant for years, the above requested number is an inflation-adjusted calculation based on FY2022 appropriations. Currently available appropriations are inadequate to support the system changes necessary to provide the minimum quality of care expected from today's primary care workforce.

Patients with Intellectual and Developmental Disabilities or Other Special Health Care Needs

Intellectual and Developmental Disabilities and Special Health Care Needs

Intellectual and Developmental Disabilities (IDDs) generally begin in childhood and impact the intellectual, physical, and/or emotional development of the individual.[1] IDDs include diagnoses such as autism spectrum disorder, Down syndrome, and cerebral palsy, among various others. Symptoms associated with IDDs include language dysfunction and slowed acquisition of new knowledge/skills.[2] These and other impairments generally lead to increased health care utilization.[3]

While the prevalence of IDDs as whole has not been ascertained, the Centers for Disease Control and Prevention (CDC) estimate the prevalence of children aged 3-17 diagnosed with some *developmental disability* to be 6.99%. The prevalence of children ever diagnosed with an *intellectual disability* is estimated to be 1.48% among boys and 0.90% among girls.[4]

Individuals with Special Health Care Needs (SHCN) encompass a broader swath and can include those with asthma, diabetes, muscular dystrophy, blood disorders, and many other diagnoses that require health services of a type and amount that go beyond what is usually required by others.[5] HRSA estimates that approximately 14 million children have a SHCN.[6]

Individuals with IDDs and SHCN include both adults and children. Due to the large number of diagnoses under these two categories, their number is significant and thus, require a health care force that is ready and trained to treat this population. This is especially important during the transition from pediatric to adult care. More children with SHCN are surviving to adulthood. One study estimates that approximately 750,000 children in the U.S. with SHCN transition to adult care every year. However, less than half of children ages 12-17 indicate receiving adequate support and services for transition to adult care.[7]

Disparities in People with IDDs and SCHN

Health care disparities can lead to shorter life spans in adults with IDDs, partially due to a significantly higher rate of comorbidities in those with IDDs, such as diabetes, obesity, seizures, food allergies, skin problems, and problems of the gastrointestinal, nervous, immune, metabolic, and respiratory systems.[8]

People with intellectual disabilities experience poorer health and find it more difficult to find and pay for appropriate health care. Studies show that adults with disabilities are "four times more likely to report their health to be only fair or poor" than those without disabilities.[9] In the area of oral health, persons with disabilities have increased dental disease and more missing teeth than

the general population.[10] They are also more likely to have poor oral hygiene, periodontal disease, and dental caries compared with the general population.[11]

In addition, only 36.5% of severely disabled persons 15 years and over report visiting a dentist, compared to 53.4% without a disability.[12] The importance of oral health in an individual's overall health cannot be underestimated and has been discussed in depth in this Committee's 19th report to the Secretary of the and Human Services and Congress: *Supporting Dental Therapy through Title VII Training Programs: A Meaningful Strategy for Implementing Equitable Oral Health Care.*

Individuals with a physical, intellectual, or developmental disability, are also three times more likely to have arthritis, diabetes, and a heart attack and five times more likely to report a stroke, depression, and chronic obstructive pulmonary disease. Pregnant women with a disability have *11 times the risk of maternal death*. In addition, an intellectual disability is the second strongest predictor for COVID-19 death. Furthermore, for those living in rural areas a disability appears to worsen barriers to accessing care. As a result, significant health disparities are faced by the 61 million Americans living with a disability.[13]

Challenges Facing People with IDDs and/or SCHN

Both children and adults with IDDs and/or SHCN face specific challenges with respect to interacting with the health care system and advocating for their care. Adults with IDDs face challenges with health literacy and their ability to perceive health-related information. For instance, some may not be able to comprehend all the written information provided by their clinicians. Autistic adults in particular have noted difficulty in comprehending clinicians' instructions related to medication regimens and self-care. Patients may also struggle with understanding procedures and diagnoses.[14]

Communication difficulties are common in those with an intellectual disability—a study showed that 57.9% of individuals with an intellectual disability reported struggling with communication. These challenges include difficulty in understanding abstract language, linear thinking, verbal/nonverbal communication, and graphic symbol systems, and can range from mild to profoundly severe.[15]

Challenges with ineffective communication cuts both ways. It makes it more difficult for untrained clinicians to convey health care information effectively to patients regarding their diagnoses and care. And it also makes it more difficult for patients to convey important information to clinicians regarding their symptoms while taking the patient's medical history.[16,17]

