Previous Medicaid Status of Children Newly Enrolled in Supplemental Security Income

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The Supplemental Security Income (SSI) program for children and adolescents has experienced a fourfold enrollment growth since 1989. Most SSI recipients also receive Medicaid, and SSI growth could therefore lead to major new Medicaid expenditures if new SSI recipients were not previous Medicaid enrollees. Medicaid claims for 1989-92, we determined whether SSI expansions included many children new to Medicaid as well as whether children with certain disabilities were more likely to have had Medicaid prior to SSI enrollment. Rates of new SSI enrollees without previous Medicaid coverage decreased from 53 percent in 1989 to 39 percent by 1992.

INTRODUCTION

The numbers of children and adolescents under 18 years of age receiving SSI have almost quadrupled from 1989 (275,000) to the current level of approximately 1 million (Social Security Administration, 1996). Along with an income benefit, SSI enrollment brings Medicaid insurance in almost all States, even where the recipient might usually be

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ineligible because of age or household (National Commission income Childhood Disability, 1995; Perrin and Stein, 1991). Medicaid, already the largest public insurer for children, has gained many additional childhood recipients through SSI eligibility. Estimates of current public expenditures for the child and adolescent SSI program range up to \$10 billion, approximately 60 percent for cash benefits and 40 percent for associated Medicaid expenditures (National Commission on Childhood Disability, 1995). This tremendous growth in the child and adolescent SSI program followed at least three major policy changes in the past several years: (1) the publication of new guidelines by the Social Security Administration (SSA) for determining mental health disability in children in 1990, substantially increasing the access to SSI of children with mental health conditions (Social Security Administration, 1990a); (2) the Supreme Court Zebley decision, which led to new rules for determining disability among children with multiple conditions and for assessing how health conditions affect the functioning of children (Sullivan v. Zebley, 493 U.S. 521, 1990); and (3) a major effort by SSA to identify potential child recipients in the late 1980s and the early 1990s, partially under congressional mandate.

The additional expenditures for these children (through the direct SSI cash benefit and the associated Medicaid coverage) represent one of the largest new investments in child health and welfare in the

United States. Insofar as many children with chronic health conditions lack access to health insurance (Fox and Newacheck. 1990; Newacheck et al., 1995), these new expenditures may have extended insurance coverage to many children who previously lacked it. Nonetheless, this increasing investment has generated much media and congressional interest in the program (U.S. Department of Health and Human Services, 1995; U.S. General Accounting Office, 1994), along with allegations that children without major disabilities who receive benefits from other public programs, such as Aid to Families with Dependent Children (AFDC), have overstated their disability status in order to qualify for SSI and increase their monthly cash benefit from relatively low AFDC levels to higher SSI levels (Woodward and Weiser, 1994). Congressional concern about program growth led to the formation of a National Commission on Childhood Disability in 1995 and to the inclusion of major changes in SSI eligibility for children and adolescents as part of the changes in welfare enacted in 1996 (U.S. Congress, 1996).

In this study, we examined whether the SSI expansions brought in a large number of new children to Medicaid or whether the changes primarily extended cash benefits to children (mainly receiving AFDC) who had previously received public health insurance. In addition, we determined whether children with certain types of disabilities were more or less likely to have had Medicaid coverage prior to SSI enrollment. We predicted that more new SSI enrollees in later years would likely have previous Medicaid enrollment. because of both Medicaid eligibility expansions unrelated to SSI and greater public awareness of the availability of the SSI benefit. We also expected that difficulties in access to health insurance for children

with disabling conditions might have an opposite effect, with those new SSI enrollees who have more evidence of medical service need being less likely to have previous Medicaid enrollment. Answers to these questions have substantial policy and political import. Determining whether large numbers of children received new access to health insurance could suggest that such benefits result in improved opportunities for medical management of their disabilities, especially with the growth of Medicaid managed care. Furthermore, providing better estimates of actual Medicaid expenditures and determining whether these represent additional expenditures or ones that would have been engendered even without the SSI expansions helps Medicaid programs to plan the design of their benefit packages for children and adolescents. Answers to these questions will also help clarify how much of a shift from State to Federal expenditures resulted from the growth in SSI enrollment.

