Child Safety Seats via Medicaid Urged as 'Vaccine'

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WASHINGTON — Implementation of a Medicaid-funded program that would disburse child restraint systems to low-income children and educate families about their use would be more cost effective to Medicaid than are most currently administered vaccines, Jesse A. Goldstein reported at the annual meeting of the American Academy of Pediatrics.

As with all routine vaccines, such a program would be cost-saving to society in terms of parental work loss and future productivity. And, akin to what the federally funded Vaccines for Children accomplishes for vaccination, "this program would reduce the disparities in child passenger safety prevalent in low-income communities by addressing the major barriers to adequate restraint practices—namely, access and education," said Mr. Goldstein, a fourth-year medical student at the University of Pennsylvania, Philadelphia.

The data come from the Partners for Child Passenger Safety, a research collaboration of State Farm Insurance Companies, Children's Hospital of Philadelphia, and the University of Pennsylvania (www.traumalink.chop.edu). It uses telephone interviews, on-site crash investigations, and in-depth analysis in 15 states and the District of Columbia to determine how and why children are injured in crashes.

For the current analysis, a hypothetical group of 100,000 low-income children were enrolled at birth and followed through 8 years of recommended child restraint system (CRS) use. Injury rates were derived from the PCPS database of State Farm policyholders involved in crashes from 1999 to 2003 in which a child aged 8 years or younger was present. Mortality data came from the Fatality Analysis Reporting System, and other data came from published and unpublished sources.

Program costs included administration

and education, initial disbursement of convertible seats beginning at birth, reinvestment for booster seats at age 4 years, and a 5% annual replacement rate. It was assumed that the program would increase appropriate CRS use for low-income children by 23% for 0- to 3-year-olds and by 35% for children aged 4-7 years. Under these assumptions, implementation of the program would prevent 63 injuries and 2 deaths per 100,000 children. Over the course of 8 years, it would prevent 400 injuries and 17 deaths, resulting in 564 life-years saved, Mr. Goldstein reported.

Without the proposed program, annual crash-related outcome costs were estimated at $4.2 million in medical costs, $350,000 in parental work loss, and $8.3 million in future victim productivity per 100,000 children. Implementation of CRS disbursement and education would reduce annual medical costs by about $1 million, parental work loss costs by $100,000, and future productivity costs by $2.7 million.

Over the 8-year projection, the program would save nearly $7 million in medical costs. At the same time, program administration costs were estimated at $6 million for the first year and $10 million cumulatively.

From the societal perspective (including all medical and nonmedical costs), the program would be cost-saving. From Medicaid's perspective—including only medical costs—the program would need to spend $17,000 to save one life-year. "This value is well below the threshold of $50,000-$80,000 that most are willing to pay for an added year of life," Mr. Goldstein noted.

Indeed, a CRS disbursement/education program falls into the lower-cost end of the list of vaccines currently funded under VFC, well below the cost per life-year saved for varicella vaccine ($19,700 or $65,000, depending on the vaccine price estimate), hepatitis B vaccine ($26,000), and pneumococcal vaccine ($147,000). Only *Haemophilus influenzae* type b (cost saving to insurer) and measles-mumps-rubella ($6,000) were more cost effective.

Several states have programs that supply child safety seats among low-income populations using a variety of funding mechanisms, but most do not involve Medicaid.

A legislative proposal in Illinois would increase seatbelt violation fines from the current $25 to $200 to provide child safety seats on a sliding-scale fee to low-income families. It also would allow Medicaid to reimburse the time of certified child passenger safety technicians at eligible locations to educate families who receive sliding-fee child safety seats, said Jahari Piersol of the Illinois Department of Transportation. ■

Limiting Topics During Visit Aids Retention

When providing parents with anticipatory guidance, less is apparently more.

Parental recall of topics discussed during a well-child visit dwindles as the number of topics increases, Dr. Shari L. Barkin and her associates reported: Parents absorb the information best when physicians limit their discussions to less than nine subjects.

"Limiting the number of topics discussed, rather than attempting to squeeze more informational content into the visit, might lead to increased retention, a necessary starting point for behavior change," wrote Dr. Barkin of Wake Forest University, Winston-Salem, N.C., and her colleagues (Ambul. Pediatr. 2005;5:372-6).

The investigators examined provider-parent agreement and parental recall of subjects discussed during 861 well-child visits. Most of the parents surveyed were mothers (90%), and most of the mothers (59%) reported at least a high school education.

The most discussed topics were car restraints, nutrition, dental care, and reading aloud. Other topics included exercise, firearms, smoking, and media use. Most providers (454) discussed 5-8 topics; 158 covered 1-4 topics, and 249 did 9-13 topics.

Immediately after the visit, parents and providers filled out surveys about the discussions. There was good agreement (at least 70%) about what was and was not discussed, but overall, parents reported discussing slightly fewer topics than did providers (mean topics 6.33 vs. 6.9, respectively). The best agreement between parents and providers occurred when five to eight topics had been discussed. When there were fewer than five topics, parents reported having discussed more topics than providers reported; in discussions of more than nine topics, parents recalled fewer topics than providers recalled.

Parental recall dwindled with time, the investigators wrote. One month after the visit, parents who heard the fewest subjects recalled discussing more than their providers had reported post visit (mean 5.58 vs. 3.12, respectively).

Parents who heard the most topics recalled fewer topics than their providers had reported post visit (mean 8.63 vs. 10.16, respectively).

—Michele G. Sullivan