

CHCS

Center for
Health Care Strategies, Inc.

RESOURCE PAPER

Enhanced Primary Care Case Management Programs in Medicaid: *Issues and Options for States*

Authors:

James M. Verdier
Vivian Byrd
Christal Stone
Mathematica Policy Research, Inc.

Prepared for:

Center for Health Care Strategies and
Oklahoma Health Care Authority

September 2009

Acknowledgments

We are grateful to all of those we interviewed in the five states included in our report for their insights and for all of the information and documents they provided. We are especially grateful to the leadership and staff of the Oklahoma Health Care Authority for their support of this project, and to the Center for Health Care Strategies (CHCS) for their support. Melanie Bella of CHCS provided detailed comments and suggestions on drafts of the report. Karen Llanos, Alice Lind, and Lorie Martin of CHCS also provided helpful comments and suggestions at various stages of the project.

Within Mathematica, Mary Harrington, Randall Brown, and Margaret Colby provided careful reviews and detailed comments and suggestions on drafts of the report.

Table of Contents

Executive Summary	i
I. Introduction.....	1
A. Purpose of the Paper	1
B. Methods.....	2
C. Overview of the Remainder of the Report	2
II. Brief History of the SoonerCare Choice Enhanced PCCM Program.....	5
A. Origin and Early Years of SoonerCare: 1992-1996	5
B. Development and Expansion of Managed Care: 1997-2003	6
C. Enhancing the PCCM Model and Expanding Coverage: 2004-2009	7
III. Approaches to Care Coordination and Care Management	8
A. Evolution of Care Management and Care Coordination in PCCM Programs	8
B. Some Care Coordination Lessons from Medicare and Their Potential Application to Medicaid... ..	10
C. Oklahoma.....	12
D. North Carolina.....	16
E. Pennsylvania.....	17
F. Indiana	20
G. Arkansas.....	23
IV. Measuring Costs and Savings for Enhanced PCCM Programs	25
A. Oklahoma	26
B. North Carolina.....	27
C. Pennsylvania	28
D. Indiana	28
E. Arkansas	29
V. Lessons and Conclusions	30
A. Overview of Program Similarities and Differences.....	30
B. Care Management and Care Coordination	30
C. Measuring Costs and Savings of PCCM Enhancements	34
D. Implementing PCCM Enhancements	34
E. MCOs or Enhanced PCCMs?.....	35
F. Concluding Thoughts	36

Executive Summary

State Medicaid programs have been operating primary care case management (PCCM) programs since the 1980s. These programs typically have involved linking beneficiaries to primary care providers (PCPs) and paying the providers about \$3 per month per beneficiary for a limited range of care management activities, such as providing authorization for emergency room (ER) and specialist visits. Beginning in the 1990s and increasingly today, states have been seeking to enhance these basic PCCM programs with additional features, including more intensive care management and care coordination¹ for high-need beneficiaries, improved financial and other incentives for PCPs, and increased use of performance and quality measures such as Healthcare Effectiveness Data and Information Set (HEDIS), Consumer Assessment of Healthcare Providers and Systems (CAHPS), provider profiles, and similar measures.²

Purpose of the Paper

This resource paper examines how five states have developed and implemented enhanced PCCM programs, building on an in-depth evaluation that Mathematica Policy Research, Inc. (MPR) recently completed of Oklahoma's enhanced PCCM program (SoonerCare Choice).³ It also looks at enhanced PCCM programs in North Carolina, Pennsylvania, Indiana, and Arkansas.

The paper describes and assesses several enhancement options states may want to consider for their PCCM programs, with a special focus on options that can improve care coordination and care management for beneficiaries with chronic illnesses and disabilities.⁴ All five states include such beneficiaries in their PCCM programs.

The document also explores ways in which enhancements can be paid for by savings that may result from improved care coordination or that might be justified by the improvements in the quality of care provided. It is aimed at states that may not have the option of contracting with fully capitated at-risk managed care organizations (MCOs), or that want to consider non-MCO options that may be a better fit in particular areas of the state (rural areas, for example), or for certain Medicaid populations, such as those who are chronically ill or disabled. As the Oklahoma experience shows, having a well developed PCCM program operating in parts of a state can also increase a state's leverage in dealing with MCOs, and can provide a comparative benchmark for MCO performance.

Approaches to Care Coordination and Care Management

Few physician offices have the resources needed to fully manage and coordinate patient care, especially for chronically ill and disabled patients with complex care needs. The time, staff, information technology resources, and knowledge of social and community support systems that are needed are usually not available in small physician offices. Large group practices may have more of the needed resources, including medical specialists, but may not provide the full range of necessary specialty care or have links to non-medical community resources.

To fill these gaps, states have sought to enhance their PCCM programs in various ways to supplement the limited ability among most primary care providers to provide care management and care coordination.

¹ The terms care management, care coordination, and case management are often used interchangeably. We do so in this paper to capture the range of terms used in different states, not to imply precise differences in meaning.

² HEDIS is the Healthcare Effectiveness Data and Information Set, which includes a wide range of quality and access measures. CAHPS is the Consumer Assessment of Healthcare Providers and Systems, a widely used consumer satisfaction survey.

³ Mathematica Policy Research, Inc. "SoonerCare 1115 Waiver Evaluation: Final Report." Prepared for the Oklahoma Health Care Authority, January 2009. Available at: <http://okhca.org/research.aspx?id=10087&parts=7447>. Accessed August 12, 2009.

⁴ These beneficiaries are usually in the "disabled" eligibility category in state Medicaid programs, and are often referred to as ABD (aged, blind, and disabled) or SSI (Supplemental Security Income) beneficiaries.

Medicaid MCOs are typically expected or required to perform these care management and coordination functions as part of their state contracts and to fund them out of savings they are expected to achieve from reductions in unnecessary hospitalizations, ER use, and other costly services. It may be possible for states to fund PCCM care coordination enhancements with similar savings from high-cost services or with additional state funding, but such savings are not assured, nor is additional funding.

Some Care Coordination Lessons from Medicare Demonstrations

Randall Brown of MPR recently summarized the results of MPR's evaluation of 15 programs in the 2002 to 2008 Medicare Coordinated Care Demonstration. He describes six key components that distinguished successful programs from the ineffective ones:

- **Targeting.** Interventions were most likely to be successful for patients who are at substantial risk of hospitalization in the coming year.
- **In-person contact.** While many contacts with patients were by telephone, the most successful programs averaged nearly one in-person contact per patient per month during the patients' first year in the program, far more than the unsuccessful programs.
- **Close interaction between care coordinators and primary care physicians.** Two major factors affected the strength of this relationship: the opportunity for some face-to-face interaction, and having a care coordinator work with all of a given physician's patients.
- **Access to timely information on hospital and ER admissions.** Learning about acute care episodes very soon after they occur is a critical factor in preventing readmissions.
- **Services provided to patients.** All the successful programs focused on helping patients manage their own health care, especially teaching them how to take their medications properly. For patients who needed social supports (e.g., help with daily living activities, transportation, overcoming isolation), successful programs had staff who could arrange for those services.
- **Staffing.** The successful programs relied heavily on registered nurses to deliver the bulk of their interventions, with assistance from social workers for some patients.

Brown notes that this kind of care coordination can be quite resource-intensive, so more experience and research is needed on how to do it most effectively and efficiently. If care coordination must pay for itself out of reductions in hospitalizations, ER use, and other expensive services, there are limits on how extensive coordination activities can be. In particular, Brown notes, there are challenges in identifying the optimal target population, determining whether coordination activities for individual patients should be continuous or episodic, and establishing what mix of nurse-oriented interventions and social service supports is most effective.

There are important differences between Medicare and Medicaid populations, however, so some caution is warranted in extrapolating care coordination lessons from Medicare to Medicaid. Since Medicare-Medicaid dual eligibles are usually excluded from Medicaid PCCM programs, chronically ill and disabled enrollees in these programs are almost all under age 65, and there is an unusually high level of mental illness in this Medicaid population. In addition, Medicare beneficiaries generally have higher education and income levels, more family and community supports, more stable housing arrangements, and lower incidence of substance abuse problems. Interventions that rely on beneficiary education in chronic illness self-management, or that require extensive coordination among patients, primary care physicians, and caregivers, may be less effective with patients who have significant cognitive impairments or limited family support.

Care Coordination in the Five States

The five states reviewed for this paper have handled care coordination in a variety of ways, some of which are consistent with these lessons from Medicare, and some not, reflecting limits on state resources and perhaps some of the differences between Medicare and Medicaid beneficiaries.

Oklahoma

The SoonerCare Choice PCCM program that Oklahoma established in 1996 had some care coordination enhancements (a nurse advice line and exceptional-needs coordinators for aged, blind, disabled (ABD) enrollees with complex medical conditions), but the major enhancements began in 2004. In that year, the Oklahoma Medicaid agency hired 32 nurse care managers and two social services coordinators with new funding and hiring authority obtained from the legislature following the state's decision in late 2003 to end the state's capitated MCO-based Medicaid managed care program (SoonerCare Plus) and replace it with the PCCM program. The new staff was intended to provide the kind of care coordination that was previously provided in the MCO program, but at a lower cost.

In 2006, the legislature authorized a new Health Management Program to provide care coordination for up to 5,000 high-cost, high-need enrollees; the program was implemented in early 2008. In addition, in early 2009, the state implemented a "medical home" initiative aimed at strengthening reimbursement-related provider incentives for care coordination and improving the care coordination capabilities of provider practices.

Medicaid physician reimbursement in Oklahoma is relatively high (100 percent of Medicare in 2008), which helps support provider participation in these programs. Performance monitoring and reporting is well established in the Oklahoma PCCM program, with CAHPS surveys and HEDIS measures beginning in 1997, and provider profiling in 2004.

North Carolina

The Community Care of North Carolina (CCNC) PCCM program began as a small pilot in 1998 and has now expanded throughout the state, covering more than two-thirds of the state's Medicaid beneficiaries. The program's most distinguishing feature is its reliance on 14 local networks to provide services to enrollees, including care management and care coordination. These local physician-led networks are made up of primary care physicians, hospitals, and local health and social services departments. The networks employ their own clinical coordinators, case managers, and pharmacists. The state itself has only a small staff to oversee the program and work with the networks.

The CCNC networks are responsible for providing targeted case management services aimed at improving quality of care while containing costs. Case managers employed by the networks are primarily responsible for helping physician practices identify patients with high risk conditions or needs, assisting the providers with disease management education and follow-up, helping patients coordinate their care or access needed services, and collecting performance measurement data. While some doctors' offices have their own case managers on staff, most depend on the network's hired case managers. In smaller practices, a network care manager may be shared among several practices, while some larger practices may have full-time on-site case managers.

The networks participate in statewide disease and care management initiatives, which are currently focused on asthma, diabetes, pharmacy management, dental screening, ER utilization management, congestive heart failure, and case management of high-cost, high-need enrollees.

The state pays care management fees to providers (\$2.50 to \$5 per member per month [PMPM]) and to the networks (\$3 to \$5 PMPM). As in Oklahoma, the underlying Medicaid reimbursement for physicians is relatively high (95 percent of Medicare in 2008). The state also conducts CAHPS surveys and distributes practice profiles.

Pennsylvania

The Pennsylvania ACCESS Plus PCCM program began in 2005 as a way of extending a form of Medicaid managed care to rural areas not served by the fully capitated MCO-based program (HealthChoices) that covered primarily the urban areas of the state.

The ACCESS Plus program is currently administered for the state by Automated Health Systems (AHS), with disease management provided by McKesson Health Solutions, and complex medical case management provided by a 40-person unit in the state Department of Public Welfare (the Medicaid agency). The disease management program includes asthma, diabetes, chronic obstructive pulmonary disease, coronary artery disease, and congestive heart failure.

A new ACCESS Plus RFP issued in December 2008 includes broader disease categories (cardiovascular, respiratory, gastrointestinal, diabetes, rheumatological, and neurological disorders), and requires enhanced efforts to coordinate physical and behavioral health services. It also requires a greater emphasis on in-person community-based care coordination, and less reliance on telephone interventions.

The ACCESS Plus program also includes an extensive and sophisticated pay-for-performance (P4P) financial incentive program for providers. The underlying rate of Medicaid physician reimbursement in Pennsylvania is fairly low, however: 73 percent of Medicare in 2008, compared to a national average of 72 percent. The ACCESS Plus program measures the effectiveness of care coordination through a variety of process and utilization measures, and also uses HEDIS and related measures.

Indiana

The Indiana Care Select PCCM program began in 2008, building on a successful chronic disease management program for beneficiaries with diabetes or congestive heart failure that operated from 2003 to 2008. The Care Select program includes ABD and home- and community-based waiver enrollees. Physicians are expected to assume responsibility for providing or coordinating members' care, with the assistance of two care management organizations (CMOs).

The CMOs develop care plans for enrollees, using an assessment tool developed jointly by the CMOs and the state. Each CMO has its own care management system developed by the organizations with which they are partnering for Care Select. Both systems use a predictive modeling tool to identify beneficiaries for whom care coordination may be most cost-effective.

The CMOs receive care management fees of approximately \$25 PMPM. Participating physicians receive an administrative fee of \$15 PMPM, as well \$40 per patient for participating in care coordination conferences with the CMO. The underlying Medicaid physician reimbursement in Indiana is relatively low: 69 percent of Medicare in 2008.

Twenty percent of the payment to the CMOs is contingent on their performance on a series of quality-related measures, such as avoidable hospitalizations, breast cancer screening, antidepressant management, and other care management activities. The state plans to publish these CMO performance measures on its website.

Arkansas

The Arkansas ConnectCare PCCM program, which began in 1994, is currently administered by the Arkansas Foundation for Medical Care (AFMC) under a contract with the state Medicaid agency. Since AFMC is a Medicaid External Quality Review Organization (EQRO), the state receives an enhanced federal match (75 percent rather than 50 percent) for the amount it pays AFMC to administer the PCCM program.

AFMC does not provide direct care management or care coordination services, but focuses primarily on giving providers tools and incentives to facilitate and encourage care management by the providers themselves. One

tool is a physician profiling system that provides quarterly reports on costs and utilization rates for pharmacy, primary care visits, referrals, ER use, and hospitalizations.

The state pays ConnectCare providers a monthly \$3-per-enrollee case management fee, and an additional payment is made to those who meet or exceed expected levels for Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) screens.⁵ The state's Medicaid physician reimbursement rates were 89 percent of Medicare in 2008.

In addition to the physician profile reports, AFMC prepares annual HEDIS and CAHPS reports that include the ConnectCare program.

Measuring Costs and Savings for Enhanced PCCM Programs

The designers of enhanced PCCM programs often assume the enhancements will pay for themselves over time through reductions in unnecessary hospitalizations, ER use, and other high-cost services. Studies sometimes support this assumption, although the rigor of the studies has varied. One obstacle to achieving savings is that most enhanced PCCM programs do not have direct control over hospital utilization. In addition, offsetting savings, if they occur, generally do not occur quickly enough to cover the costs of enhancements in the first year or two, so horizons longer than that are necessary. Furthermore, because of the turnover in Medicaid enrollment, some of the return from PCCM enhancements may occur after beneficiaries have left the program. Finally, many enhancements, such as improved coordination and management of care, are likely to improve beneficiary health and well being in ways that cannot be fully measured in strict dollar terms, so a purely financial analysis may not capture all the benefits.

Return on Investment Projections

Despite these uncertainties about potential offsetting savings, states may be required to make some estimate of the likely savings from PCCM enhancements and the costs to implement them in order to gain approval for the necessary up-front investments. Oklahoma, Pennsylvania, and six other states worked with the Center for Health Care Strategies (CHCS) in 2007-2008 to develop "return on investment" (ROI) analyses of Medicaid quality improvement initiatives, including PCCM enhancements.

These ROI analyses require that states estimate the changes in service utilization patterns that are likely to result from quality improvement initiatives (e.g., hospital admissions, ER visits, prescription drugs), as well as the administrative costs needed to implement the initiatives. The uncertainties involved in estimating these utilization changes and administrative costs include:

- **Savings from utilization changes.** The ROI Evidence Base on the CHCS website⁶ provides a starting point for estimates of utilization changes likely to result from quality initiatives related to asthma, congestive heart failure, diabetes, depression, and high-risk pregnancies. States must then convert these estimates of utilization changes to estimates of state budget impacts, using state-specific estimates of the cost to Medicaid of specific services. The estimates are just projections, however, and require many assumptions about uncertain future events.
- **Administrative costs.** States normally do not relate state staff costs to specific programs, so estimates of how much staff time and costs are devoted to an enhanced PCCM program are almost certain to be fairly rough. If a state contracts with an outside entity solely to operate some or all aspects of an enhanced PCCM program the full costs of that contract can be assigned to that program. But if an outside

⁵ The Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) service is Medicaid's comprehensive and preventive child health program for individuals under the age of 21.

