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## Cost Offset Associated With Early Start Denver Model for Children With Autism

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**Abstract:** Objective: To determine the effect of the Early Start Denver Model (ESDM) for treatment of young children with autism on health care service use and costs. **Method:** We used data from a randomized trial that tested the efficacy of the ESDM, which is based on developmental and applied behavioral analytic principles and delivered by trained therapists and parents, for 2 years. Parents were interviewed about their children's service use every 6 months from the onset of the intervention to follow-up (age 6 years). The sample for this study consisted of 39 children with autism who participated in the original randomized trial at age 18 to 30 months, and were also assessed at age 6 years. Of this sample, 21 children were in the ESDM group, and 18 children were in the community care (COM) group. Reported services were categorized and costed by applying unit hourly costs. Annualized service use and costs during the intervention and post intervention for the two study arms were compared. **Results:** During the intervention, children who received the ESDM had average annualized total health-related costs that were higher by about \$14,000 than those of children who received community-based treatment. The higher cost of ESDM was partially offset during the intervention period because children in the ESDM group used less applied behavior analysis (ABA)/early intensive behavioral intervention (EIBI) and speech therapy services than children in the comparison group. In the postintervention period, compared with children who had earlier received treatment as usual in community settings, children in the ESDM group used less ABA/EIBI, occupational/physical therapy, and speech therapy services, resulting in significant cost savings in the amount of about \$19,000 per year per child. **Conclusion:** Costs associated with ESDM treatment were fully offset within a few years after the intervention because of reductions in other service use and associated costs. Clinical trial registration information: Early Characteristics of Autism; <http://clinicaltrials.gov/>; NCT0009415. Key words: autism, cost, use, Early Start Denver Model, early intervention