

This study was the result of collaboration between the Frank Porter Graham (FPG) Child Development Center Smart Start Evaluation Team and six local Smart Start partnerships. The Division of Child Development, NC Department of Health and Human Services funded the project. We would like to thank our evaluation team as well as the participating partnership Executive Directors, school officials and child care center directors for their assistance with this study. Special thanks go to Martie Skinner, Shari Miller-Johnson, Steve Magers and Karen Cai, the statistical staff at FPG. We are especially appreciative of the families, children, and kindergarten teachers who participated in this research.



**Project Investigators**

Shelly Harris

Shahnaz Khan

Jonathan Kotch

Nora Kropp

**Summary of the 1998 Pilot Study of Kindergarten Health Assessment Records**

North Carolina's Early Childhood Initiative (Smart Start) was created in 1993 as a partnership among state government, local leaders, service providers, and families to ensure that all children enter school healthy and ready to succeed. One of the ways in which local partnerships are working to achieve this goal is by improving the quality of center-based child care.

In 1998, the Frank Porter Graham (FPG) Smart Start Evaluation Team found that children who attended child care centers that participated in intensive Smart Start quality improvement activities had better skills when they entered kindergarten than children who attended non-participating centers (FPG-UNC, 1999). The Kindergarten Health Assessment (KHA) records of these children were also obtained with results showing better access to regular health care for Smart Start children than for the comparison children. This pilot study is currently being replicated with a larger group of children known to have participated in Smart Start health services.

**The University of North Carolina at Chapel Hill**

Frank Porter Graham Child Development Center  
and  
the Smart Start Evaluation Team

School of Public Health  
Department of  
Maternal and Child Health  
Department of  
Health Behavior and Health Education

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**The  
Effect  
of  
Smart Start  
Child Care  
on  
Children's  
Access  
to  
Health Care  
at  
Kindergarten  
Entry**

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### Why We Did the Study

Research has shown that children who lack access to health care are more likely to be in poorer health (CDF, 1997). One Smart Start effort to improve children’s health is to improve access to health care. Head Start, a center-based program for preschoolers that includes a health component, has been shown to improve a family’s use of preventive and curative health care (Zigler & Valentine, 1979). Head Start also has been shown to identify children with asthma earlier, resulting in more timely treatment and preventing hospitalization and repeated use of expensive medical services (McGill et al., 1998). Because Smart Start also seeks to improve children’s health, this study addressed the question, **“Are children from Smart Start-supported child care centers more likely to have a regular source of health care than other children?”**

Smart Start Quality Improvement Services for Child Care Centers  
Approximately 189,000 children, or 30% of all North Carolina children under age 6, are enrolled in licensed, center-based care in North Carolina (Division of Child Development, 1998). To reach many of these children, at least three-fourths of Smart Start funds (averaged across all counties) are being spent on child care access or quality improvement activities. The quality improvement activities include:

- On-site technical assistance (e.g., a consultant visits the center and provides center-specific or classroom-specific suggestions for improving the quality of care)
- Programs to increase the education and knowledge of early childhood teachers
- Special enrichment activities for children
- Workshops and CPR trainings for teachers
- Grants to centers to improve their facilities.



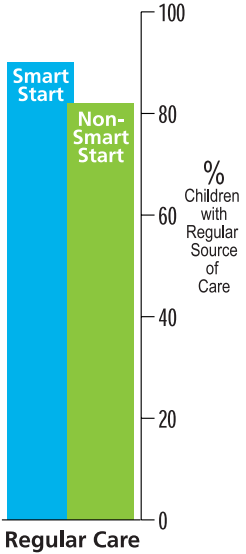
### How We Conducted the Study

The Evaluation Team identified **seven** diverse Smart Start partnerships that were supporting several child care quality improvement efforts (FPG-UNC, 1999). **Six** of these agreed to participate in a study of kindergarten entry skills. The FPG Evaluation Team and local partnership staff identified child care centers that had participated in most of the Smart Start quality improvement activities offered by their partnerships. The staff at those child care centers then helped recruit all children who would be attending kindergarten in the fall. When these children entered kindergarten, their teachers helped recruit a comparison group of children who had attended a non-Smart Start child care center. All children in both groups had at least eight months’ experience in child care. There were 213 children in the Smart Start group and 290 in the non-Smart Start group.

**For this KHA pilot study** we collected data from each child’s Kindergarten Health Assessment (KHA) form. In North Carolina every child entering kindergarten must submit a KHA to the school. With the consent of the parents, trained data collectors read the KHA form and coded parents’ responses to the question about where the children received regular health care. For analysis, we combined the categories for private doctor, HMO, public health department and community health center into the “Regular Care” category. Similarly, we combined the categories for emergency room, hospital clinic, none and other into the “No Regular Care” category. Although it was not possible to know in every case what “other” was, we included it in the “No Regular Care” category because it was not one of the sources of care usually considered to be “regular,” namely, a doctor’s office, an HMO, etc., where one would see the same provider again and again. Finally, to account for possible effects of family income or ethnicity on having a regular source of health care, we entered these variables in the analyses. We used eligibility for free or reduced price school lunches to identify children who were poor.

### What We Found

The kindergarteners from child care centers who had participated in Smart Start quality improvement activities were significantly more likely to have a regular source of health care than children who had not. **Ninety percent (90%) of Smart Start children had a regular source of health care compared with 82% of non-Smart Start children. Conversely, 18% of non-Smart Start children had no source of regular care compared to 10% of Smart Start children.** The positive effect of Smart Start child care on having a regular health care provider did not differ between white and African American preschoolers, or between poor and non-poor children.



### Implications and Future Directions

The results show that increased access to regular health care for children is associated with attendance at child care centers that participate in Smart Start quality improvement activities. These activities were not intended directly to affect access to health services, but it appears that they did or that they are associated with activities that we did not measure that have an effect on health services. However it is achieved, any reduction in use of emergency room care represents a significant cost savings. Typically, an emergency room visit for a Medicaid-eligible child with acute otitis media costs \$41.50, compared with \$35.52 for an office visit.<sup>1</sup>

These preliminary findings of regular access to health care for children attending centers involved in Smart Start are encouraging. We are currently completing a larger study focused specifically on children who participated in Smart Start health interventions. With more children from more counties, we will be able to assess the effect of Smart Start on immunizations and other measures of health status outcomes in addition to access to care.

<sup>1</sup> Personal Communication, P. Munson (Division of Medical Assistance) and S. Horton (Division of Public Health), NCDHHS, Sept. 15, 2000.