



Preparing Physicians for an Evolving Demographic Landscape

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This is to acknowledge that Shawna Nesbitt, M.D., M.S. has disclosed that she has financial interests or other relationships with commercial concerns related indirectly to this program. Dr. Nesbitt will not be discussing off-label uses in her presentation.

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Overview:

The demographics of the U.S., and Texas in particular are rapidly shifting. Literature has shown that culture has a significant effect on the living conditions, perceptions of healthcare and health of individuals. As we think about the importance of culture on healthcare, it is inherent that healthcare professionals become better prepared to understand the role of culture and best practices to educate learners. Bias in healthcare is a significant contributor to healthcare disparities. It is necessary to focus on reducing bias and enhancing cultural appreciation for the populations we serve to improve healthcare disparities. In this lecture, demographic shifts will be discussed and models of methods to prepare healthcare providers and learners for an evolving demographic landscape.

Educational Objectives:

1. To discuss the changing demographics of the US and the state of Texas
2. To discuss the Healthcare disparities
3. To review the relationship of healthcare disparities to culture competence
4. To review models of culture competence/healthcare disparities training

Demographic Shifts in the Population

Over the past twenty years the demographics of the U.S. have begun to shift and the projection is that this trend will continue until at least 2060. ^[1] This trend is related to a decrease in birth rate in white population and an increase in birth rate of Hispanics and an influx of young immigrants. Thus, the shift is projected to change from 69% non-Hispanic white in 2000 to 49% by 2050. By 2060, the population under age 18 will be 64% minority (refers to all other groups than non-Hispanic white).^[2] In 2014 the foreign born population was 42 million and by 2060, it is expected to be 78 million, an 85% increase while the native US born will increase by 22% in this time frame (276 million to 339 million respectively). By 2044, no single race is projected to be greater than 50% and therefore the U.S. will become a plurality nation. These shifts are more evident in some states currently than others. California, New Mexico, Hawaii and Texas are the first states to become majority non-white populations. Minorities comprise 55% of Texans with 38.8% Hispanic, 12.5% Black, 4.7% Asian, and 1% Native American. ^[3] Although people from Latin America are the largest group of immigrants in Texas, the population of Asian immigrants has more than doubled in the past decade. As expected, the languages spoken and cultures represented in the population are vast and differ from that of just 20 years ago. This most certainly raises the bar for preparation of the healthcare workforce to meet that challenge of these shifts in demography.

The Intersection of Race/Ethnicity, Culture and Health

The status of health in the U.S. is disparate across the population by race/ethnicity. While there are some genetic differences across races, the larger spectrum of differences is due to exogenous and environmental exposures that determine the biologic response. The background health of an individual is clearly affected by living conditions such as food sources, transportation, education, access to healthcare, and community resources. While these factors are primarily controlled by the social and political authorities, they are key influences on the experience of many people with healthcare. To further complicate this issue, language, cultural beliefs and practices are determinants of health behaviors and perceptions of the healthcare system. Healthcare professionals must be prepared to identify and reconcile the effects of these factors on an individual patients' care.

Communication and Healthcare

The change in demographics brings not only different culture but new language challenges. The most basic component of an encounter with a healthcare provider is communication. Structural implementations such as language lines and in person interpreters are helpful in overcoming this divide however the training of providers on the skill of using these services is key to the success of these services. Further training of bilingual providers is an exponential improvement beyond third-party translators. Healthcare is based on the management of information gained in the patient encounter. Patients with limited English proficiency are at a disadvantage with providers who are solely English speaking. While interpretation of the words spoken is important, the nuances of linguistic expression is sometimes lost in the translation due to the multiple meanings that words and expressions can take on across cultures. Thus, a Spanish translator from one region of the world may express a concept differently than a Spanish speaker from another region. There is a so-called "triple threat" to effective communication for English only providers treating limited English-speaking patients. That of the language differences, cultural differences associated with language differences, and low health literacy among patients and family members.^[4] Overcoming these barriers first requires acknowledgement of their existence and secondly to educate providers on the proper use of translator services. Translators who have high health literacy and cultural literacy is most helpful to overcome these barriers but ideally equipping healthcare providers with these skills is truly best. Family members acting as translators has been shown to be fraught with inadequacy. Carillo et. al. proposes a method of education for providers which includes five thematic modules that build on one another over four 2-hour sessions. ^[5] The themes include: **1) Basic concepts about culture and health**, how a providers' own culture affects views of health and the culture of medicine itself. **2)Core Cultural Issues that have the potential for cross cultural misunderstanding such as authority, physical contact, communication styles, gender, sexuality, and family.** These are "hot button" issues in many cases. **3) Understanding the meaning of the illness.** The patients' beliefs, concerns and expectations about his or her illness are the "patients' explanatory model". This requires physicians to explore how the illness affects the patient's life. This information may be elicited through a series of specific questions. [Table 1] **4) Determining the Patient's Social Context through learning practical techniques to explore and manage the**

