
Medicaid and the Health of Children

Rosemarie B. Hakim, Ph.D., Paul J. Boben, Ph.D., Jennifer B. Bonney, M.P.H.

The Medicaid program has evolved and expanded since its inception in 1965, providing health insurance coverage for ever-increasing numbers of children living in poverty. During the first 35 years of Medicaid, the program has expanded coverage to include preventive services for children, expanded eligibility criteria to include uninsured children not receiving welfare. The Medicaid program has encouraged innovation in the form of managed care and primary care case management. Most recently, the State Children's Health Insurance Program (SCHIP) has given States freedom in providing more children with coverage. Medicaid has had a powerful influence on the health of the Nation's children. Because of Medicaid coverage, fewer children die, and children have less severe illnesses, fewer hospitalizations, fewer emergency department visits, more preventive care, and more immunizations than they would have had they not been insured.

EVOLUTION OF MEDICAID FOR CHILDREN

Since its inception in the 1960s, the Medicaid program has provided health insurance coverage to low-income children and their families. Initially, Medicaid covered only children meeting the requirements of the Aid to Families with Dependent Children (AFDC) program. Since then, Medicaid has steadily evolved

and expanded. Some of the major changes included expansion of coverage to new eligibility groups, expansion of services, the introduction of Medicaid managed care, the delinking of Medicaid and welfare and the SCHIP legislation. Today, Medicaid is the major insurer of children, covering 20 percent of children under age 18 and 27 percent of children under age 6 (National Center for Health Statistics, 1999).

ELIGIBILITY EXPANSIONS

During the 1980s, Medicaid rapidly expanded beyond its AFDC base to cover increasing numbers of low-income children and their mothers. The following expansions occurred:

- Deficit Reduction Act of 1984—mandated coverage of all AFDC-eligible children born after September 30, 1983 and extended coverage to AFDC-eligible first-time pregnant women and two-parent families.
- Consolidated Omnibus Budget Reconciliation Act of 1984—extended coverage to all remaining AFDC-eligible pregnant women.
- Omnibus Reconciliation Act of 1986 (OBRA—allowed coverage of pregnant women and children under age 1 up to 100 percent of the Federal poverty level (FPL).
- OBRA 1987—permitted coverage of pregnant women and children under age 1 up to 185 percent of the FPL.
- Medicare Catastrophic Coverage Act of 1988—required coverage of all pregnant women and children under age 1 up to

Rosemarie B. Hakim and Paul J. Boben are with the Office of Strategic Planning, and Jennifer B. Bonney is with the Center for State Medicaid Operations, Health Care Financing Administration (HCFA). The views expressed in this article are those of the authors and do not necessarily reflect the views of HCFA.

100 percent of the FPL, and allowed States the option to extend coverage to families with incomes higher than 185 percent of the FPL.

- OBRA 1989—raised the minimum eligibility requirement to 133 percent of the FPL for pregnant women and children up to age 6.
- OBRA 1990—mandated coverage for children born after September 30, 1983 with family incomes below 100 percent of the FPL.

EXPANSION OF COVERED SERVICES

The most significant addition to the services available to children through Medicaid was the creation of the Early Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit in 1967. The goal of this provision was to ensure that Medicaid-eligible children received appropriate primary and preventive care. Accompanying regulations required States to develop periodicity schedules, which specified physical exams, screenings, and laboratory tests be provided to eligible children at each stage of development. Under the OBRA 1989 legislation, many of the provisions embodied in regulation were codified into law. A requirement was also added that States must provide any service that is needed to treat medical conditions identified during EPSDT screenings, whether or not the service is included in the State's Medicaid plan. States were also to establish goals for participation in the EPSDT program, with a goal of 80 percent participation to be achieved by 1995.

