

# State Strategies to Contain Costs in the Early Intervention Program: Policy and Evidence

**Roy Grant**

*The Children's Health Fund*

Part C of the Individuals with Disabilities Education Act allows states to create family-centered developmental services for infants and toddlers (birth–3 yrs) with delays. Part C Early Intervention (EI) programs have grown enormously in size and cost since becoming operational in 1994. In this article, the author describes strategies that states have taken to reduce EI costs, including creating eligibility restrictions, shifting costs to the health care system, charging parent fees, and enhancing insurance collection. A review of these strategies suggests that only enhanced insurance collection is free of unintended consequences, including loss of services to children in need, increased long-term expenditures, and a disproportionate impact on low-income families.

All 50 states and the District of Columbia have implemented Part C of the Individuals with Disabilities Education Act (IDEA; § 631 ff) as an Early Intervention (EI) program. The law established EI as an entitlement program for providing family-centered services to infants and toddlers ages birth to 3 years with developmental delay. Part C programs are based on the Congressional finding that there is an “urgent and substantial need” to minimize the developmental problems of infants and toddlers with delays; reduce future special education costs; minimize the likelihood of institutionalization; and enhance local capacity to identify, evaluate, and provide services to infants and toddlers with developmental delays. The legislation emphasizes the importance of doing so for inner-city children and poor children in rural areas (§ 631 [a] [1]–[5]).

Federal funding for EI began in 1987 with a \$50 million appropriation to help support a 5- to 7-year phase-in process by states that chose to participate. Most EI programs were operational by 1994, at which time the federal appropriation had quadrupled to more than \$250 million. Between 1999 and 2003, the number of children served nationally increased by 40%, to 2.24% of the age-eligible population. By 2004, more than 268,000 infants and toddlers had been served by EI, with a federal appropriation of \$444 million. The same amount was appropriated for 2005 (National Early Childhood Technical Assistance Center [NECTAC], 2004).

Federal funding, however, generally covers only EI administrative costs. The highest program costs—evaluation and services—are borne by states and counties. For example, the New York City Early Intervention Program, probably the largest single municipality EI program in the country, costs just under \$1.25 million per day, which amounts to an annual expenditure comparable to the total annual federal appropriation.

This increase in EI utilization and cost came at a time of increasing state budget deficits, which cumulatively totaled \$17.5 billion in fiscal year 2003 (National Conference of State Legislatures [NCSL], 2004). Unlike the federal government, states are required to balance their budgets, and they have developed a variety of strategies to do so. In 2002, half of the states either cut, or planned to cut, funding for federal Maternal and Child Health (Title V) block-grant programs for children with special health care needs. Children's mental health services were also a popular target for state budget cuts. This approach to budget shortfalls may have a negative impact on access to and availability of services for families of children with special needs and low-income families. It may result in longer waiting lists for services, increased financial burdens on families, and more children without health insurance or other reimbursement for care (Maternal & Child Health Policy Research Center, 2002).

*Address: Roy Grant, Director of Research, The Children's Health Fund, 215 West 125th St., New York, NY 10027;  
e-mail: rgrant@chfund.org*

In this context, state EI programs are at risk for having their budgets cut. However, as noted previously, because EI was developed as an entitlement program, specific cost-reduction strategies are required if states are to reduce their EI expenditures. In this article, I will review several EI cost-containment strategies that have been implemented or are being considered in various states, their potential impacts on children and families who need EI services, and their potential cost-effectiveness. This information may prove useful to policymakers, families, and advocates as fiscal constraints continue to threaten this important program.

Strategies to reduce expenditures include (a) restricting EI eligibility and thus limiting the number of infants and toddlers who receive EI services and (b) shifting costs from the EI program to the health care system. Generally, counties make the initial EI expenditures, which are offset by state funding supplemented by health insurance reimbursement for covered services from Medicaid, state child health insurance programs, and commercial health insurance. One revenue-enhancement strategy is to increase health insurance reimbursement. Another is to introduce a parent fee for services, generally on a sliding scale.

## COSTS AND COST BENEFITS

The finding by Congress that providing developmental services as early as possible would save long-term special education and rehabilitation costs is based on the premise of the plasticity of the human brain in infancy and early childhood and evidence that brain development is greatly influenced by early experience (Als et al., 2004; DiPietro, 2000; Ramey & Ramey, 1998). Although clinical outcome data for IDEA Part C programs are not yet available in adequate numbers, preliminary information presented to Congress indicated that children in EI programs make substantial developmental gains after 1 year in the program (U.S. Department of Education, 2002).

