STUDY: EARLY CHILDHOOD INTERVENTION CUTS CRIME, DROPOUT RATES

MADISON - One of the nation's largest studies of public early-childhood education is tracking a "snowball effect" of positive outcomes, including new data showing significant declines in juvenile crime and dropout rates.

The new study, published in the Wednesday, May 9, issue of the Journal of the American Medical Association, examines the performance of about 900 children from low-income families who participated in the Chicago School District's Child-Parent Center Program beginning at age 3 and 500 low-income children of the same age who attended other early childhood intervention programs. This federal program, similar to Head Start, has served over 100,000 families in Chicago's highest-poverty neighborhoods since 1967.

Over the past 15 years, the Chicago Longitudinal Study has measured children's progress on key educational and social milestones, such as school readiness and achievement, grade retention, special education placement, and delinquency. Those outcomes are compared against Chicago children of the same age and demographic makeup, which is predominantly African American, residing in low-income families, and who did not participation in the Child-Parent Center Program.

Principal investigators Arthur Reynolds, a University of Wisconsin-Madison professor of social work, and Judy Temple, a Northern Illinois University professor of economics, say the new data on crime and high school completion show that early intervention creates a "cumulative advantage" that persists into early adulthood. "We haven't had this level of long-term scientific evidence for public programs until now," Reynolds says. "These are really life-altering outcomes for young people with major implications for society." The National Institute of Child Health and Human Development, and the Office of Educational Research and Improvement fund this ongoing study in cooperation with the Chicago Public Schools. Among the findings:

-- The juvenile arrest rates were 16.9 percent for the preschool group, compared to 25.1 percent for the comparison group who participated in a full-day kindergarten program (See attached figures). This is a 33 percent reduction in the rate of juvenile arrest. For violent arrests in particular, the numbers were 9 percent for the preschool group, compared to 15.3 percent for the comparison group, or a 41 percent reduction. The rate of multiple violent arrests dropped by 38%. Like other findings, these effects take into account child, family, and site characteristics.
Reynolds says the data was collected from official juvenile arrest records in Cook County, and covered children from ages 10 to 17. Nationally, the rate of juvenile arrest is about 12 percent across ages 10-17, Reynolds says, which means the preschool group is edging closer to the national average.

-- The preschool group, by age 20, had a high-school completion rate 29 percent higher than the comparison group, or 49.7 percent compared to 38.5 percent. Program participants also completed more years of education and had a significantly lower rate of school dropout. Although the school dropout rate for the preschool group (46.7 percent) was similar to Chicago children, it was higher than for children nationally. When examined by gender, the study shows that preschool participation benefitted boys more than girls - a significant finding since African-American males are at the highest risk of school failure. Program boys experienced a 47 percent higher rate of school completion than comparison group boys.

-- The rate of grade retention (being "held back") was also much lower for the preschool group (23.0 percent) than for the comparison group (38.4 percent), a 40 percent reduction. The same was true regarding the number of children who needed special education programs, which was 14.4 percent for preschool children compared to 24.6 percent for the comparison group.

-- Longer participation in the program also made a difference. Children who participated in the program for 4 to 6 years had a significantly lower rate of grade retention (21.9 percent) than those who participated for 1 to 3 years (32.3 percent). By age 18, the extended intervention group also had a 35 percent lower rate of special education placement (13.5 percent versus 20.7 percent).

Taken collectively, Reynolds says these findings have major economic implications, given that special education, school failure and crime carry huge social costs. Reynolds says a related study, also co-authored with Temple and UW-Madison's Dylan Robertson and Emily Mann, estimated that every dollar invested in the program returns $4 to society by reducing public spending on remedial and corrective programs and increasing economic well being.

The Child-Parent Centers (CPC) program is located in 23 school sites and is funded by Title I of the Elementary and Secondary Education Act in the U.S. Department of Education. Unlike Head Start, CPC is run by school districts rather than social service agencies and provides more intensive literacy and parent-involvement activities. It also runs for up to six years, as children enter beginning at age 3 and can continue until age 9.

Born in 1980, the study group entered kindergarten in 1985. More than 80 percent of the children have been followed successfully into adulthood. Importantly, Reynolds and Temple noted that early education alone "cannot ameliorate the effects of continuing disadvantages children may face." But many features of these programs are making a difference.

"It's a very nurturing, positive atmosphere," Reynolds says. "Kids learn about the world as well as their ABCs by engaging in a variety of structured learning activities and going on lots of field trips. The provision of comprehensive services and that children participated for at least two years also are crucial."
The parent involvement component of CPC is equally important, Reynolds says. Parents participate in support groups with other parents and take education courses in home economics, child-rearing, and personal development. CPC also has a 30-year track record in Chicago and a well-educated and well-paid teaching staff that promotes stability and high quality, he says. While access has improved in recent years, early intervention programs such as Head Start, CPC and other state-funded options still reach only one-half of all eligible at-risk children in the United States, Reynolds says. At-risk is defined as growing up in a high-poverty neighborhood or being from a family with an income less than 130 percent of the poverty line.

There has been a political push for universal access to early care and education programs, and Reynolds says the 15-year results of his study strongly support the benefits of such a policy goal. With welfare reform and more parents working nationwide, the need has become more acute for programs that support the "working poor," he says, adding that these programs should be integrated with school-age programs under the direction of public schools. The results on arrest and school completion rates, in particular, address whether early childhood intervention effects "fade out" by the time children reach their teens. "Success builds on success, so this type of early success is providing a strong foundation for learning that culminates in long-term benefits."

Reynolds says the next step for the research is to track post high-school experiences, such as college enrollment and completion rates, employment and income indicators, and quality of life measures.

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Figures follow below.
High School Completion Rates for Child-Parent Center Program and Comparison Groups in the Chicago Study

![Graph showing high school completion rates for preschool and comparison groups]

Values are adjusted for gender, sites, follow-on participation, race, and family risk.

Juvenile Arrests by Age 18 for Child-Parent Center Program and Comparison Groups

![Graph showing juvenile arrests by age 18 for preschool and comparison groups]

Legend:
- Preschool group
- Comparison group
Special Education Services by Age 18 for Child-Parent Center Program and Comparison Groups

- Special education: 14.4% (Preschool group), 24.6% (Comparison group)
- 2 or more years of special ed: 12.9% (Preschool group), 21.3% (Comparison group)