METHODS

We examined Medicaid enrollment files and claims data from 4 years (1989-92) for four States (California, Georgia, Michigan, and Tennessee). These years included the key program policy changes already noted and allow examination of their effects on enrollment. These four States provide diversity with respect to Medicaid program eligibility (use of optional eligibility categories), covered services (e.g., inpatient and outpatient mental health services), and income levels for public welfare assistance (and related non-SSI Medicaid eligibility). On the other hand, the relatively larger enrollment (both SSI and Medicaid) in California accounts for large proportions of the children studied here, and the aggregate sample therefore likely better represents larger and more urban States with relatively generous Medicaid programs. State Medicaid data came from the HCFA Tape-to-Tape project and were supplied by the main HCFA contractor (MedStat Group, Santa Barbara, California). Available Medicaid files included all paid claims (for physician services, hospital and outpatient department care, long-term care, drugs, and laboratory), as well as enrollment data that indicate the child's basis for eligibility each month (SSI or other Medicaid eligibility). Previous claims and enrollment data were also available for new SSI recipients previously enrolled in Medicaid, and we used these data to determine prior Medicaid status. Enrollment files also indicate the type of prior Medicaid eligibility, which we categorized as AFDC or other. Most children in the "other" category include those eligible through Medicaid expansions to increasingly older age categories in higher income groups (Pear, 1988). It also includes a small number of Medicaid medically needy children, where subtracting their expenditures for health services from household income brought them to financially eligible levels. This last category. although including households with children with high-cost disabilities, accounted for a very small percent (about 5 percent) of Medicaid enrollees during the study years. Study data elements also included the child's age, sex, and race/ethnicity (categorized as white, black, other, and unknown).

The initial sample included all SSI recipients, 0-21 years of age, during the 4 years in the four States. We used Medicaid eligibility categories of "blind" or "disabled" to define SSI-eligible Medicaid recipients. We examined new SSI enrollees by month and determined in each case whether a new enrollee had had Medicaid coverage in any of the previous 6 months. Insofar as

many Medicaid recipients have intermittent enrollment and might be missed when using only the previous month, we considered a child previously enrolled if he or she had Medicaid coverage in any of the previous 6 months to capture intermittent episodes of enrollment. Because we were unable to examine a full 6 months of previous Medicaid enrollment for children prior to July 1989, our analyses include only children identified as new SSI enrollees on or after July 1989. Similarly, we excluded children newly enrolled in SSI from July through December 1992, insofar as we used medical claims data for 6 months subsequent to first SSI enrollment to determine the presence of a chronic condition. We defined three time periods during the 4 years of study to distinguish the impacts of changes in program policy: July 1989 to June 1990 (prior to the changes in policy), July 1990 to June 1991 (transition), and July 1991 to June 1992 (post-policy changes). Expanded SSA outreach activities predated the study period and continued throughout. Thus, these time periods allow examination of the effects of new mental health criteria and the Zebley decision on SSI enrollment. We then calculated rates of previous Medicaid enrollment by State for each time period to determine how these rates changed during the study.

We next determined whether an SSI child had a chronic health condition that led to one or more Medicaid claims at any time from July 1989 through December 1992. Classification of conditions as chronic came from previously reported categorizations of *International Classification of Disease, 9th Revision* (ICD-9) codes (Gortmaker, Perrin, et al., 1993; Gortmaker, Must, et al., 1993). This approach is conservative, insofar as a child might have a chronic health condition for which treatment was sought, but the claim might be labeled with another diagnosis or purpose

Table 1
Child and Adolescent Supplemental Security Income Enrollment:
Four Study States, July 1989 to December 1992

| State | July 1989 | June 1990 | June 1991 | December 1992 | Percent Change July 1989- December 1992 |
|------------|--------------|--------------|--------------|------------------|---|
| Total | 77,671 | 90,956 | 114,290 | 164,588 | 112 |
| California | 38,803 | 45,641 | 55,934 | 76,707 | 98 |
| Georgia | 13,400 | 15,520 | 20,283 | 29,015 | 117 |
| Michigan | 12,629 | 14,872 | 19,659 | 31,957 | 153 |
| Tennessee | 12,839 | 14,923 | 18,414 | 26,909 | 110 |

NOTE: Children and adolescents 0-20 years of age.

