



American Psychological Association

Response to the Request for Information (RFI) on the
Eunice Kennedy Shriver National Institute of Child Health and Human Development
NOT-HD-24-028
October 11, 2024

The American Psychological Association (APA) is pleased to provide comments to the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) for the Request for Information (RFI): NICHD Strategic Plan 2025 (NOT-HD-24-028). APA is the leading scientific and professional organization representing psychology in the United States (U.S.), composed of more than 157,000 researchers, educators, clinicians, consultants, and students. Its mission is to promote the advancement, communication, and application of psychological science and knowledge to benefit society and improve lives. Under the leadership of APA's CEO Dr. Arthur C. Evans, Jr., PhD, APA has prioritized using a population health approach which addresses the cultural, economic, systemic, historical, environmental, relational, and occupational contexts that influence health status, wellbeing, and functioning across the lifespan.

Research Goal #1: Understanding the Molecular, Cellular, and Structural Basis of Development

Given that many children in the U.S. and around the globe experience significant stress and adversity, NICHD's ongoing commitment to addressing these challenges affecting children, their parents and caregivers, educators, and communities is crucial.

Child maltreatment, witnessing violence, economic hardship, and separation from parents and caregivers are just a few examples of psychosocial adversity that are known to profoundly affect a child's developmental trajectory. Under these conditions, brain architecture and other organ systems fail to develop and function properly, leading to an increased risk of physical and mental disorders. There is also a legacy of childhood adversities, with far-reaching physical and mental health consequences that affect future generations.

When exploring the extrinsic factors that can influence development, it is critical that we include the psychological and behavioral aspects. APA is appreciative of NICHD's current research on adverse childhood experiences (ACEs). ACEs can have long-term physical and mental health impacts and contribute to health inequities. Research has confirmed that high levels of childhood adversity are associated with poor birth outcomes. More ACE research

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should test interactive risk models and causal mechanisms through which childhood adversity compromises reproductive health.¹

Research also demonstrates the extraordinary risk that mothers' ACEs pose for infant and maternal health outcomes over and above the associations with known maternal health risks during pregnancy, including overweight/obesity, smoking, and alcohol use. NICHD should continue this critical research to better understand how ACEs impact our health and wellness and address the potential intergenerational transmission of ACEs^{2 3} at the individual and population levels.⁴

For continued progress in understanding the psychosocial underpinnings of children's development, basic science must continue to be foundational to NICHD's strategy. Translational and clinical outcomes are not possible without a fundamental understanding of bio-behavioral systems. Discoveries made in basic research create avenues for understanding normative development and further research into potential treatment of conditions while also providing key insights into measures that prevent congenital and acquired behavioral and physical conditions from occurring. Basic and comparative research that provide non-human animal models of children's development must remain central in the funding priorities of NICHD.

Research Goal #2: Promoting Gynecologic, Andrologic, and Reproductive Health

The NICHD Strategic Plan should prioritize research that identifies the psychological and behavioral aspects of infertility and menopause to better understand reproductive stages across the life cycle.

The rates of women experiencing infertility and/or utilizing reproductive technology to become pregnant will continue to rise as women and couples wait to have children and start a family. One study found that 26% of women and 9% of men undergoing infertility

¹ Mersky JP, Lee CP. Adverse childhood experiences and poor birth outcomes in a diverse, low-income sample. *BMC pregnancy and childbirth*. 2019;19(1). <https://doi.org/10.1186/s12884-019-2560-8>

² Roth, T. L. (2017). Epigenetic advances in behavioral and brain sciences have relevance for public policy. *Policy Insights from the Behavioral and Brain Sciences*, 4(2), 202-209. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5708565/pdf/nihms890960.pdf>. doi:10.1177/2372732217719091.

³ Weems, C. F., Russell, J. D., Herringa, R. J., & Carrion, V. G. (2021). Translating the neuroscience of adverse childhood experiences to inform policy and foster population-level resilience. *American Psychologist*, 76(2), 188–202. <https://doi.org/10.1037/amp0000780>

⁴ Ciciolla L, Shreffler KM, Tiemeyer S. Maternal Childhood Adversity as a Risk for Perinatal Complications and NICU Hospitalization. *J Pediatr Psychol*. 2021 Aug 11;46(7):801-813. doi: 10.1093/jpepsy/jsab027. PMID: 34304270; PMCID: PMC8634314.



treatment met the criteria for major depressive disorder.⁵ Infertility can cause psychological distress, emotional stress and financial difficulties for both partners.⁶

With the number of menopausal women projected to reach 1.2 billion by 2030 worldwide⁷, it is critically important to understand how menopause may affect women's emotional well-being and how many women are affected by this.⁸ More research is needed on women's health throughout the lifespan, specifically menopause. The effects of menopause, due to proven hormonal changes, include anxiety, depression and change of sleep patterns. The NICHD research plan should continue to work with other institutes to focus on the mental health impacts on women during this time in their life. More research is needed to better understand what can be done to help women during this period.