The potential benefits of IDEA Part C programs may be inferred from outcome data from other early service-delivery programs. A meta-analysis of 31 studies on the efficacy of developmental programs for children under 3 years of age and their families found that these programs produce positive developmental outcomes (Shonkoff & Hauser-Cram, 1987). A study of 122 infants (mean age = 10.6 mo) with speech and language delays who received therapeutic intervention showed significant gains in language development at 3 years of age in comparison to a control group that did not receive services (Ward, 1999). Studies have demonstrated the clinical efficacy of early intervention for infants and toddlers with Down syndrome (Hines & Bennett, 1996), autism spectrum disorders (Rogers, 1998; Woods & Wetherby, 2003), infants with extremely low birthweight, and infants with

hearing loss (as will be discussed later in the section on restricting eligibility as a cost-containment strategy).

Programs for children 3 to 5 years old have been available longer than EI programs, and a strong body of evidence demonstrating their cost-effectiveness exists. Masse and Barnett (n.d.) documented a return of \$4 for every \$1 spent for the Carolina Abecedarian Early Childhood Intervention Program that targeted low-income children and families. The High/Scope Perry Preschool Study (Schweinhart, 2003) reported positive outcomes and cost benefits in adulthood as a result of comprehensive early childhood education for low-income children. Among these outcomes were increased high school graduation rates, fewer arrests, higher earnings, and less reliance on government assistance. Based on estimates of savings in public funding, the program provided a 716% return on its investment of \$14,716 per participant per year. Similarly, the Chicago Longitudinal Study (Reynolds, Temple, & Suh-Ruu, 2003), which investigated the results for 1,539 young children and their families who participated in a comprehensive, school-based early education and family support program, found a \$7.14 return to society at large for every program dollar spent.

Finally, a meta-analysis of 11 early childhood intervention programs by RAND Health (Karoly et al., 1998) indicated that these programs were cost effective, especially those programs that targeted vulnerable children and families (including those living in poverty). The authors noted that savings derived from early childhood programs are often realized over time as children grow into adulthood. This evidence supports the view that IDEA Part C programs may be seen as investments that eventually will reduce future public sector costs.

## ELIGIBILITY CRITERIA IN EI

Under IDEA, states are required to establish and maintain the minimum components of a statewide EI system, including establishing a definition of “developmental delay” that determines eligibility for EI services. Because EI eligibility is based on developmental status without reference to income, only criteria for developmental delay determine which referred infants and toddlers will receive EI services.

Infants and toddlers referred with a suspected developmental delay are eligible for an EI multidisciplinary evaluation to determine service eligibility. Eligibility is based on whether the child’s degree of delay meets the state’s threshold (functional age relative to chronological age). Eligibility may also be established by documenting a medical condition with a high probability of developmental delay. Many states give specific examples of such diagnoses in their regulations (e.g., birthweight < 1,000 g, Down syndrome, cerebral palsy). Eligibility by diagnosis facilitates service delivery as early as possible to infants

for whom there is a strong possibility of having developmental disabilities.

States have the option to include infants and toddlers who are “at risk” for developmental delays in the eligible category. Risk factors may be biological (e.g., birthweight of 1,000 to 1,500 g, elevated lead levels) or psychosocial and environmental (e.g., foster care placement, homelessness).

Once eligibility is established, an Individualized Family Service Plan (IFSP) is agreed upon at a meeting that includes a representative of the evaluation team, the initial service coordinator, a representative of the municipality who will authorize services, and the parents (or parent surrogates for children in foster care). The services listed on the IFSP document comprise the entitlement for the individual child and family. The county is responsible for determining the type, frequency, and duration of services, and the state is responsible for reimbursing the county for its share of the cost.

IDEA gives states extreme flexibility in deciding the level of developmental delay that will establish eligibility, and this was reflected in a review of state criteria (Spiker, Hebbeler, Wagner, Cameto, & McKenna, 2000). The majority of states (84%) have opted not to include at-risk children as eligible for Part C services. Only eight states (Massachusetts, Hawaii, Indiana, New Hampshire, West Virginia, New Mexico, North Carolina, and California) extend eligibility for EI to at-risk children (IDEA Infants & Toddlers Coordinators Association, 2003).

Based on the summary by Shackelford (2004), nine states (18%) do not specify the degree of developmental delay for establishing eligibility, instead allowing evaluators full discretion to use informed clinical opinion. Among the 42 states that require a specific degree of developmental delay to establish eligibility for children not eligible by diagnosis, 5 (12%) set a threshold that allows children with mild (< 25%) developmental delay to receive services. At the other end of the spectrum, 8 states (19%) require a developmental delay of at least 50% in one developmental domain. Such a criterion could lead to a 20-month-old toddler whose communication skills are at the 12-month level to be considered ineligible for speech–language therapy. The majority of states (56%) require a 25% delay either in one domain or in two domains.

## **COST-CONTAINMENT STRATEGIES AND EVIDENCE THAT MAY SUPPORT THEM**

### ***Eligibility***

Because entitlement programs must be funded by the government, they are not subject to discretionary budget cuts. The most reliable way to reduce the rate of growth or cost of an entitlement program is to restrict eligibility,

thus leading to a smaller pool of eligible individuals for whom expenditures must be made. Though this reduces cost, it also denies benefits to people who would otherwise be eligible.