SOURCE: Data from the Medicaid Eligibility Files; analysis by Perrin et al., Boston, MA, 1997.

for visit. For these determinations, we used diagnostic information from all inpatient, outpatient, emergency department, laboratory, and institutional claims. used Kaplan-Meier life table methods and all available claims data for new SSI enrollees to estimate the proportion of children who would have had a chronic condition claim if the child had had SSI enrollment throughout the study years (Cox and Oakes, 1984). (Children with fewer months of SSI enrollment will have less likelihood of having a claim for a chronic condition. The Kaplan-Meier approach permits estimation of likely results had the children been enrolled throughout all study years.) We categorized chronic conditions into three groups: chronic physical health conditions, mental retardation, and primary mental health conditions other than mental retardation, again using ICD-9 codes. We determined the rates with which these condition groups were found among SSI enrollees with and without previous Medicaid coverage during the periods prior to, during, and after the policy changes. We then used logistic regression models to determine whether children enrolling in SSI in later time periods or with a claim for a chronic health condition were more likely to have been covered by Medicaid prior to We controlled for age, sex, and SSI. race/ethnicity in all regressions.

RESULTS

During the 4-year study period, the number of new SSI enrollees in these States grew by approximately 112 percent (Table 1). During this same period, total SSI enrollment for children and adolescents grew by 99.4 percent. Approximately 45 percent of new SSI enrollees had had no Medicaid coverage in the 6 months prior to SSI enrollment. This rate decreased from 53 percent across the four study States in 1989 to 39 percent by 1992 (Figure 1). Table 2 indicates demographic characteristics of SSI children and adolescents in the study States in 1989 and 1992. Although the SSI group includes more older children (consistent with a later onset of disabling conditions), over the 4-year period, the age distribution changed, with increasing numbers of preschool children enrolled. As in most samples of children with disabilities, the SSI group had a preponderance of males. Among the more common chronic conditions identified by means of analyses of Medicaid claims for these children receiving SSI are cerebral palsy, epilepsy, mental retardation, asthma, spina bifida, hydrocephalus, and psychotic disorders (Table 3).

The major changes in SSI policy for children and adolescents led to large numbers of new enrollees, many without previous

Figure 1

Percent of New Supplemental Security Income (SSI) Enrollees Without Previous Medicaid Coverage, Before, During, and After SSI Policy Changes: Four Study States, 1989-92

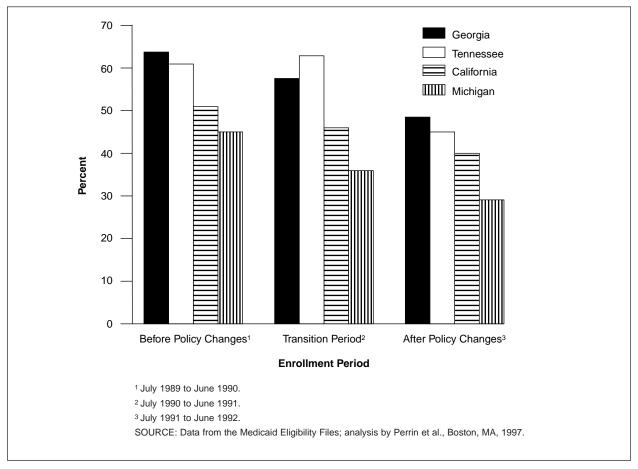


Table 2

Demographic Characteristics of Supplemental Security Income Children and Adolescents, by Age, Race, and Sex: Four Study States, 1989 and 1992

| | Cali | fornia | Ge | orgia | Mich | nigan | Tenne | essee |
|----------------|------|--------|------|-------|-------|-------|-------|-------|
| Characteristic | 1989 | 1992 | 1989 | 1992 | 1989 | 1992 | 1989 | 1992 |
| Age | | | | Pe | rcent | | | |
| 0-5 Years | 19.0 | 23.0 | 20.3 | 22.8 | 14.5 | 19.3 | 16.9 | 19.7 |
| 6-11 Years | 24.0 | 25.9 | 25.8 | 30.4 | 22.0 | 29.2 | 27.1 | 30.3 |
| 12-17 Years | 26.2 | 27.1 | 28.9 | 28.6 | 28.4 | 29.4 | 30.5 | 30.4 |
| 18-20 Years | 30.8 | 24.0 | 25.0 | 18.2 | 35.0 | 22.1 | 25.6 | 19.7 |
| Race | | | | | | | | |
| White | 47.6 | 35.4 | 43.3 | 33.3 | 69.4 | 63.4 | 61.8 | 50.6 |
| Black | 16.3 | 17.7 | 49.5 | 44.4 | 22.1 | 27.6 | 31.8 | 32.1 |
| Other | 1.2 | 5.8 | 0.0 | 0.0 | 2.6 | 3.7 | 0.1 | 3.0 |
| Unknown | 35.0 | 41.1 | 7.2 | 22.3 | 6.0 | 5.3 | 6.3 | 14.4 |
| Sex | | | | | | | | |
| Male | 57.4 | 58.0 | 57.5 | 60.1 | 58.9 | 61.5 | 59.4 | 61.3 |
| Female | 42.6 | 42.0 | 42.5 | 39.9 | 41.1 | 38.5 | 40.6 | 38.7 |

SOURCE: Data from the Medicaid Eligibility Files; analysis by Perrin et al., Boston, MA, 1997.

