

POLICY STATEMENT

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children

Committee on Early Childhood, Adoption, and Dependent Care

Quality Early Education and Child Care From Birth to Kindergarten

ABSTRACT. High-quality early education and child care for young children improves their health and promotes their development and learning. Early education includes all of a child's experiences at home, in child care, and in other preschool settings. Pediatricians have a role in promoting access to quality early education and child care beginning at birth for all children. The American Academy of Pediatrics affords pediatricians the opportunity to promote the educational and socioemotional needs of young children with other advocacy groups. *Pediatrics* 2005;115:187–191; *early education, child care, early care and education, preschool, social and emotional development, early brain development, kindergarten readiness, indicators of quality, role of the pediatrician*.

ABBREVIATION. AAP, American Academy of Pediatrics.

QUALITY MATTERS

All of a child's early experiences, whether at home, in child care, or in other preschool settings, are educational. At present, 60% to 70% of children younger than 6 years regularly attend some type of out-of-home child care or early childhood program.¹ The arrangements families make for their children can vary dramatically, including care by relatives; center-based care, including preschool early education programs; family child care provided in the caregiver's home; and care provided in the child's home by nannies or babysitters.² How a family chooses this care is influenced by family values, affordability, and availability. For many families, high-quality child care is not affordable, which results in compromises.^{3–5}

The indicators of high-quality early education and child care have been studied and are available in many formats (Table 1; see also www.childcareaware.org).^{6,7} When care is consistent, developmentally sound, and emotionally supportive, there is a positive effect on the child and the family.^{8–21} Children exposed to a poor-quality environment, whether at home or outside the home, are less likely to be prepared for school demands and more likely to have their socioemotional development derailed.^{8–21} The inadequate outcomes of children in poor-quality care often cannot be fully remedied in the formal structure of the K-12 educational system because of the need for noneducational services such as mental and behav-

ioral health care. To focus only on the education of children beginning with kindergarten is to ignore the science of early development and deny the importance of early experiences.

Early brain and child development research unequivocally demonstrates that human development is powerfully affected by contextual surroundings and experiences.²¹ A child's day-to-day experiences affect the structural and functional development of his or her brain, including intelligence and personality.²¹ Experiences influence every child's development and learning, and these experiences can be positive or negative, with long-term consequences for the child, family, and society.²¹ Research of high-quality, intensive early childhood education programs for low-income children confirm lasting positive effects such as greater school success, higher graduation rates, lower juvenile crime, decreased need for special education services later, and lower adolescent pregnancy rates.^{8–20} Children who attend high-quality early childhood programs demonstrate better math and language skills, better cognition and social skills, better interpersonal relationships, and better behavioral self-regulation than do children in lower-quality care.^{8–20} Inferior-quality care, at home or outside the home, can have harmful effects on language, social development, and school performance that are more difficult to ameliorate, especially for children in schools with fewer resources.^{8–20} The positive effects from high-quality programs and the negative effects from poor-quality programs are magnified for children from disadvantaged situations or with special needs, and yet these children are least likely to have access to quality early education and child care.^{12,13} The out-of-home care arrangements for children of parents who work nontraditional hours such as evenings, weekends, or holidays also compound the access problems. Many families have no quality child care options in their immediate communities.^{4,5,22}

BARRIERS TO HIGH-QUALITY EDUCATION AND CHILD CARE

Families struggle to provide quality early experiences for their children. Having a stay-at-home parent does not automatically ensure a child's emotional well-being, social competence, and kindergarten readiness. Stay-at-home parents need access to sound advice and support. Community interven-

tions can improve parenting and early experiences for young children, but they are not universally available, even to high-risk families.²³ Families that rely on child care need access to affordable, high-quality programs. However, most child care centers in the United States are rated poor to mediocre in quality, with almost half meeting less than minimal standards.^{12–15,22} Efforts to improve the quality of early education and child care through federal, state, and local public policies address licensing and regulation, teacher or caregiver education and compensation, and adequate funding.