A precedent for reducing costs by changing eligibility may be found in the Supplemental Security Income Program (SSI) for children with disabilities. In response to a steady increase in SSI costs during the early 1990s, Congress used federal legislation (within the “welfare reform” act of 1996) to restrict eligibility standards. Congress eliminated eligibility based on “functional assessment,” emphasizing medical diagnosis of a disease or injury. The American Academy of Pediatrics Committee on Children with Disabilities (2001) estimated that the change would render an estimated 100,000 children and families ineligible to receive a cash benefit intended to offset some of the financial burden of raising a child with a disability.

A similar strategy of changing eligibility standards has also been proposed or implemented in some states that are responding to the increased cost of their EI programs. States are permitted to change eligibility criteria in their regulations as long as they follow the IDEA public comment requirements. In 2001, Illinois proposed to change eligibility requirements for infants diagnosed with a condition with high probability of delay (U.S. Department of Education [OSEP] Part C policy letters of clarification, 2001). Connecticut modified service eligibility for children with “speech only” delays, with a projected a savings of \$384,000 (“Connecticut saves, addresses spending,” 2003).

In addition, Connecticut opted to change its interpretation of “diagnosis with a high probability of delay” to exclude from eligibility infants with a birthweight of less than 1,000 g, for an estimated savings of \$676,800 (“Connecticut saves,” 2003). The consequence of this change is that if infants with extremely low birthweight are not eligible through a diagnosis, they will not be considered eligible for developmental intervention until they become old enough to present with quantified developmental delays consistent with other eligibility criteria.

Because eligibility by diagnosis, including extremely low birthweight, is required under IDEA, this approach raises the policy issue of whether states that receive federal funding under IDEA may define conditions “with a high probability of developmental delay” in a manner inconsistent with medical evidence.

Developmental risks associated with extremely low birthweight have been well documented (Grunau, Whitfield, & Fay, 2004; Vohr et al., 2000). These deficits may persist into middle school (Taylor, Klein, Minich, & Hack, 2000) and into later adolescence (Saigal, Hoult, Streiner, Stoskopf, & Rosenbaum, 2000). Although there has been some inconsistency among outcome studies, the efficacy of early developmental intervention for these and other infants at biological risk has been established (Berlin, Brooks-Gunn, McCarton, & McCormick 1998; Kleberg,

Westrup, & Stjernqvist, 2000). Extensive outcome data are available from the Infant Health and Development Program, which engaged eight sites in a randomized trial model. Higher cognitive and intelligence test scores were noted for participating low-birthweight children throughout early childhood (Liaw, Meisels, & Brooks-Gunn, 1995). These gains were sustained over time, as indicated by increases of 8 to 14 points in the scores at 8 years of age on the *Wechsler Intelligence Scale for Children* (Hill, Brooks-Gunn, & Waldfogel, 2003).

Another area for which evidence of the link between developmental risk and the benefits of early intervention is well established is hearing loss. There is strong evidence that early intervention services, including assistive technology (hearing aids), for infants with hearing loss is most effective if provided during infancy (Keren, Helfant, Homer, McPhillips, & Lieu, 2002; Yoshinaga-Itano, Sedey, Coulter, & Mehl, 1998).

Universal newborn hearing screening (UNHS) requiring that all neonates be tested for hearing loss prior to hospital discharge has been implemented with increasing frequency in the United States (National Center for Hearing Assessment and Management [NCHAM], 2004). Thirty-eight states have legislation requiring screening. Hospital-based UNHS programs that refer infants identified with hearing loss for early intervention are associated with improved speech–language outcomes for their patients (Yoshinaga-Itano, 2003; Yoshinaga-Itano, Coulter, & Thomson, 2000).

Nonetheless, although all states consider infants and toddlers diagnosed with hearing loss eligible by diagnosis, 12 states (24%) set a threshold level of hearing loss below which eligibility must be demonstrated by developmental delay. Seven states (14%) consider only severe hearing loss to be a condition with a high probability of delay. The other states exclude mild (< 40 db) and/or unilateral hearing loss as diagnoses for establishing eligibility (NCHAM, 2002). Because of the relatively low prevalence of congenital hearing loss (Roizen, 1996), it is not clear how much money states expect to save by delaying service to some infants and toddlers with hearing loss.

Interpretations of “diagnosis with a high probability of delay” that exclude mild or unilateral hearing loss lead to developmental intervention being withheld until the child is old enough to miss developmental milestones and present with a quantifiable delay sufficient to meet the state’s eligibility criterion (e.g., 33% delayed in speech–language development). Because intervention for hearing loss is most effective if it begins during infancy, delays in service delivery can be predicted to compromise developmental outcomes, limiting the child’s eventual language proficiency and increasing the need for rehabilitation services (Yoshinaga-Itano, 2003).

