# An Entrustable Professional Activity Addressing Racism and Pediatric Health Inequities

Ndidi I. Unaka, MD, MEd,<sup>a,b</sup> Ariel Winn, MD,<sup>c,d</sup> Adiaha Spinks-Franklin, MD, MPH,<sup>e</sup> Patricia Poitevien, MD, MSc,<sup>f</sup> Franklin Trimm, MD,<sup>g</sup> Brenda J. Nuncio Lujano, MS,<sup>h</sup> David A. Turner, MD<sup>h</sup>

Racism and discrimination are the root of many pediatric health inequities and are well described in the literature. Despite the pervasiveness of pediatric health inequities, we have failed to adequately educate and prepare general pediatricians and pediatric subspecialists to address them. Deficiencies within education across the entire continuum and in our health care systems as a whole contribute to health inequities in unacceptable ways. To address these deficiencies, the field of pediatrics, along with other specialties, has been on a journey toward a more competency-based approach to education and assessment, and the framework created for the future is built on entrustable professional activities (EPAs). Competency-based medical education is one approach to addressing the deficiencies within graduate medical education and across the continuum by allowing educators to focus on the desired equitable patient outcomes and then develop an approach to teaching and assessing the tasks, knowledge, skills, and attitudes needed to achieve the goal of optimal, equitable patient care. To that end, we describe the development and content of a revised EPA entitled: Use of Population Health Strategies and Quality Improvement Methods to Promote Health and Address Racism, Discrimination, and Other Contributors to Inequities Among Pediatric Populations. We also highlight the ways in which this EPA can be used to inform curricula, assessments, professional development, organizational systems, and culture change.

Full article can be found online at www.pediatrics.org/cgi/doi/10.1542/peds.2021-054604

# abstract



<sup>a</sup>Division of Hospital Medicine, Cincinnati Children's Hospital, Cincinnati, Ohio; Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, Ohio: CDivision of General Pediatrics, Department of Pediatrics, Boston Children's Hospital, Boston, Massachusetts; <sup>d</sup>Department of Pediatrics, Harvard Medical School, Boston, Massachusetts: eSection of Developmental Pediatrics, Department of Pediatrics, Texas Children's Hospital/Baylor College of Medicine, Houston, Texas; f Division of Hospitalist Medicine, Department of Pediatrics, Hasbro Children's Hospital, Warren Alpert Medical School of Brown University, Providence, Rhode Island: <sup>9</sup>Office of Diversity and Inclusion, Department of Pediatrics, University of South Alabama College of Medicine, Mobile, Alabama; and hThe American Board of Pediatrics, Chapel Hill, North Carolina

Dr Unaka conceptualized and designed the study, drafted the initial manuscript, collected and analyzed data, and reviewed and revised the manuscript; Drs Winn, Spinks-Franklin, Poitevien, and Trimm conceptualized and designed the study, drafted the initial manuscript, analyzed data, and reviewed and revised the manuscript; Ms Nuncio Lujano designed the data collection instruments, collected data, carried out the initial analyses, and reviewed and revised the manuscript; Dr Turner conceptualized and designed the study, coordinated and supervised data collection, analyzed data, and critically reviewed the manuscript for important intellectual content; and all authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

**DOI:** https://doi.org/10.1542/peds.2021-054604

Accepted for publication Nov 17, 2021

Address correspondence to Ndidi I. Unaka, MD, MEd, Cincinnati Children's Hospital Medical Center, 3333 Burnet Ave, ML 5018, Cincinnati, OH 45229. E-mail: ndidi.unaka@ cchmc.org

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

Copyright © 2022 by the American Academy of Pediatrics

**FINANCIAL DISCLOSURE:** The authors have indicated they have no financial relationships relevant to this article to disclose.