MEDICAID WAIVERS AND MANAGED CARE

Medicaid was initially designed to be a program that reimbursed health care providers directly for services rendered to

eligible individuals. Persons eligible for Medicaid were free to receive care from any Medicaid-participating provider, who would then bill Medicaid for the cost of care. In 1981, however, Congress created Section 1915(b) of the Social Security Act, allowing States to obtain waivers of the freedom of choice requirement. This allowed States to begin developing Medicaid managed care programs to address problems in access to comprehensive care among low-income children while controlling costs. In the early 1990s, the Clinton Administration pledged to work constructively with States to facilitate testing of new policy approaches to health care through the use of the section 1115 demonstration waiver authority. Since then, 17 States have been granted waivers to operate section 1115 demonstration projects for health care reform. Many of these States expanded coverage to new populations, using the savings from enrollment of Medicaid eligibles into managed care to offset the cost of the reforms. In addition, States wanted to improve access, health status, and utilization of services through the use of innovative managed care delivery systems.

Two major models of Medicaid managed care were developed. Under the primary care case management (PCCM) model, families choose or are assigned a primary care physician who provides health care services and must authorize specialist treatment when needed. Most services continue to be reimbursed directly by Medicaid. Under the capitated managed care model, Medicaid-eligible children are enrolled in managed care plans that receive a fixed Medicaid payment per month for each child for a defined benefit package. Children may receive care only from providers that have contractual relations with their plan. Emergency services and family planning services are among

the exceptions to this requirement. In 1991, 10 percent of Medicaid eligibles nationwide were enrolled in some form of managed care. By 1999, this percentage had grown to 55 percent, of which 42 percent were enrolled in a capitated managed care plan, and 13 percent had a primary care gatekeeper.

DELINKING MEDICAID AND WELFARE

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PROWA) led to the complete delinking of welfare and Medicaid. Under the new law, families meeting the financial criteria for Medicaid coverage are eligible regardless of their welfare status. Because of delinking, many families and children were improperly terminated from Medicaid, resulting in declines in Medicaid enrollment in 1997. Before PROWA, families typically became eligible for Medicaid by participating in AFDC. Since welfare reform, families receiving cash welfare have become a minority among adult and child recipients. States now face the challenge of maintaining Medicaid enrollment without the linkage to cash assistance. A number of States have increased access through eligibility campaigns, aggressive outreach, and simplification of enrollment processes.

NEW ERA FOR MEDICAID—SCHIP

In 1997, in response to declining Medicaid enrollment and the increasing numbers of uninsured children in working poor families with income too high to qualify for Medicaid, the SCHIP legislation was enacted. SCHIP allows States to implement several options to expand coverage for uninsured children in families with incomes up to 200 percent of the FPL or 50

percentage points above the Medicaid income eligibility in effect in March 1997. SCHIP is a flexible program that allows States to increase eligibility by expanding the Medicaid system, creating separate programs, or using a combination of both approaches. SCHIP also has stimulated changes in the traditional Medicaid program in areas such as simplifying eligibility and enrollment, and has placed a new emphasis on finding and enrolling hard to reach populations.

The children's insurance programs in many States are aggressively enrolling children into both SCHIP and Medicaid. There are multiple efforts on the national, State, and local levels to get uninsured children covered. The following are examples of some of these efforts.

- Nationally, eight Federal Departments have responded to President Clinton's 1998 directive to work cooperatively to develop plans to educate working families about SCHIP and assist in the enrollment of children in Medicaid or SCHIP.
- Indiana enrolls children using 500 independent enrollment centers throughout the State to reduce the stigma of applying for SCHIP/Medicaid at welfare offices. Enrollees are issued a card resembling a commercial insurance card that refers to enrollees as members.
- Ohio formed a partnership with the Internal Revenue Service to have HealthyStart materials accompany their Earned Income Tax Credit brochure to the volunteer tax preparation sites.
- California reduced its 28-page SCHIP/Medicaid application form to a 4-page more user-friendly application, translated into 11 languages.
- In Maryland, a consortium of an advocacy group, a national non-governmental organization, and a school of nursing sponsored a "wellmobile" that conducted outreach activity in two Maryland counties.

- Illinois allows families to mail in their KidCare applications, encouraging working families to apply.