social factors that are most relevant to the medical encounter. This included migration history, socioeconomic status, social networks, and literacy. ***5) Negotiating across cultures requires assessing the patient's experience and expectations in view of the disease presentation.*** The skills from each of the modules is useful in this task. Reaching a mutual agreement with a patient requires relationship building, agenda setting, assessment, problem clarification, management and closure. As such the provider must be acknowledge the differences in belief systems between patient and provider. This model of education has been useful for attending physicians, residents and students alike.

Healthcare Disparities and the Need for Cultural Competence Training

An essential part the core of health and healthcare disparities are the social determinants of health. These factors including food and housing security, neighborhood conditions and resources, education as well as social context. Often the association of health disparity is misconstrued as being primarily associated with race and ethnicity however the more accurate association is with social determinants of health. These social determinants of health are tightly with race and ethnicity through the historical roots in colonization and power structure. Because many of these bonds remain in place today, health disparities continue to be associated with race rather than the construct with which race/ethnicity is embedded with.^[6] It is important to recognize this difference as it may affect the bias affecting many race/ethnic groups.

There are many examples of healthcare disparities by race/ethnicity.^[7] Hypertension is more common in blacks compared to other groups with a prevalence 44% in Blacks, 27% in Hispanics and 32% in Whites. Hispanics and Blacks suffer disproportionately with early diabetes type 2 and the multiple consequences of this disease including renal disease and limb amputation due to vascular disease. Among Black men the cancer mortality rate is 27% higher than the average U.S. male. Black women have lower rates of breast cancer but higher mortality from breast cancer. People of color are less likely to receive kidney transplants. Ethnic minorities are disproportionately infected with HIV and Blacks represent 45% of the new cases of HIV while only 12% of the population. Native Americans have a suicide rate that is 50% higher than Whites at 21.2 and 14.2 respectively. Among young white males, suicide is the highest mortality while among black males, homicide is the highest mortality. Not only does disease patterns differ by race but also healthcare seeking behavior differs by race/ethnicity. For instance, in a study of depression, 30% of African American men and 38% of African American women sought healthcare compared to 51% of whites. However not all racial/ethnic associations are negative on health. The Hispanic Paradox is an example of cultural heritage perhaps having a protective effect. In this case, Hispanics have low infant mortality rates and higher lung cancer survival rates compared to groups who are subject to the same economic and environmental stressors. Yet it is undeniable that the history of the relationship of ethnic minorities with healthcare has a significant effect on the receptiveness to medical advice from healthcare professionals. Examples of abuse such as the Tuskegee Syphilis Study and the story of Henrietta Lacks linger in the culture and history of minority populations and continue to affect the perception and interaction with

healthcare providers. Providers must be aware of these perceptions and barriers to properly cope with them in the care of the patients they encounter.

Disparities in the Local Community

The knowledge of the global and national disparities is absolutely necessary however the local environment is where most healthcare providers can have the greatest impact. One example is the availability of good food sources in the Dallas County area. A food desert is an area that lacks access to affordable fruits, vegetables, whole grains, low-fat milk and other components of a healthy diet (individuals living greater than 1 mile from a grocery store with no transportation). Knowledge of the Food deserts in the local community and the resources is helpful. Locally 20% of Dallas county resides in a food desert (473,680 individuals). Roughly 72% of these individuals are eligible for SNAP (Supplemental Nutrition Assistance Program) which provides a maximum of \$649/month for a family of 4 with a maximum family income of \$40,104 however the USDA recent estimate of the monthly cost to feed a family of 4 is \$848 (meagerly) or \$1284 (modestly).

