Curricular Components That Support the Functions of EPA 14: Use Population Health Strategies and Quality Improvement Methods to Promote Health and Address Racism, Discrimination, and Other Contributors to Inequities Among Pediatric Populations

1. Recognizing one's professional responsibility to populations, communities, and society at large

   - Identifies ways to more effectively treat conditions, prevent disease, and promote the health of patients and populations

   - Engages in life-long learning and other activities which focus on performance improvement

   - Acknowledges, reflects on, and mitigates personal implicit and explicit biases[13], many of which are exacerbated by a greater historical context of systemic oppression[14]

   - Recognizes the role specific policies and practices play in maintaining systems of oppression and inequity, reinforcing biases, and creating inequitable outcomes[15]

   - Advocates for children, families, and populations at the local, state and/or federal levels (e.g., speaking with school officials about special education supports; contacting local officials about concerns for lead toxicity in a community, emailing a lawmaker regarding a bill or proposal that could impact patients or communities such as the impact of zoning on the creation of food deserts in certain communities)

   - Demonstrates cultural humility[16] by seeking out the priorities and perspectives of the patient, community and/or population served

   - Prioritizes the health needs of the community and/or populations served, especially the needs of populations who have been historically oppressed, disenfranchised, or unrecognized

   - Reports systems errors, system, or structural impediments to equitable care delivery, and/or reportable diagnoses through formally established mechanisms, committees, agencies, or processes

2. Identifying populations placed at risk for poor health outcomes using statistical, epidemiological, public health, and community outreach measures

   - Identifies populations by practice settings, various demographics, socioeconomic status, geographic region, and/or medical conditions as a critical first step to improving health outcomes

   - Appraises literature with an understanding of generalizability and relevance to patient populations

   - Demonstrates the ability to collect, store, extract, and analyze patient data stratified by demographic variables

   - Knows the difference between equality[17] and equity as it relates to clinical care, policies, and procedures

   - Acknowledges that a history of medical experimentation, abuse, and exploitation of marginalized populations directly contributes to the mistrust these populations have toward the medical profession

   - Recognizes critical variations in practice that have led or could lead to patient harm and/or inequity

   - Recognizes that race is a social construct[18] with no biological basis and understands that race and

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ethnicity are both poor proxies for ancestry

- Interprets studies on racial inequities with an understanding that racism (not race) is an ever-important risk factor
- Knows epidemiological and statistical concepts to interpret basic population data or critically evaluate the medical literature (e.g., sensitivity, specificity, positive predictive value, negative predictive value, normal distribution, mean, median, p-value)
- Critically appraises the medical literature to determine level of evidence, relevance, and potential application to one's patient population
- Appraises the medical literature with an awareness of diversity, or lack thereof, in the study subjects and setting and how that might impact generalizability

3. Collaborating with diverse stakeholders in the development and/or implementation of initiatives to improve health outcomes
    - Collaborates as a member of an interprofessional healthcare team in efforts to improve population health
    - Maintains approachability and openness to discuss opportunities to improve practice, address personal bias, and combat interpersonal racism sexism, ableism, homophobia, transphobia, and other forms of discrimination
    - Recognizes and values the input and expertise of others, such as colleagues, patients, families, caregivers, community leaders, other health professionals, health care administrators, and policymakers in identifying and executing solutions to problems
    - Approaches systems and process improvement efforts by engaging perspectives and experiences of diverse stakeholders and understanding/observing the processes to be improved
    - Recognizes the importance of cross sector partnerships across a variety of medical and non-medical disciplines to create upstream interventions to address inequitable policies and procedures as well as social determinants of health for specific patient populations
    - Creates and maintains a safe and inclusive environment to discuss system errors and potential solutions

4. Engaging in quality improvement initiatives to improve patient care delivery, outcomes, and health care systems
    - Employs science-based quality improvement strategies (e.g., the Model for Improvement) based on the National Academy of Medicine's six aims of health care quality (safe, effective, patient-centered, timely, efficient, and equitable)
    - Utilizes specific aim statements to set precise goals to drive improvement interventions and lead teams
    - Defines and tracks process, outcome, and balancing measures that are critical to determine if system changes result in improvement
    - Collects and utilizes data for improvement with an appreciation for data validity and reliability and knowledge of the limitations that exist, particularly with retrospective data sets
    - Utilizes tools such as run- or control charts to measure process/system performance over time

- Appreciates value of small tests of change, or plan-do-study-act cycles in determining which improvement interventions work in the clinical care system and which need to be adapted or abandoned
- Repeatedly measures the extent of improvement resulting from the activities of the interprofessional team, learns from the experience, and applies new interventions that further improvement
- Applies change management strategies[19] to quality improvement efforts and recognizes that individuals and groups within healthcare systems are critical to achieving success

5. Utilizing data resources (e.g., EHR, patient registries, databases) to improve key processes and optimize population health initiatives