MEDICAID AND THE HEALTH OF LOW-INCOME CHILDREN

Medicaid coverage has provided the foundation on which a comprehensive pediatric health care program is based. Without Medicaid, low-income children would not have full access to well-child visits, immunizations, lead screenings, vision and hearing services, dental care, developmental screening, adolescent counseling services, mental health care, long-term care and treatment for chronic illness. Without Medicaid, low-income females would not have full access to prenatal care and coverage of family planning and other obstetric services that are vital to the health of their newborns.

Acute and chronic illnesses disproportionately affect low-income children (Dutton, 1985, Shatin et al., 1998). Among children, poverty is related to poorer cognitive function, shorter stature, higher serum lead levels, more dental caries, and more severe asthma (Kramer, Allen, and Gergen, 1995; Yip, Scanlon, and Trowbridge, 1993; Persky et al., 1998; Vargas, Crall, and Schneider, 1998). Chronic and acute health problems affect children in all income groups, but children from low-income families spend more days in bed, experience more hospitalizations and have longer stays, and visit emergency departments more frequently than children from higher income families (Newacheck and Starfield, 1988; Shatin et al., 1998). The higher burden of illness among children from low-income families leads to disproportionate expenditures for medical care. Without Medicaid coverage, low-income families would be unable to afford premiums and other out-of-pocket

costs associated with private insurance. While medical expenditures for children in the lowest income levels are higher than expenditures for all but the highest income children, low-income children continuously covered by Medicaid have lower out-of-pocket expenses than low income privately insured or uninsured children (Newacheck and Halfon, 1986).

Research has demonstrated the effectiveness of health insurance in improving the health of low income children. An experiment in the mid-1960s randomized comprehensive care to a group of poor urban families (Alpert et al., 1968). Relative to the control group, the children who received these services made an average of 75 percent more well-child visits, and 32 percent fewer sick visits. The results of this experiment, which coincided with the enactment of Medicaid, indicated that eliminating the financial barrier to health services is necessary to improve access to comprehensive care of children. Other studies show that children with health insurance are significantly more likely to have a usual source of care, to receive medical care when needed, and to get needed medications, mental health care, or eyeglasses, than children without (Newacheck et al., 1998). Medicaid coverage provides children with the financial resources needed to obtain quality care.

The importance of Medicaid can also be seen in its impact on key indicators of the health of children. A number of advances in health care for children have occurred since the inception of Medicaid that probably would not have occurred in the program's absence. The first full decade of Medicaid (1970-1980) saw infant mortality drop 35 percent, the most rapid decline of the century, with neonatal mortality (ages 0-27 days) plummeting 41 percent (Centers for Disease Control and Prevention, 1999). In that same decade,

deaths in early childhood (ages 1-4 years) declined 24 percent, 26 percent, for school-aged children (5-14 years), and 25 percent for older adolescents and young adults (Centers for Disease Control and Prevention, 1999). The greatest period of decline for measles, mumps, and rubella also occurred in the first decade of Medicaid. Outbreaks of these diseases have continued throughout the 1970s, 1980s, and early 1990s, primarily because there were substantial numbers of hard-to-reach underimmunized low-income infants and preschool aged children. In the 1990s, the Centers for Disease Control and Prevention (CDCP) and State health agencies mounted aggressive efforts to immunize children in this age group. Some States initiated purchasing programs to supply Medicaid providers with free vaccines. This effort has resulted in a 99-percent reduction in measles, a 62-percent reduction in mumps, a 90-percent reduction in rubella between 1980 and 1998 (National Center for Health Statistics, 1999; Centers for Disease Control and Prevention, 1998). In the same years, the sometimes fatal disease, invasive Haemophilus influenza type b, has been virtually eradicated (Reuters, 1998). None of this could have been accomplished without Medicaid coverage of immunizations.