**To cite:** Unaka NI, Winn A, Spinks-Franklin A, et al. An Entrustable Professional Activity Addressing Racism and Pediatric Health Inequities. *Pediatrics*. 2022;149(2):e2021054604

Health inequities—disparities that are unfair, unjust, avoidable, and unnecessary—are ubiquitous among pediatric populations. Health inequities among Black and Hispanic children are well documented in the literature 1-12 and are often inappropriately attributed to underlying genetic differences. However, race is a social construct and has no biological basis. Racisma dynamic system of oppression based on the interpretation of normal human phenotypic variations—is a root cause of racial and ethnic health inequities. 13,14 Additionally, the connection between structural racism and social determinants of health, defined as the conditions in the environments where individuals are born, live, learn, work, play, worship, and age that affect health and well-being, 15 cannot be overstated: Marginalized populations in whom social determinants of health confer poor health outcomes continue to be disenfranchised. Furthermore, discrimination based on many characteristics, including race, ethnicity, age, sex, gender identity, religion, sexual orientation, disability, language, income, geographic region, nationality, and others, significantly affect the health and well-being of specific pediatric populations and contribute to health inequities. 16-19

Despite the pervasiveness of pediatric health inequities, we have failed to adequately educate and prepare general pediatricians and pediatric subspecialists to address them. Within graduate medical education (GME), specific deficiencies contribute to health inequities in profound ways, and data from the Accreditation Council for Graduate Medical Education (ACGME) reveal that "there is currently 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."20 First, this propagation of inequity and racism occurs through the hidden curriculum, often described as the implicit lessons we teach our learners.<sup>21</sup> Examples include the implicit messages we convey in how we approach communication with patients and families with limited English proficiency (eg, inconsistent use of interpreter services, suboptimal verbal and written communication of instructions at the time of discharge), 22,23 the words we use to describe specific patients (eg, "frequent flyer," "poor historian," "difficult," "noncompliant") that color our perceptions and contribute to biased decisions in the clinical setting, and the hierarchy in medicine that discourages learners from speaking up, all of which contribute to the normalization of behaviors that propagate disparities and discrimination in medicine. 24-27 Second, learners are exposed to the practice of race-based medicine, defined as "the system by which research characterizing race as an essential, biological variable, translates into clinical practice, leading to inequitable care."28 Significant inequities and potential harm result from the propagation of false notions and race-adjusted clinical algorithms that we continue to teach learners. For instance, the undertreatment of pain in Black patients is well documented in the

literature and is likely fueled by the false beliefs held by students, trainees, and practicing physicians that Black people are less sensitive to pain.<sup>29</sup> The now retired American Academy of Pediatrics urinary tract infection clinical practice guidelines listed white race for girls and non-Black race for boys as risk factors for urinary tract infection. The likely consequences of these recommendations were that Black children are tested for urinary tract infection less frequently, and Black children are required to present with more symptoms and risk factors to meet clinician testing thresholds.30 These messages are further complicated by the fact that many of these explicit and implicit messages come from white educators in the GME environment, given the substantial lack of representation of underrepresented minorities among academic medical center faculty. 31,32

One approach to addressing these deficiencies not only in GME but also across the entire continuum from education to practice is competency-based medical education (CBME).<sup>33</sup> CBME fundamentally differs from the traditional approach to medical education in that it begins with the most important outcome: the desired outcome for the patient. Educational programs and priorities are then developed and aligned to meet patient needs. Educators who

Provide recommended pediatric health screening

Care for the well newborn

Manage patients with acute, common diagnoses in an ambulatory, emergency, or inpatient setting

Recognize, provide initial management, and refer patients presenting with surgical problems

Assess and manage patients with common behavior/mental health problems

Contribute to the fiscally sound, equitable, and collaborative management of a health care workplace

Facilitate handovers to another health care provider either within or across settings

**FIGURE 1** Example of pediatric EPAs.<sup>37</sup>

use this approach can address inequities by focusing on the desired equitable outcomes and then developing an approach to teaching and assessing the tasks, knowledge, skills, and attitudes needed to achieve the goal of optimal, equitable patient care. The field of pediatrics, along with other specialties, has been on a journey toward a more competency-based approach to education for more than two decades, and the framework created for the future is built on entrustable professional activities (EPAs). 33-36 EPAs are observable, routine activities for a general pediatrician or pediatric subspecialist<sup>37</sup> (Fig 1). EPAs provide clinical context and function in the way all of us work and learn in the clinical environment. However, the original pediatric EPA framework developed by the American Board of Pediatrics (ABP) in conjunction with the general pediatrics and subspecialty communities did not adequately address structural racism, discrimination, and social determinants of health and their contribution to inequities.

This important gap in the EPA framework led leaders at ABP to put together a team to modify the EPA entitled: Apply Public Health Principles and Quality Improvement Methods to Improve Population Health, to better address racism, adverse social determinants of health, and equity. We outline the process for developing this new EPA, describe its contents, and share how it can be implemented to address these important issues to improve education and child health across the continuum from education to practice.