- Uses digital information to identify populations placed at risk and promote improved health outcomes for these populations
- Maintains accurate reporting and records in digital repositories such that proper surveillance of patients and populations may occur
- Leverages the power of databases in conjunction with administrators and IT specialists to improve patient care and population health by ensuring social risk factors[20] (e.g. housing insecurity, food insecurity) and important demographic data such as race, ethnicity, gender, gender identity, preferred language, sexual orientation, preferred pronouns etc. are collected accurately and self-reported by patients
- Recognizes the limitations of administrative data from the EHR and other centralized data sources including sources of bias (who entered the data, was the data self-reported, what is the source of data, what was the original intent of the captured data, to what extent does varying objectives and nature of how the data was captured contribute to bias), and how this impacts data reliability and quality

6. Dismantling processes/systems rooted in racism and/or discrimination to address inequities and achieve optimal health outcomes for all children

- Defines racism (intrapersonal, interpersonal, institutional, and systemic) and understands the mechanisms by which it orchestrates inequitable systems that negatively impact the health and wellbeing of marginalized racial and ethnic populations
- Promotes antiracism and works to eliminate the impact of all forms of racism on health outcomes
- Works to eliminate health inequities resulting from discrimination and prejudice based on race, ethnicity, age, gender, gender identity, religion, sexual orientation, disability, language, income, geographic region, nationality etc. on the health and wellbeing of specific populations
- Understands how systems of oppression and inequity are exacerbated by intersectionality[21] of social categories (e.g, race, ethnicity, age, gender, gender identity, religion, sexual orientation, disability, language, income, geographic region, nationality) that create interdependent and overlapping systems of discrimination, compounding inequities
- Works to establish equitable processes and practices as the default in healthcare
- Standardizes care practices to remove variation due to racism, bias, and other forms of discrimination with the goal of eliminating health inequities

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Definitions

[1]**Anti-racism:** "The active process of identifying and eliminating racism by changing systems, organizational structures, policies, practices, and attitudes so that power is redistributed and shared equitably."

Source: National Action Committee on the Status of Women International Perspectives: Women and Global Solidarity.

[2]**Equity**: predicated on the ethical principle of distributive justice; one that requires our decisions regarding the allocation of resources, benefits, and burdens across society be informed by the social conditions of individuals and communities. Health equity in particular is the absence of socially unjust, unfair, and avoidable health disparities.

[3]**Demographics**: the statistical data regarding the characteristics of a given population (age, sex, race, income etc.).

[4]**Socioeconomic status**: an indicator of an individual's social and economic standing in a given society; often determined by occupational status, income level, and education.

[5]**Racism:** "an umbrella concept that encompasses specific mechanisms that operate at the **intrapersonal, interpersonal, institutional, and systemic levels** of a socioecological framework."

Source: National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on Community-Based Solutions to Promote Health Equity in the United States; Baciu A, Negussie Y, Geller A, et al., editors. Communities in Action: Pathways to Health Equity. Washington (DC): National Academies Press (US); 2017 Jan 11. 3, The Root Causes of Health Inequity. Available from: https://www.ncbi.nlm.nih.gov/books/NBK425845/.

- **Intrapersonal (internalized) racism**: acceptance of negative messages about one's self worth and abilities (e.g. self-devaluation, stereotype threat)

- **Interpersonal (personally mediated) racism**: prejudice, implicit/ explicit bias which are differential assumptions about the abilities, motives and intentions of others often rooted in stereotypes

- **Institutional racism**: differential access to goods services, and opportunities based on race that exists in specific institutional/ organizational policies/ practices.

- **Systemic (or structural racism)**: "ways in which societies foster racial discrimination, via mutually reinforcing inequitable systems (e.g., in housing, education, employment, earnings, benefits, credit, media, health care, criminal justice, etc.) that in turn reinforce discriminatory beliefs, values, and distribution of resources, reflected in history, culture, and interconnected institutions."

  Source: Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: evidence and interventions. The Lancet. 2017 Apr 8;389(10077):1453-63.

[6]**Discrimination**: unjust or prejudicial treatment of individual based on certain characteristics.

[7]**Social determinants of health**: The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. SDH

can be grouped into five domains: economic stability, education access and quality, health care access and quality, neighborhood and built environment, social and community context. While SDH are often framed in the negative, it is important to recognize that they are "social factors that confer health benefits to certain populations and cause harm in others" and are modifiable.

Source: https://health.gov/healthypeople/objectives-and-data/social-determinants-health.
Source: Green K, Zook M. When talking about social determinants, precision matters. Washington: Health Care Transformation Task Force. 2019 Oct 29.

[8]**Population health strategies**: Key strategies/approaches include: a focus on health and wellness rather than illness, embracing a population rather than individual orientation, understanding needs and solutions through community outreach, addressing health disparities, addressing social determinants of health and inter-sector action and partnerships.