In addition, the clinical environment may not always be adequate to accommodate the needs of patients with IDDs or SHCN. Some of the negative interactions reported by those with IDDs

included clinicians ignoring their needs or failing to make appropriate accommodations, such as waiting rooms that are sensory-appropriate or being labeled in stigmatizing ways.[18] Disabled individuals have reported dissatisfaction with personal experiences described as patronizing and disempowering when interacting with health care professionals.[19] Appropriate accommodations for these patients may include dimmer lighting and less crowded seating to decrease anxiety levels.[20]

Challenges Facing Clinicians Treating Patients with IDDs and/or SCHN

One of the challenges faced by clinicians when treating patients with IDDs and SHCN is the patient's increased level of medical complexity. Patients with IDDs and SHCN often have multiple comorbidities, which may require an extended initial assessment, adaptations to history taking (for patients with cognitive and communication deficits), challenges to performing physical examinations, and barriers to health promotion and chronic disease management.[21]

Clinicians are sometimes concerned about the amount of time it may take to treat just one patient living with an IDD. In addition, in states with Medicaid coverage, low reimbursement rates may reduce the availability of clinicians available to treat patients with disabilities.[22] Furthermore, many clinicians report not being properly trained to treat those with IDDs and/or SHCN. Because of these and other factors, individuals with IDDs or SHCN regularly face an uphill battle to find clinicians who are available and properly trained to treat them.[23]

Health Care Clinician Training and Competence

In 2004, a survey was sent out to 295 third- and fourth-year dental students in five U.S. dental schools rating their attitude and comfort level treating people with intellectual disabilities. Of those responding, nearly 50% reported having no clinical training for treating this population and close to 60% reported having "little to no confidence" in providing care to this group of individuals.[24]

A different questionnaire was sent out in 2009 to 198 deans of medical and dental schools, 1,628 directors of residency programs, and 427 medical students in various schools and programs. More than 50% of the deans responded that a curriculum for individuals with disabilities *was not* a major priority at their school. Over 50% of the dental residency programs and 75% of the medical residency programs reported providing 3 or less hours of didactic instruction and *no clinical training* for caring for patients with disabilities. In the same survey, *81% of the medical students stated they did not receive any clinical training in treating patients with disabilities, and 56% felt inadequately prepared to treat this population*. These surveys show there is a deficit in terms of priority and substantial clinician training to care for this population.[25]

Interventions to Educate Clinicians on Disability

Two significant reviews of interventions on educating health professionals about disabilities are found in the literature. One covers articles published between 2000 and 2011 and the other articles between 2012 and 2021. Together, these reviews cover close to 20 years of literature on interventions to educate clinicians on disability.

The first review (2000-2011) yielded 48 articles for inclusion. The articles described interventions in the USA (28), UK (12), Australia (1), France (1), Germany (1), Hong Kong (1), New Zealand (1), South Africa (1), Sweden (1), and Switzerland (1). The type of interventions varied and included: conventional lectures, lectures by disabled individuals or families, encounters with disabled individuals or families, visits or placements in the community, simulation exercises, and clinical experiences. Most of the interventions (43) involved pre-qualification training, although a few (5) focused on in-service training. The impact of these interventions was generally assessed through a pre/post intervention attitudinal change, knowledge test, and/or student feedback.[26]

Overall, the review found lectures by faculty to be less effective in changing attitudes than contact with disabled people themselves. Across studies, interventions that offered the opportunity to meet disabled or older people were associated with positive changes in attitudes. However, only 16% of the interventions in the review entailed a disabled person acting as an expert while teaching students. One-off interventions/lectures were found to be less effective than immersive workshops or a combination of activities, and time spent in clinical settings was positively valued, but did not always lead to attitudinal change.[27]

The second review (2012-2021) yielded 78 articles for inclusion. The articles described interventions in the USA (35), UK (13), and other countries (30). The review represented various types of health workers and the study had a specific focus on improving disability competency, knowledge, confidence, self-efficacy, curricula, or teaching methods. Most of the studies measured improvements in knowledge (57) and competence (42) as outcomes.[28]

Intervention types varied, with most of the studies using multiple modalities. Modalities included lectures/didactic methods (65) (e.g., videos, online courses, or multi-media formats), case studies (28), clinical encounters (26), simulations (24), teaching by people with disabilities (19), and placements, experiential learning, and community-based learning (25). Lectures were often provided along with another type of intervention (e.g., case study or simulation) to apply the knowledge learned from the lecture. However, only 24% of the studies invited a disabled individual to participate in the intervention as teachers. [29]