#### **METHODS**

# **Team Assembly**

A diverse, 6-member working group was assembled as part of the

ABP strategic initiative focused on diversity, equity, and inclusion. The members included 4 women (of whom 3 identify as Black and 1 identifies as white) and 2 men (of whom both identify as white and 1 identifies as gay), 1 pediatric residency program director and medical school assistant dean in the office of diversity and multicultural affairs, 1 medical educator in residency and fellowship training leadership, 1 associate dean of diversity and inclusion (who was a former residency director and a member of the original EPA writing team), and 1 faculty member who is the founder and director of the pediatric social justice group Race and Children Educational Collaborative of Anti-Racist Developmental-Behavioral Pediatric Professionals. The creation and efforts of the group were facilitated and coordinated by the vice president and program coordinator of CBME at ABP. The working group convened its initial meeting in October 2020, which involved a discussion regarding the EPA revision objectives, meeting cadence, and overall revision process and approval.

#### **EPA Revision**

In 2001, the Institute of Medicine's Quality of Health Care in America committee published the report Crossing the Quality Chasm: A New Health System for the 21st Century, urging for the fundamental change and redesign of the health care system in the United States. Six target areas for improvement were identified and built around the fundamental need for health care to be safe, effective, patient-centered, efficient, timely, and equitable.<sup>38</sup> Immediate and measurable change necessitates the use of quality improvement (QI) science, and physician acquisition of core QI knowledge and skills to initiate

change is important for a meaningful impact on outcomes. More specifically, QI approaches may be effective in addressing health inequities because they target modifiable aspects of care delivery and are predicated on adapting interventions based on data monitoring over time.<sup>39</sup> Finally, QI can be used in conjunction with population health strategies, which include (1) focusing on health and wellness rather than on illness; (2) embracing a population rather than an individual orientation; (3) understanding needs and solutions through community outreach; and (4) addressing health disparities, social determinants of health, and intersector action and partnerships.40

To this end, the working group aimed to revise the EPA entitled: Apply Public Health Principles and Quality Improvement Methods to Improve Population Health, which was originally published in 2013. We dramatically overhauled the EPA to (1) explicitly name racism as a driver of pediatric health inequities, (2) highlight the mechanism by which social determinants of health confer differential health outcomes among pediatric populations, and (3) bolster specific population health strategies and QI methods. We intentionally chose to integrate these principles into the existing EPA focused on QI and population health rather than to create a new and separate EPA focused on antiracism and inequities. By linking new content focused on antiracism and inequities with specific QI and population health tools and methods, we were able to create an EPA focused on meaningful and tangible action.

We used an iterative process to revise the EPA over the course of 12 months. First, each member of the working group reviewed the original EPA independently. Each member proposed edits as well as content additions related to racism, discrimination, social determinants of health, and health inequities that would support the functions of the reimagined EPA. The working group met every 2 weeks, and an initial revised draft was developed in December 2020.

Next, in January 2021, we reached out to 7 external experts in the areas of pediatric health inequities, racism, social determinants of health, population health, and/or QI to review the revised EPA. Four experts accepted the invitation to review. The experts included 1 woman who identifies as Middle Eastern (Iranian), 2 men who identify as white, and 1 man who identifies as Black/African American. Three of the reviewers have graduate degrees in public health, 1 reviewer is currently an associate program director of a pediatric residency program, 1 reviewer is the director of their center for child health policy and advocacy as well as the associate vice chair for community health at their institution, 1 reviewer is the leader of an institutional health equity network that uses improvement science to close equity gaps to optimize care delivery, and 1 reviewer is the director of research within his division. All 4 reviewers have extensive QI expertise. Each expert reviewed the EPA and provided feedback on the draft. We specifically solicited their reflections with regard to (1) gaps not adequately addressed in the revised draft; (2) whether any of the content was not well integrated or out of place; and (3) consistency, precision, and intentionality in our use of specific terms throughout the draft. We coalesced the feedback and edits from each expert into a single document and incorporated changes into the EPA by consensus.