State licensing standards are important for health, safety, and teacher qualifications, but they set a minimum standard, typically considerably below the recommendations of health and safety experts.⁶ National organizations such as the American Academy of Pediatrics (AAP), American Public Health Association, National Association for the Education of Young Children, Child Welfare League of America, and Zero to Three have developed standards and voluntary systems of accreditation that are often higher than state licensing regulations. These regulations include information about physical space, staffing ratios, and staff training and compensation.

Adequate compensation of early education providers promotes quality, not only to attract quality directors and teachers but also to decrease staff turnover.^{4,5} An underpaid and high-turnover workforce impedes stability and quality of programs. The low level of compensation (approximately \$16 000 per year for a child care provider) makes attracting and keeping quality teachers extremely difficult for programs.¹ Yet, developmental brain science studies

show that young children, especially infants and toddlers, need stable, positive relationships with their caregivers.²¹

Public funding for quality programs is inadequate, yet studies demonstrate that well-focused investments in quality early education and child care provide high public return.²⁴ Federal, state, and local funding levels do not provide sufficient resources, even when combined with parent fees, to ensure adequate training of the early education workforce and do not provide reasonable compensation and career advancement opportunities.^{4,5} In many states, the cost of early education and child care programs is about twice as expensive as paying for 1 year of tuition at a 4-year public college.³ The federal government and some communities have addressed the funding problems via subsidies, although many families who are eligible are not served.^{4,5} Head Start serves only approximately 60% of all eligible 3- to 4-year-old children, Early Head Start serves less than 5% of all eligible infants and families, and less than one fifth of all eligible families are receiving federal child care subsidies.^{4,5} Other innovative strategies promoting access to quality care and education include state initiatives to promote formal education and improved compensation for child care providers, linkages with health care professionals, public-private funding partnerships, and extending K-12 down to universal preschool programs. The real barrier to high-quality programs is a lack of infrastructure supporting quality, regardless of setting, and the necessary funding to make this happen. This infrastructure has to address, on a statewide or commu-

TABLE 1. Indicators of High Quality⁷

State licensing and program accreditation	The requirements for licensing generally ensure basic health and safety of a program but not necessarily high quality; state licensing requirements can be found online at http://nrc.uchsc.edu
Staff-to-child ratio and group size For centers	
Birth to 12 mo	1:3 with groups \leq 6
13–30 mo	1:4 with groups \leq 8
31–35 mo	1:5 with groups \leq 10
3 y	1:7 with groups \leq 14
4 and 5 y	1:8 with groups \leq 16
Family child care	If there are no children $<$ 2 y: 1 adult/6 children; when there is 1 child $<$ 2 y: 1 adult/4 children; and when there are 2 children $<$ 2 y (the maximum), no other children are recommended
Director and staff experience and training	College degrees in early childhood education
Infection Control	Child development associate's credential Ongoing inservice training Parent's first-hand observations of care Low turnover rate Hand-washing with soap and running water after diapering, before handling food, and when contaminated by body fluids Children wash hands after toileting and before eating Routinely cleaned facilities, toys, equipment Up-to-date immunizations of staff and children Written policies All staff and children familiar with procedures Up-to-date parent contact lists
Emergency procedures	Play equipment safe, including proper shock-absorbing materials under climbing toys Universal Back-to-Sleep practices Developmentally appropriate toys and equipment Toxins out of reach Safe administration of medicines
Injury prevention	

nity level, high-quality standards, compensation and training for teachers, tracking of availability of services for parental referral, and a reliable financing system that makes these programs available (full day/full year, etc) and affordable in a coordinated way.^{4,5} This same systematic approach to the education and socioemotional health of children who are cared for by stay-at-home parents is also necessary.

STEPS TOWARD QUALITY EARLY EDUCATION AND CHILD CARE

Pediatricians have an important role in helping their patients have the highest-quality early experiences possible and also in helping their communities raise the level of quality of care for all young children. Families and communities look to pediatricians for counsel and support in all areas affecting children, including providing quality experiences for children in their early years. Pediatricians can influence families, teachers, and policy makers as partners in improving access to and quality of early childhood educational experiences. Better quality and access will be realized only when the public demands that resources are dedicated to early education and child care as they are for K-12 education. An AAP book titled *The Pediatrician's Role in Promoting Health and Safety in Child Care* offers a detailed blueprint for pediatricians to take steps to improve the quality of care available to patients and includes specific strategies, activities, and resources that can be used in everyday practice.