Research has shown that without early intervention services, children with mild hearing loss show academic

lags comparable to those for children with more severe hearing impairments (Wake, Hughes, Poulakis, Collins, & Rickards, 2004). Also, children with unilateral hearing loss have a higher rate of school failure, need more special education services, and have more behavioral problems in school than do children with normal auditory acuity (Cho Lieu, 2004). It therefore appears that most states are failing to use their EI programs to prevent long-term special education costs for children with hearing loss consistent with the legislative intent of having established IDEA Part C programs.

### ***Shifting Costs to the Health Care System***

Prior to Part C implementation, pediatricians would typically refer children with suspected developmental delay to a developmental pediatrician, psychologist, or clinic for evaluation. The cost would be covered by the family’s health insurance or paid directly by the family. This approach to referrals changed when EI became operational. Under IDEA Part C, pediatricians and other health professionals are “primary referral sources.” New York State’s EI regulations, for example, require that primary referral sources inform parents that unless they object, their age-eligible child suspected of a developmental delay will be referred to the EI program for a multidisciplinary evaluation to determine eligibility for EI services.

This requirement shifted the cost of infant and toddler developmental evaluations and services from the health care system or families themselves to EI programs funded primarily by states and counties. It is not surprising that a cost-containment strategy exercised by some states involves attempts to shift costs for developmental services, at least under certain circumstances, back to the health care system. For example, the state of Illinois suggested that Part C should not be required to pay for post-operative physical therapy that was necessitated by surgery and therefore was “medically indicated rather than being developmentally indicated.” Although the state acknowledged that there “may be overlapping objectives in medically related and developmentally related physical therapy” (U.S. OSEP policy letter, 2004), the position appears to be that if a developmental problem is secondary to a medical condition and rehabilitation services are medically necessary, those services should be the financial responsibility of the health care system.

There is evidence that the distinction between “medically” and “developmentally” related delays is artificial. In a hospital-based study of medical conditions affecting EI-eligible infants and toddlers, Grant, Nozyce, Gordon, Garwood, and Kucera (2003) found that 57% of the infants and toddlers referred within the hospital had a significant contributory medical condition, including extreme prematurity; genetic or metabolic syndromes; organ system anomalies, including liver transplants; neu-

rological impairment; and infectious diseases, such as meningitis. For infants referred between 3 and 12 months of age, between 80% and 90% were medically involved according to these criteria, as were more than 70% of toddlers 13 to 15 months old. Similar results were found in a community-based comparison sample.

One state recently asked the federal Department of Education whether Part C should be required to pay for hearing tests for referred infants and toddlers, especially if the pediatrician did not think one was warranted. The federal response was to point out that audiology is included in IDEA Part C as an EI service (U.S. OSEP policy letter, 2003). Although no change seems to have been implemented with respect to EI providing hearing tests as needed, it is troubling that the question was raised at all, because the applicable law is clear on this point. This suggestion may be proposed again. Once “floated,” government strategies to save money often are reintroduced until the policy gains acceptance.

If developmental services are not available through Part C, families, especially those with fewer resources, could miss the opportunity for early intervention because of problems in accessing health care services. Data from the *National Health Interview Survey on Disability* (NHIS-D) for children with special health care needs showed that access to and utilization of health care differ by type of insurance, with more vulnerable children and families (those who are below the poverty level, are minorities, or have less parental education) at highest risk for unmet needs (Weller, Minkovitz, & Anderson, 2003). Data from the *Medical Expenditure Panel Survey* (MEPS) indicated that low-income families bear a disproportionate economic burden for health care costs for their children with disabilities (Newacheck, Inkelas, & Kim, 2004).

While shifting costs from EI to the health care system would leave uninsured and low-income families vulnerable to losing access to rehabilitation services, there could also be serious problems for insured poor families. In 18 states (35%), Medicaid does not cover physical therapy, occupational therapy, or speech–language therapy. Only 15 states (29%) cover all of these services. Increasingly, states are requiring that Medicaid recipients enroll in managed care plans. Managed care frequently imposes a maximum number of allowable visits (“visit cap”) for rehabilitation services, beyond which the service is no longer covered unless there is a potentially complex “override” process to authorize additional visits.

In addition, of 17 states with child poverty rates higher than the U.S. average, 6 (35%) do not cover any physical, occupational, or speech–language therapy under Medicaid. Fifteen states have child disability rates higher than the U.S. average, and 7 of those states (47%) do not provide Medicaid coverage for these essential rehabilitation services (National Conference of State Legis-

latures and Kaiser Family Foundation, 2004; Annie E. Casey Foundation, 2004).

## REVENUE-ENHANCEMENT STRATEGIES

### *Increased Insurance Collection*

As discussed previously, managed care insurance often differs from standard “fee-for-service” insurance in imposing a limit on the number of reimbursable visits for a specific service. Other differences include the restriction of coverage to a specific “network” of approved health care providers and the requirement that the patient’s primary care provider approve any specialist visit prior to the patient being seen if the visit is to be covered (“prior authorization”).