⁶ Arnold Chen, Melanie Au, and Allison Hamblin. *Return on Investment Evidence Base: Identifying Quality Improvement Strategies with Cost-Savings Potential*. Center for Health Care Strategies, November 2007. Available at www.chcs.org.

contractor performs multiple functions for the state, the cost allocation difficulties may be similar to those involved in allocating state staff costs.

- **Retrospective evaluations.** There is an even bigger challenge in determining whether projected savings and costs actually materialize. States may or may not be required to prepare such estimates for their enhanced PCCM programs. If a program is operating satisfactorily, and expenditures are not too far out of line with budget projections, that may be sufficient to justify program continuation. Increasingly, however, states are setting the bar higher than that, and are funding formal retrospective evaluations of program performance, including administrative costs and utilization-based savings estimates.

Comparing actual expenditures to what they would have been in the absence of enhanced PCCM initiatives is not easy. Merely looking at trends over time can be misleading, since many factors other than PCCM initiatives might cause hospital, ER, and other service use to change, including “regression to the mean” by individual patients,⁷ broader market forces, reimbursement changes, and regulatory or policy changes. Reliable savings estimates require evaluations with control or comparison groups, but few states have the resources for such evaluations.

Cost and Savings Estimates in the Five States

Oklahoma prepared some initial ROI projections for its new Health Management Program, and has commissioned a five-year evaluation of the program. An actuarial firm (Mercer) has prepared cost-savings estimates for the Community Care of North Carolina program covering state fiscal years 2003 to 2007 by comparing actual program costs to projected costs without the program. State staff also prepared estimates of the administrative costs of the program in 2002 and 2003.

Mercer also prepared a comparison in 2007 of the program and administrative costs of the Pennsylvania ACCESS Plus program to those of a voluntary Medicaid capitated managed care program that operated in the same rural areas, concluding that the ACCESS Plus program was less costly.⁸ The chronic disease management program that preceded the Indiana Care Select PCCM program was evaluated by university-based outside evaluators, who found a flattening in the rate of cost growth for those enrolled in the program.⁹ The state has not prepared savings projections for the Care Select program, but it has commissioned an outside evaluation that is currently in its early stages. Arkansas has also not prepared detailed savings estimates for its ConnectCare program.

Lessons and Conclusions

Overview of Program Similarities and Differences

The enhanced PCCM programs examined in each of the five states evolved differently, reflecting the context and history of each state.

- Each program uses different resources for care coordination and care management (i.e., state staff in Oklahoma and Pennsylvania; local community networks in North Carolina; outside contractors in Indiana, Oklahoma, Pennsylvania, and Arkansas; and physician practices to varying degrees in all states).
- All the programs support care coordination with provider payment incentives, information sharing, and performance and quality reporting.

⁷ Regression to the mean is a statistical phenomenon that occurs because observations of individuals at a point in time include outliers who are likely to return to a more average condition at another point in time. Enrollees who are hospitalized in one year but not in a subsequent year are an example.

⁸ Mercer Government Human Services Consulting. “Updated Comparative Cost Study: ACCESS Plus versus Voluntary HMO.” Prepared for the Commonwealth of Pennsylvania, February 8, 2007.

⁹ Barry P. Katz, et al. “The Indiana Chronic Disease Management Program’s Impact on Medicaid Claims.” *Medical Care*, Vol. 47, No. 2, February 2009, pp. 154-160.

- The focus of care coordination varies by state, with some focusing on a limited range of diseases and conditions and others focusing more on beneficiaries with multiple conditions.
- Care coordination methods also vary. Most states work primarily with beneficiaries, but with increasing efforts in several of the states to work more closely with PCPs. Most states rely primarily on telephone rather than in-person contact, and each state uses a somewhat different mix of clinical and social services staff.
- The programs examined in the five states have significant limitations in their ability to reduce hospital use, since the programs have few direct ways of controlling that use, and PCPs are not financially at risk for hospital costs.
- The five states have taken varying approaches to estimating the costs and savings of enhanced PCCM programs. Some prepared return-on-investment projections, some commissioned retrospective savings estimates by outside actuaries, and some commissioned formal evaluations of their new programs.

Care Management and Care Coordination

Care management and care coordination are the most important enhancements to PCCM programs that states can provide. They are also the hardest enhancements to design, implement, and maintain effectively, and the most costly. If designed well and implemented effectively, however, these kinds of enhancements are likely to have the largest payoff over time in terms of lower cost growth and higher quality.

Medicare care coordination demonstrations suggest several lessons for enhanced PCCM programs in Medicaid, although some may be less applicable because of differences between Medicare and Medicaid populations. Care coordination in the enhanced PCCM programs reviewed for this paper had some of the characteristics of the successful Medicare programs, but not all. Oklahoma, Indiana, and Pennsylvania used predictive modeling tools to try to identify and target enrollees likely to use hospitals and other expensive services in the coming year. Oklahoma, Pennsylvania, North Carolina and Indiana have some in-person contact with patients, but most is by telephone. Interaction of care coordinators with physicians was best in North Carolina, and more limited in other states. Timely information on hospital and emergency room admissions was largely lacking in all five states. All states but Arkansas provided some medical education and social services for patients, and all but Arkansas used a mix of registered nurses and social workers.

Financing care coordination enhancements with savings from hospital and ER use is challenging for PCCM programs, since they have few direct ways of influencing hospital behavior, and must rely primarily on influencing the behavior of beneficiaries and primary care providers. Hospitals make money by treating patients, not by reducing service use. Since PCCM programs are not responsible for hospital costs, they have no way of compensating hospitals for the revenue they would lose by providing fewer services. PCCM programs also typically do not contract with hospitals, so they have no legal or other formal relationship that would give them a means to influence hospital behavior. The North Carolina PCCM program may have somewhat more leverage over hospitals, since hospitals are part of the local community networks that coordinate care in that program. The North Carolina program also has the greatest ability to influence primary care provider behavior through the local networks, although the other states can do so to some extent through reimbursement-related incentives and provider profiling. Oklahoma, Pennsylvania, and Indiana have systems in place or in development that can be used to influence beneficiary behavior.

Care coordination programs should include beneficiaries with complex chronic conditions rather than focusing on just one or a few diseases. Since most high-cost beneficiaries do not have just one disease or condition, programs must treat the whole person.

Adequate provider reimbursement is important to support provider participation and beneficiary access to services. While the underlying rate of Medicaid provider reimbursement provides the necessary base, P4P incentives can be used to focus limited state resources and provider attention on high-value services, if they are properly designed and implemented.

Provider profiling is a low-cost enhancement that can provide useful information to providers and may improve their performance, if the system is carefully designed and implemented in consultation with providers. Basic provider profiling (e.g., ER visits, prescription drug use, primary care visits, costs per enrollee) can be done using readily available fee-for-service (FFS) claims data and off-the-shelf provider profiling software. Whether this profiling will actually have an impact on provider behavior is uncertain, however. Providers must be convinced that the information in the profiles is accurate and clinically valuable, and that comparisons to other providers are appropriately adjusted for practice and patient variations.

Measuring quality and performance with HEDIS, CAHPS, and similar measures can help focus state agency and provider attention on areas for improvement, and underscore the Medicaid agency's commitment to quality, but they are rarely specific enough to help enrollees choose providers. P4P-related performance measures can be focused more directly on care management and care coordination activities. HEDIS and similar service utilization and process measures can be derived at relatively low cost from Medicaid FFS claims data, although some measures may require review of medical records, which is much more costly. CAHPS and similar enrollee surveys can be expensive if states want sufficiently large sample sizes and response rates for the data to be reliable at the practice level. HEDIS and CAHPS are only indirect measures of the effects of care coordination, since the activities and conditions they measure may be the result of actions taken by individual providers without the involvement of separate care managers or care coordinators. In addition, HEDIS and CAHPS were designed primarily to measure the performance of capitated health plans rather than individual providers and are not benchmarked for PCCMs. Some of the measures assume a level of information technology and management resources for patient tracking and reminder systems that individual practices may not have, or focus on plan-level activities like customer service.

Measuring Costs and Savings of PCCM Enhancements

Major PCCM enhancements will not pay for themselves unless they lead to reductions in use of costly services, such as inpatient hospitalizations and ER visits. States can prepare ROI projections of potential enhancements to assess the extent to which they may produce those results, and to assess whether the potential savings could cover the projected costs of the enhancements. States can then commission retrospective and concurrent evaluations to try to determine whether the projected savings have materialized, and to assess whether modifications to the program are warranted.

Implementing PCCM Enhancements

The decision on whether to provide PCCM enhancements with Medicaid agency staff or through contracts with outside vendors should be based on: (1) the skills and experience of state staff; (2) the availability of qualified outside vendors; and (3) the likely sustainability of either arrangement over time.

Selection and ongoing management of outside vendors can be as resource-intensive as providing the enhancements in-house, although different staff skills and experiences are needed to select and manage vendors.

PCCM enhancements that are primarily data-based, such as provider profiling or use of HEDIS and CAHPS measures, can be designed and managed by agency staff with policy and data analysis skills, or contracted out

to vendors with similar skills and experience. Reimbursement-related enhancements, such as P4P, can also generally be designed and managed by agency staff with policy, financial, and data skills, with perhaps some up-front assistance from consultants who specialize in these kinds of reimbursement systems.

Care management and care coordination is much more resource-intensive. It requires staff with clinical skills and experience, well-developed information systems to help select and monitor enrollees most in need of intensive care, and skillful management to ensure that care management and coordination activities are properly focused. State hiring limits and salary levels may make it difficult to recruit and retain people with these skills. If the care management and coordination function is contracted to outside vendors, the agency will require staff and managers with the skills and experience needed to select qualified vendors and oversee and manage their performance over time.

MCOs or Enhanced PCCMs?

Enhanced PCCM programs may equal or exceed capitated MCO programs on measures of access, cost, and quality, but only if states devote substantial resources to designing, implementing, managing, and funding the enhancements.

The Oklahoma SoonerCare Choice program has a track record of improving access in rural areas, performing well on HEDIS and CAHPS measures, and controlling unnecessary use of hospitals and emergency rooms. OHCA has devoted substantial resources to achieving this record, however, including a sizable staff of state-employed nurse care managers, significant financial incentives for providers, enrollee education on proper ER use, highly visible reporting of performance and quality measures, and the new Health Management Program to deal with high-cost, high-need beneficiaries. North Carolina, Pennsylvania, and Indiana have also devoted substantial resources to their enhanced PCCM program. Arkansas has devoted fewer resources to its ConnectCare PCCM program, but the use of its EQRO to administer the program is a model other states might consider as a cost-effective way of implementing some basic PCCM enhancements.

The choice between capitated MCO and enhanced PCCM managed care models must be state-specific, based on the availability and stability of qualified Medicaid MCOs, the ability of state agencies to provide PCCM enhancements and/or monitor MCO and PCCM vendors, and the suitability and acceptability of the MCO and PCCM models in the broader state context, taking into account the perspectives of providers, beneficiaries, and political leaders. MCOs whose major experience is with mothers and children in Medicaid or with commercial populations may not have the skills and experience needed to serve the Medicaid ABD population.

The Oklahoma experience illustrates a significant range of options, starting in the mid-1990s with an enhanced PCCM program in rural areas and fully capitated MCOs in urban areas, moving in 2004 to a statewide PCCM program, and adding a significant contracted-out health management program in 2008. The managed care programs in Arkansas and North Carolina are PCCM-only programs, while Indiana and Pennsylvania operate both enhanced PCCM programs and fully capitated MCO programs. In Indiana the enhanced PCCM program focuses primarily on enrollees with disabilities and chronic conditions, while the MCO program focuses primarily on mothers and children. In Pennsylvania, both the enhanced PCCM and MCO programs include almost all Medicaid enrollees, but the PCCM program operates mainly in rural areas and the MCO program mainly in urban areas.

Among the five states reviewed, Oklahoma relies least on outside entities for its PCCM enhancements, although the new Health Management Program is being operated by an outside vendor, and OHCA contractors assist with several aspects of the SoonerCare Choice program. Arkansas and Indiana rely on outside entities to operate their PCCM and care management programs, while North Carolina relies on local provider networks. The RFP for the new ACCESS Plus program in Pennsylvania suggests that the state is looking for vendors that will provide all the care management services that a capitated MCO would provide,

with a substantial portion of the state's payments for those services—but not the entire amount—paid to the vendors on a risk basis.

The Oklahoma experience also illustrates for states the strategic and negotiating value of having a viable PCCM alternative to a fully capitated MCO program. Since the Medicaid MCO marketplace is becoming increasingly dominated by multi-state publicly held MCOs that may not have strong and reliable commitments to particular states, states may want to protect their future managed care options by having enhanced PCCM programs that can replace departing or low-performing MCOs. States with both PCCM and MCO programs can also compare performance between the two programs as a way of providing incentives for improved performance in both programs. Having both models in the state may present some additional program design and operational challenges if keeping the playing field level is a goal, since requirements for network development, enrollee choice, provider reimbursement, data reporting, and other elements of managed care may give one model an advantage over the other.

Concluding Thoughts

Many states do not have the option of capitated MCOs for ABD/SSI beneficiaries. MCOs may not have the needed capabilities, or may not be interested. Opposition from providers or beneficiary advocates may be too strong. The limited availability of hospitals and physicians in rural areas may make it difficult for MCOs to build networks.

Enhanced PCCM programs may be as good for ABD/SSI beneficiaries (and taxpayers) as good capitated MCOs, but only if they do most of the things that good MCOs do, including care coordination, preventive care, and medical management. Some states have the resources to perform MCO-like functions with state staff (Oklahoma and Pennsylvania), local community networks (North Carolina), or outside contractors (Oklahoma, Pennsylvania, Indiana, and Arkansas).

Even in states with strong Medicaid MCO programs, enhanced PCCM programs can provide competition for MCOs, options for beneficiaries, and bargaining leverage for states.

I. Introduction

State Medicaid programs have been operating primary care case management (PCCM) programs since the 1980s. These programs typically have involved linking beneficiaries to primary care providers (PCPs) and paying the providers about \$3 per month per beneficiary for a limited range of care management activities, such as providing authorization for emergency room (ER) and specialist visits. Beginning in the 1990s and increasingly today, states have been seeking to enhance basic PCCM programs with additional features, including more intensive care management and care coordination¹⁰ for high-need beneficiaries, disease management, medical home initiatives, improved financial and other incentives for PCPs, and increased use of performance and quality measures such as HEDIS, CAHPS, and similar measures.¹¹ The association of disease management and medical home initiatives with PCCM programs has varied by state and over time. As of mid-2007, 29 states operated PCCM programs and total enrollment was just under 6.3 million, representing 13.6 percent of all Medicaid beneficiaries.¹²

A. Purpose of the Paper

In this resource paper, we examine how five states have developed and implemented enhanced PCCM programs, building on an in-depth evaluation of Oklahoma's enhanced PCCM program (SoonerCare Choice) that Mathematica Policy Research, Inc. (MPR) recently completed. We also look at enhanced PCCM programs in North Carolina, Pennsylvania, Indiana, and Arkansas. Our reasons for choosing these four states to compare with Oklahoma are described below.

Our goal is to describe and assess several enhancement options states may want to consider for their PCCM programs, with a special focus on options that can improve care coordination and care management for beneficiaries with chronic physical and mental illnesses and disabilities. While virtually all PCCM programs cover children and non-disabled adults (primarily mothers and pregnant women), care coordination and management for these generally healthy populations is less challenging than for those with more serious health conditions. In addition, states already have considerable experience with PCCM programs that cover these healthier populations. Accordingly, we focus this paper on states with PCCM enhancements that are aimed at improving care for beneficiaries with more complex and serious health conditions.¹³

We look at ways in which these enhancements can be paid for by savings that may result from improved care coordination, or otherwise justified by the improvements in the quality of care provided. The paper is aimed at states that may not have the option of contracting with fully capitated at-risk managed care organizations (MCOs), or that want to consider non-MCO options that may be a better fit in particular areas of the state (rural areas, for example), or for certain Medicaid populations, such as those who are chronically ill or disabled. As the Oklahoma experience shows, having a well-developed PCCM program operating in parts of a state can also increase a state's leverage in dealing with MCOs, and can provide a comparative benchmark for MCO performance.

¹⁰ The terms care management, care coordination, and case management are often used interchangeably. We do so in this paper to capture the range of terms used in different states, not to imply precise differences in meaning.

¹¹ The Healthcare Effectiveness Data and Information Set (HEDIS), which is sponsored by the National Committee for Quality Assurance (NCQA), includes a wide range of measures of health care processes and quality. The Consumer Assessment of Healthcare Providers and Systems (CAHPS), sponsored by the Agency for Healthcare Research and Quality (AHRQ), is a survey of patient experience and satisfaction with their health care.

¹² Centers for Medicare & Medicaid Services. "2007 Medicaid Managed Care Enrollment Report." The 6,266,296 PCCM count includes 401,148 enrollees in the Oklahoma SoonerCare Choice program, which CMS categorizes as a prepaid ambulatory health plan (PAHP) rather than as a PCCM program.