Although the Medicaid program has successfully insured millions of children, most studies have shown that the levels of use of services by Medicaid covered children, while higher than uninsured, are lower than those of privately insured children (St. Peter, Newacheck, and Halfon, 1992). The new adage is that insurance is necessary but not sufficient to assure that children receive the care that they need. A large number of factors have been shown to affect receipt of medical services among Medicaid-eligible children (Gadomski, Jenkins, and Nichols, 1998; Freed et al.,

1999; Strobino et al., 1996; Cornelius, 1993; Cohen and Cunningham, 1995; Riportella-Muller et al., 1996; Moore and Hepworth, 1994; Pierce et al., 1996; Wood et al., 1995; Bobo et al., 1993; Pappas et al., 1997; Moore, Fenlon, and Hepworth, 1996; Snowden, Libby, and Thomas, 1997; Gary, Campbell, and Serlin, 1996; Abbotts and Osborn, 1993). Medicaid managed care is, in part, an attempt to address these disparities in access to care between low-income children and those of greater means.

Has managed care achieved its goal of improving access to care for low-income children? The results of some studies suggest that managed care has had a neutral result (Oleske et al., 2000; Szilagyi, 1998; Coughlin and Long, 1999). Other studies, however, have found encouraging results. The Florida Healthy Kids Program, a State-funded school based health program piggy-backed on the school lunch program (Rosenbach, Irvin, and Coulam, 1999), is a mixed privatized and public model. A private non-profit agency oversees agreements among private contractors, the school districts, and State agencies to provide comprehensive care to school aged children. These children had fewer unmet health needs, fewer emergency department visits, and more physician visits than children did in a comparison group. Through the use of SCHIP funding, Florida has expanded this program to cover more children. A Maryland PCCM program in which a primary care physician was assigned to each child, resulted in a 120-percent increase in the probability of an enrolled child having a well-child care visit, and a 10-percent decrease in the probability of having an avoidable hospitalization (Gadomski, Jenkins, and Nichols, 1998). Implementation of Tennessee's section 1115 demonstration project (TennCare) resulted in a 30-percent improvement in continuity of care for infants (Cooper et al.,

1999). In North Carolina, implementation of PCCM type Medicaid managed care program resulted in a 37-percent decrease in the average monthly rate of non-urgent emergency department visits (Piehl, Clemens, and Joines, 2000). When care is taken to implement managed care programs that target multiple barriers to care, they can improve access and health outcomes.

The 1980s expansions resulted in the greatest increase in Medicaid enrollment to date. Between 1987 and 1994, enrollment increased from 13.3 million to 20.7 million, a 60-percent change (Dubay et al., 1995). Four States that were evaluated after the expansions demonstrated increases in the number and completion of immunizations, increases in well-child care visit rates for infants, and slight increases in use of preventive dental services (Herz, Chawla, and Gavin, 1998). Overall, States responded to the increase in enrollees by increasing the average volume of participating pediatricians' preventive services, or by increasing the number of physicians providing preventive care (Adams and Graver, 1998). The 1989 expansion also was associated with an increased use of prenatal services (Cole, 1995), and, in Florida, a decrease in the number of low-birth weight infants. Despite these increases in the use of services and improved outcomes, great disparities remained between the poor and non-poor.

CHALLENGES AND OPPORTUNITIES

Medicaid and SCHIP have succeeded in their goals of improving the health of our Nation's most vulnerable children. Changes in these programs over the years have increased their effectiveness, and allowed increasing numbers of needy chil-

dren to be served. Despite these advances, however, many children still do not have adequate access to basic health care services. Even for children participating in Medicaid and SCHIP, access to care is still less than that enjoyed by privately insured children. More work needs to be done to ensure that all of our children have access to quality health care. Healthy children are necessary for a healthy Nation.