Table 3
Chronic Conditions¹ and Range of Prevalence
Among Supplemental Security Income
Children: All States, 1992

| - · · · · · · · · · · · · · · · · · · · | |
|---|------------------|
| Developmental Mental Retardation | Percent 15-26 |
| Physical Asthma | 14-25 |
| Epilepsy | 17-29 |
| Hereditary Hemolytic Anemias | 5-23 |
| Infantile Cerebral Palsy | 21-38 |
| Congenital Anomalies of Nervous System | 5-13 |
| Congenital Anomalies of Heart | 5-13 |
| Paralytic Syndromes | 6-12 |
| Spina Bifida | 8-19 |
| Psychiatric Disorder | |
| Affective Psychoses | 4-16 |
| Schizophrenic Disorders | 6-21 |

¹ Conditions are included if the prevalence of a claim for the condition is greater than 10 percent in at least one State.

SOURCE: Data from the Medicaid Claims Files; analysis by Perrin et al., Boston, MA, 1997.

Medicaid coverage. Using the life table approach previously described for analyzing Medicaid claims, approximately 51 percent of these new SSI enrollees would have had a claim for an identified chronic health condition visit or service identified in the Medicaid files if they had been eligible for the full 3 years. These data show substantially higher rates of claims for chronic conditions among children who had had previ-Medicaid coverage (Table Children and adolescents in California without previous Medicaid coverage were slightly less likely than their counterparts in the other States to have claims for any chronic condition. Most claims were for chronic physical conditions, with few claims for mental retardation or other mental health conditions (and especially few among the new SSI enrollees who had no previous Medicaid coverage). These low rates of claims with mental health or retardation diagnoses could indicate that the SSI population actually has low rates of these conditions, although it is far more likely that a medical claims approach

rarely identifies these conditions. Children with mental retardation and no related physical conditions use relatively few medical services, especially ones that would carry a label of mental retardation. Similarly, Medicaid coverage of both inpatient and outpatient mental health services limits the use of such services by children with other mental health conditions and thus the likelihood of finding a mental health claim through our procedures.

Results of the logistic regressions (Table 5) indicate that, after controlling for age, sex, and race/ethnicity, children who enrolled after implementation of the SSI policy changes were substantially more likely to have had Medicaid coverage previously than were children enrolled prior to these changes. Children with medical visits for chronic health conditions were also more likely to have been covered by Medicaid prior to their SSI enrollment. (The low rates of claims for mental health and mental retardation diagnoses did not permit further analysis by type of chronic condition.) We ran similar analyses for children with and without any Medicaid claims and found no significant differences in these results.

DISCUSSION

Main Findings

Almost one-half of the new SSI enrollees in the study States were not previously enrolled in Medicaid. Many children in these States who had had no previous public health insurance therefore received it as a result of their SSI eligibility. The likelihood that children had previous Medicaid enrollment increased during the 4 years of study, although even by 1992, more than one-third of new enrollees had no prior public health insurance. The findings indicate that increasing numbers of families

NOTES: Conditions are grouped by three-digit *International Classification of Diseases, 9th Revision* codes. Children may have more than one condition.

Table 4

Estimated Proportion of New Supplemental Security Income Enrollees With Subsequent Medicaid Claims for Diagnoses of Chronic Conditions, by Condition Type, Enrollment Status, and State: Four Study States, 3-Year Period¹

| | | Any | | Mental | |
|----------------------|--------|------------------------|-----------------------|---------------------|-----------------------|
| Status and State | Number | Chronic Condition 2 | Physical Condition | Health Condition | Mental Retardation |
| Status and State | Number | Condition2 | Condition | Condition | Relatuation |
| No Previous Medicaid | | | Percent | | |
| California | 19,023 | 41.1 | 35.4 | 7.5 | 4.3 |
| Georgia | 9,429 | 46.4 | 38.8 | 7.9 | 5.5 |
| Michigan | 6,667 | 45.2 | 38.9 | 6.5 | 9.1 |
| Tennessee | 7,360 | 48.7 | 42.6 | 7.7 | 3.8 |
| Previous Medicaid | | | | | |
| California | 23,607 | 52.8 | 57.5 | 9.3 | 5.1 |
| Georgia | 7,793 | 63.2 | 56.6 | 7.9 | 7.1 |
| Michigan | 12,238 | 59.3 | 51.9 | 12.1 | 7.1 |
| Tennessee | 6,082 | 55.2 | 48.7 | 9.6 | 3.4 |

¹ Life table (Kaplan-Meier) estimates.

