data, our understanding of the drivers of childhood hypertension remains incomplete. Finally, all included studies scored at least five on the Joanna Briggs Institute checklist, but the discussion could have interrogated more deeply the specific domains of bias, particularly sampling frames and measurement protocols. Transparent reporting of methodological weaknesses is essential if we are to interpret pooled estimates responsibly.

While research must expand the use of out-of-office blood pressure monitoring in low-income and middle-income countries, ambulatory blood pressure monitoring is currently less feasible in resource-limited settings. The diagnostic criteria of childhood hypertension must be harmonised across guidelines. A pragmatic, resource-sensitive consensus is urgently needed to enable comparability across studies and to guide clinical practice. Future studies should integrate contextual exposures, such as nutrition, stress, and environmental factors into prevalence estimates, thereby linking epidemiology with prevention strategies. For policy, the message is equally urgent. Childhood hypertension should be integrated into national non-communicable disease surveillance platforms. Screening strategies must be adapted to local realities, and in some settings opportunistic screening during school or pharmacy visits might be more feasible.

Zhou and colleagues[1] provide the most comprehensive picture yet of childhood hypertension. Their analysis confirms that the condition is both common and substantial, and the prevalence is rising. Their analysis also highlights the limitations of our current evidence base, including heterogeneity, geographical imbalance, and diagnostic inconsistency. Harmonised diagnostic criteria, expanded out-of-office monitoring, and context-sensitive surveillance are essential next steps. Education of health-care providers, families, and policy makers is also crucial. The integration and implementation of childhood hypertension into broader non-communicable disease prevention strategies is a priority, recognising that cardiovascular risk begins not in middle age, but in childhood. The task ahead is straightforward: to ensure that no child's elevated blood pressure goes undetected, unrecognised, or untreated.

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1 Zhou J, Shan S, Wu J, et al. Global prevalence of hypertension among children and adolescents aged 19 years or younger: an updated systematic review and meta-analysis. *Lancet Child Adolesc Health* 2025; published online Nov 12. https://doi.org/10.1016/S2352-4642(25)00281-0.
2 Song P, Zhang Y, Yu J, et al. Global prevalence of hypertension in children: a systematic review and meta-analysis. *JAMA Pediatr* 2019; **173:** 1154–63.
3 Ruan X, Zhu A, Wang T, et al. Global prevalence of hypertension in children and adolescents younger than 19 years: a systematic review and meta-analysis. *JAMA Pediatr* 2025; **179:** 987–99.
4 Zhou J, Wu J, Jiang D, et al. National, regional and provincial prevalence of childhood hypertension in China in 2020: a systematic review and modelling study. *Lancet Child Adolesc Health* 2024; **8:** 872–81.

A crucial juncture for evidence-based action to end violence against children

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Violence against children in its many forms is widespread, undercounted, and contributes to cycles of violence that amplify adverse outcomes across generations.[1–3] The persistence of violence against children, in all its manifestations, represents a failure of the international community to protect children and ensure a prosperous future for all. To catalyse investment in evidence-based approaches to address violence against children, the INSPIRE Framework was launched in 2016 and was framed around seven key intervention strategies.[3] However, the proposed strategies were supported by an uneven combination of evidence, including from single or multiple promising studies, best practice, and key learnings from related fields. Thus, the systematic review by Madison T Little and colleagues in *The Lancet Child & Adolescent Health* is a crucial step forward, updating the evidence underlying the INSPIRE Framework at a time when global financing for human rights and child protection is shrinking.[4] In this context, the imperative to use resources in the most effective and efficient manner is paramount.