Counties are able to bill insurance plans that cover Part C–eligible children for reimbursement against their EI expenses. However, increasingly these insurance plans are managed care. When managed care restrictions began to be applied, there was a substantial decline in Medicaid revenue, and some EI services that had previously been covered were no longer reimbursed (Fox, McManus, & Almeida, 1998). Claims are often denied because the EI provider is not in the managed care network or there has been no prior authorization by the primary care provider. These situations are predictable because the Part C service structure is outside of the health care system.

In its 2003 EI program report (Connecticut Birth to Three System, *Imagine the Possibilities*), for example, the state of Connecticut listed its EI program total expenditure at \$39.7 million, of which only 10% (\$3.9 million) was covered by health insurance. Most of the program cost—\$30 million—was paid out of the state budget, with only \$5 million covered by the federal government. The Connecticut EI lead agency subsequently negotiated protocols with the state’s insurance plans to facilitate collection of valid claims submitted by the state (Connecticut Interagency Coordinating Council [CICC] Minutes, 4/12/04).

Another approach to enhancing insurance collection was taken in 2001 by the state of Illinois, which issued an urgent notice of policy change to require that families change to an EI service provider covered within their insurance network if their plan did not pay their current EI provider at an out-of-network rate. An exception was made if the family was required to travel a long distance to get to an “in network” provider, but this strategy still put the burden on the family to facilitate insurance collection (Illinois Early Intervention Program, 2001).

A comprehensive review of state strategies to improve insurance collection for Part C services carried out by the New York State Department of Health Early Intervention Program, Coordinating Council Ad Hoc Task

Force on Third Party Reimbursement (2001) concluded that legislation requiring insurance coverage for EI services is needed to ensure that valid claims are paid. Managed care considerations could be addressed by considering services listed on the IFSP document as having “prior authorization” and “medical necessity” and by waiving provider network requirements. This approach does not place any additional burden or responsibility on families, but it is not without its critics. A coalition of New York State small business owners strongly admonished the governor against such legislation because of potential cost implications (“Small business owners in N.Y.,” 2004).

### **Parent Fees**

In addition to insurance revenue, states may offset some of their costs by requiring a parent fee. Connecticut implemented a parent fee program, billing parents with incomes of more than \$45,000 on a sliding scale, with adjustments for extraordinary expenses, to raise an expected \$864,000 (“Connecticut saves,” 2003). The structure of the fee proved problematic, and the CICC negotiated with the state lead agency for a modification of the sliding scale.

In some states with Part C parent fees, families are required to provide their confidential IRS tax forms for fee determination. Part C administrators calculate the monthly cost of IFSP services and send monthly bills to families for these services. In at least one state, if a family fails to pay the required fees, EI services are suspended “until payments in arrears are satisfied” (New Jersey Early Intervention System, 2004). This approach is both burdensome and intrusive for families, and there is evidence that parent fees may undermine program utilization. In 1997, Nevada explored implementation of a sliding fee schedule by reviewing the experiences of other states. They found that in Utah, for example, a family impact survey had shown that most low-income families would opt out of EI if the possibility of a fee were raised—despite the fact that low-income families would be exempt from any sliding fee schedule. Nevada also surveyed families in its Part C Program. Nearly one third (31%) said they would not use EI program services if a fee were required, and 41% said they could not afford the fee that they would be assessed in the draft fee schedule provided.

The Nevada EI program also reviewed the fiscal performance of other Nevada state programs that charge a parent fee. They found that in the least expensive and most automated billing procedure, the cost of administering a parent fee program consumed 21% of revenue. Nevada officials concluded that “the cost associated with implementing a fee charging program (salaries, personnel, training, equipment, supplies and other indirect costs) are greater than the returns” and “charging a fee

for services would increase the financial burdens and stresses on some families as well as decrease participation of other families thus excluding their child from services” (Nevada Interagency Coordinating Council’s position on the implementation of a sliding fee schedule in Early Intervention services, 1997; no longer available online). Nonetheless, the agenda for the May 2005 meeting of the Nevada Early Intervention Interagency Coordinating Council includes a discussion of a “Parents’ Sliding Fee Scale” proposed in the governor’s fiscal year 2006–2007 budget request.

The likelihood that charging a fee for EI services would lead families to opt out of the program is accentuated by the fact that no parent fees are allowed under IDEA Part B, which includes preschool special education for children 3 to 5 years old. Fifty-three percent of EI children nationwide are 24 months or older (NECTAC, 2004), and about one third are 24 months or older when they enter the program (Scarborough, Spiker, Mallik, Hebbeler, Bailey, & Simeonsson, 2004). To avoid paying a fee for EI services, families may choose to wait for free preschool special education services, again undermining the legislative intent of the Part C program.