¹³ These beneficiaries are usually in the "disabled" eligibility category in state Medicaid programs. States often characterize them as ABD (aged, blind, and disabled) or SSI (Supplemental Security Income) beneficiaries. As of 2006, just over 14 percent of all Medicaid beneficiaries were in the disabled eligibility category, and they accounted for 41 percent of total Medicaid expenditures. Another 10 percent were in the elderly eligibility category, and accounted for 24 percent of total expenditures. For details, see <http://www.statehealthfacts.org/index.jsp>. Accessed May 12, 2009.

B. Methods

The paper is based in part on an in-depth, seven-month MPR evaluation of Oklahoma's SoonerCare Medicaid managed care 1115 waiver program, covering the period from its initial consideration in 1992 to the present.¹⁴ The SoonerCare managed care program began in 1995-1996 with a PCCM program in rural areas of the state, and an MCO program in the three largest urban areas. In late 2003, the state decided to end the MCO program and expand the PCCM program statewide starting in January 2004, with several enhancements aimed at improving care coordination, care management, and access to services.

We supplemented our analysis of the Oklahoma enhanced PCCM program with a review of enhanced PCCM, disease management, and related programs in North Carolina, Pennsylvania, Indiana, and Arkansas. We chose those four states because they have adopted varying approaches to enhancing their PCCM programs, and because they have different levels of state resources available for program enhancements. Each of the four states includes chronically ill and disabled Medicaid beneficiaries in their enhanced PCCM programs, as does Oklahoma, but none include Medicare-Medicaid dual eligibles. The enhanced PCCM programs in these states have been in operation for at least a few years, and in most cases longer, so each has a track record that can be reviewed. Finally, these states vary on dimensions likely to influence support for Medicaid and managed care innovations (history, politics, economics, demographics, geography). The experience in Oklahoma underscores the importance of these broader contextual factors in assessing the feasibility of different managed care options.

Our review and analysis of enhanced PCCM programs in the four states other than Oklahoma is based on published information, information available on state websites, and on telephone interviews with Medicaid agency representatives and others involved with the enhanced PCCM programs in those states. As a result of these interviews, we obtained additional documentary information on each of the programs. Our goal was not to do a full-scale evaluation of the enhanced PCCM programs in the four additional states, but rather to indicate the range of options and opportunities that states have available, and to provide a general assessment of these options.

C. Overview of the Remainder of the Report

We begin our analysis in Chapter II with a brief summary of the Oklahoma Medicaid managed care experience, based on MPR's recently completed evaluation. We believe this summary provides important context for our discussion of programs in other states, since it illustrates how history and individual state circumstances can shape the opportunities states have and the decisions they make. To the extent we have been able to obtain comparable information for the other four states, we include it in our discussion of their programs.

In Chapter III we provide a brief overview of how PCCM programs nationally have evolved over time. We also briefly summarize some lessons on care coordination from recent Medicare demonstrations and the potential application of these lessons to Medicaid. We look next in more detail at how Oklahoma and the other four states have approached care coordination and care management in their enhanced PCCM programs, and at the key program design and implementation issues they have dealt with in shaping these elements of their programs. We begin with Oklahoma, and then discuss the other four states in approximately the order of the extent of the care coordination and care management enhancements in their PCCM programs. North Carolina and Pennsylvania have implemented the most extensive enhancements, followed by Indiana and then Arkansas.

¹⁴ Mathematica Policy Research, Inc. "SoonerCare 1115 Waiver Evaluation: Final Report." Prepared for the Oklahoma Health Care Authority, January 2009. Available at: <http://okhca.org/research.aspx?id=10087&parts=7447>. Accessed July 22, 2009.

We turn in Chapter IV to a consideration of potential funding sources for the enhancements discussed in Chapter III, focusing primarily on savings from reductions in hospitalizations and ER use that may result from PCCM enhancements. We stress that such savings are unlikely to be sufficient to cover the full costs of enhancements in the initial years of a program, so program designers should not assume these enhancements will pay for themselves or provide net savings in the short term. In addition, since PCCM programs have few direct ways of influencing hospital utilization, substantial savings from reduced hospitalization may be difficult to achieve. We also discuss the costs of implementing these enhancements, and efforts to assess the net “return on investment” from PCCM enhancements. Finally, we note that states may be able to build a case for PCCM enhancements based on the improvements in quality of care and beneficiary and provider satisfaction that may result, even if short-term savings are not sufficient to fully cover the costs of the enhancements.

We end in Chapter V with conclusions and lessons for other states based on the experiences of the five states covered in this paper. Table 1 provides an overview of the enhanced PCCM features that we examined in the five states, as well as some additional managed-care-related contextual information on the states. More contextual information on each state is available on the Kaiser Family Foundation’s [statehealthfacts.org](https://www.kff.org/statehealthfacts.org) website.

Table 1. Overview of Enhanced Primary Care Case Management Programs in Oklahoma, North Carolina, Pennsylvania, Indiana, and Arkansas

State	Program Name and Start Date	PCCM Enrollment	Share of Total State Medicaid Enrollment	Fully Capitated MCO Enrollment	Care Management and Care Coordination	Provider Reimbursement	Performance Monitoring and Reporting	Cost and Savings Estimates
Oklahoma	SoonerCare Choice 1996	415,982 (7/09) (10% ABD, 90% TANF)	64%	0	<ul style="list-style-type: none"> State-employed nurse care managers (32) and social services coordinators (2) Health Management Program for 5,000 high-cost enrollees Office-based PCPs 	<ul style="list-style-type: none"> \$4 to \$9 PMPM care management fee Additional P4P payment incentives 2008 Medicaid FFS reimbursement = 100% of Medicare 	<ul style="list-style-type: none"> HEDIS CAHPS Provider profiles 	<ul style="list-style-type: none"> Some preliminary ROI estimates
North Carolina	Community Care 1998	944,667 (5/09)	68%	0	<ul style="list-style-type: none"> 14 local community-based networks made up of physicians, hospitals, and local health and social services departments 	<ul style="list-style-type: none"> \$2.50 PMPM to PCPs (\$5 for ABD enrollees) \$3 PMPM to local networks (\$5 for ABD enrollees) 2008 Medicaid FFS reimbursement = 95% of Medicare 	<ul style="list-style-type: none"> HEDIS CAHPS, consumer focus groups, disenrollment survey Practice profiles 	<ul style="list-style-type: none"> Mercer actuarial savings estimates for SFY 2003 to 2007 Community Care staff estimates of administrative costs for 2002 and 2003
Pennsylvania	ACCESS Plus 2005	297,791 (12/08)	16%	1,116,952 (12/08)	<ul style="list-style-type: none"> Disease management and care coordination vendor 40-person unit in state Medicaid agency for intense medical case management 	<ul style="list-style-type: none"> Additional P4P payment incentives to PCPs 2008 Medicaid FFS reimbursement = 73% of Medicare 	<ul style="list-style-type: none"> Care coordination process and utilization measures HEDIS Chronic illness survey 	<ul style="list-style-type: none"> Mercer 2007 comparison of ACCESS Plus costs to voluntary capitated managed care program
Indiana	Care Select 2008	63,781 (2/09) (58% ABD, 42% other)	7%	532,705 (6/07)	<ul style="list-style-type: none"> Two care management organizations (CMO) Office-based PCPs 	<ul style="list-style-type: none"> \$15 PMPM administrative fee to PCPs \$40 per-patient fee to PCP for care coordination conferences \$25 PMPM fee to CMOs, with 20% contingent on performance on quality measures 2008 Medicaid FFS reimbursement = 69% of Medicare 	<ul style="list-style-type: none"> CMO quality-related performance measures 	<ul style="list-style-type: none"> Randomized controlled trial of previous chronic disease management program showed flattening of cost growth for enrollees with congestive heart failure and diabetes 1915(b) waiver cost-effectiveness estimates being prepared
Arkansas	ConnectCare 1994	467,713 (6/07)	75%	0	<ul style="list-style-type: none"> Office-based PCPs 	<ul style="list-style-type: none"> \$3 PMPM case management fee to PCPs Additional P4P payments based on EPSDT screens 2008 Medicaid reimbursement = 89% of Medicare 	<ul style="list-style-type: none"> HEDIS CAHPS Provider profiles 	<ul style="list-style-type: none"> No formal savings estimates

II. Brief History of the SoonerCare Choice Enhanced PCCM Program

In 1993 the Oklahoma Health Care Authority (OHCA) was created by statute and charged with reforming Oklahoma's Medicaid program. OHCA's charter was to implement a statewide managed care model that would control costs and improve care for Medicaid beneficiaries. During the past 16 years, OHCA has substantially modified its Medicaid program through an 1115 waiver program called SoonerCare, first implementing fully capitated services in urban areas (SoonerCare Plus) in 1995 and a partially capitated PCCM program (SoonerCare Choice) in rural areas in 1996, and then extending SoonerCare Choice throughout the state in 2004.¹⁵ Over time OHCA has assumed more direct responsibility for providing managed care services through SoonerCare Choice and other programs.

A. Origin and Early Years of SoonerCare: 1992-1996

1. Growth in Medicaid Costs

SoonerCare's development was initially motivated by the state legislature's interest in reducing growth in the Medicaid budget. Medicaid expenditures had grown by 72 percent from 1988 to 1992, more than twice the 31 percent increase in state general revenues during that period. Oklahoma's leaders formed two special study panels in 1992 to look at options for Medicaid and health care reform. In 1992, 26 states had some form of Medicaid managed care, so Oklahoma had several models to build upon.

2. Authorizing Legislation

Recommendations from these panels provided the basis for two bills that were approved by the legislature and the governor in 1993. One required the conversion of the Medicaid program from a fee-for-service (FFS) system to a statewide comprehensive managed care system. The other established OHCA to design and implement the new program, and to administer the Medicaid program as a whole. The Medicaid program had previously been part of the large Department of Human Services, the state's welfare agency.

3. SoonerCare Plus and Choice

Many in the legislature hoped that Oklahoma would establish a fully capitated Medicaid managed care program throughout the state, but OHCA ultimately determined that full capitation would not be feasible outside of the three largest urban areas in the state (i.e., Oklahoma City, Tulsa, and Lawton). There was little experience with managed care in rural areas, and few MCOs appeared to be willing and able to serve the Medicaid population in those areas. OHCA therefore developed a fully capitated MCO model called SoonerCare Plus that would operate just in the three urban areas, and contracted with five MCOs, each of which served one or more of the areas. This model was implemented in July 1995. For rural areas of the state, OHCA developed a partially capitated PCCM program called SoonerCare Choice that was implemented in October 1996. The partial capitation feature was unique to Oklahoma. Participating physicians were paid about 10 percent of enrollees' total predicted costs up front (an average initially of about \$12 per enrollee) and were in turn responsible for providing a specified package of office-based primary care services; all other needed services were paid for on a FFS basis. PCCM programs in other states typically paid physicians only \$3 per member per month (PMPM) for limited care coordination, with all physician and other services paid for on a FFS basis.

¹⁵ Section 1115 waivers exempt states from a variety of federal requirements in their Medicaid programs in order to enable states to demonstrate innovative approaches to providing and financing care. Capitated programs pay managed care organizations or health care providers a fixed amount per enrollee per month in advance to cover a range of health care services, rather than paying for each service as it is provided (known as fee-for-service payment).

B. Development and Expansion of Managed Care: 1997-2003

1. SoonerCare Plus Implementation

Under federal rules, Medicaid beneficiaries must have a choice of at least two MCOs when enrollment is mandatory, as it was in Oklahoma. OHCA was initially successful in contracting with enough MCOs under the SoonerCare Plus model to meet the federal standard in the three urban areas; however, three of the initial five MCOs dropped out between 1996 and 2000. OHCA was able to find replacements for them, but the SoonerCare Plus program remained vulnerable to turnover and potential departure of MCOs.

2. SoonerCare Choice Implementation

The SoonerCare Choice program in rural areas was implemented smoothly but attracting enough physicians to provide beneficiaries a range of choices remained challenging because of the limited number of physicians practicing in rural areas. SoonerCare Choice members were also able to select nurse practitioners or physician assistants as providers.

3. Enrollment of the ABD Population in 1999

In 1999, OHCA enrolled the aged, blind, and disabled (ABD) Medicaid population into SoonerCare Plus and Choice on a mandatory basis, something that fewer than 20 states were doing at that time. The original 1993 legislation required enrollment of the ABD population in managed care by 1997, but OHCA subsequently decided, with legislative approval, that more time was needed to lay the groundwork for movement of this population into managed care. Transitioning the ABD population into SoonerCare went smoothly in 1999, but the costs of caring for this group proved to be higher than expected, producing financial pressure on many of the MCOs, who argued that the capitated payments they were receiving from OHCA were not high enough to cover their costs.

4. Increasing Medicaid Budget Pressures in 2002-2003

The Medicaid budget came under increasing pressure in Oklahoma and most other states in 2002-2003, as an economic downturn led to reduced revenues and increases in Medicaid enrollment. OHCA was forced to make cuts in Medicaid services and enrollment in response to these pressures. At the same time, the SoonerCare Plus MCOs continued to press for higher capitation payments to meet the growing costs of serving the ABD and other Medicaid populations.

5. Positive Results in SoonerCare Choice

OHCA began conducting enrollee satisfaction surveys in the SoonerCare Choice and Plus programs in 1997. It also required SoonerCare Plus MCOs to report data on a variety of access and quality of care measures, and collected similar measures for the Choice program.¹⁶ In October 2003, OHCA published its first full report on performance and quality in the SoonerCare program (“Minding our P’s and Q’s”). In general, the report indicated that the Choice program was performing about as well as the Plus program on most measures, and somewhat better on several of them.

6. End of SoonerCare Plus

An additional MCO dropped out of the SoonerCare Plus program in 2002-2003, leaving only three MCOs to cover the three urban areas. Only two were operating in each area, the minimum needed to meet federal requirements. In 2003, the MCOs sought a rate increase for 2004 of 18 percent. With the Medicaid budget still under pressure, OHCA offered an increase of 13.6 percent, which two of the MCOs accepted. The third MCO held out for an 18 percent increase, believing its bargaining position was quite strong. If that MCO were to drop out, the SoonerCare Plus program would no longer have the federally required two MCOs in each area.

¹⁶ The consumer satisfaction surveys were conducted using the nationally recognized Consumer Assessment of Health Plans Survey (CAHPS), and the access and quality measures were based on what was then called the national Health Plan Employer Data and Information Set (since renamed to Healthcare Effectiveness Data and Information Set, i.e., HEDIS).

During these negotiations, OHCA developed an analysis that indicated OHCA could operate the Choice program in the three urban areas at approximately one-quarter the administrative cost of the Plus program, and with one-quarter of the staff. In an emergency meeting in November 2003, the OHCA Board voted to end the Plus program as of December 31, 2003, and to replace it with the Choice program in all three urban areas. OHCA promptly undertook a comprehensive effort to transition all 187,000 SoonerCare Plus beneficiaries and their providers to the Choice program, a transition that was fully completed in April 2004.

C. Enhancing the PCCM Model and Expanding Coverage: 2004-2009

1. Nurse Care Management

In late 2003, the legislature authorized \$10 million and 99 additional staff positions for OHCA to cover the administrative and care management activities that OHCA planned to undertake in the new urban SoonerCare Choice program. With these additional resources, OHCA hired 32 nurses and two social services coordinators, most of whom had served as exceptional-needs coordinators with the SoonerCare Plus MCOs.¹⁷ These nurse care managers performed many of the care management and coordination functions that the MCOs previously performed in the urban areas, and also expanded their reach into rural areas.

2. Health Management Program

Responding to a 2006 legislative directive, OHCA developed a new Health Management Program that focuses on a limited number of high-cost, high-need enrollees. This program, which was launched in February 2008, is operated by an external vendor with experience operating a similar program in another state.

3. Movement toward a “Medical Home” Model

OHCA has also developed and is now implementing what it calls a “medical home” model for SoonerCare Choice. This new payment model replaces the partial capitation reimbursement approach with an approach that relies on FFS reimbursement for office-based services, supplemented by (1) care coordination payments that vary with services offered in the practice and patient characteristics, and (2) performance-based payments for specific preventive services and quality-related activities.

¹⁷ OHCA also hired new staff to perform other functions previously performed by the MCOs, including provider and member services, authorization and review of medical services, and compliance and auditing.

III. Approaches to Care Coordination and Care Management

Few physicians' offices have the resources to fully manage and coordinate patient care, especially for chronically ill and disabled patients with complex care needs. The time, staff, information technology resources, and knowledge of social and community support systems that are needed are usually not available in small offices. Large group practices may have more of the needed resources, including medical specialists, but may not provide the full range of necessary specialty care or have links to non-medical community resources.¹⁸

To fill these gaps, states have sought to enhance their PCCM programs in various ways to supplement the limited resources most primary care providers have for care management and coordination. Medicaid MCOs are typically expected or required to perform these care management and coordination functions as part of their state contracts, and to fund them out of savings they are expected to achieve from reductions in unnecessary hospitalizations, ER use, and other costly services. States may be able to fund PCCM care management and coordination enhancements with similar savings from high-cost services, or with additional state funding. These financing issues are discussed in more detail in the next chapter.