We then sought feedback from several key stakeholders: (1) committees and leaders at the ABP, including the CBME committee, education and training committee, senior management team, and the board of directors; (2) the Board of Directors of the Federation of Pediatric Organizations, which includes 7 major pediatric organizations; (3) the medical education community through the Association of Pediatric Program Directors (APPD); and (4) trainees through the American Academy of Pediatrics Section on Pediatric Trainees and APPD's 2021 cohort Advancing Inclusiveness in Medical Education Scholars program, which comprises physician trainees traditionally underrepresented in medicine. All these reviewers provided feedback through an anonymous survey, which asked respondents to (1) rate their level of agreement about whether the EPA represents an important professional activity for general pediatricians and pediatric subspecialists, (2) provide comments or suggestions for any functions or elements that should either be added to or removed from the EPA, and (3) share examples of curricular assessments or tools for this EPA with the APPD Confronting Racism Action Team. Feedback from these reviewers was considered and integrated into the final draft by the working group. The final version of the EPA was published on the ABP Web site in September 2021.

# **RESULTS**

The new EPA, now entitled Use Population Health Strategies and Quality Improvement Methods to Promote Health and Address Racism, Discrimination, and Other Contributors to Inequities Among Pediatric Populations, <sup>41</sup> includes a discussion of the rationale for the content, scope of practice for general pediatricians and pediatric

subspecialists, essential functions, mapping to critical competencies, and a glossary of terms used throughout the document. A supplemental document was created that outlines specific curricular components for each of the critical functions included in the EPA. Table 1 highlights the 6 functions of the EPA with a select sample of corresponding curricular components.

Our goal was to develop an EPA that not only articulates the urgent need to identify pediatric health inequities but also provides general pediatricians and pediatric subspecialists with specific QI tools to promote health equity and antiracism. In addition to the added focus on addressing inequities, we revised QI curricular components to be more detailed and specific.

# **DISCUSSION**

The newly modified EPA is now included as a core component of the ABP CBME framework that defines what it means to be a general pediatrician or a pediatric subspecialist. At this critical juncture in health care and society at large, this timely addition will help to equip trainees, general pediatricians, and pediatric subspecialists to address health inequities in an intentional and meaningful way. The Centers of Disease Control and Prevention recently declared racism as a threat to public health. 42 This declaration serves as a call to action for health care organizations and those who work within the health care system. This call extends to education across the entire continuum, and how we choose to act and shift now will have implications for future generations of not only pediatricians but also our patients and their families. The EPA can serve as a guide for education and assessment in this important area and, hopefully, as a

TABLE 1 Six Functions of the FPA and Sample Curricular Components

EPA Function <sup>37</sup>	Sample Curricular Components
Recognizing one's professional responsibility to populations, communities, and society at large	Acknowledges and mitigates personal implicit and explicit biases, many of which are exacerbated by a greater historical context of systemic oppression  Recognizes the role that specific policies and practices play in maintaining systems of oppression and inequity, reinforcing biases, and creating inequitable outcomes  Reports systems errors, system or structural impediments to equitable care delivery, and/or reportable diagnoses through formally
Identifying populations placed at risk for poor health outcomes using statistical, epidemiological, public health, and community outreach measures	established mechanisms, committees, agencies, or processes Identifies populations by practice settings, various demographics, socioeconomic status, geographic region, and/or medical conditions as a critical first step to improving health outcomes  Knows the difference between equality and equity as they relate 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 that race is a social construct and has no biological basis and understands that race and ethnicity are both poor proxies for ancestry
Collaborating with diverse stakeholders in the development and implementation of initiatives to improve health outcomes	Interprets studies on racial inequities with an understanding that racism (not race) is an ever-important risk factor  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
Engaging in QI initiatives to improve patient care delivery, outcomes, and health care systems	discrimination  Recognizes the importance of cross-sector partnerships across a variety of medical and nonmedical disciplines to create upstream interventions to address inequitable policies and procedures and social determinants of health for specific patient populations  Uses 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 Uses tools such as run or control charts to measure process/system performance over time Appreciates the 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
Using data resources (eg, electronic health record, patient registries, databases) to advance QI and population health initiatives	Uses digital information to identify populations placed at risk and promote improved health outcomes for these populations Recognizes the limitations of administrative data from the electronic health record and other centralized data sources, including sources of bias (who entered the data, were 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 were captured contribute to bias), and how this affects data reliability and quality
Dismantling processes/systems rooted in racism and/or discrimination to address inequities <sup>10</sup> 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 affect the health and well-being 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, sex, gender identity, religion,
	sexual orientation, disability, language, income, geographic region, and nationality on the health and well-being of specific populations

