In the United States, more than one-third of children live in low-income families in which the parents earn less than 200% of the federal poverty line, which is $18,850 a year (National Center for Children in Poverty, 2004). The degree of poverty becomes deeper with younger children:

- 42% of infants and toddlers from birth to 2 years old in the U.S. live in low-income families, whereas
- 38% of school-age children, and
- 32% of adolescents live in low-income families (National Center for Children in Poverty, 2004).

In general, poverty is detrimental to children’s development because it is linked to malnutrition, disease, and/or inadequate education. In addition, poverty is highly correlated to other risk factors. Parents in low-income families are likely to be less educated, have part-time unskilled jobs, enter parenthood earlier, and more often become single parents as a result of unmarried birth, divorce, separation, death, or imprisonment (Lu & Koball, 2003). These factors can all negatively affect children’s cognitive, physical, and socioemotional development. Thus, children in low-income families are exposed to more developmental risks than their counterparts who live in affluent families.

The first 3 years of life are critical because children develop many of the basic learning patterns and abilities that they will build upon for the rest of their lives. A large proportion of human brain development is accomplished during this early period. Research indicates that brain development can be facilitated by high-quality early experiences (Carnegie Corporation of New York, 1994). Ironically, almost all low-income families’ infants and toddlers have limited access to high-quality experiences and early childhood education programs because of the costs involved. This amplifies the children’s risks.

Characteristics of Successful Early Intervention Programs

The United States is fortunate to have well-designed early educational intervention programs that may buffer the effects of poverty and facilitate healthy development of children. The impact studies on those programs show that several conditions are necessary for early intervention to be successful.

- When interventions begin before children reach school age, and are intensive and direct, children who are at risk may demonstrate better cognitive, behavior, and socioemotional outcomes than those who receive intervention after preschool (Ramey & Ramey, 2003).
- Programs that enroll children during infancy and provide education for their families produce greater benefits than programs that enroll children who are

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school age (Campbell, Pungello, & Miller-Johnson, 2001; Ramey, Campbell, & Burchinal, 2000).

- Programs that are intensive and multi-generational are thought to produce better outcomes than do less intensive interventions (Ramey, Ramey, & Lanzi, 2002). Intensive programs include participation of parents along with their children and frequent intervention for longer than one year.
- Intensive full-day programs produce better developmental outcomes for children at risk than do half-day programs or frequent home visit programs (Ramey & Ramey, 2003).

For example, infants who participated in the Abecedarian Project received full-time educational intervention in a high-quality child care setting for more than 3 years (Ramey & Campbell, 1972). Within the high-quality environment, each child was engaged in play-centered educational activities to enhance physical, social, emotional, cognitive, and language development. Parents of children in the Perry Preschool Project were provided with parent education sessions via weekly home visits (High/Scope Educational Research Foundation, 2007).

Direct intervention provides more benefits than intervention provided through intermediary routes. With placement in high-quality educational settings and through interaction with well-trained staff, the development of children at risk may be enhanced more efficiently than those children who might only have the benefit of indirect interventions such as those provided through parent education programs (Blok, Fukkink, & Gebhardt, 2005).

Despite the differences in intervention programs, continuity of intervention approaches including parent involvement is important (Neuharth-Pritchett & Mantzicopoulos, 1998).

In sum, successful early intervention programs:
- Begin as early as infancy, or at latest preschool age
- Provide full-day, year-round child care and regular frequent home visits
- Train staff who directly interact with children so that they can plan and implement developmentally appropriate educational practices as well as provide a physically and emotionally secure environment
- Consider meaningful family involvement to be as important as educating and supporting the parents and the siblings

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Programs That Make a Difference

The Abecedarian Project (Ramey & Campbell, 1972) and the Perry Preschool Program (Weikart, 1959) are excellent examples of early intervention programs for children at risk, especially with regard to infants and toddlers as well as preschoolers. Both programs are examples of intensive and direct intervention with high-risk young children who are from families with limited economic resources. In both of these projects, participants’ development was physically or mentally delayed. Children in both projects received high-quality child care and frequent home visits.