Research Goal #3: Setting the Foundation for Healthy Pregnancies and Lifelong Wellness

Psychological data should be used to inform interventions for adverse maternal health conditions and complications of pregnancy including preconception, psychological distress, the future impact on children, and the impact on diverse populations.

Research has shown that individuals' health and lifestyle choices before conception can significantly influence the health outcomes of their offspring. By addressing modifiable risk factors and providing targeted interventions, preconception care can reduce the incidence of various neonatal and birth disorders, leading to healthier pregnancies and improved long-term health outcomes for children.⁹ These disorders can manifest as physical, cognitive, or developmental abnormalities and may significantly impact affected individuals' well-being and quality of life.¹⁰

⁵ Galic, I., Swanson, A., Warren, C., Olivia, N., Bozen, A., Brown, D., Lawson, A. and Jain, T. (2021). Infertility in the Midwest: perceptions and attitudes of current treatment. *American Journal of Obstetrics and Gynecology*. doi: <https://doi.org/10.1016/j.ajog.2021.02.015>

⁶ International estimates of infertility prevalence and treatment-seeking: potential need and demand for infertility medical care. Boivin J, Bunting L, Collins JA, Nygren KG. *Hum Reprod*. 2007;22:1506–1512.

⁷ Maturitas. The demography of menopause. 1996 Mar;23(2):113-27. doi: 10.1016/0378-5122(95)00968-x. Viewed September 21, 2021. <https://pubmed.ncbi.nlm.nih.gov/8735350/>

⁸ Menopause: The Journal of The North American Menopause Society Vol. 27, No. 5, pp. 498-505.

⁹ Kuck, M. J., & Hogervorst, E. (2024). Stress, depression, and anxiety: psychological complaints across menopausal stages. *Frontiers in psychiatry*, 15, 1323743. <https://doi.org/10.3389/fpsyt.2024.1323743>

¹⁰ Preconception care for improving perinatal outcomes: the time to act. Atrash HK, Johnson K, Adams M, Cordero JF, Howse J. *Matern Child Health J*. 2006;10:0–11.

¹¹ Institute of Medicine (US) Committee on Improving Birth Outcomes. *In: Reducing birth defects: meeting the challenge in the developing world*. Washington, D.C: National Academies Press (US); 2003. Impact and patterns of occurrence; pp. 22–67.



Research also suggests that psychological distress during the pregnancy period has a small but persistent effect on children's risk for aggressive, disinhibited and impulsive behaviors. Providing widely accessible mental health care and support during pregnancy may be a critical step to help prevent childhood behavior problems. Researchers found that women who reported more anxiety, depression or stress while pregnant were more likely to have children with more ADHD symptoms or who exhibited more difficulties with aggressive or hostile behavior, as reported by parents or teachers.¹¹

Among Black women, there is a healthy distrust of healthcare providers, particularly mental health care providers. Racism has played a role in this distrust, leading to worse pregnancy/birth outcomes for Black women. There is also a fear of losing custody of their children and the infant. For this reason, oftentimes repeated screening is essential. Community-based programs focused on emotional health intervention are helpful. Partnerships between trusted institutions and universities or medical centers are needed and are showing promise. Finally for Black women receiving interventions from interventionists who look like them is critical to success. It should be added that training for those who are delivering the intervention or doing the research is needed. These women do not present and behave in textbook ways. Understanding of the subcultures and sub-economies that are part of some neighborhoods is important in making a difference and vital to improve patient outcomes.

As many as a quarter of women who experience pregnancy loss have lasting adjustment problems. Some research suggests that up to 30 percent of pregnancy losses are followed by significant emotional reactions, and one in 10 women exhibit signs of a diagnosable disorder such as anxiety, depression or post-traumatic stress disorder following a reproductive loss.¹²

The NICHD should collaborate across federal agencies to ensure more research and public education on the importance of preconception care, the role of psychological distress, the

¹¹Tung I, Hipwell AE, Grosse P, Battaglia L, Cannova E, English G, Quick AD, Llamas B, Taylor M, Foust JE. Prenatal stress and externalizing behaviors in childhood and adolescence: A systematic review and meta-analysis. *Psychol Bull.* 2024 Feb;150(2):107-131. doi: 10.1037/bul0000407. Epub 2023 Nov 16. PMID: 37971856; PMCID: PMC10932904.