The variety of outcome measures used did not allow for a meta-analysis, although all studies reported improvement in their outcomes *in at least one of the outcomes examined*. Of the studies

that measured confidence, communication skills, and competence, 100% found an improvement in these outcomes. Studies that measured knowledge found an improvement in 94.7% of the studies measuring such outcome. Self-efficacy improved in 90.9% of the studies where it was measured, and attitude was improved in 80.6% of the studies where it was used as an outcome. The success of these interventions was in part due to their multi-pronged approach (75% of the studies used multiple teaching methods). However further work is needed in standardizing training outcome measures to compare the effectiveness of the training and evaluate the impact on patient outcomes.[30]

Exemplary Program

Rutgers School of Dental Medicine

The Rutgers School of Dental Medicine (RSDM) operates a facility in New Jersey called the [Delta Dental of New Jersey Special Care Treatment Center](#) which treats patients with IDDs and other special needs, including patients with autism, cerebral palsy, Alzheimer's, Down syndrome, geriatric patients, and those living with psychological disorders and severe dental phobia. The facility treats close to 4,500 patients annually from the regional area of Delaware, Pennsylvania, and New York. Delta Dental of New Jersey Special Care Treatment Center also acts as a training ground for dental students, as all RSDM undergraduate students are required to do a rotation in the clinic to learn how to treat patients with disabilities.[31, 32]

The training of predoctoral students at RSDM includes both didactic and clinical components. The training facility includes dental operatories, some of which are specially configured to accommodate large wheelchairs and stretchers. The operatories, unlike standard student treatment bays, are enclosed to allow for privacy and equipped with individual X-ray and nitrous oxide delivery units.[33]

Student lectures regarding care for IDD patients are spread throughout the four-year curriculum. They include: 1) Pediatric dentistry: 2 lecture hours on medical/dental issues in the most commonly encountered IDD populations, 2) Clinical communications: 2 lecture hours on specialized communication challenges and techniques for those with IDDs, 3) A problem-based learning seminar: 3 small-group seminar hours covering case-based assessment of people primarily with IDDs (e.g., medical history, consultations, diagnostics, triage, and treatment planning essentials), and 4) A fourth-year elective on specialized care dentistry. The elective encompasses 20 lecture hours of advanced topics in specialized care. In addition, all fourth-year students are required to complete a one-week training rotation. During the rotation they serve as direct care providers primarily to IDD patients, as well as the complex geriatric population.[34]

University of Pennsylvania

Another exemplar is the University of Pennsylvania's School of Dental Medicine. The university has developed a [Care Center for Persons with Disabilities](#) and within it, a Personalized Care Suite for patients with IDDs. The suite includes various features including a "quiet room" for those that are sensitive to light and sound; a wheelchair lift room that allows patients to remain in their wheelchair during procedures; and six closed operatories with adjustable lighting, blackout shades, and sliding doors for easy navigation. Every dental student rotates through the Center and learns from faculty providing care to patients with various conditions including autism, Alzheimer's disease, paralysis, movement disorders, complex medical conditions, and other conditions.[35]

Health Equity and Cultural Humility Curricula

Health Equity

Health equity can be defined as "the absence of disparities or avoidable differences among socioeconomic and demographic groups or geographical areas in health status and health outcomes such as disease, disability, or mortality."[36] While equity is the endpoint, the reality is that as a society we have not yet achieved equity for all groups. This can be attested to, in part, due to the existence of health disparities (or differences) among groups measured by incidence, prevalence, mortality, burden of disease, and other adverse health conditions.[37]

Health disparities go beyond race and ethnicity. Disparities also exist by sexual orientation, disability status, age, class, gender expression, geography, and other social domains. Disparities were clearly highlighted during the COVID-19 pandemic where communities of color and other underserved populations saw disproportionate rates of infection, hospitalization, and death.[38]

Unfortunately, health disparities go beyond COVID-19 and have been persistent for decades. Here are some examples: racial and ethnic minorities have increased rates of chronic disease, obesity, and premature death, compared with whites; the highest rate of infant mortality is found in African American mothers; suicide rates are the highest for male American Indians and Alaska Natives; murder is higher in transgender women than any other group; lesbians have higher rates of alcohol, tobacco, and drug use compared with heterosexual women; and rural counties have higher premature death rates than any other type of counties.[39]