SOURCE: Data from the Medicaid Eligibility Files; analysis by Perrin et al., Boston, MA, 1997.

who had previous Medicaid coverage for their children with disability through AFDC or other eligibility obtained coverage through SSI. Our data, however, provide no direct evidence concerning the mechanisms by which welfare recipients or other Medicaid households were able to transfer their children with disability from non-SSI Medicaid to SSI.

The findings of increased previous Medicaid enrollment after the policy changes could reflect efforts of States to transfer some AFDC recipients to SSI rolls as a way of shifting some State costs to the Federal Government. States participate in paying for welfare benefits, but SSI payments are paid by the Federal Government (except for State supplements to the Federal cash payments). States therefore have had some incentive to encourage SSI enrollment. These cost shifts, however. save States relatively little. The AFDC savings to States represent the marginal increase to the family benefit for that child; these savings may be offset by supplements to the Federal SSI cash benefit, which most States provide. For example, in 1994, for a household with two children

receiving AFDC, Tennessee would have saved \$30 per month in State AFDC costs by moving the second child from AFDC to SSI. California would have experienced a net cost increase of \$28 per month because California (unlike Tennessee) supplements the Federal SSI cash benefit. For households, however, the financial advantage of SSI over AFDC can be substantial, representing a severalfold increase in the cash benefit.

Increased enrollment could also reflect greater awareness among hospitals, community and parent groups, and local agencies (such as early intervention programs) of the new SSI rules and among families heightened awareness of the program in general. As hospitals and other agencies developed more knowledge of these programs, they would be more likely to refer children with chronic health problems to SSI, especially those not otherwise covered by Medicaid. SSA, through its childfind programs, also worked actively to enroll children with disabilities during these years. Increased enrollment of children with identified chronic health conditions could also reflect expected changes

² Based on presence of a claim for service for a chronic condition in the Medicaid claims files (includes any physical condition, mental health condition, or mental retardation).

Odds Ratios of Previous Medicaid Enrollment Among New Supplemental Security Income (SSI) Recipients, Based on Period of Initial Enrollment and Presence of Chronic Condition, by Time Period and State: Four Study States, 1989-92 Table 5

| | | | | | G | | ļ |
|---------------------|---|---------------|--------------------------------------|---------------|--|---------------|--|
| | Prior to Policy Changes ¹ | Tra | Transition ^{2,3} | Policy | After Policy Changes ^{3,4} | Havin C | Having Medicaid Claim for Condition ⁵ |
| State | Odds Ratio | Odds Ratio | 95-Percent Confidence Interval | Odds Ratio | 95-Percent Confidence Interval | Odds Ratio | 95-Percent Confidence Interval |
| California | 1.00 | 1.09 | 1.04, 1.15 | 1.25 | 1.19, 1.32 | 1.86 | 1.74, 2.00 |
| Georgia | 1.00 | 1.24 | 1.12, 1.36 | 1.57 | 1.44, 1.71 | 2.57 | 2.38, 2.78 |
| Michigan | 1.00 | 1.28 | 1.17, 1.40 | 1.34 | 1.23, 1.44 | 2.00 | 1.87, 2.15 |
| Tennessee | 1.00 | 0.97 | 0.87, 1.09 | 1.66 | 1.51, 1.83 | 1.94 | 1.78, 2.11 |
| 1 inky 4000 to 1000 | | | | | | | |

1 July 1989 to June 1990.

2 July 1990 to June 1991.

³ Compared with period before policy changes.

4 July 1991 to June 1992.

NOTE: Odds ratios and confidence intervals are from separate logistic regressions for each State, controlling for age, sex, race. ⁶ Compared with new SSI recipients without subsequent Medicaid claims in the succeeding 6 months for any chronic condition.