A. Evolution of Care Management and Care Coordination in PCCM Programs

PCCM programs have evolved over the past two decades through the addition of a variety of care management and care coordination features, including payment innovations; increased care management resources; improved performance monitoring and reporting; increased resources for management of serious and complex medical conditions; and a variety of "medical home" innovations, including performance-based reimbursement, better use of information technology, increased contact with patients, and efforts to provide additional resources for physician offices. These steps in the evolution of PCCM programs are summarized below, followed by more detail on how this evolution has played out in Oklahoma, North Carolina, Pennsylvania, Indiana, and Arkansas.

1. Basic PCCM Programs

When PCCM programs began in state Medicaid programs in the late 1980s and early 1990s, it was generally assumed that physicians would have the main responsibility for care management and coordination for beneficiaries who enrolled with them, in exchange for a PMPM fee that was usually about \$3 per enrollee.¹⁹ Most of the beneficiaries who were required to enroll in PCCM programs during this period were low-income families and pregnant women whose major care needs could generally be met in a physician's office or with a short hospital stay, so it was reasonable for states to assume that physicians could handle most of the care management and coordination that was required. States typically required participating physicians to meet some basic access and availability standards, such as after-hours call lines, and to authorize visits to specialists and ERs. States varied in the degree to which they established and enforced these kinds of requirements.²⁰

2. Some Early Enhancements

Some states paid participating physicians more than the standard \$3 PMPM fee, and in exchange required physicians to take on some additional responsibilities. In Massachusetts, for example, the state paid providers an extra \$10 for specified primary care services instead of the \$3 PMPM fee. Maine established an early

¹⁸ For more detail on what physician offices need to do to coordinate care, see Ann S. O'Malley, et al. "Coordination of Care by Primary Care Practices: Strategies, Lessons and Implications." Washington, DC: Center for Studying Health System Change, Research Brief No. 12, April 2009. Available at: <http://www.hschange.com/CONTENT/1058/>. Accessed May 1, 2009.

¹⁹ Robert E. Hurley, Deborah A. Freund, and John E. Paul. *Managed Care in Medicaid: Lessons for Policy and Program Design*. Ann Arbor, MI: Health Administration Press. 1993.

²⁰ Sara Rosenbaum, Alexandra Stewart, and Colleen Sonosky. "Negotiating the New Health System: Findings from a Nationwide Study of Medicaid Primary Care Case Management Contracts." Center for Health Care Strategies, Working Paper, June 2002.

version of pay-for-performance reimbursement, paying providers additional amounts for reducing inappropriate ER visits and providing more preventive services.²¹ As described in more detail below, Oklahoma established a unique partial capitation arrangement in which physicians in their SoonerCare Choice PCCM program were paid about \$12 PMPM to cover all office visits, EPSDT screens,²² immunizations, and some basic lab and X-ray services. The payment was set above the predicted cost of these services in order to encourage more rural physicians to enroll in the program.

Oklahoma and some other states also sought to supplement the care management and coordination resources in physicians' offices with a limited number of nurse help lines staffed by state employees. In the late 1990s, North Carolina began developing county-based care networks to supplement the resources in physicians' offices.²³

Oklahoma was one of the earliest states to use HEDIS and CAHPS measures to report on service use and enrollee satisfaction in their PCCM program, but many more states now do so.²⁴ This provides a way of measuring, albeit indirectly, some of the impacts of care management and coordination in these programs.

3. Disease Management Programs

Beginning in the late 1990s, a number of vendors developed disease management programs targeting specific diseases, such as asthma, diabetes, and congestive heart failure. Some states sought to use these programs to supplement their PCCM programs, especially as the PCCM programs were extended to cover populations with more serious chronic illnesses (i.e., ABD beneficiaries and those whose Medicaid eligibility was based on their receipt of SSI payments). After a few years of experience with programs that focused primarily on single diseases, states began to conclude that they needed programs that could help beneficiaries with multiple chronic illnesses and conditions. Accordingly, states like Oklahoma, Pennsylvania, Indiana, and Washington developed programs that could manage and coordinate care for beneficiaries with more complex and costly conditions. These and other states typically contract with outside vendors to operate these programs.²⁵

4. "Medical Home" Initiatives

Medicaid PCCM programs have been characterized as providing a "medical home" for beneficiaries almost since their inception two decades ago. The current concept of a medical home is more elaborate and multi-faceted, including pay-for-performance (P4P) financial incentives for physicians, patient-focused and practice-focused care management improvements, greater use of information technology, and more extensive monitoring and performance reporting. The enhanced PCCM programs in Oklahoma, North Carolina, Pennsylvania, Indiana, and Arkansas all have some of these medical home elements.

²¹ Vernon K. Smith, Terrisa Des Jardins, and Karin A. Peterson. "Exemplary Practices in Primary Care Case Management." Center for Health Care Strategies, June 2000, pp. 32-35.

²² The Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) service is Medicaid's comprehensive and preventive child health program for individuals under the age of 21.

²³ For more details on how care management and coordination practices in PCCM programs were evolving in the 1990s, see Joanne Rawlings-Sekunda, Deborah Curtis, and Neva Kaye. "Emerging Practices in Medicaid Primary Care Case Management Programs." Prepared by the National Academy for State Health Policy for the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, June 2001; Lisa Sprague. "Primary Care Case Management: Lessons for Medicare?" Washington, DC: National Health Policy Forum. Issue Brief, October 5, 2001; and Margo Rosenbach and Cheryl G. Young. "Care Coordination in Medicaid Managed Care: A Primer for States, Managed Care Organizations, Providers, and Advocates." Center for Health Care Strategies, May 2000.

²⁴ Eric C. Schneider, Bruce Landon, Carol Tobias, and Arnold M. Epstein. "Quality Oversight in Medicaid Primary Care Case Management Programs." *Health Affairs*, Vol. 23, No. 6, November/December 2004, pp. 235-242. A 2008 survey reported that states with PCCM programs are now generally using HEDIS, CAHPS, and similar measures in those programs. See Vernon Smith, et al. "Headed for a Crunch: An Update on Medicaid Spending, Coverage and Policy Heading into an Economic Downturn." Washington, DC: Kaiser Commission on Medicaid and the Uninsured, September 2008, p. 51.

²⁵ For more detail on disease management programs in Medicaid, see The Lewin Group, "Designing and Implementing Medicaid Disease and Care Management Programs: A User's Guide." Prepared for the Agency for Healthcare Research and Quality, U. S. Department of Health and Human Services, March 2008. AHRQ Publication No. 07(08)-0063. For a summary of the evolution of Washington State's program from a focus on specific diseases to a focus on enrollees with multiple chronic conditions, see Center for Health Care Strategies. "Washington State Medicaid: An Evolution in Care Delivery." Center for Health Care Strategies, Case Study, December 2008. Available at: http://www.chcs.org/usr_doc/Washington_State_Case_Study.pdf. Accessed April 27, 2009.

B. Some Care Coordination Lessons from Medicare and Their Potential Application to Medicaid

1. Introduction

Mathematica Policy Research and others have conducted detailed evaluations of care coordination demonstrations in the fee-for-service Medicare program in recent years. There are important lessons from these demonstrations for Medicaid, especially for enhanced PCCM programs that cover ABD/SSI and related Medicaid populations, since many of these Medicaid beneficiaries are similar to disabled Medicare beneficiaries under age 65, and to elderly Medicare beneficiaries with chronic illnesses. Under-65 disabled beneficiaries made up about 16 percent of the total Medicare population in 2006, and a much larger percentage of those with chronic illnesses. Nearly 40 percent of all Medicare beneficiaries in 2006 had three or more chronic conditions, nearly 30 percent had a cognitive or mental impairment, and 17 percent had two or more limitations on activities of daily living.²⁶

There are important differences between Medicare and Medicaid populations, however, so some caution is warranted in extrapolating care coordination lessons from Medicare to Medicaid. First, chronically ill and disabled enrollees in Medicaid PCCM programs are almost all under age 65. Most PCCM programs—including those in the five states we examined—exclude most or all Medicare-Medicaid dual eligibles, so they have few enrollees age 65 and over.²⁷ Second, there is an unusually high level of mental illness in the under-65 disabled population in both Medicare and Medicaid. Among dual eligibles under age 65 in 2003, for example, nearly 57 percent were diagnosed with a mental illness, while only about 20 percent had chronic physical illnesses that are common in the elderly, such as diabetes, heart disease, and lung disease.²⁸ In addition, Medicare beneficiaries generally have higher education and income levels, more family and community supports, more stable housing arrangements, and a lower incidence of substance abuse problems.²⁹

2. Overview of Medicare Care Coordination Lessons

Randall Brown of Mathematica has summarized the findings on care coordination from Mathematica's Medicare evaluations and recent literature in a new paper titled "The Promise of Care Coordination."³⁰ Brown cites three types of interventions that have been effective in reducing hospitalizations for Medicare beneficiaries with multiple chronic conditions who in general are not cognitively impaired:

- **Transitional care interventions** in which patients are first engaged while in the hospital and then followed intensively for the next four to 12 weeks after discharge to assure appropriate post-discharge care.
- **Self-management education interventions** that engage patients for four to seven weeks in community-based programs designed to "activate" them in the management of their chronic conditions.

²⁶ For details on the characteristics of the Medicare population, see "Medicare At A Glance." Menlo Park, CA: Kaiser Family Foundation, Fact Sheet, November 2008. Available at: http://www.kff.org/medicare/upload/1066_11.pdf. Accessed May 1, 2009.

²⁷ Most states exclude dual eligibles from PCCM programs because Medicare, rather than Medicaid, pays for their hospital, physician, and other acute care services, so Medicaid has limited ability to manage those acute care services. There is also no way currently for Medicaid to share in the Medicare savings that could result from better care management.

²⁸ Teresa Coughlin, Timothy Waidman, and Molly O'Malley Watts. "Where Does the Burden Lie? Medicaid and Medicare Spending for Dual Eligible Beneficiaries." Washington, DC: Kaiser Commission on Medicaid and the Uninsured, April 2009, Table 2, p. 7. Available at: <http://www.kff.org/medicaid/upload/7895-2.pdf>. Accessed May 20, 2009.

²⁹ For a comparison of Medicare and Medicaid populations, see "Dual Eligibles: Medicaid's Role for Low-Income Medicare Beneficiaries." Washington, DC: Kaiser Commission on Medicaid and the Uninsured, Fact Sheet, February 2009. Available at: http://www.kff.org/medicaid/upload/4091_06.pdf. Accessed May 1, 2009.

³⁰ Randall Brown. "The Promise of Care Coordination: Models that Decrease Hospitalizations and Improve Outcomes for Medicare Beneficiaries with Chronic Illnesses." A Report Commissioned by the National Coalition on Care Coordination, March 2009. Available at: http://socialworkleadership.org/nsw/Brown_Full_Report.pdf. Accessed May 1, 2009.

- **Coordinated care interventions** that identify patients with chronic conditions who have a high risk of hospitalization in the coming year, and then work closely with the patient, primary care physician, and caregivers to assure appropriate monitoring and preventive care.

Based on Mathematica's evaluation of 15 programs in the 2002 to 2008 Medicare Coordinated Care Demonstration, Brown describes six key components that distinguished successful programs from the ineffective ones:

- **Targeting.** Interventions were most likely to be successful for patients who are at substantial risk of hospitalization in the coming year. A small number of patients (for example, those with terminal illnesses or end-stage renal disease) will have diseases that have progressed so far that patient education or better coordination among providers may do little to reduce the risk of hospitalization. These patients require different interventions.
- **In-person contact.** While many contacts with patients were by telephone, the most successful programs averaged nearly one in-person contact per month per patient during patients' first year in the program, far more than the unsuccessful programs.
- **Close interaction between care coordinators and primary care physicians.** Two major factors affected the strength of this relationship: the opportunity for at least some face-to-face interaction, and having the same care coordinator working with all the patients for a given physician.
- **Access to timely information on hospital and emergency room admissions.** Learning about acute care episodes very shortly after they occur is a critical factor in preventing readmissions.
- **Services provided to patients.** All the successful programs focused on helping patients to manage their own health care, especially teaching them how to take their medications properly. For patients who needed social supports (help with daily living activities, transportation, overcoming isolation), successful programs had staff who could arrange for those services.
- **Staffing.** The successful programs relied heavily on registered nurses to deliver the bulk of their interventions, with assistance from social workers for some patients.

Brown notes that this kind of care coordination can be quite resource-intensive, so more experience and research is needed on how to do it most effectively and efficiently. If care coordination must pay for itself out of reductions in hospitalizations, emergency room use, and other expensive services, there are limits to how extensive these coordination activities can be. In particular, Brown notes, there are challenges in identifying the optimal target population, determining whether coordination activities for individual patients need to be continuous or episodic, and determining what mix of nurse-oriented interventions and social service supports is most effective.

In considering the potential applicability of the Medicare care coordination experience to Medicaid, it is important to note that most of the Medicare research has involved primarily beneficiaries who are age 65 and over, and who have lower levels of cognitive impairment and mental illness than the under-65 Medicaid disabled population.³¹ Interventions that involve education in chronic illness self-management, or that require extensive coordination of care monitoring and preventive care among patients, primary care

³¹ In the 15 programs in the Medicare Coordinated Care Demonstration that Mathematica evaluated, only 7.3 percent of treatment group enrollees were under age 65 (compared to 14.4 percent in Medicare as a whole), and there were even fewer under-65 enrollees in the two most successful programs. See Deborah Peikes, et al. "Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures among Medicare Beneficiaries." *Journal of the American Medical Association*, Vol. 301, No. 6, pp. 603-618, Table 2, February 11, 2009.

physicians, and caregivers, may be less effective with patients who have significant cognitive impairments or limited family support.

The five states we have reviewed have addressed these care coordination issues in a variety of ways, some of which are consistent with these early lessons from Medicare, and some of which appear not to be. In the discussion that follows, we highlight some of the similarities and differences, and consider whether the variations may be accounted for by differences in the resources that states have available for these kinds of activities, or differences between Medicare and Medicaid populations.

C. Oklahoma

The history of the SoonerCare Choice enhanced PCCM program is summarized in Chapter II. This section provides more detail on care coordination and related issues.

1. Care Management and Coordination

a. SoonerCare Choice PCCM Program – The SoonerCare Choice PCCM program had relatively limited care management and care coordination resources before 2004, beyond what PCPs themselves provided. OHCA operated a nurse advice line staffed by registered nurses 24 hours a day, seven days a week, and a toll-free information and support line for PCPs, also available 24/7. In addition, OHCA had a small number of exceptional needs coordinators, including registered nurses and a social worker, to assist ABD enrollees with complex medical conditions.

As noted earlier, OHCA hired 32 nurses and two social services coordinators in late 2003 and early 2004 to provide additional care coordination resources in the SoonerCare Choice program following the end of the SoonerCare Plus program.

b. Evolution of the Care Management Program – As the OHCA care management program has evolved, the nurses and service coordinators have focused on a relatively limited set of complex medical conditions:³²

- High-risk obstetrical cases
- Transplant cases
- Catastrophic illness or injury
- Women enrolled in the Breast and Cervical Cancer (BCC) program
- Children receiving in-home private duty nursing services

OHCA developed a special initiative in October 2004 aimed at reducing unnecessary ER use. Building on its initial success in reducing ER use in the general Medicaid population, this initiative has focused more recently on reducing use among persistent ER users.³³ In 2008, the primary responsibility for this ER utilization initiative was shifted from the care management program to member services staff, following an OHCA analysis that concluded that the staff skills needed related more to member education than to the kinds of complex clinical issues that nurse care managers generally handled.

c. Health Management Program – A new Health Management Program was authorized by the legislature in 2006, and implemented in February 2008. It provides additional care coordination resources that are focused on about 5,000 high-cost, high-need enrollees. While this program was designed and is overseen by OHCA, it is operated by an external vendor, the Iowa Foundation for Medical Care (IFMC). The program includes 34 additional care management nurses who focus on beneficiaries expected to have the highest needs and costs,

³² For details, see the Care Management section of the OHCA web site at:

http://www.ohca.state.ok.us/providers.aspx?id=2044&parts=7499_7501. Accessed April 22, 2009.

³³ For details, see Fast Facts reports on ER Utilization and Persistent Population ER Utilization at: <http://www.ohca.state.ok.us/research.aspx?id=87&parts=7447>. Accessed January 2, 2009.

identified through predictive modeling analysis of past claims. There were some start-up problems with this new program, traceable in part to the fact that working with an outside vendor for this kind of care management was something of a new experience for OHCA, but by mid-2009 those problems appeared to be largely resolved.