Application of EPA Demonstrable Behaviors

Curriculum development: (1) GME curriculum and (2) individual professional development programs

Assessment: (1) Evaluation of individual trainees across a range of rotations and educational experiences as they progress toward unsupervised practice and (2) guide for ongoing education and self-assessment

Support organizational systems and culture change: (1) Propels QI and population health initiatives and 2) provides a scaffold for sponsoring institutions and health systems to develop programs to address systemic gaps in education and patient care delivery

Residency program develops a series of didactic and interactive educational sessions to address the EPA function identifying populations placed at risk for poor health outcomes using statistical, epidemiological, public health, and community outreach measures.

Resident QI curriculum, including the selection of a QI initiative to increase the percentage of social determinants of health screenings completed for patients admitted to the hospital, is informed by several functions of the EPA.

Group of practicing pediatricians listens to a series of podcasts focused on the impact of racism on child health and discusses the content and develops provider- and systems-level approaches to improve care delivery in their practices.

Office of professional development, in conjunction with the chief medical informatics officer, creates a seminar series focused on digital information and population health.

Program directors and faculty create an assessment form for the continuity of clinical experience that includes an evaluation of the residents' ability to identify populations placed at risk and promote improved health outcomes for these populations.

Community pediatrics rotation includes an assessment of residents' work to eliminate health inequities resulting from discrimination and prejudice based on race, ethnicity, age, sex, gender identity, religion, sexual orientation, disability, language, income, geographic region, and nationality on the health and well-being of specific populations.

General pediatrician or pediatric subspecialist in practice reviews EPA components under the function of dismantling processes/systems rooted in racism and/or discrimination to address inequities and achieve optimal health outcomes for all children as a means of identifying gaps in knowledge and areas for improvement. The practicing pediatrician then chooses to learn more about 1 system (eg, housing) and its impact on patients and families in their community.

Practicing pediatrician uses the EPA to create annual professional development goals that are then shared and discussed with their director or supervisor. The director then assists the practicing pediatrician in developing a plan to accomplish the outlined goals.

Institutions develop activities informed by this EPA to address the known variation in knowledge of and comfort with various topics (eg, population health, health disparities, QI) and to ensure that general pediatricians and pediatric subspecialists are well equipped to educate and evaluate trainees.

Institutions provide support and create opportunities for practicing pediatricians to receive Maintenance of Certification Part 4 credit for the development and execution of QI initiatives that address health disparities.

Hospital leaders of safety and quality, patient and family experience, diversity and inclusion, and GME join forces to implement a comprehensive process that accomplishes the goals of several EPA components, including reports systems errors, system or structural impediments to equitable care delivery, and/or reportable diagnoses through formally established mechanisms, committees, agencies, or processes.

To promote data transparency, an institution develops an equity dashboard that includes specific metrics that identify equity gaps related to utilization, cost, patient safety, and patient and family experience.

model for other specialties and disciplines to use as they address health inequities.

The EPA can be used in a variety of ways (Table 2). First, at the GME program level, the EPA can be used to build curricula to address

important concepts. As a supplement to the EPA, a list of suggested curricular components is included, and programs can use

these items to develop their own educational initiatives that center on  $\geq$ 1 functions of the EPA; the associated components can serve as specific learning objectives. This approach is useful for building content that can be delivered in a variety of ways, including traditional didactic lecture format and many interactive and action-oriented activities. Leaders in the pediatric program director community, including APPD, have taken this approach 1 step farther and are using this new EPA as a framework to build a curriculum that can be shared nationally across programs, regardless of geographic location or resources.43