SOURCE: Data from the Medicaid Claims and Eligibility Files; analysis by Perrin et al., Boston, MA, 1997.

after the Zebley decision, which allowed children with multiple physical conditions easier access to the SSI program. ¹

Income-eligibility requirements for SSI and non-SSI Medicaid (whether from AFDC or other sources) have long differed, with children in households with incomes up to almost 185 percent of the poverty level eligible for SSI. Increasing numbers of children, however, became eligible for non-SSI Medicaid through changing economic eligibility standards during the study period, unrelated to the changes in SSI eligibility. These changing standards particularly affected children 6-9 years of age in households with incomes up to 100 percent of the poverty level. Enrollment of these children newly eligible from broader income categories has markedly lagged behind their eligibility. with estimates of only about one-third actually enrolling in Medicaid. Some of the growth in previous Medicaid enrollment among the later SSI enrollees presumably reflects these Medicaid expansions covering more non-AFDC children, at higher ages and higher family incomes. These households too would have financial incentives to enroll their children in SSI where possible, insofar as their non-SSI Medicaid coverage carried no associated cash benefit.

Limitations of the Study

Data from SSA indicate greater increases in numbers of children with mental health conditions than with other chronic conditions during the study period. During the 1989-94 period, where the total numbers of child and adolescent recipients increased fourfold, the numbers with a primary diagnosis (for SSI eligibility) of a mental health condition other than mental

retardation increased eightfold (Social Security Administration, 1990b, 1995). Nevertheless, these Medicaid data suggest that most children receiving SSI have chronic physical conditions; these data also provide little information regarding transfer from AFDC or other Medicaid eligibility groups to SSI of children with mental retardation or mental health conditions. As already indicated, the low rates of children identified with mental retardation or other mental health conditions likely reflect limitations in the use of medical claims data for these populations. Mental retardation usually does not lead to a specific medical claim with that diagnosis, so this category may be particularly underrepresented in Medicaid data. Many services for this population come from the education system, typically resulting in few if any Medicaid claims. Furthermore, Medicaid limits on mental health benefits and on payment of non-mental health providers for these services decrease the likelihood of identifying these conditions in Medicaid claims files. Similarly, SSA data may overestimate the numbers of children with mental health conditions, insofar as the disability determination process tends to code the diagnosis for which it is easiest for the child to get benefits.

Implications

The finding that almost one-half of new SSI enrollees had no previous Medicaid coverage suggests that about 320,000 children and adolescents with disabilities nationwide obtained new public health insurance during the 5 years following recent policy changes (44 percent of the total increase in enrollment since 1989). The SSI program thus appears to be an important source of health insurance for many children and adolescents with disabilities. Whether our data can be extrapo-

¹ Brian Zebley himself had multiple disabilities, no one of which alone satisfied eligibility requirements, although his disabilities taken together clearly made him disabled.

lated nationally, however, cannot be determined, insofar as the States demonstrated major variations, and our sample included none of the so-called 209b States, which (unlike most States) do not provide automatic access to Medicaid as a consequence of SSI enrollment. The States also have varied substantially in the size of their AFDC programs. California, for example, has had a large AFDC program, making it more likely that SSI children there would have had Medicaid coverage prior to SSI. The findings also indicate that a substantial proportion of current Medicaid expenditures for this population would have occurred even without the expansion of the SSI program. The higher rates of medical visits for chronic conditions (which typically engender high medical costs) among SSI enrollees who previously had Medicaid also support this notion. Current estimates of yearly Medicaid expenditures for the child and adolescent SSI populations are approximately \$4 billion. Thus, assuming that about 45 percent of new SSI enrollees were also new to Medicaid, approximately \$1.75 billion represents medical expenditures that resulted specifically from the recent expansions of the child and adolescent program.

How the recent welfare changes will affect the SSI program and these findings As of December 1997, more is unclear. than 100,000 children and adolescents had lost their SSI benefits, although the 1997 balanced budget agreement specifically required that these children retain their Medicaid benefits even if no longer eligible for SSI. Furthermore, the Social Security Commissioner announced in late December 1997 that concerns regarding the disability determination process would lead to a review of many of these recently denied child and adolescent cases. In general, reducing access of vulnerable populations to health care saves program dollars

but may have unintended adverse outcomes, often costing more than the savings realized. These vulnerable populations of children commonly face both chronic illness and poverty, and financial barriers to health care may particularly affect their health status, growth, and development (Newacheck et al., 1994; Perrin et al., 1994).

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