In addition, one of the most alarming statistics are found in life expectancy. While rates for life expectancy have seen an overall increase for the last 70 years, significant differences still exist by race. For example, for more than 70 years African American men have had a lower life expectancy than White men and African American women have had a lower life expectancy than White women (see Figure 1).[40,41]
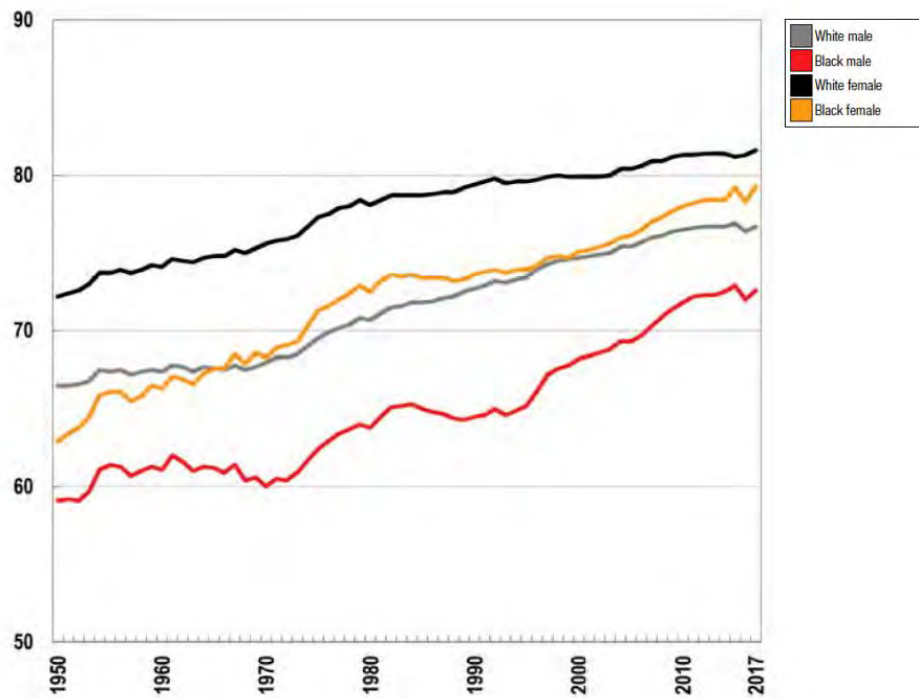
Figure 2. Life expectancy at birth in years by race and sex, 1950-2017. (Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, Office of Health Equity. *Health Equity Report 2019-2020: Special Feature on Housing and Health Inequalities*. 2020. Rockville, Maryland.).

The conditions that lead to health inequity can be diverse, interrelated, complex, systemic, persistent, and go beyond solely genetics. For example, poverty, education, structural racism, homophobia, provider implicit bias, physical environment, unsafe housing, public safety, governmental policies, disability, and many other factors can contribute to an individual's health. Many of these factors are not intractable and can be mitigated.[42,43] Some of these factors have been termed as "social determinants of health"—the conditions where people are born, grow, live, work, and age. Social determinants have a significant impact on one's health. In fact, some models estimate that medical care only accounts for 20% of the modifiable contributors to a population's healthy outcomes. The other 80% are related to the physical environment, social factors, health behaviors, and economic factors (see Figure 2).[44,45,46]

Despite their importance, health equity, health disparities, and social determinants of health are not always fully integrated into medical or dental school curricula. Although curricula are modified over the years, the above topics are usually sidelined to provide room for the addition of scientific advances, new medical practices, and or other clinical-related content.[47]

Nonetheless, the integration of this non-clinical content is so important that it has been recommended by the Association of American Medical Colleges (AAMC) as one of the quality

improvement and patient safety competencies across the learning curriculum. The AAMC presents health equity as part of one of five domains. The health equity domain involves 10 competencies, including: demonstrating knowledge of disparities, understanding bias, knowing how structural attributes may impact a patient's interaction with the health care system, collecting data on social determinants of health while taking a patient's history, and recognizing that system factors can influence health inequities.[48]
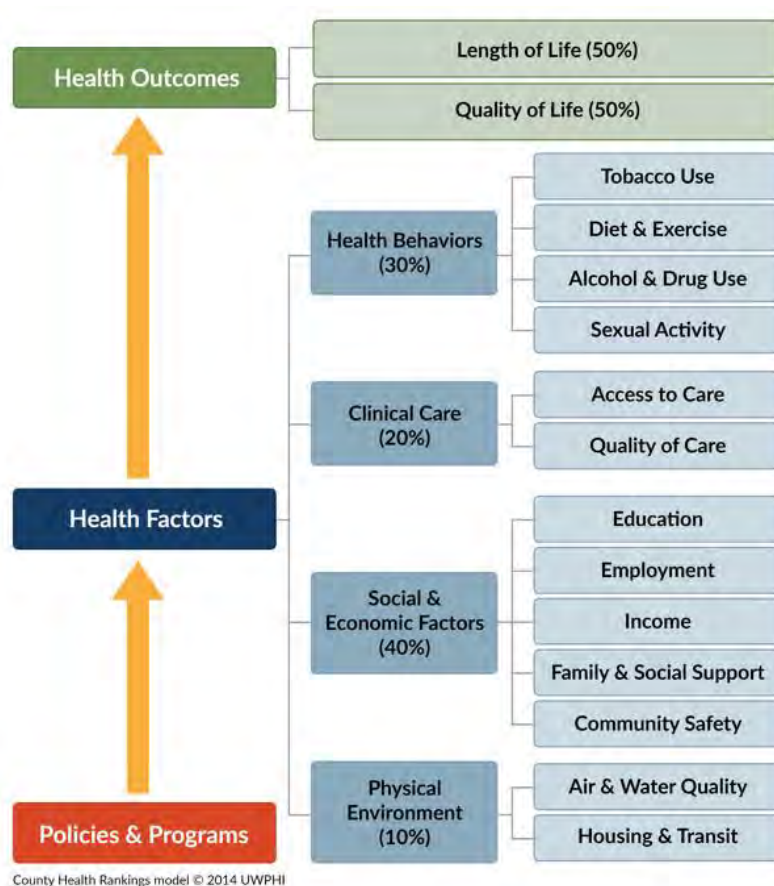