The Health Management Program uses a commercial predictive modeling tool to identify potential enrollees who are most likely to benefit from the program.³⁴ The enrollees are divided into two tiers for care management purposes: approximately 1,000 enrollees in the top tier receive active care management from nurse care managers in Oklahoma, while the remaining 4,000 enrollees receive mainly telephone management from the IFMC Iowa office.

Among the nearly 5,000 current enrollees, over 18 percent have a primary diagnosis of mental illness, over 12 percent a primary diagnosis of diabetes, another 10 percent a primary diagnosis of arthritis, and about six percent a primary diagnosis of heart disease.³⁵ All of the enrollees are in SoonerCare Choice, about two-thirds in the ABD eligibility category, and one-third in the TANF category.³⁶

2. Physician Reimbursement

As noted earlier, the SoonerCare Choice PCCM program included at its inception in 1996 a unique partial capitation feature under which physicians were paid in advance a monthly amount for each SoonerCare enrollee in their practice. The payment covered a fixed set of services, primarily office visits for primary and preventive care, EPSDT screening, injections and immunizations, and some basic lab and X-ray services. All other services were paid on a FFS basis. The initial 1996 partial capitation rate for TANF and related enrollees averaged about \$12 PMPM. When ABD enrollees were added in 1999, their partial capitation rate averaged about \$20 PMPM.

The major goal of this partial capitation arrangement was to encourage greater participation by physicians in the Medicaid program. Accordingly, the partial capitation payment rates were initially set at about 16 percent above what the capitated services had cost previously. In addition, participating providers that met a target rate for EPSDT screening could get a bonus of up to 20 percent of their capitation revenue, and an immunization incentive payment of \$3 for every child who received recommended immunizations by his or her second birthday.³⁷ The partial capitation payment in 2008 was about \$18 PMPM for TANF enrollees and \$24 PMPM for ABD enrollees.³⁸

a. Medical Home Initiative – One problem with the basic partial capitation payment was that it did not give providers an incentive to actually see patients, since office visits were included in the monthly capitation payment, which was paid whether visits occurred or not. In part to deal with this issue, OHCA began work in 2007 on a new “medical home” model for the SoonerCare Choice program in which payments for primary care office visits would be made on a FFS basis, with an additional monthly care coordination payment, and performance-based payments for EPSDT screening, immunizations, breast and cervical cancer screening, physician visits to hospitalized patients, generic drug prescribing, and reductions in emergency room utilization. OHCA implemented this medical home reimbursement model in January 2009, replacing the partial capitation model.

The monthly “medical home” case management/care coordination fee currently ranges from just under \$4 to almost \$9 PMPM, based on the type of practice (children, adults, or both) and the practice’s capacity to

³⁴ For more information on this MEDai Risk Navigator Clinical tool, see: <http://www.medai.com/risknavclinical.html>. Accessed May 27, 2009.

³⁵ E-mail from Carolyn Reconnu of OHCA to Jim Verdier, July 8, 2009.

³⁶ These data were provided in a May 22, 2009 e-mail message from Casey Dunham of OHCA to Jim Verdier. TANF stands for Temporary Assistance for Needy Families, which includes primarily children and their mothers, and pregnant women.

³⁷ Mathematica Policy Research. “SoonerCare 1115 Waiver Evaluation: Final Report.” January 2009, pp. 12-14.

³⁸ E-mail from Melody Anthony, OHCA Provider Services Director, to Jim Verdier, May 12, 2009.

conduct a variety of patient screening, tracking, access, communication, and treatment activities.³⁹ In addition, OHCA set aside approximately \$4.2 million in 2009 for performance-based incentive payments related to EPSDT screening, generic drug prescribing, breast and cervical cancer screenings, physician inpatient admitting and visits, and ER utilization.⁴⁰

b. Relationship of Medicaid Physician Reimbursement Rates to Medicare – It is important to note that these additional SoonerCare Choice payments build on a level of physician reimbursement that is unusually high compared to other state Medicaid programs. If the underlying rate of Medicaid physician reimbursement in a state is low, getting adequate physician participation in PCCM programs may be difficult, even if there are significant reimbursement-related enhancements in the PCCM program.

In 2005, the Oklahoma legislature approved an increase in Medicaid physician reimbursement rates from 71 percent of Medicare rates to 100 percent of Medicare. For state-employed physicians serving through the Oklahoma University and Oklahoma State University Colleges of Medicine, rates were increased to 140 percent of Medicare in 2004.⁴¹ In 2003, only four states paid more than 100 percent of Medicare physician rates in their Medicaid program, and the national average was 69 percent of Medicare.⁴² In 2008, Oklahoma's Medicaid physician reimbursement rates remained at 100 percent of Medicare, well above the national average of 72 percent. Only nine states paid more than Oklahoma.⁴³

3. Performance Monitoring and Reporting

a. HEDIS and CAHPS – OHCA began administering CAHPS surveys to enrollees in its SoonerCare Choice PCCM program in 1997, at time when relatively few states were using such surveys for PCCM programs.⁴⁴ OHCA also used FFS claims data to construct HEDIS measures for the SoonerCare Choice program. OHCA published the SoonerCare HEDIS and CAHPS results for 2001 and 2002 in October 2003 in a new report titled “Minding Our Ps and Qs: Performance and Quality for Oklahoma SoonerCare Programs.”⁴⁵ As noted in Chapter II, this report, which showed that performance and quality in the SoonerCare Choice PCCM program was generally comparable to that in the SoonerCare Plus capitated MCO program, played a significant role in Oklahoma's decision in 2003 to end the Plus program and expand the Choice program statewide.

OHCA has continued to publish “Minding Our Ps and Qs” reports each year since 2003, reporting on HEDIS and CAHPS results in SoonerCare Choice, and comparing Oklahoma's performance to national averages. Since the HEDIS and CAHPS national averages are mainly based on the performance of capitated MCO programs that submit their results voluntarily (and are thus likely to be among the better performers), the national averages represent a relatively high bar for PCCM programs. Nonetheless, the SoonerCare Choice program has surpassed the national benchmarks on a number of HEDIS measures, and has come reasonably close on other HEDIS measures, as well as on a number of the CAHPS results that are most relevant for PCCM programs, such as enrollee satisfaction with their providers.⁴⁶

³⁹ For additional details on the OHCA medical home model, see the materials under “Patient Centered Medical Home” on the OHCA web site at: <http://www.ohca.state.ok.us/providers.aspx?id=8470&menu=74&parts=8482>. Accessed May 13, 2009.

⁴⁰ For details on these “SoonerExcel” incentive payments, see: http://www.okhca.org/providers.aspx?id=9426&menu=74&parts=8482_10165&terms=EPSDT+bonus+payments. Accessed May 13, 2009.

⁴¹ Mathematica Policy Research. “SoonerCare 1115 Waiver Evaluation: Final Report.” Pp. 26-27.

⁴² Stephen Zuckerman, Joshua McFeeters, Peter Cunningham, and Len Nichols. “Changes in Medicaid Physician Fees, 1998-2003: Implications for Physician Participation.” *Health Affairs* Web Exclusive, June 23, 2004.

⁴³ Stephen Zuckerman, Almee F. Williams, and Karen E. Stockley. “Trends in Medicaid Physician Fees, 2003-2008.” *Health Affairs* Web Exclusive, April 28, 2009. The nine states paying more than Oklahoma were Alaska, Arizona, Idaho, Montana, Nebraska, Nevada, New Mexico, North Dakota, and Wyoming.

⁴⁴ Eric C. Schneider, Bruce E. Landon, Carol Tobias, and Arnold Epstein. “Quality Oversight in Medicaid Primary Care Case Management Programs.” *Health Affairs*, Vol. 23, Number 6, November-December 2004, pp. 235-242.

⁴⁵ Available at: <http://www.ohca.state.ok.us/research.aspx?id=88>. Accessed December 18, 2008.

⁴⁶ Mathematica Policy Research. “SoonerCare 1115 Waiver Evaluation: Final Report,” November 25, 2008, pp. 77-82

b. Provider Profiles – OHCA develops and monitors provider profiles in four distinct areas: ER utilization, EPSDT screening, and screening for breast and cervical cancer.⁴⁷ The profiles for ER utilization began in 2004 and those for EPSDT and breast and cervical cancer screening began in 2007. The profiles are distributed twice a year—one profile for the calendar year and one for the state fiscal year, which runs from July 1 to June 30.⁴⁸

Oklahoma’s provider profiles focus on quality and access to care. For each of the four types of profiles, the state reports:

- The number of relevant SoonerCare choice members (total, female, children);
- The number of months those members have been assigned to a provider’s panel;
- The observed number of members with the given indicator: pap tests, mammogram, ER visits, child health check-ups;
- The expected number of members with the given indicator, based on clinical guidelines and the length of time a member has been assigned;
- The observed-to-expected ratio for all but the child health check-ups, where the percent of expected checkups completed is reported;
- Whether the provider met expectations, with a simple “yes” or “no;” and
- The provider’s rank among all primary care providers participating in the program.

4. Administrative Resources

OHCA is unusual among Medicaid agencies in several ways that better enable it to enhance its SoonerCare Choice PCCM with in-house resources than most states. It is a stand-alone agency with its own independent governing board, which gives it a degree of autonomy and flexibility that many Medicaid agencies do not have. It has its own personnel system and salary structure, separate from the state civil service system, which enables it to pay higher salaries and better align staff responsibilities with evolving needs. OHCA has a relatively large number of employees (440), many of whom have extensive medical and clinical backgrounds. Many key staff and managers have been with the agency since it was created in 1995, including two-thirds of the executive staff, providing a deep reservoir of skills and experience.

OHCA also benefited from the additional \$10 million in funding for SoonerCare Choice administration in 2004 and the authorization of 99 additional staff positions, following the end of the SoonerCare Plus MCO program. As noted in Chapter II, 34 of those staff positions were filled by nurse care managers and social services coordinators who provide care coordination and case management in the SoonerCare Choice program. OHCA also benefited from the legislative authorization in 2006 to establish its new Health Management Program for high-cost, high-need enrollees, although in this case the authorization was not accompanied by additional staff positions for OHCA. As a result, as noted earlier, OHCA has contracted with an outside vendor, IFMC, to manage the new program.

In addition, OHCA makes effective use of its fiscal agent, EDS, to provide a number of enhancements for the SoonerCare Choice program, including staff that help with provider recruitment, design of a case management tool that is used by the nurse care managers, and implementation of the MEDai predictive modeling tool used to identify high-cost enrollees. Finally, OHCA uses its external quality review organization, APS Healthcare, to assist with quality monitoring and reporting in the SoonerCare Choice program.

⁴⁷ “The OHCA Provider Billing and Procedure Manual.” Ch. 18, Quality Assurance and Improvement, August 2007. <http://www.okhca.org/Provider/Billing/manual/documents/chap18.pdf>. Accessed May 13, 2009.

⁴⁸ OHCA website, SoonerCare Choice, Profile FAQs. See individual FAQs at: http://www.okhca.org/providers.aspx?id=648&menu=74&parts=7757_7759_7761_7763. Accessed May 13, 2009.

D. North Carolina

The Community Care of North Carolina (CCNC) PCCM program began in 1998 as a small pilot focused on reducing emergency room use for beneficiaries with asthma, although its roots go back 10 years earlier to a foundation-funded PCCM demonstration project in one small rural county.⁴⁹ The CCNC program now operates throughout the state and has over 900,000 enrollees, approximately two-thirds of the state's total Medicaid enrollment. The CCNC program won a Ford Foundation Innovations in American Government Award from the John F. Kennedy School of Government in 2007.⁵⁰

The program's most distinguishing feature is its reliance on 14 local networks to provide services to enrollees, including care management and care coordination. These local physician-led networks, which have been gradually developed over the last decade, are made up of primary care physicians, hospitals, and local health and social services departments. The networks employ their own clinical coordinators, case managers, and pharmacists. The state itself has only a small staff to oversee the program and work with the networks.

The features of the CCNC program have been well-described elsewhere.⁵¹ We concentrate here on key aspects of the care management and coordination functions of the program, and in the next chapter look at financing and cost savings issues.

1. Care Management and Coordination

The CCNC networks are responsible for providing targeted case management services that are aimed at improving quality of care while containing costs. Case managers employed by the networks are primarily responsible for helping physician practices identify patients with high-risk conditions or needs, assisting the providers with disease management education and follow-up, helping patients coordinate their care or access needed services, and collecting performance measurement data. While some doctors' offices have their own care managers on staff, most depend on the network's hired case managers. In smaller practices, a case manager may be shared among several practices, while some larger practices may have full-time, on-site case managers.⁵²

Initially, according to state Medicaid staff, doctors wondered how the case managers were going to help, but now the doctors feel that case managers and social support staff are very valuable. ("They feel like they are working together.") The state staff emphasized that it was important for the case managers to be community-based, "not an anonymous hotline." "The doctors and patients need to see the case managers," state staff said, underscoring some of the lessons on case manager and physician interaction from Mathematica's Medicare evaluation.

The networks participate in state-wide disease and care management initiatives, which are currently focused on asthma, diabetes, pharmacy management, dental screening, ER utilization management, congestive heart failure, and case management of high-cost high-risk enrollees.⁵³

⁴⁹ Beat D. Steiner, et al. "Community Care of North Carolina: Improving Care Through Community Health Networks." *Annals of Family Medicine*, Vol. 6, No. 4, July/August 2008, pp. 361-367.

⁵⁰ For details on the award, see: <http://www.innovations.harvard.edu/awards.html?id=85911>. Accessed May 6, 2009.

⁵¹ Samantha Artiga. "Community Care of North Carolina: Putting Health Reform Ideas Into Practice in Medicaid." Washington, DC: Kaiser Commission on Medicaid and the Uninsured. Policy Brief, May 2009. Douglas McCarthy and Kimberly Mueller. "Community Care of North Carolina: Building Community Systems of Care Through State and Local Partnerships." New York, NY: The Commonwealth Fund, June 2009; Steiner, et al, "Improving Care Through Community Health Networks"; Thomas Bodenheimer. "North Carolina Medicaid: A Fruitful Payer-Practice Collaboration." *Annals of Family Medicine*, Vol. 6, No. 4, July/August 2008, pp. 292-294; John Buntin. "Health Care Comes Home." *Governing*, March 2009, pp. 46-51.

⁵² For more details, see the "Care Coordination and Care Management" section of the CCNC web site at: <http://www.communitycarenc.com/>. Accessed April 27, 2009.

⁵³ For details, see the "Program Wide Initiatives" section of the CCNC web site.

2. Network and Provider Reimbursement

The networks receive \$3 PMPM from the state, which they use to hire case managers and medical management staff to work with PCPs.⁵⁴ The PCPs themselves get \$2.50 PMPM from the state to serve as a medical home and participate in disease management and quality improvement programs. Beginning in late 2008, when enrollment of the ABD population in the CCNC program became mandatory, the PMPM fees for both the networks and PCPs were raised to \$5 for these enrollees in order to assist with their more complex care needs.

While the PMPM fees to PCPs are not significantly different from the fees paid to providers in PCCM programs in other states, the PMPM fees to the CCNC networks provide them with substantial financial resources. The networks range in size from about 25,000 to 200,000 enrollees, with an average size of about 60,000. If a network with 60,000 enrollees receives \$3 PMPM for each enrollee, that comes to over \$2 million for the year ($\$3 \times 12 \text{ months} \times 60,000 = \2.16 million). By concentrating funding and resources for care management and care coordination in this way, the CCNC program avoids the fragmentation and small scale that is likely when care management is done solely through physicians' offices, and increases the likelihood that these resources will be effectively targeted and managed.

Like Oklahoma, the North Carolina program pays physicians relatively high amounts in the FFS Medicaid program—95 percent of Medicare rates in 2008—and has done so for many years.⁵⁵ The CCNC program is thus able to build on a physician reimbursement system that providers view as reasonably adequate and that does not serve as an impediment to their participation in the program.

3. Performance Monitoring and Reporting

The 14 local community networks have primary responsibility for quality monitoring and improvement. The local physician-led networks elect medical directors to the statewide Clinical Directors Board, which develops the quality and performance measures.⁵⁶ Case managers from individual networks collect data for network initiatives, pediatric asthma care and diabetes care quality measurement projects, and state requirements.⁵⁷ Community Care uses the CAHPS survey, consumer focus groups, and a disenrollment survey to measure patient satisfaction.⁵⁸

The Community Care program distributes quarterly Practice Profiles to all participating practices. They show quarterly trends in utilization and Medicaid PMPM costs for specific services. The profiles also provide data on asthma and diabetes disease management activities. The Community Care program also distributes quarterly Prescription Advantage List (PAL) scorecards. These scorecards show the percentage of prescribed PAL drugs by tier and over-the-counter status. Neither the Practice Profiles nor the PAL scorecards directly compare individual practices to other practices or to statewide averages.⁵⁹

E. Pennsylvania

Medicaid managed care began in Pennsylvania in 1986 with a pilot program in Philadelphia. Managed care expanded substantially beginning in 1997, when the state began a four-year phased implementation of mandatory managed care for physical health services using a capitated MCO model. This program, called

⁵⁴ This amount was raised from \$2.50 PMPM in 2007 to provide the networks with additional funding to hire pharmacists to assist with medical management.