### **CONCLUSION**

To meet the increasing costs of IDEA Part C EI programs at a time of budget deficits, many states have proposed or implemented a variety of cost-containment strategies. Approaches that seek to reduce costs by restricting eligibility and/or shifting costs to the health care system are likely to undermine access to early developmental care for infants and toddlers with developmental delays and their families. Low-income families are most vulnerable. Efforts to increase revenue by requiring parent fees are likely to reduce Part C utilization, create delays in service delivery, and also fail to generate enough revenue to offset associated expenses. Enhancing health insurance reimbursement to partially offset the cost to government is the only strategy reviewed that is not predicted to adversely affect service delivery for infants and toddlers with developmental delay and their families. This approach is likely to require state legislative action to be effective.

More needs to be done to document the clinical benefits and savings attributable to IDEA Part C Programs. However, there is evidence that the cost of the EI program may be viewed as an investment that will bring long-term benefits not only in quality of life for vulnerable children and their families but also in reduced long-term government expenditures for special education, rehabilitation services, and institutional care. This is consistent with the legislative intent of Part C of IDEA and strongly suggests that EI expenditures are best viewed as investments in our nation’s future. ♦

## AUTHOR'S NOTES

1. Roy Grant has been a member of the New York State Early Intervention Coordinating Council since 1994 and currently chairs the EICC/New York State Department of Health Task Force on Assessment and Eligibility Determination.
2. Responsibility for the content and conclusions of this article are solely those of the author.