Figure 2. A model that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play. (Source: The University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps, www.countyhealthrankings.org, 2022).

While the country's health is of paramount importance, the impact of health inequalities goes beyond health. A 2009 analysis by the Joint Center for Political and Economic Studies found that health inequalities can also have a significant economic impact. Using data from the Medical Expenditure Panel Survey, the authors found the combined costs of health inequalities and premature death in the United States was $1.24 trillion between 2003 and 2006. They also calculated that eliminating health disparities could have reduced direct medical care expenditures by $229.4 billion between 2003 and 2006.[49]

Cultural Humility

Culture constantly shapes how we explain our world and find its meaning.[50] Therefore, the clinical environment cannot be culturally blind. Cultural differences among patients and providers can influence their communication and clinical decision-making. Provider-patient communication, in turn, has been found to impact patient satisfaction and adherence.[51]

On the provider's side, at least three mechanisms can come into play with respect to health care disparities: 1) Explicit or implicit bias (or prejudice) against minorities; 2) Increased clinical uncertainty when interacting with minority patients; and 3) Beliefs/stereotypes held by the provider about the behavior or health of minorities.[52] Not taking sociocultural factors into account can lead to stereotyping, bias, and discriminatory treatment of patients based on race, culture, language proficiency, social status, and other factors.[53]

A 2005 study of 245 Johns Hopkins Hospital nurses (80% identifying as White) showed that more than 80% exhibited racial biases and 90% exhibited classist biases.[54] Biases in health care are historic and have led to mistrust of the health care system by various groups. A survey of 781 African-American and 1,003 White cardiac patients found that African-American patients were four times more likely than Whites to believe that racial discrimination is common in a doctor's offices. African-American patients in the survey were also significantly more likely to mistrust the health care system.[55]

A national random sample conducted in 1999 of nearly 3,800 White, African-American, and Latino individuals found that most minority individuals perceived obtaining lower quality care than Whites, although most Whites thought otherwise. More than 50% of the minority individuals surveyed were "very" or "somewhat" concerned that a family member or themselves could be treated unfairly when seeking medical care because of their race or ethnic background. In contrast, less than 1 in 4 of the White individuals surveyed endorsed this view.[56]

Commonly found terms in the literature with respect to culture in health care have generally included cultural sensitivity, cultural competence, and cultural humility. One of the first consistent appearances of cross-cultural medicine in the literature was seen in the 1960s in the advent of the civil rights movement.[57] In the 1980s and 1990s, there was a shift from "cultural sensitivity" to "cultural competence" which was seen as more skill focused.

In 1998, an article by two pediatricians suggested that "cultural competence" be differentiated from "cultural humility."[58] Some authors have defined cultural humility as a process of self-reflection to understand personal and systemic biases, as well as privilege, that may contribute to health disparities.[59] Authors have also argued that while cultural competence implies that the clinician is the expert, cultural humility implies the opposite—that is, the patient is the expert.[60]

In addition, cultural competence has been rejected by some clinicians, in part because of the growing understanding that one cannot ever be truly competent in another's culture. The term has also been seen as binary construct: if one is not competent then one is implicitly incompetent. Cultural competence is seen as an endpoint, while cultural humility is a process.[61]

Cultural humility has been defined as the "lifelong process of self-reflection and self-critique" whereby the individual not only learns about another's culture but also examines their own beliefs and cultural identity. Cultural humility includes a constant process of reflection whereby "personal values, beliefs, and biases that are derived from … [their] own culture [are] examined." [62,63]