⁵⁵ Stephen Zuckerman, Almee F. Williams, and Karen E. Stockley. "Trends in Medicaid Physician Fees, 2003-2008." *Health Affairs* Web Exclusive, April 28, 2009. The North Carolina Medicaid program paid physicians 97 percent of Medicare in 2003. See Zuckerman, *et al.*, "Changes in Medicaid Physician Fees, 1998-2003." *Health Affairs* Web Exclusive, June 23, 2004.

⁵⁶ See the quality improvement section of the Community Care web site at: <http://www.communitycarenc.com/>. Accessed January 3, 2009.

⁵⁷ Ricketts, III, Thomas C., Sandra Greene, Pam Silberman, Hilda A. Howard, Stephanie Poley. "Evaluation of Community Care of North Carolina Asthma and Diabetes Management Initiatives: January 2000-December 2002." North Carolina Rural Health Research and Policy Analysis Program. April 15, 2004.

⁵⁸ <http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/Downloads/natsum07web.pdf>. Accessed May 6, 2009.

⁵⁹ For additional detail on the Practice Profiles and PAL Scorecards, see: <http://www.communitycarenc.com/> (Program Impact). Accessed December 31, 2008.

HealthChoices, now operates on a mandatory basis in 25 mostly urban counties, and on a voluntary basis in 27 rural counties. The program covers all beneficiaries, including SSI and related beneficiaries.

In 2005, the state began implementing an enhanced PCCM program, called ACCESS Plus, which now operates in all 27 rural counties in which the voluntary HealthChoices program operates, and in 15 other rural counties in which there is no other form of managed care. Enrollment in ACCESS Plus is mandatory for all major beneficiary categories, except that beneficiaries may choose a HealthChoices plan instead if one is operating in their county.⁶⁰

Upon enrollment in ACCESS Plus, beneficiaries select a primary care practitioner who is either a physician or a certified registered nurse practitioner, and who provides standard medical care and serves as an entry point for other health care services. In addition, as discussed below, the state has contracted with McKesson, a disease management company, to provide disease management services.⁶¹

The state decided to use an enhanced PCCM model in rural areas rather than a fully capitated model for several reasons. First, the state was not confident that fully capitated plans could negotiate cost-effective contracts with hospitals and other providers in rural areas, given the relatively small number of providers in these areas and the resulting lack of competition. Second, the state had developed substantial internal claims processing and utilization management capabilities, and saw no benefit in contracting out those functions in these new areas. Finally, the state saw the enhanced PCCM model as providing an effective form of competition for the capitated HealthChoices model, and a basis for comparison in terms of both cost and quality. Accordingly, the state decided to contract out only the disease and care management functions and some basic PCCM functions in the ACCESS Plus program.

1. Care Management and Coordination

The ACCESS Plus program is currently administered for the state by Automated Health Systems (AHS), with disease management provided by McKesson Health Solutions, and complex medical case management provided by a 40-person unit in the state Department of Public Welfare (the Medicaid agency). Thus, there are extensive resources for care coordination in the program. The disease management program currently includes asthma, diabetes, chronic obstructive pulmonary disease, coronary artery disease, and congestive heart failure.

An ACCESS Plus RFP issued in December 2008 includes broader disease categories (cardiovascular, respiratory, gastrointestinal, diabetes, rheumatological, and neurological disorders), and requires enhanced efforts to coordinate physical and behavioral health services. It also requires a greater emphasis on in-person community-based care coordination, and less reliance on telephonic interventions.⁶² This new focus on broader disease categories and more in-person contact, a state official told us, resulted from “a philosophical debate and the literature showing that disease-specific management isn’t getting us where we want to be. We’re in a paradigm shift away from telephonic, disease-specific to the whole-person, multiple-disease approach, with more community-level in-person contact.”⁶³

Payment amounts for the additional care coordination, case management, and disease management activities will be based on the bids received for these services, and so will not be known until contracts are awarded later in 2009. In addition, the new ACCESS Plus contract(s) will include additional payments to the contractor based on 13 HEDIS-based clinical quality measures and on emergency room utilization. Finally,

⁶⁰ Dual eligibles are excluded from both programs.

⁶¹ For more detail on Pennsylvania’s Medicaid managed care programs, see Judith Lave. “Managed Care in Pennsylvania.” Pittsburgh, PA: Pennsylvania Medicaid Policy Center. Fact Sheet, May 21, 2008. Available at: [http://www.pamedicaid.pitt.edu/documents/mcofs\(2\).pdf](http://www.pamedicaid.pitt.edu/documents/mcofs(2).pdf). Accessed April 28, 2009.

⁶² The December 2008 ACCESS Plus RFP is at: http://www.emarketplace.state.pa.us/FileDownload.aspx?file=RFP_44-08/Solicitation_0.pdf. Accessed December 24, 2008.

⁶³ Telephone interview with Mathematica, March 27, 2009.

contractors will be subject to a risk-sharing mechanism in which the state will pay contractors 25 percent of program savings from disease management and related activities up to \$5 million per year, or impose a penalty of 25 percent of savings shortfalls up to \$5 million per year. With these additional performance-based and risk-based financial arrangements, ACCESS Plus financing is adopting some of the risk-based features of a capitated MCO model, but with incentives that are more directly targeted toward improving care.

a. Intense Medical Case Management⁶⁴ – Like Oklahoma, the Pennsylvania Medicaid agency has an in-house staff of approximately 40 nurses and social workers who assist beneficiaries who have complex health care needs, are experiencing a catastrophic event, or are identified as having a high-risk pregnancy. Beneficiaries who have any of the five diseases covered by the ACCESS Plus disease management program are referred to McKesson.

The case managers provide comprehensive assessments of medical and psychosocial needs; develop care plans; and provide assistance in coordinating health care services and referral activities.

2. Provider Reimbursement

In the initial 2005 ACCESS Plus program, participating PCPs received higher Medicaid FFS payments for primary care visits and EPSDT screens, as well as various “pay for participation” incentives (e.g., \$200 for initial sign-up, \$40 for identification of candidates for disease management, \$60 for care plans). In November 2007, ACCESS Plus implemented a P4P program in which providers are paid additional amounts of about \$10 to \$15 per patient based on various process measures (for example, use of beta blockers for congestive heart failure, controller medications for asthma, and statins for coronary artery disease), and amounts up to \$30 to \$40 per patient for patients who meet certain clinical standards (for example, low cholesterol for those with coronary artery disease or diabetes, and low HbA1c levels for diabetics).⁶⁵

As in the other states we reviewed for this paper, the underlying rate of Medicaid physician reimbursement to Medicare rates is an important element in assessing the PCCM program, since the majority of physician reimbursement in such programs comes through the basic FFS reimbursement system. Pennsylvania’s Medicaid physician reimbursement rates were 73 percent of Medicare in 2008, close to the national average of 72 percent.⁶⁶ This is a substantial increase from 2003, when Pennsylvania’s rates were 52 percent of Medicare, well below the national average of 69 percent.⁶⁷ While the Pennsylvania Medicaid rates are still relatively low, the additional reimbursement providers can obtain through the ACCESS Plus P4P program may be sufficient to encourage adequate physician participation in ACCESS Plus.

3. Performance Monitoring and Reporting

The Access Plus program measures the effectiveness of care coordination through process measures related to asthma, diabetes, coronary artery disease, congestive heart failure, and chronic obstructive pulmonary disease. Utilization measures include ER visits, hospital readmissions, and inpatient admissions. The program has also conducted a series of performance improvement projects.⁶⁸ Quality improvement nurses, employed by a contractor, conduct physician office site assessments and medical chart audits to assess performance and provide assistance for deficiencies found.⁶⁹ The disease management portion of the program uses HEDIS

⁶⁴ The information in this section comes primarily from a set of slides titled “Intense Medical Case Management” provided by Dr. David Kelley of the Pennsylvania Office of Medical Assistance on April 16, 2009.

⁶⁵ For more detail on this new P4P program, and the ACCESS Plus program more generally, see David K. Kelley. “Pennsylvania’s ACCESS Plus Program.” December 15, 2008 slide presentation prepared for a meeting sponsored by the Center for Health Care Strategies. For a detailed comparison of Pennsylvania’s P4P program to similar programs in other states, see Meredith B. Rosenthal. “Using Provider Payment Incentives to Achieve Medicaid Policy Objectives: A Review of Recent Experience and Emerging Trends.” Pittsburgh, PA: Pennsylvania Medicaid Policy Center, February 2, 2009. Available at: http://www.pamedicaid.pitt.edu/documents/Payment_rp_09.pdf. Accessed April 28, 2009.

⁶⁶ Stephen Zuckerman, Almee F. Williams, and Karen E. Stockley. “Trends in Medicaid Physician Fees, 2003-2008.” *Health Affairs* Web Exclusive, April 28, 2009.

⁶⁷ Stephen Zuckerman, Joshua McFeeters, Peter Cunningham, and Len Nichols. “Changes in Medicaid Physician Fees, 1998-2003: Implications for Physician Participation.” *Health Affairs* Web Exclusive, June 23, 2004.

⁶⁸ <http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/Downloads/natsum07web.pdf>

⁶⁹ ACCESS Plus Provider Handbook. <http://www.accessplus.org/downloads/ProviderHandbook.pdf>

measures to monitor quality and performance. Additional performance measures are also used to assess access, utilization, outcomes, cost, and provider characteristics. The disease management contractor developed a survey for chronic illness care satisfaction, which is used in addition to the overall patient satisfaction survey developed by the state.⁷⁰

F. Indiana

Indiana began phasing in a basic PCCM program in 1994, along with a capitated MCO program. By 1996, both programs operated statewide. AFDC and related beneficiaries were required to enroll in one of the two programs. ABD beneficiaries were not required to enroll.⁷¹

In 2003, in response to an earlier legislative directive, the Indiana Medicaid program established a disease management program designed for people with diabetes or congestive heart failure who were in the ABD eligibility category. This Indiana Chronic Disease Management Program (ICDMP) was intensively studied and evaluated by an independent external evaluator.⁷²

Also in 2003, the Medicaid agency began requiring ABD beneficiaries to enroll in a somewhat enhanced version of the basic PCCM program. This new program, called Medicaid Select, was administered by AmeriChoice, which provided enrollment broker, provider relations, and other administrative services under a contract with the state. The main enhancement was a free member services helpline.

After a newly elected governor took office in 2005, the state Medicaid agency began a review of all the state's Medicaid managed care programs. The state eventually decided to end both the ICDMP and the Medicaid Select programs, replacing them in 2008 with a new program called Care Select that provides substantially enhanced care management and coordination services for ABD beneficiaries, but still reimburses providers mainly on a FFS basis. Enrollment in the Care Select program is mandatory for ABD beneficiaries. (TANF and related beneficiaries are required to enroll in the state's capitated risk-based managed care program, called Hoosier Healthwise.) Dual eligibles are excluded from Care Select, but enrollees in home- and community-based waiver programs (aged and disabled, developmental disabilities, supported services, autism, and traumatic brain injury) are included, as are some special categories of children, such as wards of the court, children in foster care, and children receiving adoption assistance.

1. Care Management and Coordination

The new Care Select program appears to have adopted several of the features of the ICDMP, including 1) dividing enrollees into high-need and lower-need groups, with primary reliance on telephone contact for lower-need members; 2) intensive focus on a smaller group with high needs and multiple chronic conditions rather than specific diseases; and 3) in-person contact with high-need members and close interaction with their health care providers. These are also features identified as important for success in the Mathematica evaluation of care coordination in Medicare discussed earlier.

The Care Select program has now been fully phased in statewide. Physicians and other primary medical providers (PMPs) are responsible for providing or coordinating members' care, with the assistance of two care management organizations (CMOs):

⁷⁰ <http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/Downloads/natsum07web.pdf>

⁷¹ Jane Horvath and Neva Kaye. "Medicaid Managed Care: A Guide for States, 3rd Edition." Portland, ME: National Academy for State Health Policy, 1997, p. 1-D-2. AFDC stands for Aid to Families with Dependent Children, which included primarily children and their mothers and pregnant women, the same population included in what is now called the TANF program.

⁷² Marc B. Rosenman, et al. "The Indiana Chronic Disease Management Program." *The Milbank Quarterly*, Vol. 84, No. 1, 2006, pp. 135-163; Ann M. Holmes, et al. "The Net Fiscal Impact Of A Chronic Disease Management Program: Indiana Medicaid." *Health Affairs*, Vol. 27, No. 3, May/June 2008, pp. 855-864; Barry P. Katz, et al. "The Indiana Chronic Disease Management Program's Impact on Medical Claims: A Longitudinal, Statewide Evaluation." *Medical Care*, Vol. 47, No. 2, February 2009, pp. 154-160.

- **ADVANTAGE Health Solutions**, a local health plan owned by four Catholic health care systems that has partnered for Care Select with Schaller Anderson, an Aetna company
- **MDwise**, a not-for-profit managed care health plan created through a joint venture of two major Indianapolis-area hospital systems, and operated in partnership with AmeriHealth Mercy

The CMOs are responsible for developing individual care plans for all enrollees with input from PMPs and other providers, and revising those care plans over time as enrollees' needs evolve.

a. Payments to CMOs – The state pays each CMO approximately \$25 PMPM for its care management activities, with approximately 20 percent of that withheld, to be paid contingent on CMO performance on a number of specified quality measures (described below in the performance monitoring and reporting section). The CMOs are required to reinvest a specified portion of these delayed performance-related payments (75 percent in 2008 and 50 percent in 2009) in incentives to members and/or providers. The state pays CMOs additional amounts for providing prior authorization for some services, and for doing outreach calls for disease management.

b. Initial Screening and Care Plans – Both CMOs have encountered difficulties in developing care plans for enrollees. The main problem has been the lack of current and accurate contact information for enrollees, especially for those who have been enrolled in Medicaid for long periods and were auto-assigned to the CMOs. The contact information for new enrollees is more current and generally more accurate.

Another problem has been the length of the initial assessment tool, which can make it unwieldy and time-consuming to complete. This health risk screening questionnaire, which is used by both CMOs, currently includes 57 questions, with different versions for adults and children. The results of the questionnaire are used to assign members to one of four care management levels, ranging from level 1, where members need minimal additional help, to level 4, where members need aggressive case management and frequent interventions, including in some cases home visits and direct involvement of the CMO medical director.

c. Care Management Tools – Each of the CMOs has a care management system that includes predictive modeling, care management, and provider profiling capabilities.

ADVANTAGE Health Solutions. ADVANTAGE uses a proprietary care management system developed by Schaller Anderson called “Case Trakker.” This system has case finding, service selection, and operational elements, and focuses on interactions with members.

For case finding, the Schaller Anderson/Aetna system uses a claims-based predictive modeling tool (Pathways to Predictive Modeling, or PPM) to identify enrollees at risk of high-cost service use who may benefit from care management. The claims analysis provided by PPM is used in combination with a health risk questionnaire that is filled out by enrollees. This information is further supplemented by informal reports from members, families, practitioners, community case managers, and others asking for assistance. To identify those members most likely to benefit from care management, PPM combines the predicted risk of high-cost service use with an assessment of the extent to which care management can have an impact on that risk. Over the past year Schaller Anderson/Aetna has integrated behavioral health conditions into PPM and found them to be “critically important” in predicting overall utilization risk as well as risk of ER visits and inpatient readmissions. They also plan to include psychosocial risk factors (housing instability, social isolation, cognitive impairment) in the risk prediction algorithm. They expect these factors to have a significant influence on their assessment of both member care needs and the skills and resources needed by care managers.

ADVANTAGE also uses a physician profiling system developed by Schaller Anderson that is based on the PPM predictive modeling tool. ADVANTAGE prepares profiles for each participating physician

showing all their ADVANTAGE Care Select patients, the patients' primary condition, their service utilization (hospital admissions, ER visits, number of drugs prescribed per month, and total annual Medicaid claims costs for the year), and their case management status.

MDwise. MDwise uses as its base care management system a proprietary system developed by AmeriHealth Mercy called "CareConnectNX." It has a predictive modeling capability and it houses all assessments and care plans. Supporting information from providers is linked electronically to the care plan and is available in real time to care managers. A simplified web-based version of the system permits access to the care plan by PCPs and other appropriate care partners.

