

The Pediatrician's Role in Supporting Nurturing Care for Early Childhood Development



Health and nutrition. Protection from harm. Early learning. Responsive caregiving. These components are essential to ensuring children develop to their full potential. Still, millions of children experience chronic stress related to inadequate nutrition, limited early stimulation, neglectful care, and exposure to harm.^{1,2} Globally, 250 million children under the age of five are at risk of not reaching their developmental potential due to poverty and stunting.³ Additionally, 40% of all three to six-year-olds do not have access to pre-primary education.⁴

In 2018, the [*Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential \(NCF\)*](#) was launched by the World Health Organization, UNICEF, the World Bank Group, and others to bring attention to the earliest interactions as a way to promote health and human potential. The framework incorporates the science behind early child development (ECD) and advocates for policies and interventions with the greatest potential for positive impact.⁵

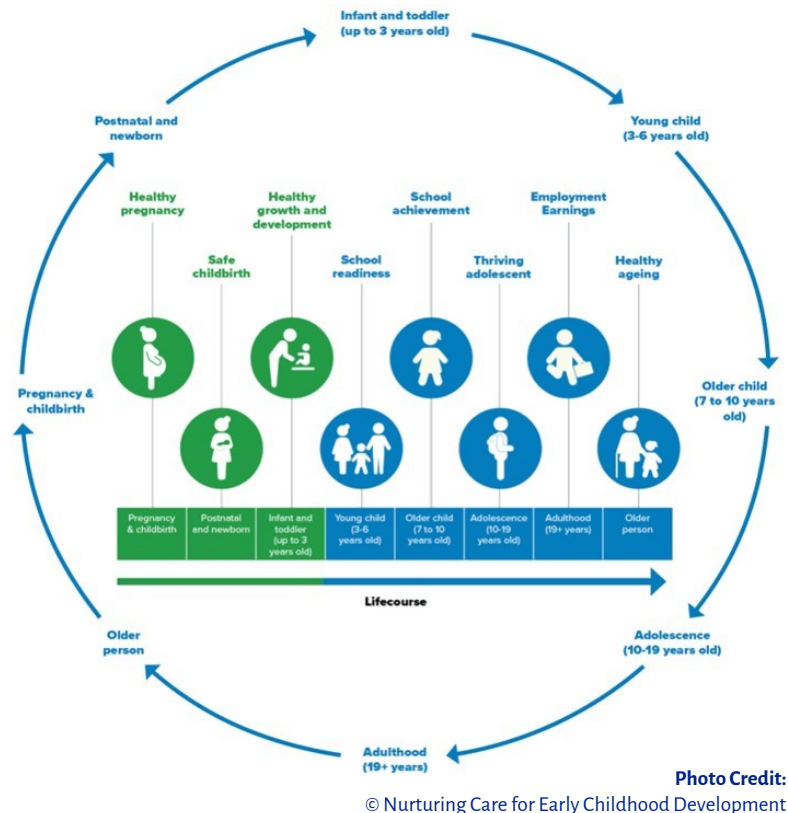
This issue brief illustrates the various roles pediatricians can play in promoting early childhood development in clinical and community settings.

The document summarizes the science behind early childhood development, the *Nurturing Care Framework*, and actionable steps pediatricians can take to incorporate nurturing care for ECD.

The Science of Early Childhood Development

Why early moments matter

The science is clear – the brain is built, experience by experience, as babies and toddlers interact with the people and settings around them.⁶ During the first five years, human brains develop at their fastest pace. More than one million new neural connections are formed every second, creating a brain architecture that supports learning, behavior, and physical and emotional health.^{7,8} The neural connections then adapt and respond to both positive and negative experiences.⁹ This early plasticity allows for the incredible variations or adaptations that humans demonstrate across environments. However, once established in early childhood, brain architecture and behavior are more difficult to change later in life. Without relational buffers, chronic early adversity disrupts healthy development, in ways that can persist into adulthood.¹⁰ This makes the early years critical to laying a foundation for learning, health, and behavior across the life course.



Phases of early childhood development

Early childhood development is often understood in phases determined by age.

Conception to birth: During gestation, brain development is influenced by the pregnant person's health, nutrition, and environment. Promoting healthy prenatal brain development involves reducing risks related to insufficient nutrition; infectious diseases; exposure to toxins (e.g., smoke or alcohol); and complications caused by extreme stress, trauma, or mental health conditions like depression.¹¹

Birth to age 3: During this phase, the brain continues to develop rapidly in response to nutrition, protection, and responsive social engagement. By age 3, 80% of brain architecture has been built.⁹

Ages 3 to 8: During childhood, especially as access to formal/informal learning environments emerge, health care, nutrition, protection, and early learning opportunities at home remain critical.⁹

Threats to early childhood development

Optimal development requires an abundance of protective factors and the mitigation of specific risk factors. Extreme poverty, food insecurity, gender inequities, violence, environmental toxins, and poor mental health are the biggest threats to early childhood development.³ Caregivers' capacity to support a child's early development through responsive caregiving and stimulation are also impacted by these threats. Poverty often leads to a lack of adequate nutrition and limited access to healthcare. Negative experiences, including exposure to violence and conflict can slow down and modify how neural connections are made.¹² Breathing in particulate pollution can also negatively affect a child's developing brain,¹³ yet more than 90% of children breathe toxic air each day.¹⁴ Other risk factors related to birth include maternal mortality, low birthweight, adolescent birth rate, and preterm births. Violence may be in the form of neglect and injuries in the home and community.¹ Furthermore, threats to ECD often cluster – exposure to one risk factor often suggests exposure to other factors.

