Increasing the Resolution and Broadening the Focus on Childhood Asthma Disparities

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In recent decades, national estimates have demonstrated growing childhood asthma disparities.[1,2] But this bird's-eye view could not clearly identify underlying causes or remedies needed at the complicated ground level. In this issue of *Pediatrics*, Tyris et al,[3] in their study of adverse asthma outcomes among children in Washington, DC, marry 2 innovations, use of at-risk rates to measure asthma outcomes and assessment of social determinants of health (SDOH) at the census tract level, to reveal aspects of disparities that can inform actions to address them.

The higher rates of adverse asthma outcomes among people from some racial and ethnic minority groups or with low income are fueled by 2 components. First, asthma prevalence is higher among these groups.[4] Primary prevention of asthma, that is, stopping asthma from developing in the first place, is still an elusive goal and therefore few interventions exist to address asthma prevalence disparities.[5] Second, children with asthma from these groups are at higher risk of adverse asthma outcomes.[1] In contrast to primary prevention, secondary prevention measures, aimed at preventing asthma attacks, hospitalization, and death among people with asthma, are well defined and evidence based.[6] At-risk rates, as Tyris et al explain,[3] remove prevalence differences from the measurement of outcome differences and thereby measure the aspect of disparities for which interventions are proven effective. At-risk rates focus on this "actionable" component of disparities but do not provide insight into why disparities may exist.

Examining SDOH, which are unequally distributed in the population, can get closer to the "why" component of disparities. A substantial portion of asthma disparities are associated with SDOH.[7,8] Examining SDOH shifts the focus from nonbiologic constructs (ie, race and ethnicity) to contextual factors that can guide choice of interventions and inform implementation. This type of research is not new. Previous studies have also examined distribution of SDOH by census tract to look at the intersection between asthma morbidity and contextual factors with the goal of informing population-level interventions.[9] What has changed? Primarily, there is renewed recognition of the larger landscape. The broadening of focus beyond individuals and onto communities has been prompted by the COVID-19 pandemic, which dramatically revealed the impact of occupation and place of residence on health risks and outcomes and bolstered contextual analyses. Additionally, increasingly powerful analytic tools are available to reveal undetected and/or more nuanced associations between exposures and health outcomes.[10] Tyris et al's analysis[3] demonstrates how looking at data in new ways may contradict

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the expectations developed over the past several decades.

We therefore read the work of Tyris et al[3] as a renewed call to action. Creative use of existing data to assess the impact of SDOH is needed. However, ecologic studies in and of themselves do not change conditions faced by people who have been historically oppressed for hundreds of years because of the color of their skin or who must choose between paying for rent or for medications. Progress beyond descriptions toward positive actions in communities may help transform the framework of addressing health disparities. A community-based framework would also help to dispel the illusion that individual pediatricians acting alone can tackle the multiple challenges facing families in a comprehensive and sustainable way.

Systemic positive change requires systems-based approaches.[7,8] For example, the findings of the high housing vacancy rate in certain census tracts can inform efforts to build newer housing or renovate older housing. Additionally, in areas of high crime rates, investments could create job opportunities for youth and adults.[11,12] There is also longstanding consensus that the community's voice should be front and center.[13] Pediatricians have been at the helm of community-based interventions and have provided the examples for and evidence to support effective systemic intervention. For example, because Philadelphia is a city of neighborhoods, the Children's Hospital of Philadelphia's Center for Health Equity is taking a neighborhood-by-neighborhood approach to working with communities to improve the health of children.[14] Importantly, this approach is more granular in nature and allows the institution and its partners to listen better, to understand assets and opportunities, and to target relevant interventions to achieve health equity. Important work has also been done toward meeting children where they spend most of their time, at school, with education and clinical interventions to fill the access to care gap[15,16] and in their homes with community health workers.[9]

We acknowledge that given the complexity of SDOH and other contextual factors that have resulted in health disparities, multipronged, long-term efforts are the most likely to show impact. By looking at outcomes from an at-risk perspective and linking them to contextual risk factors, Tyris et al[3] give us a more meaningful methodology for measuring and mapping risk and outcomes at the census tract level and working for change.

ABBREVIATION

SDOH: social determinants of health

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