The work by Little and colleagues, covering over 200 unique existing reviews published between 2010

to 2023 substantially advances the breadth and rigour of evidence supporting the INSPIRE Framework.[4] A key message for policy makers and programme implementers is the conclusion that, for each strategy, there is at least one approach with proven effectiveness across a wide range of settings. Among these, the strongest evidence includes that for: parenting programmes for reducing child maltreatment, safe and enabling school environments (whole-school approaches) for preventing youth violence, healthy romantic relationships education for reducing adolescent intimate partner violence, and cash-plus life-skills training among adolescents for reducing youth violence. Proven interventions, including those Supported and Well supported by evidence, form a strong basis for adaptation and optimisation at the country level aligned with national priorities, integrated into systems and tailored to key populations in need. The review also provides new guidance on what has inconsistent or insufficient evidence. For example, media campaigns, microfinance interventions, addressing so-called hotspots and hospital-based prevention programmes, among others, warrant rethinking, additional evidence generation, or acknowledgment that alone they are insufficient to prevent violence against children. The systematic review advances understanding of where there are synergies between different types of violence against children, intersections with intimate partner violence through inclusion of adolescent girls, and novel intervention typologies not previously in the INSPIRE Framework.

The systematic review also gives a window into the enormous work ahead for evidence generation. The authors note that many of the effects found are of small magnitude or diminish over time. Much of the existing evidence continues to reflect high-income contexts, underscoring the need for future research investments in low-income and middle-income countries, contextually grounded in systems that ensure equity and local ownership. Evidence is also scarce in humanitarian settings, on technology-facilitated forms of violence (eg, cyberbullying), on outcomes for infants and very young children, as well as children with intersecting vulnerabilities. There are currently no interventions classified as Well supported for sexual violence or adolescent intimate partner violence. Some of these gaps might be driven in part by the systematic review of systematic review approach, which is inherently limited by methodological choices of previous systematic reviews, and privileges aggregation of quantitative evidence within existing systematic reviews, rather than capturing the newest and emerging evidence in understudied areas. In addition, the systematic review largely cannot speak to the growing acknowledgment of the linkages between violence against children and multiple other types of violence, including violence against women and collective violence.[1] For this reason, we urge stakeholders to use this systematic review as a starting point to better align evidence generation and synthesis across the fields of violence against children and violence against women, bringing together INSPIRE and RESPECT Frameworks.[5,6] This alignment requires investing in new systematic reviews and meta-analyses, alongside aggregation of qualitative evidence on mechanisms, implementation, and costing analysis, across key common strategies to produce more nuanced results in line with future-looking needs for both types of violence. In parallel, urgent investment is needed in primary research on emerging strategies, longitudinal follow-up to assess the sustainability of effects, improved measurement approaches, and meaningful engagement with children to guide and validate findings. An integral part of future work should include advancement of ethics, research equity, and collaboration through transdisciplinary approaches to maximise learning and impact.[7,8]

At the 1-year anniversary of the first Ministerial Conference on Ending Violence Against Children in Bogotá, action cannot wait. First, we need to commit to working with stakeholders across sectors to integrate effective child protection programming at scale and with national experts to ensure local ownership and adaptation. Second, we need to acknowledge that gender inequality and harmful gendered social norms are a key underlying factor for many types of violence. We should strive to tackle these together with violence against children to create synergies and virtuous cycles of freedom from violence across the life course. Third, we cannot rely solely on the small set of proven approaches. We need to continue to innovate, while documenting operational and programmatic learnings across settings. For example, it is not enough to know that whole-school approaches prevent youth violence; we must invest in new scalable approaches, including safe and inclusive digital spaces, which can cost-effectively reduce violence against children in, through, and around

schools.[9] Finally, we cannot expect to achieve the 388 pledges made by 106 countries while rolling back financing. A mere 0·2% of all overseas development assistance went to gender-based violence prevention in 2022, an insufficient allocation to meaningfully shift local realities. We must do more, including moving beyond donor cycles towards sustained, earmarked, and diversified domestic investment, as well as through the private sector.[10] Our commitment to ending violence against children must be bold, decisive, and evidence driven. Action is not optional—it is a responsibility we owe to every child, now and in the future.

