POLICY BRIEF

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Legislative Priorities for Developing the Next Generation of Diverse Child Health Researchers

Executive Summary

Investing in child and adolescent health research, conducted by diverse researchers, benefits individual children and their lifelong health, their families, communities, and the overall economic, educational, and general health of our nation. Policies and programs are urgently needed to create and enhance career pathways for child and adolescent health researchers and to increase diversity in this research workforce.

Legislative priorities should include:

1. Supporting and expanding the Pediatricians Accelerate Childhood Therapies (PACT) Act of 2021 (HR.3773/S.1357)
2. Supporting loan repayment for child and adolescent health researchers
3. Funding a cross-institutional cohort for child and adolescent health researchers from underrepresented groups
4. Investing substantially in career pathways to ensure a strong workforce of diverse child and adolescent health researchers who will improve the health of our children and the adults they will become. In conjunction with prioritizing diversity in these crucial training programs, advocacy is urgently needed to grow overall resources allocated to these underfunded programs.

Why focus on child and adolescent health research?

- Health early in the life course profoundly influences health across the lifespan. Most adult chronic physical and behavioral conditions have their roots in childhood and adolescence. Child health research is essential to prevent, minimize, and effectively treat disease, improve population health, reduce health inequities and disparities, and reduce health care costs.
- The U.S. child population is increasingly diverse (in 2020, 50% of children were people of color) and health disparities begin in childhood.
- The number of research scholars supported by the foundational NIH K12 Child Health Research Career Development Awards was cut by 61% in the last decade.

Multiple barriers impede child health research:

- Historically, child and adolescent health research has often been deprioritized at universities and medical centers focused on adult medicine and by some funding agencies. For example, the All of Us Research program—which launched enrollment in 2018—still has not recruited children.
- Only institutions of higher education are eligible for some NIH awards, creating challenges for freestanding children's hospitals in applying.
- Funding of pediatric clinical care increasingly relies on Medicaid/CHIP, which yields low margins and places stress on pediatric medical centers.
- Children make up 22% of the U.S. population and many pediatric diseases are rare. Thus, it is financially challenging for biopharmaceutical companies to conduct research on pediatric therapies. Adequate study size requires multiple sites and longer duration studies, which are more expensive.

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Why focus on diversity in the child and adolescent health research career pathway?

- Research quality, productivity, and innovation increase dramatically when performed by diverse researchers and diverse teams.
- The lack of gender, racial and ethnic diversity in biomedical research faculty is an intractable situation. Current trajectories predict that it will take almost 50 years for women to reach parity as professors and centuries for underrepresented racial and ethnic groups to reach parity.[1,2,3]
- The career development of diverse child health researchers is endangered by experiences of racism and discrimination, inadequate recruitment, funding limitations and attrition ("leaky pipelines").[4] While these challenges may exist for all researchers, child health investigators have been disproportionately affected.[5]
- People of color participate in research studies at a lower rate than White individuals, diminishing the applicability of research outcomes. Diversifying the child health research workforce can assist in improving participation.

What are the legislative priority areas of focus for child health research and diversity in the child health career researcher pathway?

1 **Support and expand the Pediatricians Accelerate Childhood Therapies (PACT) Act of 2021 (H.R.3773/S.1357).**

- Expand NIH support of pediatric early career researchers through trans-NIH mechanisms with a focus on historically underrepresented groups.
- Codify the Trans-NIH Pediatric Research Consortium (N-PeRC) initiated in 2018 to strengthen how the NIH coordinates and establishes priorities for pediatric research across all the NIH institutes and centers.

2 **Expand loan repayment programs for diverse child and adolescent health researchers.**

- Expand and support inclusion of child health researchers in the Pediatric Subspecialty Loan Repayment Program (PSLRP).
- Expand the successful NIH Loan Repayment Program (LRP) prioritizing child health researchers from underrepresented groups.

3 **Fund a cross-institutional cohort for child and adolescent health researchers from underrepresented groups.**

- To address institutional cultural and structural barriers to career success, a cohort for diverse child health researchers is needed similar to the NIH Faculty Institutional Recruitment for Sustainable Transformation (FIRST) program, which recruits diverse cohorts of early-stage research faculty and prepares them to thrive as NIH-funded researchers. NIH should establish a FIRST initiative focused on child health researchers (Kids-FIRST).

4 **Invest substantially in career pathways to child and adolescent health research programs that have demonstrated success in increasing the number of underrepresented child health researchers and programs explicitly designed to enhance diversity. These programs must study and track success in developing, retaining and promoting a diverse cadre of future leaders in child health research.**

- Career pathway programs should include:
  - *Middle school and high school programs* that provide child health research experiences, e.g. Science Education Partnership Awards (SEPA)
  - *College and graduate programs* that support child health research, e.g. Ronald E. McNair Postbaccalaureate Achievement Program and Graduate Research Training Initiative for Student Enhancement (G-RISE)
  - *Medical student programs,* e.g. Medical Scientist Training Program (MSTP), Medical Student Summer Research Program (MSSRP)
  - *Pediatric residency programs* – alternative and integrated research pathways in training
  - *Early career faculty programs* – NIH diversity supplements, NIH loan repayment programs, mentorship programs, cluster hiring of underrepresented faculty, K awards for diverse individuals

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[1] Valantine HA et al, The gender gap in academic medicine: comparing results from a multifaceted intervention for Stanford faculty to peer and national cohorts, *Acad Med* 2014;89:904-11
[2] https://ncses.nsf.gov/pubs/nsf21321/
[3] https://www.aamc.org/data-reports/faculty-institutions/interactive-data/us-medical-school-faculty-trends-percentages
[4] Burns, A. M. et al. Fixing the leaky pipeline: identifying solutions for improving pediatrician-scientist training during pediatric residency. *Pediatr Res*. 88, 163–167 (2020).
[5] Good M., McElroy S. J., Berger, J. N. & Wynn, J. L. Name and characteristics of National Institutes of Health R01-funded Pediatric physician-scientists: hope and challenges for the vanishing Pediatric physician-scientists. *JAMA Pediatr.* 172, 297–299 (2018).