Another important role for this EPA at the GME program level is in assessing individual learners as they progress toward unsupervised practice in performing the EPA. All EPAs are assessed by using an EPA supervision scale, with an expectation that learners during GME training advance toward unsupervised practice, known as entrustment. This new EPA, like many others, can be broken down into manageable components and used across a range of different rotations and educational experiences to inform a decision about progression toward entrustment over time. For example, a trainee's performance of this EPA during an advocacy rotation could be assessed through several curricular components on a formal evaluation, including (1) advocating for children, families, and populations at the local, state, and/ or federal levels and (2) recognizing the importance of cross-sector partnerships across a variety of medical and nonmedical disciplines to create upstream interventions to address inequitable policies and procedures and social determinants of health for specific patient populations. Likewise, formal

evaluations for trainees on ambulatory, emergency department, and/or inpatient rotations may include a variety of curricular components, including (1) identifying ways to more effectively treat conditions, prevent disease, and promote the health of patients and populations; (2) recognizing critical variations in practice that have led or could lead to patient harm and/or inequity; (3) demonstrating cultural humility by seeking out the priorities and perspectives of the patient, community, and/or population served; (4) reporting systems errors, system or structural impediments to equitable care delivery, and/or reportable diagnoses through formally established mechanisms, committees, agencies, or processes; (5) collaborating as a member of an interprofessional health care team in efforts to improve population health; (6) maintaining 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; and (7) standardizing care practices to remove variation due to racism. bias, and other forms of discrimination with the goal of eliminating health inequities.

The EPA is designed to apply well beyond GME training, given that the supervision scale for this EPA ranges from "observe only" through "lead collaborative efforts to improve care at the level of populations and systems at the regional and/or national level." Although development of the relevant knowledge, skills, and attitudes to perform this EPA should ideally start before and continue through GME training, this early development is only the beginning.

For those in early practice after training, as well as experienced faculty, this EPA can be used as a guide for ongoing education and self-assessment. For practicing general pediatricians and pediatric subspecialists, this EPA provides a framework for evaluating one's own practice, identifying areas for improvement to address health care quality issues in general, and assessing potential areas of inequity. Furthermore, this EPA can be used by practicing general pediatricians and pediatric subspecialists to guide participation in available professional development activities or in larger ways as individuals or teams develop and/or participate in QI projects as part of their continuing certification and lifelong learning.

On a broader scale, ABP has numerous ways general pediatricians and pediatric subspecialists can obtain Maintenance of Certification Part 2 and Part 4 credit for participating in activities in support of or informed by this EPA. In addition to the impact on child health and the care of patients by these physicians, activities of this nature are of particular importance given the role of practicing general pediatricians and pediatric subspecialists in the education of learners and the public. Institutions, health systems, and other pediatric organizations can create professional development activities informed by this EPA to address the known variation in knowledge of and comfort with these important topics and to ensure that general pediatricians and pediatric subspecialists are well equipped to provide equitable care while educating and evaluating learners.

Every pediatrician responsible for patient care must be committed to lifelong learning and improvement. This EPA fills a gap by providing a framework for both education and assessment across the entire continuum of learning and practice that is focused on equitable care and addressing adverse health disparities. This framework provides an opportunity to better address inequities in children from the individual general pediatrician or pediatric subspecialist to the larger community of practice as we lead in this important area as a specialty.

The next step in this process is to

build on this foundation and move toward broader implementation and application of this EPA in both GME and practice. The ABP has committed to broader implementation of the EPA framework as part of the future of initial and continuing certification, and this EPA represents a critical component of that process. Collaboration with the ACGME and other professional societies is essential to adapt and scale the EPA for other specialties. Broader

implementation of this important activity is not without challenges and potential barriers, which include the need for shared responsibility among pediatric professional organizations, health systems, and/or academic institutions to ensure that all practicing pediatricians participate in professional activities tied to the content of the EPA and the need for high-quality curricular materials, professional development content, and assessment tools that

effectively address gaps in knowledge and skills necessary to develop competency. Institutional culture and variability in knowledge and comfort in these areas among individuals are also challenges. However, collaboration between members of our pediatrics community and the various pediatric organizations that are committed to this work provides an opportunity for our specialty to lead the way toward a brighter and more equitable future for the care

not only of children but also of all patients.

### **ACKNOWLEDGMENTS**

We thank Drs Andrew Beck, Patrick Brady, Jean L. Raphael, and Sahar Rooholamini, who served as our expert reviewers of the EPA draft.