RECOMMENDATIONS

- For each patient, pediatricians are encouraged to
1. Ask families what care arrangements they have made for their infants and young children and support their efforts. Also, ask parents whether they care for other people's children in their home.
 2. Provide a true medical home²⁵ for patients and participate in the 3-way partnership with parents and child care providers or early educators. Remember that access to out-of-home arrangements for children with special health care needs is facilitated when the child's pediatrician and pediatric subspecialists are available to help the early education professionals and child care providers understand the needs of these patients. The 1999 AAP policy statement "The Pediatrician's Role in Development and Implementation of an Individual Education Plan (IEP) and/or an Individual Family Service Plan (IFSP)" can be a resource.
 3. Become familiar with the essential components of quality programs. As trusted family advisors responsible for the well-being of children, know the essential components of quality. The Early Education and Child Care Special Interest Group (www.healthychildcare.org) of the AAP Section on Community Pediatrics, which all AAP members and affiliate members are eligible to join, is available as a resource. The comprehensive book *Caring for Our Children*⁶ lists the national standards for care of children in out-of-home settings.

4. Educate families about the benefits of quality programs that aid young children's safety and development. Using local information, direct families to the resources that will help them locate quality care and help develop strategies to make quality care affordable. This can be done using brochures (eg, *Choosing Child Care: What's Best for Your Family* by the AAP), checklists of quality, and referrals to the local child care resource and referral agency (www.childcareaware.org). A conversation with all families of young children will help promote quality through family education. Brochures and office displays can help facilitate this conversation in a busy practice. Remember to be a resource to families educating their young children at home. Zero to Three (www.zerotothree.org) is a tremendous resource for early brain and child development parent guides, and the AAP Literacy Promotion Technical Assistance program (www.aap.org/advocacy/literacypromo.htm) is a resource for pediatricians.

In their communities, pediatricians can

5. Educate policy makers about the science supporting the benefits from quality care and education and, conversely, the lost opportunities and setbacks that occur from poor-quality care. The resources listed at the end of this statement provide the background for conversations with policy makers about the benefits to children, families, and communities of investing in quality early education and child care. A specific place to start is working within the state to close the gaps between state regulations and the quality standards outlined in *Caring For Our Children*. Each AAP chapter has a legislative group that can help target these public policy makers with visits and letters. Nearly every AAP chapter also has a child care contact, a pediatrician who is familiar with the early education and child care needs in that chapter and has knowledge about local resources. Universal prekindergarten has been given recent focus in many states. Although this would be a tremendous beginning that pediatricians can support, we must continue to remind policy makers that prekindergarten is delivered in child care, schools, and other settings and that starting at 4 years of age will not reap the full benefits of quality early education and child care from birth. Also, conversations about quality should always emphasize that quality programs include parental involvement and strong socioemotional and other developmental elements in a safe, healthy environment.

At the national and state levels, pediatricians can

6. Work to improve funding and quality early experiences for children and facilitate more action by the national AAP and chapters. Recent national funding and systems to provide quality have been under attack in Congress, and most states' budget problems have led to decreased support for funding and access to quality care. Programs that have been shown to improve the quality of early experiences for young children, such as early home

visiting by nurses and early literacy family programs, need coordinated funding and universal implementation.

It will be only through collaborating with early childhood colleagues and combining the force of our sciences that we will successfully influence policy makers to foster the kind of holistic health we envision for all children.

COMMITTEE ON EARLY CHILDHOOD, ADOPTION, AND DEPENDENT CARE

Chet Johnson, MD, Chairperson
Deborah Ann Borchers, MD
Kerry English, MD
**Danette Glassy, MD*
Pamela High, MD
**Judith Romano, MD*
Moira Szilagyi, MD, PhD
Dennis L. Vickers, MD, MPH
Peter Gorski, MD, MPA
Past Committee Member
Donald Palmer, MD
Past Committee Member

LIAISONS

Patricia M. Spahr, MA
National Association for the Education of Young Children
R. Lorraine Brown, RN, BS
Maternal and Child Health Bureau
Ada White, LCSW, ACSW
Child Welfare League of America, Inc
Claire Lerner, LCSW
Zero to Three