MDwise has a separate web-based tool called "ManagedCare.com" that is used to produce physician and member profiles based on claims history. These profiles will soon be available to providers online and will be used in connection with the care plan to provide performance feedback and to support care conferences.

d. Care Management Staff and Activities – The care managers and coordinators employed by the CMOs and their partners do most of their work by phone from a central location, although there is some in-person contact with patients and physicians. Both CMOs hired some nurse care managers from the prior ICDMP after it ended in March 2008, although the transition between the two programs does not appear to have been as well coordinated as it might have been. Nonetheless, one CMO interviewee told us, "we leveraged considerable institutional memory from ICDMP and benefited significantly from the foundation that was laid." As noted earlier, the ICDMP was carefully evaluated and the results were published in three peer-reviewed journals, so both state and CMO staff could draw on those sources in developing the Care Select program.

2. Provider Reimbursement

The Medicaid Select PCCM program for ABD enrollees, which ended in March 2008, paid participating physicians an administration fee of \$4 per month for each enrollee. There were no bonuses or performance incentives. In the new Care Select program, participating physicians receive an administrative fee of \$15 per month for each enrollee, in recognition of the extra care coordination and management responsibilities they are assuming. In addition, Care Select physicians are reimbursed \$40 per patient for care coordination conferences with the CMO on individual patients, up to two conferences per year per patient. If the conference involves several individual patients for a single provider, the provider is reimbursed \$40 for each patient. These payments to physicians are made directly by the state, rather than by the CMOs.

Indiana's Medicaid physician reimbursement rates were relatively low in 2008: 69 percent of Medicare rates, compared to a national average for Medicaid programs of 72 percent of Medicare.⁷³ Whether the extra payments that are available to physicians through the Care Select program will be a sufficient inducement for physicians to participate in the CMO networks remains to be seen. Since the CMOs are not financially responsible for hospital services in the Care Select program, they are not able to pay higher rates to physicians out of savings in hospital costs, as the plans in the capitated Hoosier Healthwise program are reportedly doing in some areas. One CMO interviewee told us that they had been "surprisingly successful" in building their Care Select network, noting as possible factors the \$15 monthly per-enrollee administrative fee, small panel sizes, and the potential for additional provider payments out of the quality-based payments to CMOs.

3. Performance Monitoring and Reporting

As noted earlier, approximately 20 percent of the payments to the CMOs are contingent on their performance on a series of specified quality measures. The measures focus on issues of special importance to

⁷³ Stephen Zuckerman, Almee F. Williams, and Karen E. Stockley. "Trends in Medicaid Physician Fees, 2003-2008." *Health Affairs Web Exclusive*, April 28, 2009.

chronically ill and disabled enrollees, including care management and disease management. They include for 2009:

- Avoidable hospitalizations, as measured by the Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators (PQIs). The four measures being used for 2009 include hospital admission rates for diabetes short-term complications, bacterial pneumonia, congestive heart failure, and chronic obstructive pulmonary disease;
- Emergency room utilization;
- Follow-up after hospitalization for mental illness;
- Antidepressant management;
- Dental care;
- Breast cancer screening;
- Cholesterol screening for those with diabetes;
- Adolescent visits;
- Asthma medications; and
- Care coordination, including completion of member assessments, stratification of members, and development of care plans.

The state plans to publish these CMO performance measures on the state website.

G. Arkansas

The Arkansas PCCM program, called ConnectCare, began in 1994. Enrollment is mandatory for almost all beneficiaries, including most ABD beneficiaries except for Medicare-Medicaid dual eligibles and those in the short-term “spend-down” eligibility category.⁷⁴ There is no capitated managed care in the Arkansas Medicaid program. The ConnectCare program received a Ford Foundation Innovations in American Government Award from the John F. Kennedy School of Government at Harvard in 1997.⁷⁵

ConnectCare is currently administered by Medicaid Managed Care Services (MMCS), a division of the Arkansas Foundation for Medical Care (AFMC), under a contract with the state Medicaid agency. Since AFMC is a Medicaid External Quality Review Organization (EQRO), the state is able to receive an enhanced federal match (75 percent rather than 50 percent) for the amount it pays AFMC to administer the PCCM program. AFMC/MMCS is located only three blocks from the Medicaid agency, and functions as almost a staff extension of the Medicaid agency.

1. Care Management and Coordination

AFMC devotes approximately 15 staff people to the ConnectCare program through its MMCS division, including provider representatives and data analysis staff. MMCS operates a hotline that is used to provide some beneficiary education, manage changes in primary care provider assignments, and serve as the point of contact with families to ensure proper dental care follow-up and reminders. MMCS does not provide direct care management or care coordination services, but focuses primarily on giving providers tools and incentives to facilitate and encourage care management by the providers themselves. One of these tools is the physician profiling system discussed below. The profiling system provides retrospective reports at the end of each quarter, so the information is not timely enough for physicians to use to deal with patient hospitalizations and ER visits on a “real time” basis.

⁷⁴ <https://www.medicaid.state.ar.us/InternetSolution/General/programs/ccare.aspx>. Accessed July 20, 2009.

⁷⁵ The award was based largely on the new electronic eligibility verification and claims processing system implemented by EDS and the state in 1992, which provided the underpinnings for the ConnectCare program. For details, see: <http://www.innovations.harvard.edu/awards.html?id=3740>. Accessed May 6, 2009.

2. Provider Reimbursement

The state pays providers a monthly \$3 per-enrollee case management fee in the ConnectCare program. In addition, it began paying a “Physician Quality Incentive” in 2008 to PCPs who meet or exceed expected levels for EPSDT screens. The methodology for this EPSDT incentive is adapted from the approach used in Oklahoma. The state’s budget for this incentive was \$1.5 million in 2007-2008.⁷⁶

The Medicaid physician reimbursement rates in Arkansas were 89 percent of Medicare rates in 2008, down somewhat from 2003, when the Arkansas rates were 95 percent of Medicare. Nonetheless, the Arkansas rates were substantially above the national average for Medicaid programs in both years.⁷⁷ In addition, electronic claims submission and reimbursement through EDS, the Medicaid fiscal agent, has made the billing experience for providers in Medicaid better than that in Medicare, according to Medicaid agency staff. As noted in the Kennedy School Innovations Award citation in 1997, “This online system made Medicaid the fastest medical payer in Arkansas, compensating for the low payment rates and significantly increasing the number of physicians who will treat Medicaid recipients.”

3. Performance Monitoring and Reporting

AFMC/MMCS uses a physician profiling system as a quality and performance monitoring tool. MMCS produces and distributes provider profiles on a quarterly basis in what is called the Primary Care Physician Profiling Program. MMCS also distributes annual profiles for EPSDT screening, emergency room utilization, and Medicaid drug costs.⁷⁸ Providers with an average of 10 or more enrollees in ConnectCare receive reports with information for the given quarter and the most recent 12-month period for the individual PCP practice and the statewide program. The reports come with a letter from the AFMC corporate medical director highlighting issues or trends with the data and with findings of any special studies.

The PCP profile reports costs and utilization rates for pharmacy, PCP visits, referrals, ER use, and hospitalization for the provider and for the whole state on a total and per-enrollee per-month basis. The EPSDT profiles report screening rates for the caseload, number of eligible enrollees who were not screened, and statewide screening rates and trends. The reports also include resources to increase staff and patient awareness about EPSDT. The ER reports show total visits per 100 enrollees per month, total enrollee ER visits during the quarter and the year to date, and Medicaid expenditures for ER facility and physician payments. Providers can request detailed reports with names of patients and claims data, and can request site visits from MMCS staff to clarify reports or answer questions.

In addition, AFMC prepares annual HEDIS and CAHPS reports that include the ConnectCare program.⁷⁹ These reports provide an indirect measure of care management and care coordination, and may serve as an incentive to providers to improve care.

4. Inpatient Hospital Quality Incentives

AFMC, the Medicaid agency, and the Arkansas Hospital Association have also developed a Medicaid Inpatient Quality Incentive program that provides performance bonuses to hospitals that score well on specific quality measures that focus on proper treatment of pneumonia and heart failure, surgical care improvement, and better documentation for care coordination. Bonuses totaling \$4.9 million were paid to 34 hospitals in state fiscal year (SFY) 2008.⁸⁰ While this program is broader than ConnectCare, it includes much of the ConnectCare population, and serves the care management and coordination goals of that program.

⁷⁶ For more details on this EPSDT incentive, see the Arkansas Foundation for Medical Care/Medicaid Managed Care Services web site at: http://www.afmc.org/HTML/programs/quality_improve/phys_office/pqi.aspx. Accessed December 19, 2008.

⁷⁷ Zuckerman, et al. *Health Affairs* Web Exclusives, April 28, 2009 and June 23, 2004.

⁷⁸ Arkansas Foundation for Medical Care website, Primary Care Physician Profiling Program page: http://www.afmc.org/HTML/programs/mmcs/pcp_profile/pcpprofile.aspx. Accessed December 31, 2008.

⁷⁹ For samples of these reports, see: <http://www.afmc.org/HTML/programs/statisticaldata/index.aspx>. Accessed May 7, 2009.

⁸⁰ For more information on the Medicaid Inpatient Quality Incentive program, see: http://www.afmc.org/HTML/programs/quality_improve/hospital/iqi.aspx. Accessed April 22, 2009.

IV. Measuring Costs and Savings for Enhanced PCCM Programs

The designers of enhanced PCCM programs often assume that the enhancements will pay for themselves over time through reductions in unnecessary hospitalizations, ER use, and other high-cost services. Studies sometimes support this assumption, although the rigor of these studies has varied. One obstacle to achieving savings is that most enhanced PCCM programs do not have direct control over hospital utilization. In addition, offsetting savings, if they occur, generally do not occur soon enough to cover the costs of enhancements in the first year or two, so horizons longer than that are necessary. Furthermore, because of the turnover in Medicaid enrollment, some of the return from PCCM enhancements may occur after beneficiaries have left the program. Finally, many enhancements, such as improved coordination and management of care, are likely to improve beneficiary health and well-being in ways that cannot be fully measured in strict dollar terms, so a purely financial analysis may not capture all the benefits.

Return on Investment Projections. Nonetheless, states may be required by governors or legislatures to make some estimate of the likely savings from PCCM enhancements, and the cost of the resources needed to implement them, in order to obtain approval for the necessary up-front investments. Oklahoma, Pennsylvania, and six other states worked with CHCS in 2007-2008 to develop “return on investment” (ROI) analyses of Medicaid quality improvement initiatives, including PCCM enhancements.⁸¹ CHCS has developed an evidence base and a web-based tool (the ROI Forecasting Calculator for Quality Initiatives) that states can use to estimate the costs and benefits of quality-related PCCM enhancements.⁸²

These ROI analyses require that states estimate the changes in service utilization patterns that are likely to result from quality improvement initiatives (hospital admissions, ER visits, prescription drugs), as well as the administrative costs needed to implement these initiatives. There are considerable uncertainties involved in estimating both utilization changes and administrative costs:

- **Savings from utilization changes.** The ROI Evidence Base on the CHCS website⁸³ provides a starting point for estimates of utilization changes likely to result from quality initiatives related to asthma, congestive heart failure, diabetes, depression, and high-risk pregnancies.⁸⁴ States must then convert these estimates of utilization changes to estimates of state budget impacts, using state-specific estimates of the cost to Medicaid of specific services. These estimates are just projections, however, and they require many assumptions about uncertain future events.
- **Administrative costs.** States normally do not relate state staff costs to specific programs, so estimating how much staff time and costs are devoted to an enhanced PCCM program may require some fairly rough estimates. If a state contracts with an outside entity solely to operate some or all aspects of an enhanced PCCM program, then the full costs of that contract can be assigned to the PCCM program. But if an outside contractor performs a variety of functions for the state, the cost allocation problems may be similar to those involved in allocating state staff costs.
- **Retrospective evaluations.** There is an even bigger challenge in determining whether projected savings and costs actually materialize. States may or may not be required to meet this challenge for their enhanced PCCM programs. If a program is operating satisfactorily, and expenditures are not too far out of

⁸¹ For more information, see CHCS Return on Investment Purchasing Institute at: http://www.chcs.org/info-url_nocat3961/info-url_nocat_show.htm?doc_id=435917. Accessed December 29, 2008.

⁸² For more information, see: http://www.chcs.org/publications3960/publications_show.htm?doc_id=678806. Accessed December 29, 2008.

⁸³ Arnold Chen, Melanie Au, and Allison Hamblin. *Return on Investment Evidence Base: Identifying Quality Improvement Strategies with Cost-Savings Potential*. Center for Health Care Strategies, November 2007. Available at www.chcs.org.

⁸⁴ http://www.chcs.org/publications3960/publications_show.htm?doc_id=576275. Accessed December 30, 2008.

line with budget projections, that may be sufficient to justify the program's continuation. Increasingly, however, states are setting the bar higher than that, and are funding formal retrospective evaluations of program performance, including costs and savings.

Comparing actual expenditures to what they would have been in the absence of enhanced PCCM initiatives is not easy, however. Just looking at trends over time can be misleading, since many factors other than PCCM initiatives might cause hospital, ER, and other service use to change, such as "regression to the mean" by individual patients,⁸⁵ broader market forces, reimbursement changes, and regulatory or policy changes. Reliable savings estimates require evaluations with control or comparison groups, but few states have the resources for such evaluations.

The experiences in Oklahoma and the four other states we examined illustrate some of the different ways in which states have handled these issues.

A. Oklahoma

1. *SoonerCare Choice*

As described earlier, Oklahoma was able to substantially enhance the care management and coordination resources it could devote to the SoonerCare Choice program by using some of the resources—primarily nurse care managers—that had previously been used by the SoonerCare Plus MCO program after that program ended in 2003. While Oklahoma has not performed a detailed analysis of the ROI from the work of the nurse care managers in the SoonerCare Choice program, MPR's analysis of avoidable hospitalizations in the SoonerCare waiver program between 2003 and 2006 indicates that the Choice program was generally able to control these hospitalizations as well as the Plus program did. Some part of this success in controlling avoidable hospital use is surely due to the work of the OHCA nurse care managers, but a significant portion must also be attributed to the work of individual SoonerCare Choice providers. Accordingly, all of the program savings from avoidable hospitalizations cannot be directly linked to the administrative costs of the nurse care managers. Furthermore, the nurse care managers do not focus exclusively on reducing hospitalizations, so an ROI assessment of their work should include consideration of potential savings in other areas as well.

2. *Health Management Program*

OHCA pays the Iowa Foundation for Medical Care, which operates the new Health Management Program, amounts that can easily be allocated to that program. There are several OHCA staff who devote almost full time to the program, so allocating OHCA administrative and contracting costs to this program is more feasible. OHCA staff performed a preliminary ROI analysis for the Health Management Program that was presented at a CHCS Medicaid Purchasing Leadership Summit in March 2008, concluding that the program could produce an ROI of as much as 3 to 1 by the third year.⁸⁶

Oklahoma's fiscal agent, EDS, performs a variety of functions in the SoonerCare Choice program (provider recruiting and enrollment, claims payment, provider help line) but it is not possible to allocate the amounts OHCA pays to EDS to these SoonerCare Choice functions with any precision. Similarly, APS Healthcare conducts a variety of quality-related studies and performs other functions (preparation of the quarterly "Provider Update" newsletter, for example) that are related to SoonerCare Choice, but the amounts spent on these functions cannot be precisely allocated to SoonerCare Choice.

⁸⁵ Regression to the mean is a statistical phenomenon that occurs because observations of individuals at a point in time include outliers who are likely to return to a more average condition at another point in time. Enrollees who are hospitalized in one year but not in a subsequent year are an example.

⁸⁶ The presentation by Lise DeShea is available at: http://www.chcs.org/usr_doc/Session5_OK_DeShea_ROI.pdf. Accessed December 31, 2008.

OHCA has commissioned a five-year \$1.3 million evaluation of the new Health Management Program. The Pacific Health Policy Group is conducting the evaluation, but it is still in its early stages and there are no results yet.

B. North Carolina

1. Mercer Estimates of Program Savings

North Carolina contracts with an experienced outside actuarial firm, Mercer Government Human Services Consulting (Mercer), to prepare annual estimates of the savings from the Community Care enhanced PCCM program. Mercer estimated in February 2009 that the Community Care program saved the state approximately \$147 million in SFY 2007, compared to what costs would have been in that year without the program. This represented a savings of about 11 percent.⁸⁷

Earlier Mercer savings estimates have also been based on projections of what costs would have been in the absence of the Community Care program, compared to actual program costs. There are substantial uncertainties inherent in such estimates, since they are based on a variety of assumptions that, if modified, could lead to different results. These uncertainties and the assumptions used are detailed in Mercer's explanation of its estimates. The Mercer analysis did not use control or comparison groups.