Nurturing Care for Children

Nurturing care refers to the conditions that allow children to reach their full potential: good health, adequate nutrition, safety and security, responsive caregiving, and opportunities for early learning.¹ Though implemented within small family units, these conditions are created and enhanced by public policies, programs, and services. Nurturing care contextualizes the science of ECD into one's early lived experiences. It promotes healthy early development and provides the foundation of resiliency by buffering experiences of chronic stress. The *Nurturing Care Framework* (NCF) describes a whole-of-government and whole-of-society approach, guiding principles, strategic actions, and progress monitoring based on the five components of nurturing care.¹ The follow-up publication, [Operationalizing Nurturing Care for ECD: The role of the health sector alongside other sectors and actors](#), provides additional insight on ways healthcare professionals can positively impact nurturing care for ECD.¹⁵

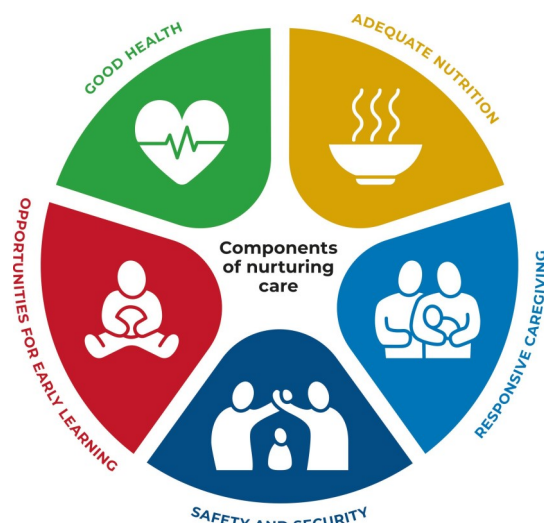


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The five components of nurturing care¹⁶

Good health refers to the health and wellbeing of children and their caregivers. Interventions include growth and monitoring counseling, immunizations for caregiver and child, and essential newborn care.

Adequate nutrition refers to foods that meet the nutrient needs for optimal growth and development. Examples include access to diverse and sustainable food sources; adequate physical activity, sufficient rest and sleep in early childhood; and (when possible) early initiation of breastfeeding for 6 months with appropriate and responsive complementary feeding.

Safety and security refer to safe and secure environments for children and their families. Interventions may include birth registration, safe spaces to play, and access to food and clean water.

Opportunities for early learning refer to any opportunity for the child to interact with a person, place, or object in their environment. Every interaction (positive or negative) or absence of an interaction contributes to early brain development – laying the foundation for later learning. Examples include age-appropriate play with people and household objects; activities that encourage safe physical movement, activation of the five senses, language use, and exploration; and quality standards in formal childcare spaces.

Responsive caregiving refers to the ability of caregivers to notice, understand, and respond to the child's cues in a supportive and appropriate manner. Examples include encouraging caregivers to smile, cuddle, and speak to the child; attuned responses to a child's cues (i.e., hunger, distress, interest to play); and using everyday moments like feeding and bathing to communicate and play with the child. Additional example interventions for each of the five components can be found in [A closer look at the nurturing care components](#).



Nurturing Care and the Sustainable Development Goals

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



The Sustainable Development Goals (SDGs) are an urgent call for action to all countries to make progress in 17 priority areas addressing the world's biggest problems.¹⁷ Because many of these problems affect children or begin in early childhood, the goals and targets have direct influence on nurturing care by enabling environments and services young children and their caregivers need to support ECD. In turn, positive early childhood development is essential to attaining several of the SDGs.¹ The NCF highlights five SDG targets across five goals that must be top priorities to guide national support of nurturing care:

Target 1.2: By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

Target 2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating people and older persons

Target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

Target 4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

Target 16.2: End abuse, exploitation, trafficking and all forms of violence against and torture of children

Case Study: Establishing ECD Corners in Tanzanian health facilities



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Mwajuma Rwebangila



The waiting rooms of health facilities are optimal locations for promoting nurturing care for ECD. ECD champions from the Paediatric Association of Tanzania (PAT) recognized the need for supporting child- and caregiver-friendly spaces in these facilities. The champions developed 19 'ECD Corners' in seven regions to support parents in responsive caregiving and early stimulation. Before launching the corners, facility health managers and healthcare providers were asked to complete a training to sensitize them to the importance of ECD. Healthcare providers also received education on the Boy & Girl Child Booklets, which include developmental milestones screenings. A checklist for establishing and maintaining an ECD Corner was developed to ensure the spaces remain child-friendly and safe. Toys and other play materials were locally sourced. The ECD Corners provided both an enabling environment to support ECD and an opportunity for health managers to recognize their role in supporting such spaces.