REFERENCES

- Abbotts, B., and Osborn, L.M.: Immunization Status and Reasons for Immunization Delay Among Children Using Public Health Immunization Clinics. *American Journal of Diseases of Children* 147(9):965-968, September 1993.
- Adams, E.K., and Graver, L.J.: Medicaid Providers of Children's Preventive and EPSDT Services, 1989 and 1992. *Health Care Financing Review* 19(4):5-23, Summer 1998.
- Alpert, J.J., Heagarty, M.C., Robertson, L., et al.: Effective Use of Comprehensive Pediatric Care: Utilization of health resources. *American Journal of Diseases of Children* 116(5):529-533, 1968.
- Bobo, J.K., Gale, J.L., Thapa, P.B., Wassilak, S.G.: Risk Factors for Delayed Immunization in a Random Sample of 1,163 Children from Oregon and Washington. *Pediatrics* 91(2):308-314, 1993.
- Centers for Disease Control and Prevention, Summary of Notifiable Diseases, United States, 1998. U.S. Department of Health and Human Services, Washington, D.C. Accessible at <http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4753a1.htm>
- Centers for Disease Control and Prevention: Healthier Mothers and Babies. *Morbidity and Mortality Weekly Report* 48(38):849-58, 1999.
- Cohen, J.W., and Cunningham, P.J.: Medicaid Physician Fee Levels and Children's Access to Care. *Health Affairs* 14(1):255-262, 1995.
- Cole, N.: *Increasing Access to Health Care: The Effects of Medicaid Expansions for Pregnant Women*. Reference No. 500-87-0063, Abt Associates, Inc., 1995.
- Cooper, W.O., Hickson, G.B., Gray, C.L., and Ray, W.A.: Changes in Continuity of Enrollment Among High-Risk Children Following Implementation of TennCare. *Archives of Pediatrics and Adolescent Medicine* 153(11):1145-1149, 1999.