These intervention programs had short- and long-term effects on the cognitive and socioemotional development of children. Participants displayed a significant advantage in gains in intelligence scores and outperformed non-participants during the preschool period. The intelligence and academic achievement gains were maintained
through the children’s seventh year in school. Additionally as young adults, the participants attained higher scores on cognitive tasks and academic achievement, were more likely to attend a 4-year college or university, and were less likely to become teen parents than were individuals in the control group (Campbell et al., 2002).

The United States government’s largest effort to promote healthy child and family development is Early Head Start (EHS), which builds on the experiences of these two early programs. Begun in 1994, Early Head Start is a federally funded, community-based program for low-income pregnant women and families with infants and toddlers. Goals of the program are to promote healthy prenatal outcomes for pregnant women, to enhance the development of infants and toddlers, and to promote healthy family functioning. All of the participating children are from low-income families or have disabilities. The infants and toddlers enrolled in the program receive high-quality intensive educational services through center-based or home-based programs, all at no cost (Irish, Schumacher, & Lombardi, 2003).

According to EHS evaluation studies (Early Head Start, 2001; 2002), EHS children significantly outperformed the control group of children in cognitive and socioemotional development at ages 2 and 3 years. Another study that investigated correlation between risk factors of children in a local EHS program and their developmental outcomes showed that the participants’ risk factors were successfully addressed with the services provided by the program (Park, 2005).

**Recommended Program Practices**

**Start early.** Early intervention programs that are provided before or right after birth have the greatest likelihood of helping infants and toddlers at risk. For children born to low socioeconomic status families in which the child’s pre-, peri-, and/or postnatal care are inadequate (making children vulnerable to diseases or disabilities), it is best to enroll them in intensive, high-quality early intervention programs as early as possible. Effective programs for infants and toddlers at risk provide comprehensive services such as nutrition, health care, and family support, as well as developmentally appropriate educational practices.

*Parent involvement is important.* These early experiences help curb children’s risk factors and enhance their resilience.

**Intervene immediately after screening.** Early screening to identify the infants and toddlers at risk must be followed by immediate intervention. According to Park’s study (2005), the more risks to which children are exposed, the more likely they are to be identified with a disability or categorized as delayed in development. However, much of this delay was diminished after immediate intervention by speech therapy, a doctor’s exam and medical treatment, and/or placement in a high-quality educational environment. Thus, the best early intervention programs diagnose and intervene as early as possible as well as enhance the quality and extent of their other services.

**Involve parents.** Finally, parents who are involved in the intervention process make better progress in facilitating their children’s development than do parents of children not involved in such programs. As parents participate, they learn about general child development, as well as their own child’s growth. Parents who have a better understanding of child development typically are
more proactive to seek and support services for their children. Consequently, parent involvement opportunities are essential for infants and toddlers at risk.

References
Put These Ideas Into Practice!

The Earlier, the Better: Early Intervention Programs for Infants and Toddlers at Risk

Boyoung Park

Conditions necessary for successful early intervention

- When interventions begin before children reach school age, and are intensive and direct, children who are at risk may demonstrate better cognitive, behavior, and socioemotional outcomes.
- Programs that enroll children during infancy and provide education for their families produce greater benefits than programs that enroll children who are school age.
- Programs that are intensive and multi-generational are thought to produce better outcomes than do less intensive interventions.
- Intensive full-day programs produce better developmental outcomes for children at risk than do half-day programs or frequent home visit programs.

Recommended program practices

- Encourage pregnant women to get regular check ups and prenatal care.
- Urge families at risk to look for an early intervention program before giving birth. To learn more about Early Head Start programs, go to http://www.ehsnrc.org/
- After children are enrolled, screen them for potential delays or disabilities as soon as possible. Trained screeners use reliable screening tools. Implement any indicated interventions immediately.
- Provide full-day, year-round services including nutrition, health care, and a high-quality educational environment and activities.
- Support parents and other siblings as well as the child who receives the service directly.

Ideas to share with parents of young children at risk

- If your family income is below the poverty level, seek appropriate prenatal care. Contact a social worker for assistance.
- If your child has or may have a disability, contact local early intervention programs such as Early Head Start as soon as possible.
- After your child is enrolled in an early intervention program:
  1. Attend all meetings and workshops for parents
  2. Communicate with the staff as much as possible
  3. Make sure your child attends every session
- Talk, read, and play with your child at home as frequently as possible.