¹² Markin, R. D. (2017). An introduction to the special section on psychotherapy for pregnancy loss: Review of issues, clinical applications, and future research direction. *Psychotherapy*, 54(4), 367–372. <https://doi.org/10.1037/pst0000134>



future impact on children, and the impact on diverse populations. It is critical that we use this research to ensure healthier pregnancies and lifelong wellness.

Research Goal #5: Advancing Safe and Effective Therapeutics and Devices for Pregnant and Lactating Women, Children, and People with Disabilities

Research Goal #5 includes critical components relevant to several populations. We recommend a separate goal focused on ensuring the effectiveness and safety of therapeutic devices for reproductive health alone.

Cross-Cutting Themes

Global health: More research is needed to create standard tools and questionnaires that can be used to determine prevalence, recruit high risk persons, and evaluate program evaluations. These tools are needed for children aged 10-18, as currently few measures exist for this population.

Health disparities: APA supports more understanding of the cultural and psychological factors that apply to the community models that we use to eliminate health disparities. By coordinating and delivering needed community-based resources to address the known causes of health disparities, we will eliminate inequality in opportunity, safety, and access to care. In addition, research that advances reliable, population-level screening for conditions such as autism and exposure to ACEs increases understanding of what types of prevention services and treatments to address them are needed and where to provide them.^{13 14}

NICHD's continued support of research on the social and structural determinants of health is designed to further understand inequalities children experience and identify evidence-based approaches to addressing the impacts of economic, racial, geographical, and other forms of injustice.¹⁵ Research on root causes of the youth mental health crisis and other conditions affecting the health of all children points the way to solutions at the population

¹³ Centers for Disease Control and Prevention (2019). Preventing adverse childhood experiences: Leveraging the best available evidence. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

¹⁴ Shaw, D. S., Mendelsohn, A. L., & Morris, P. M. (2021). The Smart Beginnings model: Tiered prevention integrated in health care and home visiting to address poverty disparities in child development and promote school readiness. *Clinical Child and Family Psychology Review*, 24, 669–683. <https://doi.org/10.1007/s10567-021-00366-0>

¹⁵ Heller, J. C., Givens, M. L., Johnson, S., & Kindig, D. A. (2024). Keeping it political and powerful: Defining structural determinants of health. *Milbank Quarterly*, 102(2), 351-366. <https://doi.org/10.1111/1468-0009.12695>



level, including interventions delivered where children and their caregivers are, from pediatric visits, school, and in other community settings.¹⁶

Prevention: More research is needed to foster prevention-centered innovation that involves new technology and integrates community-based health workers who can be trained to do basic services at lower costs than professionals. Community health workers are also the fastest track to diversifying the workforce and putting workers where they are needed. We also need to involve the community in prioritizing the services they need and assisting implementation of community-based coordinated response. Given the impact of health during pregnancy and early infancy on health trajectories across the lifespan, the development and implementation of evidence-based interventions across the perinatal period should be a priority.

Prevention and intervention at scale requires fidelity to evidence-based interventions and treatments, and research that uses implementation science and collaborative improvement and innovation methods have led to progress in areas such as early childhood home visiting and adaptation of models to different populations. NICHD should continue to contribute to progress in both the methods and use of implementation through funding decisions and convening experts to address specific areas of need.^{17,18}

Research Training: To truly meet the needs of the established NICHD goals, we would like to see more opportunities to develop researchers who do community-based participatory action research.

APA appreciates the opportunity to comment on emerging and cross-cutting research needs in the next five years in the *NICHD Strategic Plan 2025*. There are several behavioral factors which impact all our lives. Much more research is needed to better understand how these factors specifically impact development and pregnancy and in turn result in greater wellness throughout the lifespan. If APA can be of further assistance, don't hesitate to contact Krysta Jones, Director, Congressional & Federal Relations, at knjones@apa.org.

¹⁶ Dodge, K. A., Prinstein, M. J., Evans, A. C., Ahuvia, I. L., Alvarez, K., Beidas, R. S., Brown, A. J., Cuijpers, P., Denton, E.-g., Hoagwood, K. E., Johnson, C., Kazdin, A. E., McDanal, R., Metzger, I. W., Rowley, S. N., Schleider, J., & Shaw, D. S. (2024). Population mental health science: Guiding principles and initial agenda. *American Psychologist*, 79(6), 805–823.

¹⁷ Chambers, D. A. (2023). Advancing adaptation of evidence-based interventions through implementation science: Progress and opportunities. *Frontiers of Health Services.*, 3, Article 1204138. <https://doi.org/10.3389/frhs.2023.1204138>

¹⁸ Fagan, A. A., Bumbarger, B. K., Barth, R. P., et al. (2019). Scaling up evidence-based interventions in US public systems to prevent behavioral health problems: Challenges and opportunities. *Prevention Science*, 20(8), 1147–1168. <https://doi.org/10.1007/s11121-019-01048-8>