The Pediatrician's Role in Nurturing Care

Supporting nurturing care for ECD is one of the best ways to boost shared prosperity, promote inclusive economic growth, expand equitable opportunity, and end extreme poverty.¹⁸ No single sector or stakeholder can be solely responsible since ECD is influenced by and impactful to all segments of society.

The NCF recognizes the services healthcare workers offer – for pregnant individuals and children up to age 3 – are perfectly timed to address early childhood development. The health sector is uniquely positioned to provide support given the many points of contact with pregnant people, families, and people who care for young children. Below are five ways pediatricians and child health providers can promote nurturing care¹:



-  **Ensure children have access to good-quality health and nutrition services:** Health and nutrition interventions directly impact children's development.
 - Implement on-going developmental monitoring and surveillance
 - Ensure quality of care standards are met
 - Advocate for accessible, affordable and effective healthcare
 - Identify gaps in existing referral services for children with suspected developmental differences
-  **Make health and nutrition services more supportive of nurturing care:** Antenatal care, postnatal care, and sick- and well-child visits are touch points to support responsive caregiving.
 - Share information on the importance of affectionate care and stimulation with caregivers
 - Provide counseling on and opportunities for responsive caregiving and early learning during pediatric visits
 - Promote breastfeeding at birth (when possible) for up to 6 months
 - Encourage and provide immunizations for common childhood illnesses
-  **Increase outreach to families and children with the greatest risk of sub-optimal development:** At-risk families and children will benefit from additional contact beyond routine services.
 - Offer developmental services for at-risk children – such as rehabilitation programs for acutely malnourished or low birthweight children
 - Implement home visits and caregivers' groups to promote nurturing care
 - Encourage use of and connect families with available social services
 - Educate community leaders and parenting groups on how stigma and some cultural beliefs can negatively impact a child's development

Establish specialized services for families and children with developmental differences: Investment in local expertise and services that address the needs of families and children who need extra support is essential.

- Support families to seek specialized services for children with developmental differences or chronic health conditions
- Support services for caregivers with substance abuse difficulties or mental illness
- Promote inclusion of children with developmental differences in school and community settings
- Identify opportunities to support developmental and behavioral training for future and current pediatricians

Collaborate with other sectors to ensure a continuum of nurturing care: The health sector is uniquely positioned to advocate for and garner the necessary actions from other sectors – including nutrition, education, social protection, child welfare, agriculture, labor, finance, water and sanitation.

- Advocate for clean and safe environments
- Support social and legal services to reduce intra-family violence
- Collaborate to provide affordable and high-quality children's day care
- Identify opportunities to collaborate with educational sector



Case Study: Learning the Fundamentals of ECD through online education

Successful promotion of nurturing care for ECD requires a foundational understanding of the science behind early brain development. ECD champions from the Kenya Paediatric Association (KPA) recognized while pediatricians understood the importance of ECD, their knowledge on how best to support it was inconsistent. To address this gap, the champions developed a 5-module online course aptly named the *Fundamentals of ECD*. The course, initially advertised to Kenyan pediatricians, ultimately enrolled more than 150 pediatricians from 7 countries in the region. The participants had a wide variety of pediatric subspecialties with experience in academia, private practice, and the public sector. The course addressed ways to incorporate the *Nurturing Care Framework* into clinical practice with an emphasis on neurobiology of early brain development, developmental milestones, developmental surveillance and screening, atypical development, and the ecology of childhood. Of the original enrollees, 113 pediatricians completed the full course. On average, across the five modules, participants showed a 34% improvement in knowledge from the pre- to post-test. Improving pediatricians' comprehension of ECD and their role in promoting it is an important pathway to making health services more supportive of nurturing care.

Practical Ways for Pediatricians to Incorporate Nurturing Care for Early Childhood Development in their Practice

- ✓ Identify and call out positive caregiver behaviors during clinic visits
- ✓ Implement standardized screening protocols for early identification of children with developmental differences (e.g., at 6-and 18-month visits)
- ✓ Ensure families are asked about food security, play/stimulation at home, and safety questions during every visit
- ✓ Identify and connect with referral resources within your community that support children with developmental differences
- ✓ Engage with childcare providers and schools to build collaborative relationships in the community
- ✓ Keep and maintain easy-to-access resources for social and legal services to support patients' needs
- ✓ Volunteer to speak in the community (e.g., places of worship, schools, community meetings) about nurturing care, ECD, and the importance of supporting children with developmental differences
- ✓ Join the Early Childhood Development Action Network (ECDAN) and share experiences with the ECD community
- ✓ Engage in local, national, and global ECD discussions to ensure health sector advocacy includes child health experts

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