STAFF

Mary Crane, PhD, MA

**Lead authors*

REFERENCES

1. US Department of Labor, Women's Bureau. *20 Facts on Women Workers*. Washington, DC: US Department of Labor; 2000
2. Ehrle J, Adams G, Tout K. *Who's Caring for Our Youngest Children? Child Care Patterns of Infants and Toddlers*. Washington, DC: Urban Institute; 2001
3. Giannarelli L, Barsimantov J. *Child Care Expenses of America's Families*. Washington, DC: Urban Institute; 2000
4. Helburn SW, Bergmann BR. *America's Child Care Problem*. New York, NY: Palgrave for St Martin's Press; 2002
5. National Association for the Education of Young Children. *Financing the Early Childhood Education System. NAEYC Policy Brief*. Washington, DC: National Association for the Education of Young Children; 2001
6. American Academy of Pediatrics, American Public Health Association, Health Resources and Services Administration, Maternal and Child Health Bureau. *Caring for Our Children. National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs*. 2nd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2002
7. Fiene R. *13 Indicators of Quality Child Care: Research Update*. Washington, DC: Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation; 2002. Available at: <http://aspe.hhs.gov/hsp/ccquality-ind02>. Accessed December 1, 2003
8. Ramey CT, Campbell FA, Burchinal MR, et al. *Early Learning, Later Success: The Abecedarian Study: Executive Summary*. Chapel Hill, NC: Frank Porter Graham Child Development Center, University of North Carolina; 1999
9. Campbell FA, Ramey CT. Effects of early intervention on intellectual and academic achievement: a follow-up study of children from low-income families. *Child Dev*. 1994;65:684-698
10. Campbell F, Ramey C, Pungello E, Sparling J, Miller-Johnson S. Early childhood education: young adult outcomes from the Abecedarian project. *Appl Dev Sci*. 2002;6:42-57
11. Campbell FA, Pungello EP, Miller-Johnson S, Burchinal M, Ramey CT. The development of cognitive and academic abilities: growth curves from an early childhood educational experiment. *Dev Psychol*. 2001;37: 231-242
12. Frank Porter Graham Child Development Center. *Cost, Quality and Outcomes Study*. Chapel Hill, NC: University of North Carolina; 1999
13. Helburn SW, ed. *Cost, Quality, and Child Outcomes in Child Care Centers: Technical Report*. Denver, CO: Department of Economics, Center for Research in Economic and Social Policy, University of Colorado at Denver; 1995
14. Peisner-Feinberg ES, Burchinal MR, Clifford RM, et al. *The Children of the Cost, Quality and Outcomes Study Go to School: Public Report and Executive Summary*. Chapel Hill, NC: Frank Porter Graham Child Development Center, University of North Carolina; 1999
15. Barnett WS. *Lives in the Balance: Age-27 Benefit-Cost Analysis of the High Scope Perry Preschool Program*. Ypsilanti, MI: High/Scope Press; 1996
16. Schweinhart LJ, Barnes HV, Weikart DP. *Significant Benefits: The High Scope Perry Preschool Study Through Age 27*. Ypsilanti, MI: High/Scope Press; 1993
17. The NICHD Early Child Care Research Network. Early child care and self-control, compliance, and problem behavior at twenty-four and thirty-six months. *Child Dev*. 1998;69:1145-1170
18. NICHD Early Child Care Research Network. Child outcomes when child care center classes meet recommended standards for quality. *Am J Public Health*. 1999;89:1072-1077
19. National Institute of Child Health and Human Development Early Child Care Research Network. The relation of child care to cognitive and language development. *Child Dev*. 2000;71:960-980
20. NICHD Early Child Care Research Network. Nonmaternal care and family factors in early development: an overview of the NICHD Study of Early Child Care. *J Appl Dev Psychol*. 2001;22:457-492
21. National Research Council and Institute of Medicine, Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. In: Shonkoff JP, Phillips DA, eds. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, DC: National Academies Press; 2000
22. Galinsky E, Howes C, Kontos S, Shinn M. *The Study of Children in Family Child Care and Relative Care: Highlights of Findings*. New York, NY: Families and Work Institute; 1994
23. Olds DL. Prenatal and infancy home visiting by nurses: from randomized trials to community replication. *Prev Sci*. 2002;3:153-172
24. Rolnick A, Grunewald R. Early childhood development: economic development with a high return. *The Region*. Dec 2003;(suppl):6-12. Available at: www.minneapolisfed.org/research/studies/earlychild/abc-part2.pdf. Accessed May 18, 2004
25. American Academy of Pediatrics, Medical Home Initiatives for Children With Special Needs Project Advisory Committee. The medical home. *Pediatrics*. 2002;110:184-186