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1 Guedes A, Bott S, Garcia-Moreno C, Colombini M. Bridging the gaps: a global review of intersections of violence against women and violence against children. *Glob Health Action* 2016; **9:** 31516.
2 Hillis S, Mercy J, Amobi A, Kress H. Global prevalence of past-year violence against children: a systematic review and minimum estimates. *Pediatrics* 2016; **137:** e20154079.
3 WHO. INSPIRE: seven strategies for ending violence against children. 2016. https://www.unicef.org/media/66876/file/INSPIRE-SevenStrategies.pdf (accessed Oct 21, 2025).
4 Little MT, Butchart A, Massetti GM, et al. Interventions to prevent, reduce, and respond to violence against children and adolescents: a systematic review of systematic reviews to update the INSPIRE Framework. *Lancet Child Adolesc Health* 2025; published online Nov 7. https://doi.org/10.1016/S2352-4642(25)00214-7.
5 WHO. RESPECT women – preventing violence against women. 2019. https://www.who.int/publications/i/item/WHO-RHR-18.19 (accessed July 3, 2024).
6 Bacchus LJ, Colombini M, Pearson I, Gevers A, Stöckl H, Guedes AC. Interventions that prevent or respond to intimate partner violence against women and violence against children: a systematic review. *Lancet Public Health* 2024; **9:** e326–38.
7 Bhatia A, Zinke-Allmang A, Bangirana CA, et al. Putting children's safety at the heart of violence research. *Nat Med* 2024; **30:** 2721–24.
8 Falb K, Peterman A, Nordås R, Field A, Porat R, Stark L. Violence against women and girls research: leveraging gains across disciplines. *Proc Natl Acad Sci USA* 2025; **122:** e2404557122.
9 Devries KM, Ward CH, Naker D, et al. School violence: where are the interventions? *Lancet Child Adolesc Health* 2022; **6:** 5–7.
10 The Equality Institute, The Accelerator for GBV Prevention. What counts? The state of funding for the prevention of gender-based violence against women and girls. 2023. https://preventgbv.org/wp-content/uploads/2023/11/EQI_The-Accelerator_What-Counts_Executive-Summary_DRAFT03.pdf (accessed Oct 21, 2025).

Growing up modulated: paediatric neuromodulation needs a new ethical framework

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A 9-year-old girl walked slowly down the clinic hallway. 10 months earlier, her days had been dominated by seizures—sudden drops, blank stares, and tonic spasms that cut her sentences in half. School was impossible, and her parents lived in constant vigilance. After implantation of a thalamic neuromodulation device, seizure frequency decreased by half. She was back at school part-time, making friends again, and her parents were radiant. Yet as I typed "excellent clinical improvement" into her chart, a quieter question pressed in about what we had just set in motion in her developing brain.

Neuromodulation, once a niche therapy for adult movement disorders, is moving rapidly into paediatrics. Children with intractable epilepsy, severe dystonia, traumatic brain injury, or disorders of consciousness are now receiving devices originally designed for adults,[1] typically used off-label in paediatric populations without specific regulatory approval. The clinical gains can be transformative: seizure frequency halved, motor symptoms eased, families found stability. But these successes might obscure an uncomfortable truth: we are altering developing neural networks without any clear picture of the long-term consequences. Most paediatric studies report only 1–2 years of follow-up, occasionally extending to 5 years, and in select dystonia cohorts up to a decade.[2] Even where multicentre paediatric registries such as the Pediatric International Deep Brain Stimulation Registry (known as PEDiDBS) and emerging US collaborations exist,[1,3] published outcomes remain focused on motor or seizure outcome and device safety.

The developing brain is not simply a scaled-down adult brain. The thalamus, the main target of paediatric neuromodulation to date, is more than a relay station: it is an integrative hub for attention, memory, emotion, and consciousness itself.[4] Stimulating its nuclei might restore lost function in adults, but in children—in