## REFERENCES

- Als, H., Duffy, F. H., McAnulty, G. B., Rivkin, M. J., Vajapeyam, S., Mulkern, R. V., et al. (2004). Early experience alters brain function and structure. *Pediatrics*, *113*, 846–857.
- American Academy of Pediatrics, Committee on Children with Disabilities. (2001). The continued importance of Supplemental Security Income (SSI) for children and adolescents with disabilities. *Pediatrics*, *107*, 790–793.
- Annie E. Casey Foundation. (2004). *State profiles of child well-being: Results from the 2000 census*. Retrieved December 21, 2004, from <http://www.prb.org/Template.cfm?Section=PRB&template=/ContentManagement/ContentDisplay.cfm&ContentID=8459>
- Berlin, L. J., Brooks-Gunn, J., McCarton, C., & McCormick, M. C. (1998). The effectiveness of Early Intervention: Examining risk factors and pathways to enhanced development. *Preventive Medicine*, *27*, 238–245.
- Cho Lieu, J. E. (2004). Speech–language and educational consequences of unilateral hearing loss in children. *Archives of Otolaryngology—Head & Neck Surgery*, *130*, 324–330.
- DiPietro, J. A. (2000). Baby and the brain: Advances in child development. *Annual Review of Public Health*, *21*, 455–471.
- Connecticut Birth to Three System. (2003). *Imagine the possibilities!* Retrieved August 26, 2005, from <http://www.birth23.org/Publications/FY2003Data%20Report.pdf>
- Connecticut Interagency Coordinating Council. Minutes of meeting of April 12, 2004, approved 8/9/04. Retrieved August 26, 2005 from <http://www.birth23.org/minutes%20April%202004.pdf>
- Connecticut saves, addresses spending in Part C funding. (2003, December). *Early Childhood Report*, p 6.
- Fox, H. B., McManus, M. A., & Almeida, R. A. (1998). Managed care's impact on Medicaid financing for early intervention services. *Health Care Financing Review*, *20*, 59–72.
- Grant, R., Nozyce, M., Gordon, A. H., Garwood, J., & Kucera, E. (2003). *Developmental and medical status of infants and toddlers referred to the Early Intervention Program* (American Public Health Association Abstract 64975). Retrieved December 21, 2004, from [http://alpha.confex.com/apha/131am/techprogram/paper\\_64975.htm](http://alpha.confex.com/apha/131am/techprogram/paper_64975.htm)
- Grunau, R. E., Whitfield, M. F., & Fay, T. B. (2004). Psychosocial and academic characteristics of extremely low birth weight ( $\leq 800$  g) adolescents who are free of major impairment compared with term-born control subjects. *Pediatrics*, *114*, e725–e732.
- Hill, J. L., Brooks-Gunn, J., & Waldfogel, J. (2003). Sustained effects of high participation in an early intervention for low-birth-weight premature infants. *Developmental Psychology*, *39*, 730–744.
- Hines, S., & Bennett, F. (1996). Effectiveness of early intervention for children with Down syndrome. *Mental Retardation and Developmental Disabilities Reviews*, *2*, 96–101.
- IDEA Infants and Toddlers Coordinators Association. (2003). IDEA Part C Data, Retrieved October 5, 2005, from [http://www.ideainfanttoddler.org/2003\\_Data\\_Charts.pdf](http://www.ideainfanttoddler.org/2003_Data_Charts.pdf)
- Illinois Early Intervention Program. (2001). *Memorandum to all enrolled providers: Urgent provider notice regarding recent policy changes*. Retrieved December 20, 2004, from <http://www.state.il.us/agency/dhs/earlyint/eipdfs/eiupnrpc10501.pdf>
- Individuals with Disabilities Education Act of 2004. Retrieved December 21, 2004, from <http://www.copyright.gov/legislation/pl108-446.pdf>
- Karoly, L. A., Greenwood, P. W., Everingham, S. S., Hoube, J., Kilburn, M. R., Rydell, C. P., et al. (1998). *Investing in our children: What we know and don't know about the costs and benefits of early interventions* (RAND Health). Retrieved December 22, 2004, from <http://www.rand.org/publications/MR/MR898/MR-898.summary.pdf>
- Keren, R., Helfant, M., Homer, C., McPhillips, H., & Lieu, T. A. (2002). Projected cost-effectiveness of statewide universal newborn hearing screening. *Pediatrics*, *110*, 855–864.
- Kleberg, A., Westrup, B., & Stjernqvist, K. (2000). Developmental outcome, child behaviour and mother–child interaction at 3 years of age following Newborn Individualized Developmental Care and Intervention Program (NIDCAP) intervention. *Early Human Development*, *60*, 123–135.
- Liaw, F., Meisels, S. J., & Brooks-Gunn, J. (1995). The effects of experience of early intervention on low birth weight, premature children: The Infant Health and Development Program. *Early Childhood Research Quarterly*, *10*, 405–431.
- Masse, L. N., & Barnett, W. S. (n.d.). *National Institute for Early Education Research*. Retrieved December 16, 2004, from <http://nierr.org/resources/research/AbecedarianStudy.pdf>
- Maternal & Child Health Policy Research Center. (2002, March 22). *Program cuts affecting half of all state Title V programs for children with special health care needs* (Fact Sheet 2). Retrieved December 21, 2004, from [http://www.mchpolicy.org/publications/pdfs/tv\\_fs2.pdf](http://www.mchpolicy.org/publications/pdfs/tv_fs2.pdf)
- National Center for Hearing Assessment and Management (NCHAM). (2002). *Part C: Early intervention eligibility for infants and toddlers with hearing loss*. Retrieved December 21, 2004, from <http://www.infanthearing.org/earlyintervention/eligibility.pdf>
- National Center for Hearing Assessment and Management. (2004). *Summary of universal newborn hearing screening legislation in the United States*. Retrieved December 21, 2004, from <http://www.infanthearing.org/legislative/index.html>
- National Conference of State Legislatures. (2004). *State budget update: November 2004*. Retrieved December 23, 2004, from <http://www.ncsl.org/print/fiscal/sbu2005-0411.pdf>
- National Conference of State Legislators and Kaiser Family Foundation. (2004). *Medicaid benefits: Services covered, limits, copayments and reimbursement methodologies for 50 states, District of Columbia and the territories (as of January 2003)*. Retrieved December 21, 2004, from <http://www.kff.org/medicaidbenefits/index.cfm>
- National Early Childhood Technical Assistance Center (NECTAC). (2004). *Annual appropriations and number of children served under Part C of IDEA: Federal Fiscal years 1987–2003*. Retrieved December 21, 2004, from <http://www.nectac.org/partc/partcdata.asp>
- Nevada Early Intervention Interagency Coordinating Council. (2005). Notice and Agenda of Public Meeting, May 19, 2005. Retrieved November 4, 2005 from <http://health2k.state.nv.us/administration/meetings/notices/2005/51905AgendaCC.pdf>
- New Jersey Early Intervention System. (2004). *Family cost participation policy and procedures*. Retrieved December 21, 2004, from [http://www.state.nj.us/health/fhs/cost\\_part\\_procedures.pdf](http://www.state.nj.us/health/fhs/cost_part_procedures.pdf)
- New York State Department of Health Early Intervention Program, Early Intervention Coordinating Council Ad Hoc Task Force on Third Party Reimbursement. Patsy Yang-Lewis, Chairperson. (2001). *Report and recommendations*. Albany, unpublished manuscript.
- Newacheck, P. W., Inkelas, M., & Kim, S. E. (2004). Health services use and health care expenditure for children with disabilities. *Pediatrics*, *114*, 79–85.
- Ramey, C. T., & Ramey, S. L. (1998). Early intervention and early experience. *The American Psychologist*, *53*, 109–120.
- Reynolds, A. J., Temple, J. A., & Suh-Ruu, O. (2003). School-based early intervention and child well being in the Chicago Longitudinal Study. *Child Welfare*, *82*, 633–656.