RESOURCES

Healthy Child Care America. Available at:
www.healthychildcare.org

The Carolina Abecedarian Study. Available at:
www.fpg.unc.edu/~abc. Accessed November 1, 2004

American Academy of Pediatrics. *Choosing Child Care: What's Best for Your Family* [pamphlet]. Elk Grove Village, IL: American Academy of Pediatrics; 2002. Available through the American Academy of Pediatrics publications department (800-433-9016; www.aap.org)

American Academy of Pediatrics, Committee on School Health. The pediatrician's role in development and implementation of an individual education plan (IEP) and individual family service plan (IFSP). *Pediatrics*. 1999;104:124-127

American Academy of Pediatrics. *The Pediatrician's Role in Promoting Health and Safety in Child Care*. Elk Grove Village, IL: American Academy of Pediatrics; 1999. Available through the AAP publications department (800-433-9016; www.aap.org)

American Academy of Pediatrics, Division of Community-Based Initiatives and Committee on Early Childhood, Adoption, and Dependent Care. Literacy promotion technical assistance. Available at: www.aap.org/advocacy/literacypromo.htm. Accessed December 1, 2003

Child Care Resource and Referral Agencies. Local referral agencies that can assist families in finding quality, affordable programs can be found at www.childcareaware.org

The Cost, Quality and Outcomes Study. Available at: www.fpg.unc.edu/~NCEDL/pages/cq.cfm. Accessed November 1, 2004

The High/Scope Perry Preschool Study. Available at: www.highscope.org. Accessed November 1, 2004

The National Institute of Child Health and Human Development Study of Early Child Care and Youth Development. Available at: www.nichd.nih.gov/od/secc/index.htm. Accessed November 1, 2004

National Association for the Education of Young Children. *Finding the Best Care for Your Infant and Toddler*. Washington, DC: National Association for the Education of Young

Children. Available from the National Association for the Education of Young Children (www.naeyc.org).

Zero to Three. *Matching Your Infant's and Toddler's Style to the Right Child Care Setting*. Washington, DC: Zero to Three; 2001. Available from Zero to Three (www.zerotothree.org) and ChildCareAware (www.childcareaware.org).

All policy statements from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

Quality Early Education and Child Care From Birth to Kindergarten

Pediatrics 2005;115;187

DOI: 10.1542/peds.2004-2213

Updated Information & Services

including high resolution figures, can be found at:
<http://pediatrics.aappublications.org/content/115/1/187>

References

This article cites 11 articles, 2 of which you can access for free at:
<http://pediatrics.aappublications.org/content/115/1/187.full#ref-list-1>

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):

Community Pediatrics

http://classic.pediatrics.aappublications.org/cgi/collection/community_pediatrics_sub

School Health

http://classic.pediatrics.aappublications.org/cgi/collection/school_health_sub

Current Policy

http://classic.pediatrics.aappublications.org/cgi/collection/current_policy

Council on Early Childhood

http://classic.pediatrics.aappublications.org/cgi/collection/committee_on_early_childhood Adopt_dept_care

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
<https://shop.aap.org/licensing-permissions/>

Reprints

Information about ordering reprints can be found online:
<http://classic.pediatrics.aappublications.org/content/reprints>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since . Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2005 by the American Academy of Pediatrics. All rights reserved. Print ISSN: .

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



PEDIATRICS[®]

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Quality Early Education and Child Care From Birth to Kindergarten

Pediatrics 2005;115:187

DOI: 10.1542/peds.2004-2213

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/115/1/187>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since . Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2005 by the American Academy of Pediatrics. All rights reserved. Print ISSN: .

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