A cross-cultural approach has been listed as a standard of practice by some professional associations as well as an accreditation standard by the Commission on Dental Accreditation. Cross-cultural learning is seen as a factor in the improvement of provider-patient communication, the reduction of biases, and a way to help eliminate health disparities.[64]

Yet despite its importance, cross-cultural care has not been completely infused in the curricula of all medical or dental schools. A national U.S. survey of more than 2,000 resident physicians in family practice, emergency medicine, internal medicine, OB/GYN, pediatrics, psychiatry, and general surgery found that nearly all residents (96%) reported that it was "moderately" or "very important" to address cultural issues while providing care. However, *nearly 50% of the residents reported "having little or no training in understanding patients from different cultures (50%), how to identify patient's mistrust (56%), and relevant cultural customs (48%)*." Within a specialty background, those in general surgery and emergency medicine were found to be significantly more likely to report a lack of training in these areas during residency.[65] The impact of cultural differences in care and its potential to reduce health disparities show the importance of incorporating both cultural humility and health equity into a school's curricula.

Teaching Cultural Humility and Health Equity to Health Care Professionals

The Association of American Medical Colleges (AAMC) developed the Tool for Assessing Cultural Competence Training (TACCT), which is self-administered and contains 67 items. The tool can be used by medical schools to evaluate their curriculum. It allows them to identify curricular gaps and redundancies, as well as gather information from stakeholders.[66]

In 2016, an article presented the findings of an evaluation of 18 medical school programs using TACCT. Results of the survey showed 12 of the 18 medical school programs (67%) required cultural competence training. These 12 programs used multiple teaching approaches such as "personal or group reflection; lectures, presentations, readings, and clinical vignettes; experiential activities (e.g. community interviews, community site visits, international health

experiences); and interactive activities (e.g., group discussion, verbal feedback from faculty, games)." [67]

Findings from the assessment supported previous research stating that cultural competence training can improve clinicians' knowledge, skills, and attitudes. Nonetheless, a wide variation was found regarding the conceptualization, implementation, and evaluation of cultural competence training, which can lead to differences in training quality and outcomes. Only 2 of the 18 programs (11%) in the review reported using a standardized training curriculum that had objectives, activities, and associated evaluation measures informed by theory.[68]

A systematic literature review and analysis published in 2005 examined articles from 1980 to 2003 that evaluated interventions to improve cultural competence among health professionals. The review resulted in 34 studies for inclusion. All studies included a pre- and post-evaluation. In the studies that measured knowledge, 17 out of 19 (89%) found evidence that cultural competence training improved the knowledge of health professionals. In studies that measured skills and attitudes 21 out of 25 (84%) found that cultural competence training resulted in a beneficial effect on the skills and attitudes of health professionals.[69]

To assess dental schools, a copy of the Dental Tool for Assessing Cultural Competence Training (D-TACC) was sent along with a survey to the academic deans of 71 U.S. and Canadian dental schools. The D-TACC consists of 6 domains and 19 educational objectives. The domains are health disparities; community strategies; bias, stereotyping, and self-reflection; cross-cultural communication; interpreters; and culture of dentistry. A total of 37 deans responded to the survey rating the general importance and readiness to implement the assessment in their schools. All 19 objectives were rated as a priority by more than 50% of the deans surveyed. However, in the area of implementation, 4 objectives were rated by less than 50% of the deans as "being ready to assess."[70]

Despite the growing interest to educate students in health equity, there seems to be a dearth in available curricula. A 2017 report by the Accreditation Council for Graduate Medical Education (ACGME) evaluated 297 ACGME-accredited residency and fellowship programs and found "*a substantive deficiency in preparing residents and fellows to both identify and address disparities in health care outcomes, as well as ways to minimize or eliminate them*." [71]

In addition, the curricula available seem to be of limited duration (less than 6 weeks) or are only offered to a select student population. A 2021 study involving 121 medical students in a single institution, found that a longitudinal health equity curriculum was linked to significant improvement in students' self-reported knowledge of the social determinants of health and confidence in working with underserved populations. Furthermore, the study found that the increase in knowledge and confidence was sustained after one year.[72]

Exemplary Program

Cleveland Clinic

The Cleveland Clinic has developed a series of free, online educational modules for clinicians to help improve the health care experience for patients with IDDs. The modules function as in-service training for all health professionals. The series consists of five lessons and an introduction to patients with IDDs. The five lessons focus on: 1) Establishing relationships, 2) Obtaining key data, 3) Identifying and addressing patient concerns, 4) Optimizing preventive care; and 5) A detailed comprehensive health care plan.

