CHIRI
The Child Health Insurance Research Initiative

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Impact of Primary Care Case Management (PCCM) Implementation on Medicaid and SCHIP

Under both Medicaid and the State Children's Health Insurance Program (SCHIP), States may deliver health care services through unrestricted fee-for-service (FFS) arrangements or through managed care, including primary care case management (PCCM). More than half of States operate Medicaid PCCM systems, and approximately 30 percent of SCHIP enrollees are served by PCCM systems. Policymakers are interested in the impact the type of delivery system has on low-income children's access to care.

This Issue Brief summarizes findings from a Child Health Insurance Research Initiative (CHIRI™) study of the impact of implementing PCCM systems in Alabama and Georgia. PCCM systems aim to increase patients' use of well-child and primary care in physician offices while decreasing use of specialty care and emergency departments. Researchers found:

- Physician participation in Alabama and Georgia Medicaid declined over the PCCM implementation period.
- Children enrolled in the Alabama and Georgia Medicaid programs were less likely to use emergency departments but were also less likely to use well-child and other primary care (e.g., a visit for an acute illness or chronic condition) after the implementation of PCCM.
- Reductions in well-child and primary care use under Alabama and Georgia Medicaid PCCM were more dramatic for urban black children.
- Enrollees in Georgia's PCCM SCHIP were less likely to use specialty care, emergency departments, and primary care than enrollees in Alabama's unrestricted FFS SCHIP.

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Moving to a PCCM system in Georgia and Alabama reduced participation in Medicaid by office-based physicians.

WHAT WAS LEARNED

Researchers studied the impact of implementing Medicaid PCCM on (1) physician participation in Medicaid, and (2) enrollees' health care use before and after PCCM implementation. They also compared SCHIP enrollees' health care use in Georgia, which operated a PCCM SCHIP, with SCHIP enrollees' health care use in Alabama, which operated an unrestricted FFS SCHIP that used a private provider network. Both States operated separate, freestanding SCHIP programs, with separate names and enrollment processes from the Medicaid program. (See text box.)

Definitions: PCCM and Unrestricted FFS

Primary Care Case Management. Enrollees selected or were assigned a participating primary care provider (PCP) who agreed to provide a medical home with 24-hour, 7-day-a-week access to care. Enrollees had to obtain referrals from their PCP to see a specialist.

Unrestricted Fee for Service. Providers were not required to provide a medical home. Enrollees had open access to all providers without a referral.

Physician Participation in Medicaid Declined With PCCM Implementation

Implementation of a PCCM service delivery system was associated with a decline in the proportion of office-based physicians participating in Medicaid in Alabama and Georgia. To participate in the PCCM system, providers had to agree to take a minimum number of public insurance enrollees, serve as their medical home, and provide 24-hour, 7-day-a-week office or phone access.

The number of physicians participating in Medicaid affected children's use of health care services. Children living in communities with higher Medicaid physician-to-enrollee ratios were more likely to use health care services than children living in communities with fewer Medicaid physicians per enrollee. In addition, children who lived closer to a practice that saw many Medicaid enrollees were more likely to have a primary care visit than children who lived farther away.

Well-Child, Primary Care, and Emergency Department Use Was Lower Under PCCM

Implementation of PCCM in Alabama and Georgia's Medicaid programs was associated with an overall

Comparison of Medicaid and SCHIP in Alabama and Georgia, 2000

	Alabama		Georgia	
	Medicaid	SCHIP (ALLKIDS)	Medicaid	SCHIP (PeachCare)
Service Delivery Structure	PCCM*	Unrestricted FFS+	PCCM*	PCCM*
Eligibility	≤133% Federal poverty level	≤200% Federal poverty level	≤185% Federal poverty level	≤235% Federal poverty level
Provider Network	Public insurance program provider network	Large private insurance-based network	Public insurance program provider network	Same as Medicaid

* PCCM = Primary Care Case Management.

\+ FFS = Fee for Service.

decline in health care use among enrollees (see Figure 1). Use of well-child care and primary care declined over time, as did use of the emergency department.

Urban black children were the group most negatively affected by PCCM. In Georgia, they were the least likely to have been seeing office-based physicians for care before PCCM implementation. Because the PCCM system required using office-based PCPs, these children had to make a significant shift in how they obtained care under the PCCM system.

In comparing Georgia's PCCM and the Alabama unrestricted FFS SCHIP systems, researchers found less use of all types of care in the PCCM system, with one exception. There was more use of well-child care under Georgia's PCCM SCHIP than under Alabama's unrestricted FFS SCHIP program in rural areas (see Figure 2).