- Cornelius, L.J.: Barriers to Medical Care for White, Black, and Hispanic American Children. *Journal of the National Medical Association* 85(4):281-288, 1993.
- Coughlin, T.A., and Long, S.K.: Impacts of Medicaid Managed Care on Adults: Evidence from Minnesota's PMAP Program. The Urban Institute. 1999.
- Dubay, L., Kenney, G., Gavin, N., et al.: Examination of the Medicaid Expansion for Children: Final Report on Enrollment and Expenditures. The Urban Institute and the MEDSTAT Group, 1995.
- Dutton, D.B.: Socioeconomic Status and Children's Health. *Medical Care* 23(2):142-156, 1985.
- Freed, G.L., Clark, S.J., Pathman, D.E., and Schectman, R.: Influences on the Receipt of Well-Child Visits in the First Two Years of Life. *Pediatrics* 103:864-869, 1999.
- Gadomski, A., Jenkins, P., and Nichols, M.: Impact of a Medicaid Primary Care Provider and Preventive Care on Pediatric Hospitalization. *Pediatrics* 101(3):E-1, 1998.
- Gary, F., Campbell, D., and Serlin, C.: African American Women: Disparities in Health Care. *Journal of the Florida Medical Association* 83(7):489-493, 1996.
- Herz, E.J., Chawla, A.J., and Gavin, N.L.: Preventive Services for Children Under Medicaid, 1989 and 1992. *Health Care Financing Review* 19(4):25-44, Summer 1998.
- Kramer, R.A., Allen, L., Gergen, P.J.: Health and Social Characteristics and Children's Cognitive Functioning: Results from a National Cohort. *American Journal of Public Health* 85(3):312-318, 1995.
- Moore, P., Fenlon, N., and Hepworth, J.T.: Indicators of Differences in Immunization Rates of Mexican American and White Non-Hispanic Infants in a Medicaid Managed Care System. *Public Health Nursing* 13(1):21-30, 1996.
- Moore, P., and Hepworth, J.T.: Use of Perinatal and Infant Health Services by Mexican-American Medicaid Enrollees. *Journal of the American Medical Association* 272(4):297-304, 1994.
- National Center for Health Statistics: *Health, United States, 1999 With Health and Aging Chartbook*. Hyattsville, MD. 1999.
- Newacheck, P.W., Halfon, N.: The Financial Burden of Medical Care Expenses for Children. *Medical Care* 24(12):1110-1117, 1986.
- Newacheck, P.W., and Starfield, B.: Morbidity and Use of Ambulatory Care Services Among Poor and Nonpoor children. *American Journal of Public Health* 78(8):927-933, 1988.
- Newacheck, P.W., Stoddard, J.L., Hughes, D.C., and Pearl, M.P.: Health Insurance and Access to Primary Care for Children. *New England Journal of Medicine* 338(8):513-519, 1998.
- Oleske, D.M., Linn, E.S., Nachman, K.L., et al.: Effect of Medicaid Managed Care on Pregnancy Complications. *Obstetrics and Gynecology* 95(1):6-13, 2000.
- Pappas, G., Hadden, W.C., Kozak, L.J., and Fisher, G.F.: Potentially Avoidable Hospitalizations: Inequalities in Rates Between U.S. Socioeconomic Groups. *American Journal of Public Health* 87(5):811-816, 1997.
- Piehl, M.D., Clemens, C.J., and Joines, J.D.: "Narrowing the Gap": Decreasing Emergency Department Use by Children Enrolled in the Medicaid Program by Improving Access to Primary Care. *Archives of Pediatric and Adolescent Medicine* 154(8):791-795, 2000.
- Persky, V.W., Slezak, J., Contreras, A., Becker, L., et al.: Relationships of Race and Socioeconomic Status with Prevalence, Severity, and Symptoms of Asthma in Chicago School Children. *Annals of Allergy, Asthma, and Immunology* 81(3):266-271, 1998.
- Pierce, C., Goldstein, M., Suozzi, K., et al.: The Impact of the Standards for Pediatric Immunization Practices on Vaccination Coverage Levels. *Journal of the American Medical Association* 276(8):626-630, 1996.
- Reuters: Vaccination Nearly Ends a Childhood Illness. *The New York Times* National Science Section, November 27, 1990.
- Riportella-Muller, R., Selby-Harrington, M.L., Richardson, L.A., et al.: Barriers to the Use of Preventive Health Care Services for Children. *Public Health Reports* 111(1):71-77, 1996.
- Rosenbach, M.L., Irvin, C., and Coulam, R.F.: Access For Low-Income Children: Is Health Insurance Enough? *Pediatrics* 103(6):1167-1174, 1999.
- Shatin, D., Levin, R., Ireys, H.T., and Haller, V.: Health Care Utilization by Children With Chronic Illnesses: A Comparison of Medicaid and Employer-Insured Managed Care. *Pediatrics* 102(4):E44, 1998.
- Snowden, L.R., Libby, A., and Thomas, K.: Health-Care-Related Attitudes and Utilization Among African American Women. *Womens Health* 3(3-4):301-314, 1997.
- St. Peter, R.F., Newacheck, P.W., and Halfon, N.: Access to Care for Poor Children. Separate and Unequal? *Journal of the American Medical Association* 267(20):2760-2764, 1992.

Strobino, D., Keane, V., Holt, E., et al.: Parental Attitudes Do Not Explain Underimmunization. *Pediatrics* 98(6):1076-1083, 1996.

Szilagyi, P.G.: Medicaid Managed Care and Childhood Immunization Delivery. *Journal of Public Health Management Practices* 4(1):67-72, 1998.

Vargas, C.M., Crall, J.J., Schneider, D.A.: Sociodemographic Distribution of Pediatric Dental Caries: NHANES III, 1988-1994. *Journal of the American Dental Association* 129(9):1229-1238, 1998.

Wood, D., Donald-Sherbourne, C., Halfon, N., et al.: Factors Related to Immunization Status Among Inner-City Latino and African-American Preschoolers. *Pediatrics* 96(2):295-301, 1995.

Yip, R., Scanlon, K., Trowbridge, F.: Trends and Patterns in Height and Weight Status of Low-Income U.S. Children. *Critical Reviews in Food Science and Nutrition* 33(4-5):409-421, 1993.

Reprint Requests: Rosemarie B. Hakim, Ph.D., Health Care Financing Administration, 7500 Security Boulevard, C3-19-07, Baltimore, MD 21244-1850. E-mail: rhakim@hcfa.gov