Another example of the local healthcare disparities is the availability of healthcare providers. Dallas county has been designated as a partially medically underserved area (MUA) which is an area having a shortage of personal health services according to the U.S. Department of Health and Human Services (HRSA) rules based on the demographics of the entire population compared to the national statistics on: percentage of elderly population (over 65 years old), poverty rate, infant mortality rate, and ratio of primary care physicians/1000 population. Likewise, Dallas County is designated as a Health Professions Shortage Area (HPSA) due to a shortage of providers for the population in primary care providers, dental health providers and mental health providers. Most counties in the state of Texas are designated as (partial or total) MUA and HPSA. These designations are primarily used to identify areas of need for federal funding and resource allocation. Understanding the local context of the patient population is essential to relating to the population being served.

Bias as a Barrier

Although social determinants are a major barrier to excellent healthcare and reducing healthcare disparity, perhaps the most difficult barrier lies in healthcare providers themselves. Studies have shown repeatedly that physician/provider bias affects the decisions of treatments offered. In a study of case presentations of individuals of various races and genders, presenting to the ER with similar chest pain stories to 180 physicians, patients of color were offered angioplasty less often than white patients and women were less likely to be offered angioplasty than men despite the clear clinical indication for this treatment. ^[8] In another study assessing the effect of belief in a myth that black people's skin is thicker than white people's skin, had an effect on decision making of pain treatment, the study found that not only lay persons who held this belief were more likely to believe that blacks have less pain, but also residents and medical students were

similarly influenced. Participants who held this belief showed bias in their treatment decisions and were less accurate in treatment decisions for black patients. Accordingly, false beliefs of providers contribute to increased health disparities.^[9] This raises the important issue of provider bias in medicine and the effect on treatment decisions as well as research questions and conclusions. Bias is the propensity to choose a selection based on the previous experiences and exposures of an individual. Implicit bias or unconscious bias refers to attitudes or stereotypes that are outside our awareness but nonetheless affect our understanding, our interactions and our decisions. Explicit bias refers to the attitudes and beliefs we have about a person or group on a conscious level.^[10] In fact we all have implicit or unconscious bias and they are not always negative. It is far more difficult to address unconscious bias than explicit bias. This type of bias unfortunately affects every aspect of healthcare from selection and entry to medical school, residency and fellowship, faculty appointment and promotion and most importantly high stakes patient care decisions. According to the recent proceedings of the AAMC Diversity and Inclusion Forum, addressing this bias must be taught and reinforced at every level of medical education and healthcare.

Unconscious bias often conflicts with our conscious attitudes and intentions. The primary purpose of bias in the brain to promote survival. Bias becomes our internal “danger detector”. This is a primal instinct which had utility while living in ancestral times but may be less necessary at this point. Nevertheless, the natural tendency is still present.^[11] One of the most helpful tools to understand one’s own bias is the Implicit Association Test (IAT). This is a computer-based test was created by investigators at Harvard University, the University of Washington and the University of Virginia and has been validated across many disciplines. The test is available online at implicit.harvard.edu/implicit.^[12] Green et. al. used the IAT test in a study of whether physicians show implicit bias and whether the magnitude of the bias predicts thrombolysis recommendations for black and white patients with acute coronary syndromes. Clinical vignettes of patients presenting with ACS to the ER randomly assigned as black or white were sent to IM and ER physicians at 4 academic centers along with a post questionnaire and IAT tests. While all physicians reported that they had no explicit bias on the questionnaire, the IAT showed implicit preference in favor of the white patients who were more frequently recommended for treatment over black patients.^[13] The IAT is a useful tool in helping individuals to understand their own bias to better learn to mitigate them. It is a good basic tool for beginning the journey of learning about cultural competence.