#### **ABBREVIATIONS**

ABP: American Board of Pediatrics

ACGME: Accreditation Council for Graduate Medical Education

APPD: Association of Pediatric Program Directors

CBME: competency-based medical education

EPA: entrustable professional activity

activity

GME: graduate medical education

QI: quality improvement

FUNDING: No external funding

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

#### **REFERENCES**

- Spencer N, Raman S, O'Hare B, Tamburlini G. Addressing inequities in child health and development: towards social justice. BMJ Paediatr Open. 2019;3(1):e000503
- Ely DM, Driscoll AK. Infant mortality in the United States, 2018: data from the Period Linked Birth/Infant Death File. *Natl Vital Stat Rep.* 2020;69(7):1–18
- Willi SM, Miller KM, DiMeglio LA, et al; T1D Exchange Clinic Network. Racial-ethnic disparities in management and outcomes among children with type 1 diabetes. Pediatrics. 2015;135(3):424–434
- 4. Mitchell HK, Reddy A, Montoya-Williams D, Harhay M, Fowler JC, Yehya N. Hospital outcomes for children with severe sepsis in the USA by race or ethnicity and

- insurance status: a population-based, retrospective cohort study. *Lancet Child Adolesc Health*. 2021;5(2):103–112
- Nafiu 00, Mpody C, Kim SS, Uffman JC, Tobias JD. Race, postoperative complications, and death in apparently healthy children. *Pediatrics*. 2020;146(2):e20194113
- Stone ML, Lapar DJ, Kane BJ, Rasmussen SK, McGahren ED, Rodgers BM. The effect of race and gender on pediatric surgical outcomes within the United States. *J Pediatr Surg.* 2013;48(8):1650–1656
- 7. Goyal MK, Kuppermann N, Cleary SD, Teach SJ, Chamberlain JM. Racial disparities in pain management of children with appendicitis in emergency departments. *JAMA Pediatr*. 2015;169(11):996–1002

- Beck AF, Anderson KL, Rich K, et al. Cooling the hot spots where child hospitalization rates are high: a neighborhood approach to population health. *Health Aff (Millwood)*. 2019;38(9):1433–1441
- Marrast L, Himmelstein DU, Woolhandler S. Racial and ethnic disparities in mental health care for children and young adults: a national study. *Int J Health Serv.* 2016;46(4):810–824
- Dotson JL, Kappelman MD, Chisolm DJ, Crandall WV. Racial disparities in readmission, complications, and procedures in children with Crohn's disease. *Inflamm Bowel Dis.* 2015;21(4):801–808
- 11. Kou YF, Sakai M, Shah GB, Mitchell RB, Johnson RF. Postoperative respiratory complications and racial disparities following inpatient pediatric tonsillectomy:

- a cross-sectional study. *Laryngoscope*. 2019;129(4):995–1000
- 12. Nash KA, Zima BT, Rothenberg C, et al. Prolonged emergency department length of stay for US pediatric mental health visits (2005–2015). *Pediatrics*. 2021;147(5):e2020030692
- Bailey ZD, Feldman JM, Bassett MT. How structural racism works - racist policies as a root cause of U.S. racial health inequities. N Engl J Med. 2021;384(8): 768-773
- 14. Baciu A, Negussie Y, Geller A, Weinstein JN, eds. Communities in Action: Pathways to Health Equity. Washington, DC: National Academies of Sciences, Engineering, and Medicine; 2017
- HealthyPeople.gov. Social determinants of health. Available at: https://www. healthypeople.gov/2020/topics-objectives/ topic/social-determinants-of-health. Accessed November 1, 2021
- Rider GN, McMorris BJ, Gower AL, Coleman E, Eisenberg ME. Health and care utilization of transgender and gender nonconforming youth: a population-based study. *Pediatrics*. 2018;141(3):e20171683
- 17. Schwartz NA, von Glascoe CA, Torres V, Ramos L, Soria-Delgado C. "Where they (live, work and) spray": pesticide exposure, childhood asthma and environmental justice among Mexican-American farmworkers. *Health Place*. 2015;32:83–92
- Charnaya O, Verghese P, Goldberg A, Ladin K, Porteny T, Lantos JD. Access to transplantation for undocumented pediatric patients. *Pediatrics*. 2020;146(1): e20193692
- Eneriz-Wiemer M, Sanders LM, Barr DA, Mendoza FS. Parental limited English proficiency and health outcomes for children with special health care needs: a systematic review. *Acad Pediatr*: 2014;14(2): 128–136
- Wagner R, Koh N, Bagian JP, Weiss KB;
   CLER Program. CLER 2016 National Report of Findings. Issue Brief #4: Health Care Disparities. Chicago, IL: Accreditation Council for Graduate Medical Education; 2016
- 21. Martimianakis MA, Michalec B, Lam J, Cartmill C, Taylor JS, Hafferty FW. Humanism, the hidden curriculum, and educational reform: a scoping review and thematic