Resource

Think Cultural Health

Think Cultural Health is an initiative by HHS that is dedicated to advancing health equity and improving the health of racial and ethnic minority populations through the development of health policies and programs that will help eliminate disparities. Think Cultural Health has developed continuing education modules that include free e-learning programs to help clinicians to provide Culturally and Linguistically Appropriate Services (CLAS).

Recruiting Learners and Faculty from Underrepresented Backgrounds

Benefits of a Diverse Workforce

A 2006 HRSA publication examined whether a diverse health care workforce could lead to improving public health. A total of 55 publications were reviewed. Results found that minority patients reported receiving "better interpersonal care from clinicians of their own race or ethnicity, particularly in primary care and mental health settings" (also known as "concordance"). In addition, non-English speaking patients experienced "better interpersonal care, greater medical comprehension, and greater likelihood of keeping follow-up appointments when … [seeing] a language-concordant practitioner, particularly in mental health care." [73]

Despite these findings, a 2021 article reviewing the percentage of current practitioners who provide diagnosis and treatment found that only 11.3% of the advance practice registered nurses identified as African American, 0.3% identified as Native American, and 5.5% identified as Hispanic.[74] Similarly, only 5.2% of the physicians identified as African American, 0.1% identified as Native American, and 6.9% identified as Hispanic.[75] For dentists: 4.4% identified as African American, 0.1% identified as Native American, and 5.7% identified as Hispanic.[76] In contrasts, 2021 Census data estimates that 13.6% of the population identifies as African

American, 1.3% identifies as American Indian and Alaska Native, and 18.9% identifies as Hispanic or Latino.[77,78]

Similar data show that the percentage of medical and dental minority faculty is not representative of their presence in the general population. In 2018, only 3.6% of the full-time medical faculty identified as African American, 0.2% identified as American Indian or Alaska Native, and 5.5.% identified as being of Latino or Spanish origin.[79] In addition, approximately 4% of faculty surveyed identified as lesbian, gay, bisexual, or other (non-cisgender), although national statistics estimate that close to 10% of the U.S. population identifies as lesbian, gay, lesbian, bisexual, or other (non-cisgender).[80]

When it comes to medical and dental students, the data are somewhat better but still deficient. An article published by the American Medical Association using 2021 data stated that 11.3% of first-year medical school matriculants identified as African American, 1% as American Indian or Alaska Native, and 12.0% as Hispanic.[81] In addition, in 2020 only 6.2% of first-year dental students identified as African American and 10.8% as Hispanic.[82] Furthermore, a recent annual report by the Physician Assistant Education Association reports that in 2019 3.9% of first-year physician assistant students identified as African American, 0.5% as American Indian or Alaska Native, and 7.6% as Hispanic.[83]

HRSA's Diversity Efforts

Over the years, HRSA has launched various effective programs to increase the number of minority medical and dental students, practitioners, and faculty. For example, the National Health Service Corps (NHSC)—which has been implemented for nearly 50 years—has helped to place thousands of physicians, dentists, and other clinicians in areas of need. More than 50,000 clinicians have been part of the program, treating and caring for patients within minority groups. Through NHSC-approved sites nationwide, the NHSC has supported the provision of care to 13.7 million medically underserved individuals.[84]

HRSA's Area Health Education Centers (AHEC) provide training through various types of institutions to improve the health of underserved populations. In the 2017-2018 academic year, AHEC programs and activities reached nearly 300,000 trainees nationwide. Of those, 24% were underrepresented minority students. Similarly, HRSA's Nursing Workforce Diversity program reached nearly 6,500 nurse trainees during the 2017-2018 academic year. Of these, 65.9% were underrepresented minority students.[85]

Through its Loan Repayment Program (LRP), HRSA offers clinicians the opportunity to have their student loans repaid in exchange for providing health care in urban, rural, or tribal communities with limited access to care. The program is open to physicians, physician

assistants, nurse practitioners, dentists, and mental and behavioral health providers. While the LRP is for individuals, awards are also made to U.S. states and territories for them to repay a clinician's student loans. HRSA has awarded close to $100 million to 46 states, 3 territories, and Washington, DC. A similar HRSA program exists to pay student loans in exchange for service for disadvantaged medical and dental faculty.[86,87] These are only three of various efforts that HRSA has led in the past, and while HRSA's efforts in this area have been significant, sustained, and successful, one program alone cannot fix such a complex issue and more work is still needed to support faculty of underrepresented backgrounds, as we will see next.