Cultural Competence

Culture refers to the body of beliefs, behavior and knowledge that a group of individuals follow. While competence is having the capacity to function effectively in the context of the cultural beliefs, practices and needs of their patients and communities. A simplistic definition of Cultural Competence is that it combines the tenets of patient centered care with an understanding of the social and cultural influences that affect the quality of healthcare and treatment. It is important to note that culture and race/ethnicity are not the same. The definition of cultural competence has been described in multiple ways. It may

be defined according to the perspective of the user. While the 2000 Joint Committee on Health Education and Promotion Terminology describes it as the ability of an individual to understand and respect values, attitudes, beliefs and mores that differ across cultures and to consider and respond appropriately to these differences in planning, implementing, and evaluating health education and promotion programs and interventions. While others define it more simplistically to reflect an individual who looks, talks, and acts like health education clients and who shares, understands, and respects their culture, history, values, preferences, and social status and their community. A more universal view of this term may refer to an institution or a system in which it refers to a system that acknowledges and incorporates at all levels the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamic that result from cultural differences, expansion of cultural knowledge, and adaptation of services to meet culturally unique needs.^[14] It is important to note that culture competence is not a destination but rather a journey of learning. “Cultural humility” is an alternative approach to cultural competence that proposes that no one can ever be fully competent in another person’s culture. Instead this training would involve reflective practices to increase cultural humility, promote cultural sensitivity, and mitigate biases.^[15]

Although culture may be associated with race/ethnicity, it is clear that every person of a particular race/ethnicity does not necessarily have the same culture. As race is a social construct to describe is a set of characteristics inherited genetically. Ethnicity refers to the ancestral origin of a person regardless of race. Culture is not binary and one may be a member of many cultures such as American, physician, faculty, Internist, etc. This makes the assignment of specific stereotypes to a single individual more complex.

However, it may be helpful to understand the customs of cultures to improve the communication between physician and patients. There are useful tools to help to understand some of the common customs and practices of various cultures and religions such as CultureVision.com.

Exploring Methods of Cultural Competence Education

The Institute of Medicine (IOM) report on Unequal Treatment gave specific recommendations to medical schools regarding education, patient care and research.^[16] [Table 2] One of these recommendations is to integrate cross-cultural education into the training of all health care professionals. A common approach to training is the use of competency training courses. Thom et. al. conducted a randomized controlled trial of cultural competency training for primary care physicians who were given 3 one-hour training modules. These modules covered: knowledge on cultural identification, communication skills, cultural negotiation and understanding community resources. The major outcome was patient reported physician cultural competence as a measure of patient satisfaction and trust, and blood pressure and HgbA1C. There was an improvement in patient satisfaction and trust, however there was no change in blood pressure and HgbA1C.^[17] However the ability to show a difference in the parameters of blood pressure and HgbA1C is likely to require greater control of many other factors.

Another frequently used technique is that of mentoring and supervision. Wu et. al. evaluated the satisfaction and healthcare experiences of 250 parents of children in a large teaching hospital after their child's hospitalization. The physician received cultural education from Spanish interpreters including information on Latino culture and home remedies. Each physician had a cultural mentor/interpreter in person. This group was compared to patients whose physicians had phone interpreters or in person interpreter without cultural education. The result showed that the cultural mentor interpreter group increased patient satisfaction above in person interpreters and phone interpreters, and in person was better than phone interpreters.^[18]

Curriculum for medical students frequently includes didactic, case vignettes, experiential learning and reflection. Three key methods of cultural education for medical students include: Curriculum integration with didactics and case scenarios, cultural immersions, and cultural education and training. Developing empathy is a key component of the learning culture competency. Using the technique of case scenarios, Blatt et. al. studied the effect of "Perspective-Taking Intervention" in conjunction with a clinical skills examination. In this three-part study conducted at George Washington University and Howard Medical Schools in Washington D.C., 608 third year students were randomly assigned to control group or instructed to write a narrative perspective of the patient after they were presented with cases with a standardized patient. The standardized patients rated the student interactions using standardized scales of patient satisfaction. The students who wrote perspectives from the patient had statistically higher scores of patient satisfaction from standardized patients.^[19] This technique may be useful in helping students and clinicians to develop a greater sense of empathy and thereby improve patient satisfaction.

Transgender education is a new and challenging area of medicine. Transgender patients are likely to experience discrimination in health care, nearly 30% do not have primary care physicians and are at high risk for illnesses such as HIV and suicide. Boston University has implemented model of education for medical students including didactic lectures in the preclinical years educating them on biologic evidence for gender identity and treatment strategies for hormone replacement therapy and 4th year students are offered a clinical rotation in transgender medicine. In a study of bias against gay and lesbian patients by medical students, the amount of contact the favorability of that contact had a significant effect on both implicit and explicit bias. Cognitive education predicted reduced explicit bias but not implicit bias.^[20] The care of LGBTQ patients and particularly transgender patients would be improved with better education and cultural sensitivity of healthcare providers.