- Rogers, S. J. (1998). Empirically supported comprehensive treatments for young children with autism. *Journal of Clinical Child Psychology*, 27, 168–179.
- Roizen, N. J. (1996). Hearing loss. In A. J. Capute & P. J. Accardo (Eds.), *Developmental disabilities in infancy and childhood: Volume II. The spectrum of developmental disabilities* (2nd ed.). Baltimore: Brookes.
- Saigal, S., Hoult, L. A., Streiner, D. L., Stoskopf, R. L., & Rosenbaum, P. L. (2000). School difficulties at adolescence in a regional cohort of children who were extremely low birth weight. *Pediatrics*, 105, 325–331.
- Scarborough, A. A., Spiker, D., Mallik, S., Hebbeler, K. M., Bailey, D. B., Jr., & Simeonsson, R. J. (2004). A national look at children and families entering Early Intervention. *Exceptional Children*, 70, 469–483.
- Schweinhart, L. J. (2003). *Benefits, costs, and explanation of the High Scope Perry Preschool Program*. Retrieved December 29, 2004, from <http://www.highscope.org/Research/PerryProject?Perry-SRCD-2003.pdf>
- Shackelford, J. (2004). *State and jurisdictional eligibility definitions for infants and toddlers with disabilities under IDEA* (National Early Childhood Technical Assistance Center, NECTAC Notes 16). Retrieved December 24, 2004, from <http://www.nectac.org/~pdfs/pubs/nnotes16.pdf>
- Shonkoff, J. P., & Hauser-Cram, P. (1987). Early intervention for disabled infants and their families: A quantitative analysis. *Pediatrics*, 80, 650–658.
- Small business owners in N. Y. admonish legislators on mandated health coverage. (2004, May 3). *Insurance Advocate*, p. 38.
- Spiker, D., Hebbeler, K., Wagner, M., Cameto, R., & McKenna, P. (2000). A framework for describing variations in state Early Intervention systems. *Topics in Early Childhood Special Education*, 20, 195–207.
- Taylor, H. G., Klein, N., Minich, N. M., & Hack, M. (2000). Middle-school-age outcomes in children with very low birthweight. *Child Development*, 71, 1495–1511.
- U.S. Department of Education. (2002). *To assure the free, appropriate public education of all children with disabilities: Twenty-fourth annual report to Congress on the implementation of the Individuals with Disabilities Education Act, Section IV, Results*. Retrieved December 23, 2004, from <http://www.ed.gov/about/reports/annual/osep/2002/section-iv.pdf>
- U.S. Department of Education, Office of Special Education Programs. (2004). *OSEP policy letters of clarification related to the early childhood provisions of IDEA: Part C letters of clarification to states, indexed by topic and by year*. Retrieved December 9, 2004, from <http://www.nectac.org/~pdfs/idea/OSPEPpLyLtrsClrfctn.doc>
- U.S. Department of Education, Office of Special Education Programs (2004). Letter to Janet D. Gully, dated 4/28/04. Retrieved December 9, 2004, from <http://www.ed.gov/policy/spced/guid/idea/letters/2004-2/gully042804therapy2q2004.pdf>.
- U.S. Department of Education, Office of Special Education Programs (2003). Letter to Linda Goodman, dated 11/6/03. Retrieved December 9, 2004, from <http://www.ed.gov/policy/spced/guid/idea/letters/2003-4/goodman110603eval4q2003.pdf>.
- Vohr, B. R., Wright, L. L., Dusick, A. M., Mele, L., Verter, J., Steichen, J. J., et al. (2000). Neurodevelopmental and functional outcomes of extremely low birth weight infants in the Neonatal Institute of Child Health and Human Development Neonatal Research Network. *Pediatrics*, 105, 1216–1226.
- Wake, M., Hughes, E. K., Poulakis, Z., Collins, C., & Rickards, F. W. (2004). Outcomes of children with mild–profound congenital hearing loss at 7 to 8 years: A population study. *Ear and Hearing*, 25, 1–8.
- Ward, S. (1999). An investigation into the effectiveness of an early intervention method or delayed language development in young children. *International Journal of Language & Communication Disorders*, 34, 243–264.
- Weller, W. E., Minkovitz, C. S., & Anderson, G. F. (2003). Utilization and medical and health-related services among school-age children and adolescents with special health care needs (1994 National Health Interview Survey on Disability [NHIS-D] baseline data). *Pediatrics*, 112, 593–603.
- Woods, J. J., & Wetherby, A. M. (2003). Early identification of and intervention for infants and toddlers who are at risk for autism spectrum disorder. *Language, Speech and Hearing Services in Schools*, 34, 180–193.
- Yoshinaga-Itano, C. (2003). Early intervention after universal neonatal hearing screening: Impact on outcomes. *Mental Retardation and Developmental Disabilities Research Reviews*, 9, 252–266.
- Yoshinaga-Itano, C., Coulter, D., & Thomson, V. (2000). The Colorado Newborn Hearing Screening Project: Effects on speech and language development for children with hearing loss. *Journal of Perinatology*, 20, S132–S137.
- Yoshinaga-Itano, C., Sedey, A. L., Coulter, D. K., & Mehl, A. L. (1998). Language of early- and later-identified children with hearing loss. *Pediatrics*, 102, 1161–1171.

Copyright of Topics in Early Childhood Special Education is the property of PRO-ED and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.