Some Families and Providers Were Not Receptive to PCCM

Families reported that they were frequently assigned a primary care provider rather than being asked to choose one. This occurred even though State policy in Alabama and Georgia only assigned providers to those families who failed to select one. Some families no longer took their children to the doctor because they were not familiar with their assigned provider. Furthermore, many families were unaware that they could change their assigned provider or had tried and found it difficult. Providers from both States agreed that most families did not understand the restrictions of PCCM.

Overall, providers supported efforts in the study States to encourage enrollees' access to a medical home but some had concerns about PCCM. Public health department providers, known for serving as a primary safety net provider to low-income families, were the

Figure 1. Impact of Medicaid Primary Care Case Management Implementation on Use of Care

	Alabama	Georgia
Provider Network*	↓	↓
Well-Child Care†	↓	↓
Primary Care‡	↓	↓
Emergency Department Use	↓	↓

* Impact on proportion of physicians who participate in Medicaid/SCHIP network and volume of Medicaid visits.

† Also known as a checkup or preventive care visit.

‡ Includes care for acute and chronic conditions.

Figure 2. Comparison of Use of Care in Alabama SCHIP's Unrestricted FFS Private Insurance Network With Georgia SCHIP's PCCM Public Insurance Program Provider Network

	Alabama SCHIP Unrestricted FFS		Georgia SCHIP PCCM
Well-Child Care*			
Urban	Alabama	>	Georgia
Rural	Alabama	<	Georgia
Primary Care†	Alabama	>	Georgia
Specialty Care‡	Alabama	>	Georgia
Nonurgent Emergency Department Use	Alabama	>	Georgia

* Also known as a checkup or preventive care visit.

† Includes care for acute and chronic conditions.

‡ Care provided by a medical specialist.

In most cases PCCM systems reduced use of health care, including well-child, primary, and emergency department care.

least supportive of PCCM. These providers expressed concern over the ability of office-based physicians to focus on preventive care given busy schedules and the ability of low-income families to actively obtain preventive care on their own.

CONCLUSION

PCCM systems strive to provide enrollees a medical home and a relationship with a primary care provider to increase well-child and primary care and to reduce the need for specialty and emergency department care. Although implementation of PCCM in two State Medicaid programs reduced emergency department use, well-child and primary care also decreased. PCCM's effect was strongest on urban black children.

One factor in children's lower health care utilization was the reduced availability of office-based physicians. Physicians appeared to respond to PCCM implementation by restricting or ending their participation in the Medicaid program. PCCM requirements for participating physicians were likely to have been a consideration, because the requirements forced physicians to change how they managed their Medicaid caseloads. In addition, the introduction of the PCCM system was not accompanied by fee increases, a factor that has been shown in some studies to positively affect physician participation in Medicaid.

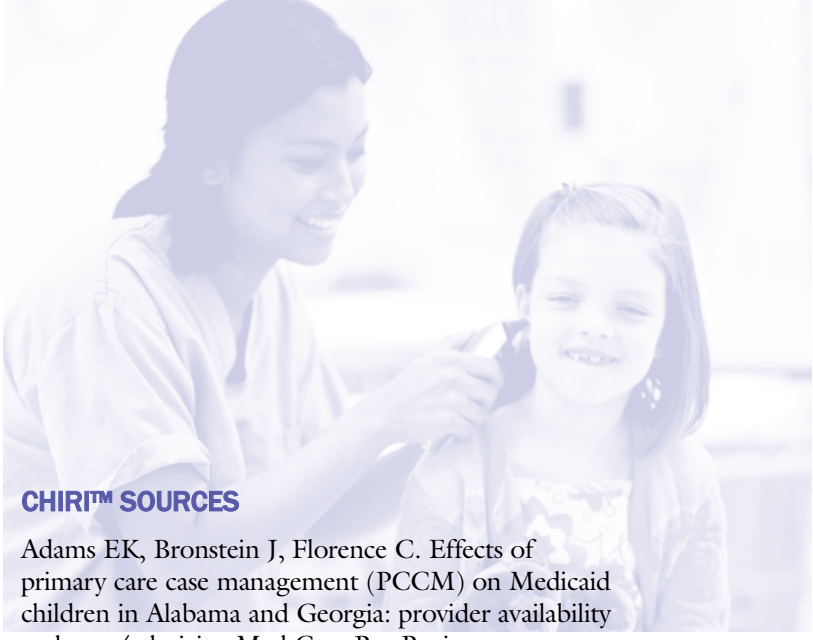
PCCM appeared to have a similar impact on Georgia's SCHIP, as evidenced by the lower utilization of well-child and primary care by Georgia SCHIP enrollees compared with Alabama enrollees. The larger network of providers in Alabama's unrestricted FFS SCHIP may also have played a role in increased utilization of services in that State. Because the results resemble PCCM's impact on Medicaid, the move to a PCCM system appears to have played a role in Georgia SCHIP enrollees' lower use of services.