- analysis. *Acad Med.* 2015;90 (11 suppl):S5–S13
- 22. Choe AY, Unaka NI, Schondelmeyer AC, Bignall WJR, Vilvens HL, Thomson JE. Inpatient communication barriers and drivers when caring for limited English proficiency children. J Hosp Med. 2019;14(10):607–613
- 23. Choe AY, Thomson JE, Unaka NI, et al. Disparity in nurse discharge communication for hospitalized families based on English proficiency. *Hosp Pediatr*: 2021; 11(3):245–253
- 24. Kenison TC, Madu A, Krupat E, Ticona L, Vargas IM, Green AR. Through the veil of language: exploring the hidden curriculum for the care of patients with limited English proficiency. Acad Med. 2017;92(1): 92–100
- Goddu AP, O'Conor KJ, Lanzkron S, et al. Do words matter? Stigmatizing language and the transmission of bias in the medical record. *J Gen Intern Med.* 2018;33(5):685–691
- Green AR, Nze C. Language-based inequity in health care: who is the "poor historian"? AMA J Ethics. 2017;19(3): 263–271
- Glaser J, Pfeffinger A, Quan J, Fernandez A. Medical students' perceptions of and responses to health care disparities during clinical clerkships. Acad Med. 2019;94(8):1190–1196
- Cerdeña JP, Plaisime MV, Tsai J. From race-based to race-conscious medicine: how anti-racist uprisings call us to act. *Lancet*. 2020;396(10257):1125–1128
- 29. Hoffman KM, Trawalter S, Axt JR, Oliver MN. Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. *Proc Natl Acad Sci U S A.* 2016;113(16): 4296–4301
- American Academy of Pediatrics Board of Directors and Executive Committee. AAP perspective: race-based medicine. Pediatrics. 2021;148(4):e2021053829
- 31. Rodríguez JE, Campbell KM, Pololi LH. Addressing disparities in academic medicine: what of the minority tax? *BMC Med Educ.* 2015;15:6
- 32. Lett E, Orji WU, Sebro R. Declining racial and ethnic representation in clinical academic medicine: a longitudinal study

- of 16 US medical specialties. *PLoS One*. 2018;13(11):e0207274
- 33. Cate OT, Carraccio C. Envisioning a true continuum of competency-based medical education, training, and practice. *Acad Med.* 2019;94(9):1283–1288
- Holmboe ES. The transformational path ahead: competency-based medical education in family medicine. Fam Med. 2021;53(7):583–589
- 35. Karpinski J, Frank JR. The role of EPAs in creating a national system of time-variable competency-based medical education. *Acad Med.* 2021;96(7S):S36–S41
- El-Haddad C, Damodaran A, McNeil HP, Hu
   W. A patient-centered approach to developing entrustable professional activities.
   Acad Med. 2017;92(6):800–808
- 37. American Board of Pediatrics. Entrustable Professional Activities for General Pediatrics. Available at: https://www.abp.org/entrustable-professional-activities -epas. Accessed September 15, 2021
- 38. Institute of Medicine (US) Committee on Quality of Health Care in America. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: National Academies Press; 2001
- 39. Lion KC, Raphael JL. Partnering health disparities research with quality improvement science in pediatrics. *Pediatrics*. 2015;135(2):354–361
- 40. 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 Med. 2014;2:2050312114522618
- 41. American Board of Pediatrics. EP14: Use Population Health Strategies and Quality Improvement Methods to Promote Health and Address Racism, Discrimination, and Other Contributors to Inequities Among Pediatric Populations. Available at: https:// www.abp.org/sites/abp/files/pdf/gen\_peds\_ epa\_14.pdf. Accessed September 15, 2021
- 42. Centers for Disease Control and Prevention. Racism and Health. Available at: https://www.cdc.gov/healthequity/racism-disparities/index.html. Accessed September 15, 2021
- 43. Association of Pediatric Program Directors. APPD Confronting Racism Action
  Plan and Dashboard. Available at: https://mk0pediatricpro0yafp.kinstacdn.com/