Source: Cohen D, Huynh T, Sebold A, Harvey J, Neudorf C, Brown A. The population health approach: a qualitative study of conceptual and operational definitions for leaders in Canadian healthcare. SAGE open medicine. 2014 Feb 7;2:2050312114522618.

[9]**Quality improvement**: Also called the science of improvement and refers to "an applied science that emphasizes innovation, rapid-cycle testing…and spread in order to generate learning about what changes, in which contexts, produce improvements. It is characterized by the combination of expert subject knowledge with improvement methods and tools."

Source: Institute of Healthcare Improvement: http://www.ihi.org/about/Pages/ScienceofImprovement.aspx.

[10]**Inequity**: A disparity or difference that is *unfair, unjust, and avoidable*. More specifically, "health inequities are systematic differences in the opportunities groups have to achieve optimal health, leading to unfair and avoidable differences in health outcomes."

Source: National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on Community-Based Solutions to Promote Health Equity in the United States; Baciu A, Negussie Y, Geller A, et al., editors. Communities in action: pathways to health equity. Washington (DC): National Academies Press (US); 2017 Jan 11. 3, The Root Causes of Health Inequity. Available from: https://www.ncbi.nlm.nih.gov/books/NBK425845/.

[11]**Co-design (in health care):** "involves the **equal partnership** of individuals who work within the system (healthcare staff), individuals who have lived experience of using the system [patients and their families] and the 'designers' of the new system [e.g.IT personnel, researchers). Co-design involves working together to design a new product, making full use of each other's knowledge, resources and contributions, to achieve better outcomes or improved efficiency."

Source: Ward ME, De Brún A, Beirne D, et al. Using co-design to develop a collective leadership intervention for healthcare teams to improve safety culture. Int J Environ Res Public Health. 2018;15(6):1182. Published 2018 Jun 5. doi:10.3390/ijerph15061182.

[12]**Upstream approach:** interventions that specifically target the social, economic, and environmental origins of health inequities that manifest at the population level (e.g., addressing housing code violations etc. that triggers asthma in children who live in a building). The opposite of focusing on the downstream consequences or end

effect of health problems (e.g., medication management for asthma symptoms).

[13]**Implicit and explicit bias**
- Implicit bias: unconsciously-held set of associations about a social group.
- Explicit bias: consciously-held set of associations about a social group.

[14]**Systemic oppression**: "Systematic mistreatment of people within a social identity group, supported and enforced by the society and its institutions, solely based on the person's membership in the social identity group."

Source: https://www.pcc.edu/illumination/wp-content/uploads/sites/54/2018/05/institutionalized-oppression-definitions.pdf.
Source: Cerdeña JP, Plaisime MV, Tsai J. From race-based to race-conscious medicine: how anti-racist uprisings call us to act. The Lancet. 2020 Oct 10;396(10257):1125-8. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32076-6/fulltext.

[15]**Cultural Humility**: An individual displays this by 1) acknowledging existing power imbalances among groups of people and 2) maintaining an interpersonal stance that is other-oriented (or open to others).

[16]**Equality**: "aims to ensure that everyone gets the same things in order to enjoy full, healthy lives. Like equity, equality aims to promote fairness and justice, but it can only work if everyone starts from the same place and needs the same things."

Source: https://www.aecf.org/blog/racial-justice definitions/?gclid=CjwKCAiAsaOBBhA4EiwAo0_AnD1HFgtetBoJ1MCIDHGBURNvoDaB0iHE6aeusmWEp7YMHF0CdOltRxoCaLMQAvD_Bw E.

[17]**Social construct**: A concept created or invented by individuals of a society, culture, or institution that exists solely based on a society's acceptance of it. Social constructs depend on historical, political, and economic conditions which means they can evolve and change.

[18]**Change management strategies**: "Any action or process taken to smoothly transition an individual or group from the current state to a future desired state of being." Change management recognizes how vital people doing the work within healthcare systems are to the successful execution of quality improvement initiatives. Key steps for change management include: assessing readiness for change, establishing a sense of urgency, assembling the steering team, developing an implementation plan, executing a pilot, disseminating change, and anchoring the change within the organization.

Source: Varkey P, Antonio K. Change management for effective quality improvement: a primer. American Journal of Medical Quality. 2010 Jul;25(4):268-73.

[19]**Social risk**: "adverse social conditions associated with poor health, such as food insecurity and housing instability."

Source: Green K, Zook M. When talking about social determinants, precision matters. Washington: Health Care Transformation Task Force. 2019 Oct 29.

[20]**Intersectionality**: a framework for understanding how different social and political identities (race, sex, class, disability, sexual orientation etc.) overlap and create different levels of advantage and/or oppression.

Source: Crenshaw, Kimberle "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics," University of Chicago Legal Forum: Vol. 1989: Iss. 1.

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