This study illustrates how the transition to PCCM can be disruptive to established patterns of provider participation and enrollees' use of health care. It is not clear from this study, however, whether the reductions in children's health care use are the product of the transition to PCCM rather than the nature of the PCCM system of delivering care. In any case, efforts to ensure continuity of care and provider participation during PCCM transition might be addressed through public insurance program design and targeted education and outreach strategies to enrollees.

POLICY IMPLICATIONS

This CHIRI™ study suggests strategies that policymakers may want to consider when designing or modifying Medicaid and SCHIP delivery systems. These strategies include the following:

- Ensure that a sufficient number of providers are available to serve Medicaid and SCHIP enrollees. Consider the factors that influence provider participation decisions, including fee structures.
- Educate families about the benefits of having a primary care provider and how PCCM systems work.
- Explore new outreach strategies to families who have not selected a primary care provider, and match families who have not made a choice to appropriate nearby providers.
- Monitor use of services, especially among minority children, so that interventions can be launched to address disparities, particularly if historic use patterns, such as use of hospital-based providers, will need to change.
- Consider how implementation of a PCCM system will affect the role of safety net providers in serving low-income families, particularly during transitions to this system.
- Train primary care providers on strategies to encourage families to use well-child and primary care.



STUDY METHODOLOGY

This CHIRI™ Issue Brief is based on a longitudinal study that examined provider participation and health care utilization in the Alabama and Georgia Medicaid and SCHIP programs.

Data Sources. For the longitudinal study of changes in physician Medicaid participation and children's care utilization during PCCM implementation, claims data were analyzed for the 1994-1997 period in Georgia and the 1996-1999 period in Alabama. For the claims data comparison of children's care utilization in the two SCHIP programs, equivalent size random samples of enrollees were drawn from children who enrolled in 1999 and continued coverage through 2000. For both utilization studies, diagnostic and procedure codes were used to characterize each visit as (1) well-child care, (2) primary care, (3) specialty care, or (4) emergency department visit.

Qualitative data were collected from six enrollee focus groups held in a range of geographic locations in each State in spring 2001. Parents were randomly selected and invited to attend. Provider focus groups included pediatricians, public health district administrators and clinic managers, community health center directors, and family physicians.

Analytic Methods. For the physician participation studies, time-series multivariate analysis was used to examine the impact of community characteristics, physician supply, and Medicaid and SCHIP enrollment on the number of physicians participating and the Medicaid visit volume in their practices over time. For the children's care utilization studies, multivariate analyses were conducted to assess the effects of demographics, access to physicians, and insurance category on any use of well-child care, primary care, specialty care, and emergency department care. Both physician participation and use of care were analyzed separately for urban and rural areas. The literature suggests that different physician participation patterns are seen in rural and urban areas, and previous research with Medicaid children in these States indicated different utilization patterns across urban and rural areas.

CHIRI™ SOURCES

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RELATED STUDIES OF INTEREST

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For More Information

More information on CHIRI™ projects can be found at www.ahrq.gov/chiri/. Let us know how you use CHIRI™ research findings by contacting chiri@ahrq.gov. Topics of future CHIRI™ Issue Briefs are:

- Mental Health Needs of Low-Income Children With Special Health Care Needs
- What Has Been Learned About Expanding Children's Health Insurance? Highlights From the Child Health Insurance Research Initiative (CHIRI™)

ABOUT CHIRI™

The Child Health Insurance Research Initiative (CHIRI™) is an effort to supply policymakers with information to help them improve access to, and the quality of, health care for low-income children. Nine studies of public child health insurance programs and health care delivery systems were funded in the fall of 1999 by the Agency for Healthcare Research and Quality (AHRQ), The David and Lucile Packard Foundation, and the Health Resources and Services Administration (HRSA). These studies seek to uncover which health insurance and delivery features work best for low-income children, particularly minority children and those with special health care needs. The CHIRI™ project "Provider Participation and Access to Care in Alabama and Georgia" (Principal Investigator: Janet Bronstein, University of Alabama at Birmingham) provided the analyses for this Issue Brief.

CHIRI™ FUNDERS

The Agency for Healthcare Research and Quality, part of the U.S. Department of Health and Human Services, is the lead agency charged with supporting research designed to improve the quality of health care, reduce its costs, address patient safety and medical errors, and broaden access to essential services. AHRQ sponsors and conducts research that provides evidence-based information on health care outcomes; quality; and cost, use, and access.

The David and Lucile Packard Foundation is a private family foundation that provides grants in a number of program areas, including children, families and communities, population, and conservation and science.

The Health Resources and Services Administration, also part of the U.S. Department of Health and Human Services, directs national health programs that provide access to quality health care to underserved and vulnerable populations. HRSA also promotes appropriate health professions workforce supply, training and education.

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