Faculty from Underrepresented Backgrounds

Even after being successfully recruited, minority faculty in medical and dental schools face challenges. A survey conducted by the AAMC of more than 13,500 medical school faculty found that lesbian, gay, bisexual, or other (LGB+) faculty felt less respected overall when compared with their straight counterparts. The survey showed that 5.9% of the LGB+ women felt disrespected by sexual orientation compared with 0.1% of straight women. Similarly, 6.6% of LGB+ men felt disrespected by sexual orientation compared with 0.1% of straight men.[88]

In addition, one study of 128 medical academic centers and 88,432 individual faculty found that the rates of promotion were unequal among White and minority faculty. In the study, African American faculty were found to have lower promotion rates from assistant professor to associate professor compared with Whites in 76% of the academic medical centers reviewed. Hispanic faculty also had lower promotion rates in the same ranks in 73% of the medical centers surveyed. Furthermore, 13% of the academic medical centers surveyed did not promote any Hispanic faculty to the rank of associate professor during the study period. In addition, 24% of the centers surveyed did not promote any African faculty to rank of associate professor.[89]

These disparities impact more than just the faculty who are not promoted. They also impact medical students. Minority faculty have the possibility of being role models and mentors for students. They can also mentor other minority faculty. Several studies of medical faculty have found that minority faculty believe that "having mentors and role models is crucial for their success."[90]

Exemplary Programs

Emory University School of Medicine
Emory University School of Medicine has developed an [LGBTQ+ Faculty Affinity Group](). The group has as its mission to: 1) Foster an inclusive and welcoming environment for LGBTQ+ faculty, and 2) Support/facilitate recruitment and retention of eminent LGBTQ+-identified faculty physicians, advance practice providers, and scientists.

The group utilizes a group mentoring approach that includes a mix of faculty at various levels of seniority, trainees, and students, which are matched based on discipline. The School of Medicine also has affinity groups for: African American women faculty, Latina/o/x faculty, Asian American and Pacific Islander faculty, and other groups. In addition, the school has developed a 2021 [Diversity, Equity, and Inclusion Strategic Plan](#) that includes equity-mindedness as one of its core values.

The University of California, Davis

The Physician Assistant (PA) program at UC Davis has developed an educational model that promotes diversity, inclusion, and health care equity. The model consists of four elements: 1) Outreach and recruitment from diverse and underserved populations, 2) Creating a campus-wide inclusive climate, 3) Embedding diversity and inclusion in the curriculum, and 4) Analytics, leadership, and advocacy.

The program uses a holistic admission program that goes beyond purely academic merits and provides equitable consideration to the applicant's experiences and how they may contribute as a future PA. UC Davis emphasizes diversity and inclusion in the mission of the program, and diversity training is offered to students, faculty, and staff. With respect to the curriculum, health disparities and health equity learning objectives are incorporated into every course. Grants allow students to rotate in rural and underserved communities. Finally, the school has an ongoing self-assessment process that includes outcomes on inclusion, diversity, and equity. Assessments results are shared at various levels of leadership. Currently, the program has a 100% retention rate and placed most of its graduates in primary care and underserved areas.[91]

Summary

Health equity, or the elimination of health disparities among groups and health outcomes, are integral to the development of a health care system that works for all Americans.

This report addresses three areas the ACTPCMD has identified as being critical to health equity: 1) Training the workforce in the treatment and care for patients with IDDs and/or SHCN, 2) Supporting the development and implementation of curricula to train the workforce on health equity and cultural humility, and 3) Encouraging the funding of HRSA applicants that successfully recruit learners and faculty from underrepresented backgrounds.

Research presented in this report shows the following:

- Training clinicians in treating and caring for individuals with IDDs and/or special needs is necessary to address significant health disparities that still exist among these groups.

Studies show that clinicians feel they are not well prepared to treat this population, although successful educational interventions do exist to address this.

- Despite their importance, health equity, health disparities, and social determinants of health are not always integrated throughout medical or dental school curricula. Training in these areas could be very helpful in helping to address health disparities.

- Data show that the percentage of minority faculty is not representative of their presence in the general population. Nonetheless, exemplar programs presented in this report and featured elsewhere in the literature demonstrate that successful programs can be created to help address this deficiency.

The five recommendations presented by the ACTPCMD at the beginning of this report can assist in decreasing health disparities and create a health care system that is more equitable for all Americans.

List of Acronyms and Abbreviations

ACTPCMD   Advisory Committee on Training in Primary Care Medicine and Dentistry

AHEC   Area Health Education Centers

BHW   Bureau of Health Workforce

HHS   Department of Health and Human Services

IDDs   Intellectual and Developmental Disabilities

LGB+   Lesbian, Gay, Bisexual and Other

LGBTQ+   Lesbian, Gay, Bisexual, Transgender, Queer, and Other

LRP   Loan Repayment Program

NHSC   National Health Service Corps

PA   Physician Assistant

SHCN   Special Health Care Needs

TACCT   Tool for Assessing Cultural Competence Training

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