Cultural Immersion is another method educating health professionals and students. An example of this type of education was implemented in Australian Medical students as a pilot study of an immersion with Aboriginal and Torres Strait Islander Health. Initially a small group visited for 2 days and wrote reflections essays upon their return. The major themes that emerged from these essays were cultural (understanding differences and comparison with own culture, cultural respect, understanding culture affects day to day

life and health); medical (complex illnesses, social determinants of health, listening, communicating, health delivery and advocacy skills); and personal (anxiety, personal growth, future careers). This prompted a larger pilot of 27 students to visit for 1.5 days and experience the local culture and health practices. A group of educators, local physicians and community leaders helped to develop 9 educational goals for the program that the students were evaluated on. The students scored >4 on all criteria on a 1-5 scale.

In a study of a cultural education and training method, Sanner studied the openness to diversity among 47 nursing students who were exposed to a 3-hour program including a 45-minute keynote lecture followed by an interactive session over a meal to discuss the concepts. The pre and post surveys showed statistically significant increases and further consideration of working with an underserved population.⁶

It is clear that each of these methods of education offer benefits of increasing the knowledge and developing skills of cultural competency. Most curriculum have used all three of these methods in some manner.

What happens when the discrimination is on the side of the patient?

In the current sociopolitical climate, open discriminatory comments have increased. The healthcare setting has not been immune to these occurrences. Providers have become the target of discrimination by patients. This is a unique problem as the primary goal is to care for patients and attend to their desires. But how should a healthcare provider respond to this discrimination? How should medical students and residents be taught to deal with these instances. Whitgob et. al. conducted interviews of faculty at Stanford University and the recommendations were published.^[21] Four themes emerged: **1. Assess the illness acuity:** The needs of the patient should be assessed first. If the patient is acutely ill then one should ignore the comments and care for the patient. **2. Cultivate a therapeutic alliance:** Try to discover what the patient is afraid of which may help to build a trusting relationship. Refocus the conversation on the illness. Educate the family on the structure of the teaching team. An alternative is to consider switching providers. **3. Depersonalize the event.** Remember that the discrimination is often motivated by fear and anxiety. Acknowledge that discrimination may be coming from the patient's lack of control. May actually name the behavior, "Are you discriminating against this physician because of skin color/ gender/religion? **4. Ensure a safe learning environment for trainees:** Provide support and assurance of trainees, "I would trust this physician to take care of me". Escalate to program director or hospital administration. Empower the trainee to come up with next steps. Further the article goes on to outline strategies for faculty and trainee development. In the case of trainees and faculty: case discussions, cultural competency and implicit bias education, set up expectations early in training, share the chain of command for escalation. This includes educating faculty on the institutional policy for mistreatment of faculty and trainees and whom to contact. Frontline faculty should be instructed to debrief the team in the moment or shortly after the occurrence and encourage them to give a personal reflection on it verbally or in written form. The institution should develop a multidisciplinary task force to spearhead educational efforts

and policy changes. A confidential trainee mistreatment survey may be conducted to tracking. Point persons should be identified in the UME and GME leadership to alert programs and departments of these occurrences. Paul-Emile recently published a perspective in NEJM with an algorithm for the approach to a racist patient in the emergency room which is similar to the approach of Whitgob.^[22] [Figure 1]

Summary

The evolving population which we serve currently and the projected changes for the entire country demand that academic centers do their part in preparing students, residents, faculty as well as staff for the broader group of patients. This includes better linguistic services, and training to use the appropriately as well as training in cultural competency to reduce bias and improve communication. Enhancing the knowledge of our local community including the disparities and resources will help us to deliver better care to our patients and reduce disparities.

Table 1. Eliciting Patient Information and Negotiating⁵

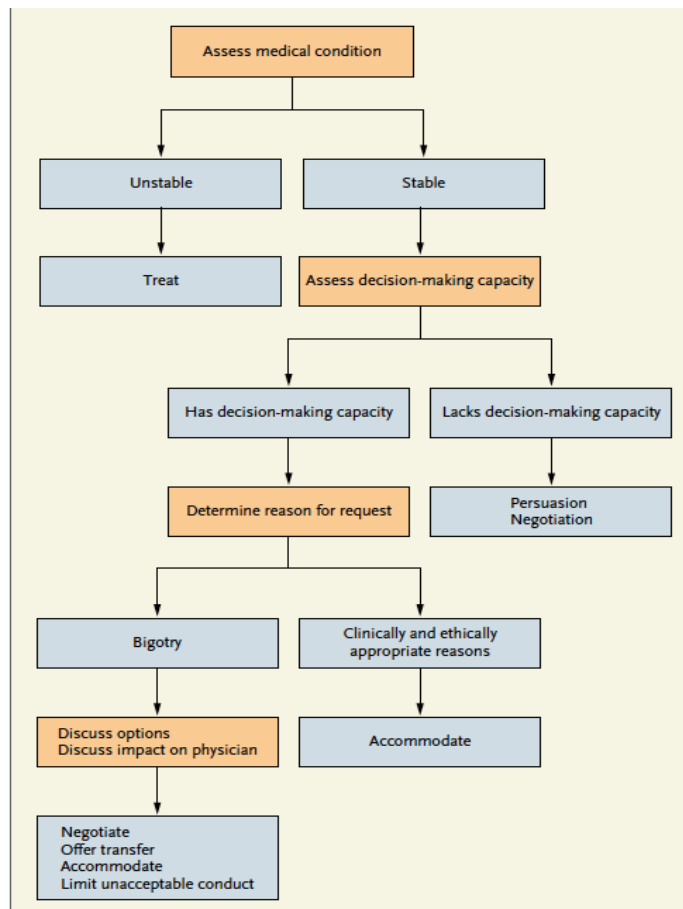
EXPLORING THE MEANING OF THE ILLNESS	
<i>Explanatory Model</i>	What do you think has caused your problem? What do you call it?
	Why do you think it started when it did?
	How does it affect your life?
	How severe is it? What worries you the most?
	What kind of treatment do you think would work?
<i>The Patients' agenda</i>	How can I be most helpful to you?
	What is important to you?
<i>Illness Behavior</i>	Have you seen anyone else about this problem
	Have you used nonmedical remedies?
	Who advises you about your health?
SOCIAL CONTEXT	
<i>Control over environment</i>	Is money a big problem in your life?
	How do you keep track of appts? Are you more concerned about how health affects you right now or in the future?
<i>Change in environment</i>	Where are you from?
	What made you decide to come to this country, city, state?
	How have you found life here compared to your life previously?
<i>Social stressors and support</i>	What is causing the most difficulty or stress in your life?
	Do you have friends or relatives that you can call on?
	Are you involved in a religious or social group?
<i>Literacy and Language</i>	Do you have any trouble reading medication bottles or appt?
	What language do you speak at home? Do you feel that you have difficulty communicating everything you want to say to the doctor?
NEGOTIATION	
<i>Negotiating explanatory models</i>	Explore patient's explanatory model
	Determine how the explanatory model differs from the biomedical model and how strongly the patient adheres to it?
	Describe the patient's terminology and conceptualization as necessary.
	If conflict remains, reevaluate core cultural issues and social context (for example, bring in family members or maximize interpretation)
<i>Negotiating for management options</i>	Describe specific management options (tests, treatments, or procedures) in understandable terms
	Prioritize management options
	Determine the patient's priorities
	Present a reasonable management plan
	Determine the patient's level of acceptance of this plan (do not assume acceptance-inquire directly)
	If conflict remains, focus negotiation on higher priorities

Table 2¹⁶

Institute of Medicine Report on Unequal Treatment	
Recommendations for Education addressing disparities through training	
1	Increase awareness of racial/ethnic disparities in health care.
2	Increase the proportion of underrepresented minorities in the health care workforce.
3	Integrate cross-cultural education into the training of all health care professionals
4	Incorporate teaching on the impact of race, ethnicity, and culture on clinical decision making.

Figure 1²²

Algorithm for coping with a difficult patient.



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