The Mercer savings estimates for years prior to SFY 2007 used somewhat different data and methodologies, but produced similar results. The Mercer savings estimates for those earlier years are:

SFY 2006: \$162 million (11 percent)
 SFY 2005: \$81 million (6 percent)
 SFY 2004: \$124 million (10 percent)
 SFY 2003: \$60 million (6 percent)

2. Administrative Costs

Mercer has not estimated the state administrative costs associated with those savings. However, the Community Care staff estimated the cost of Community Care operations at \$8.1 million in 2002 and \$10.2 million in 2003.⁸⁸ Community Care staff have not prepared estimates of operations costs for later years, but they did provide us with state Community Care staffing levels as of April 2009 that may be useful for other states in preparing their own staffing and administrative cost estimates:

Clinical: One full-time equivalent (FTE) director and 4.5 FTE consultants (5 part-time physicians, 2 part-time registered nurses, and one pharmacist)
Data: 4.5 FTE data analysts and 6 FTE support staff
Program: One FTE director and 3 FTE support staff

States should keep in mind that the local Community Care networks also have substantial administrative responsibilities and staff, but the costs of network staff related to Community Care are paid by the state as program costs rather than administrative costs, so they are not included in Community Care administrative cost estimates.

⁸⁷ The Mercer savings estimates for SFY 2007 and earlier years are on the "Program Impact" section of the Community Care web site at: <http://www.communitycarenc.com/>. Accessed April 29, 2009.

⁸⁸ Presentation by Denise Levis Hewson at National Academy for State Health Policy Preconference Seminar on October 5, 2008: http://www.nashp.org/Files/LevisHewson_Precon_NASHP2008.pdf. Accessed December 31, 2008.

C. Pennsylvania

1. Mercer Comparative Analysis of ACCESS Plus Costs

Mercer also prepared an analysis for the state of Pennsylvania of the program and administrative costs of the ACCESS Plus enhanced PCCM program. Mercer's February 2007 analysis covered the first full year of the ACCESS Plus program (July 2005 through June 2006). Instead of comparing the costs of the ACCESS Plus program to an estimate of what costs would have been in the absence of the program (as was done for the North Carolina PCCM program), Mercer compared the ACCESS Plus costs to those of the voluntary capitated MCO program (HealthChoices) that operated in the same mostly rural counties.⁸⁹

Mercer estimated the program costs (medical expenses) for the ACCESS Plus program to be \$203.76 PMPM, approximately six percent below the \$216.26 PMPM program costs for the voluntary MCO program, after adjustment for the different health risks of enrollees in each program.

Mercer also estimated the administrative costs for the two programs, concluding that the ACCESS Plus administrative costs were almost 45 percent lower: \$12.80 PMPM versus \$23.05 PMPM for the voluntary MCO program. For the ACCESS Plus program, Mercer included both the state's own administrative expenses and the fees paid to McKesson (the ACCESS Plus administrator) for administrative services.⁹⁰ For the voluntary MCO program, Mercer used the administrative expenses reported by the plans in their required reports to the state.

2. Intense Medical Case Management Staffing

Since the Intense Medical Case Management program that is operated by the state is an important component of both the ACCESS Plus program and the HealthChoices MCO program, we asked the state to provide us with a breakdown of the responsibilities of the 40 FTEs in that program. Like the similar information provided above for Community Care of North Carolina, this may help other states determine what resources they might need to develop a similar in-house care management capability.

Administrative:	One FTE manager and 3 FTE program coordinators
Clinical:	23 FTE general care managers, 10 FTE high risk maternity care managers, 2 FTE high risk neonate care managers, and one FTE physical/behavioral health care manager

In addition, the unit receives assistance from physician consultants (obstetrician and perinatologist) as needed. This state medical case management staff currently covers both the ACCESS Plus and HealthChoices programs, although this may change after the new ACCESS Plus contract(s) are awarded.

D. Indiana

The Indiana Chronic Disease Management Program (ICDMP), which was replaced in 2008 by the Care Select enhanced PCCM program, was evaluated by an outside evaluator using carefully selected comparison groups, including some limited random assignment. The evaluation found reductions in growth trends for enrollees with congestive heart failure and diabetes.⁹¹

⁸⁹ Mercer Government Human Services Consulting. "Updated Comparative Cost Study: ACCESS Plus versus Voluntary HMO." Prepared for the Commonwealth of Pennsylvania, February 8, 2007.

⁹⁰ To calculate the state's administrative costs, Mercer worked with the state to allocate the appropriate share of overall state costs for claims processing, information systems, provider contracting, pharmacy benefit management, enrollment support, and general administrative support to the ACCESS Plus program.

⁹¹ Barry P. Katz, et al. "The Indiana Chronic Disease Management Program's Impact on Medicaid Claims." *Medical Care*, Vol. 47, No. 2, February 2009, pp. 154-160.

The Indiana Care Select staff does not expect cost savings in the first two years of that program. (“This is a long-term program; we are not assuming any savings in the initial period.”) However, Indiana is required by the terms of its 1915(b) waiver to provide CMS with estimates of the cost-effectiveness of the program. These will be prepared by Milliman, the state’s outside actuary, with estimates expected in summer 2009. The estimates will include analyses of service utilization and costs, but CMS does not require estimates of administrative costs, so this will not be an ROI-type calculation.

Indiana has commissioned an evaluation of the Care Select program by Burns & Associates, an Arizona health policy consulting firm, but the evaluation is in its early stages and there are as yet no published results.

E. Arkansas

We were able to obtain only limited information on the financing of the Arkansas ConnectCare enhanced PCCM program.

1. Program Costs

The annual program costs for the ConnectCare program are not separately estimated in state or agency budget documents. Arkansas has not prepared any publicly available estimates of savings from the program.

2. Administrative Costs

As discussed in the preceding chapter, the Arkansas ConnectCare program is administered primarily by the Medicaid Managed Care Services division (MMCS) of the Arkansas Foundation for Medical Care (AFMC), the state’s EQRO. MMCS has approximately 15 staff devoted to ConnectCare, including provider representatives and data analysis staff. The Arkansas Medicaid agency has one part-time person working on ConnectCare, a physician who was previously with AFMC.

The state pays an all-inclusive fee of to AFMC for their services, including provider and beneficiary relations, provider profile information, preparation of HEDIS and CAHPS reports, Medicaid managed care educational conferences, and a variety of information and education materials, including brochures, posters, and newsletters. There is not a separate fee for ConnectCare administration. Because AFMC functions as the state’s EQRO, the Medicaid agency receives a 75 percent federal match rate for these services rather than the normal 50 percent match rate for administrative costs. MMCS provides these administrative services for other Arkansas Medicaid programs as well, including the ARKids First Children’s Health Insurance Program, and home- and community-based services waiver programs, so the fee noted above covers more than the ConnectCare program.

The state is considering separating out the administrative costs for the ConnectCare program and paying them on a per-enrollee PMPM basis in the new contract with AFMC that will be negotiated next year, but no decision on this has yet been made.

V. Lessons and Conclusions

We provide in this chapter a brief overview of key features of the five state programs, followed by lessons and conclusions derived from the experiences of these states, supplemented by perspectives obtained from reviews by CHCS and others of PCCM enhancements and related quality initiatives over the last decade.

A. Overview of Program Similarities and Differences

Each of the five enhanced PCCM programs we examined evolved differently, reflecting the context and history of each state.

- Each program uses different resources for care coordination and care management (state staff in Oklahoma and Pennsylvania; local community networks in North Carolina; outside contractors in Indiana, Oklahoma, Pennsylvania, and Arkansas; and physician practices in all states).
- All the programs support care coordination with provider payment incentives, information sharing, and performance and quality reporting.
- The focus of care coordination and the methods used vary by state, with some focusing on a limited range of diseases and conditions, and others (Oklahoma and Pennsylvania in particular) focusing more on beneficiaries with multiple conditions.
- Care coordination methods also vary. Most states work primarily with beneficiaries, but there are increasing efforts to work with PCPs in Oklahoma, Indiana, and Pennsylvania, and long-standing links with PCPs in North Carolina. Most states rely primarily on telephone rather than in-person contact, and each state uses a somewhat different mix of clinical and social services staff.
- The enhanced PCCM programs in the five states have significant limitations in their ability to reduce hospital use, since the programs have few direct ways of controlling that use, and PCPs are not financially at risk for hospital costs.
- The five states have taken varying approaches to estimating the costs and savings of enhanced PCCM programs. At least one (Oklahoma) has prepared return-on-investment projections, two (North Carolina and Pennsylvania) have commissioned retrospective savings estimates by outside actuaries, and two (Oklahoma and Indiana) have commissioned formal evaluations of their new programs.

B. Care Management and Care Coordination

Care management and care coordination are the most important enhancements to PCCM programs that states can provide. They are also the hardest enhancements to design, implement, and maintain effectively, and the most costly. If done well, however, these enhancements are likely to have the largest payoff over time in terms of lower cost growth and higher quality.

Physician offices typically do not have the resources needed to fully coordinate and manage care for Medicaid enrollees, especially those with disabilities and complex chronic conditions. Linking enrollees with the appropriate specialty care and social support services can be time-consuming and resource-intensive, and most physician offices are not staffed and organized to perform these activities. States can assist with care management and care coordination activities by providing financial, informational, and staff support directly to provider offices, either with state agency resources and staff, or by contracting with outside vendors. While the clinical, information technology, and management resources needed to perform these functions are

substantial, if done well they can substantially enhance the capabilities of providers and improve the quality of care for enrollees with costly and complex care needs. Over time, these enhancements may also lead to reductions in cost growth.

Lessons from Medicare Care Coordination Demonstrations

Medicare care coordination demonstrations suggest several lessons for enhanced PCCM programs in Medicaid, although some may be less applicable because of differences between Medicare and Medicaid populations.

Medicare care coordination programs with the following features were most successful in reducing hospital costs for beneficiaries with multiple chronic conditions who were not cognitively impaired:

- **Targeting** patients at substantial risk of hospitalization in the upcoming year;
- **In-person contact** with patients, not just by telephone;
- **Close interaction** between care coordinators and physicians;
- **Access to timely information** on hospital and ER admissions;
- **Medical education and social services to patients**, including education on self-management of care (especially medications), and social supports when needed; and
- **Staffing** that relies heavily on registered nurses, with some assistance from social workers.

Medicaid beneficiaries with chronic illnesses and disabilities who are enrolled in enhanced PCCM programs differ from the enrollees in these Medicare demonstrations in some important respects, however. Medicaid enrollees in PCCM programs are almost all under age 65, and have lower levels of education and income, much higher incidence of mental health and substance abuse problems, fewer family and community supports, and more housing problems. Enhanced Medicaid PCCM programs might find that beneficiary and caregiver education on prevention issues may be less effective than in the Medicare demonstrations, and that providers and care coordinators in these PCCM programs may require more experience with behavioral health issues.

Care coordination in the enhanced PCCM programs we reviewed have some but not all of the characteristics of the successful Medicare programs.

Oklahoma, Indiana, and Pennsylvania use predictive modeling tools to try to identify and target enrollees likely to use hospitals and other expensive services in the coming year. Oklahoma, Pennsylvania, North Carolina, and Indiana have some in-person contact with patients, but most is by telephone. Interaction of care coordinators with physicians is best in North Carolina, and more limited in other states. Timely information on hospital and ER admissions is largely lacking in all five states. All the states but Arkansas provide some medical education and social services for patients. Oklahoma and Pennsylvania rely heavily on registered nurses for care management, and nurse care managers also play significant roles in North Carolina and Indiana.

Financing care coordination enhancements with savings from hospital and ER use may be challenging for PCCM programs, since they have few direct ways of influencing hospital behavior, and must rely primarily on influencing the behavior of beneficiaries and primary care providers. Hospitals make money by treating patients, not by reducing service use. Since PCCM programs are not financially responsible for hospital costs, they have no way of compensating hospitals for the revenue they would lose by providing fewer services. PCCM programs also typically do not contract with hospitals, so they have no legal or other formal relationship that would give them a means to influence hospital behavior. The North Carolina PCCM program may have somewhat more leverage over hospitals since hospitals are part of the local community networks that coordinate care. The North Carolina program also has the greatest ability to influence primary care provider behavior through the local networks, although the other states can do so to some extent through reimbursement-related incentives and provider profiling. Oklahoma, Pennsylvania, and Indiana have systems in place or in development that can be used to influence beneficiary behavior.

Since savings from lower hospital and ER use may be limited, there is a premium on using costly care coordination resources as efficiently as possible by focusing the highest-cost efforts on high-need, high-return enrollees, with lesser-need enrollees receiving more basic services, such as nurse telephone help lines. Doing this kind of targeting in an effective way is not easy. It requires some way of identifying in advance enrollees who can benefit most from care coordination services that may help them avoid unnecessary hospital or ER use. Some states, such as Oklahoma, Pennsylvania, and Indiana, use predictive modeling software to try to identify such beneficiaries based on past service use. This service use data can be supplemented with information on current health care and social support needs obtained from individual assessment interviews or questionnaires, but that can be resource-intensive. Even with this kind of information on enrollees, there is not complete agreement on how to use it most effectively. The Mathematica assessment of care coordination in Medicare indicates that focusing on beneficiaries with substantial risk of hospitalization in the coming year is likely to be cost-effective, but that different interventions may be needed for a small number of patients with terminal illnesses. Published evaluations of the Indiana Chronic Disease Management Program suggest it may also be cost-effective to use low-cost telephone interventions to help low-risk enrollees with conditions that may be easier to manage in this less intensive way.⁹²

Care coordination programs should not focus on just one or a few diseases but should include beneficiaries with complex chronic conditions. Since most high-cost beneficiaries have more than one disease or condition, programs should treat the whole person. The Pennsylvania ACCESS Plus program has moved to broader disease categories in the new RFP to be awarded in 2009, after several years of experience with a more limited disease management program. Indiana's Care Select program also covers multiple conditions, following the state's initial experience with a chronic disease management program that covered only diabetes and CHF. Oklahoma's new Health Management Program also concentrates on a limited number of enrollees with complex high-cost conditions rather than specified diseases. The North Carolina program has also evolved from a small pilot focusing on reducing ER use for beneficiaries with asthma to a program that deals with a wide range of diseases and conditions. Washington state's Medicaid program, while not featured in this paper, has gone through a similar evolution from management of specific diseases to broader management of chronic conditions.⁹³

Adequate provider reimbursement is important to support provider participation and beneficiary access to services. While the underlying rate of Medicaid provider reimbursement provides the necessary base, P4P incentives can be used to focus limited state resources and provider attention on high-value services, if they are properly designed and implemented. Oklahoma pays Medicaid providers 100 percent of Medicare rates, something only nine other states did in 2008. The state also has historically paid SoonerCare Choice providers a high partial capitation rate (about \$24 PMPM for ABD enrollees in 2008) in order to improve provider willingness to participate. The state has now implemented a more targeted provider reimbursement system in SoonerCare Choice that focuses on extra payments for specifically measured performance and practice capabilities. The other four states we reviewed have also implemented or are developing similar targeted performance-based reimbursement systems for their enhanced PCCM programs. The Pennsylvania P4P system is the most fully developed and extensive of those we reviewed for this paper.⁹⁴ North Carolina and Arkansas also pay relatively high basic payment rates to physicians, but rates in Pennsylvania and Indiana were close to the national Medicaid average in 2008 of 72 percent of Medicare.

⁹² Ann M. Holmes, et al. "The Net Fiscal Impact Of A Chronic Disease Management Program: Indiana Medicaid." *Health Affairs*, Vol. 27, No. 3, May/June 2008, pp. 855-864.

⁹³ Center for Health Care Strategies. "Washington State Medicaid: An Evolution in Care Delivery." Center for Health Care Strategies. Case Study, December 2008. Available at: http://www.chcs.org/usr_doc/Washington_State_Case_Study.pdf. Accessed May 12, 2009.

⁹⁴ For details on the Pennsylvania P4P system, see Meredith B. Rosenthal. "Using Provider Payment Incentives to Achieve Medicaid Policy Objectives: A Review of Recent Experience and Emerging Trends." Pittsburgh, PA: Pennsylvania Medicaid Policy Center, February 2, 2009. Available at: http://www.pamedicaid.pitt.edu/documents/Payment_rp_09.pdf. Accessed April 28, 2009.

Provider profiling is a low-cost enhancement that can provide useful information to providers and may improve their performance if the system is carefully designed and implemented in consultation with them.

Basic provider profiling (ER visits, prescription drug use, primary care visits, costs per enrollee) can be done using readily available FFS claims data and off-the-shelf provider profiling software. Whether this profiling will actually have an impact on provider behavior is uncertain, however. Providers must be convinced that the information in the profiles is accurate and clinically valuable, and that comparisons to other providers are appropriately adjusted for practice and patient variations. Accuracy and comparability are especially important if the profiles are publicly available, but even non-public profiles may not receive much attention from providers if they do not believe the data are accurate, reliable, and useful.

Measuring quality and performance with HEDIS, CAHPS, and similar measures can help focus state agency and provider attention on areas for improvement and underscore the Medicaid agency's commitment to quality, but they are rarely specific enough to assist enrollees in choosing providers. P4P-related performance measures can be focused more directly on care management and care coordination activities. HEDIS and similar service utilization and process measures can be derived at relatively low cost from Medicaid FFS claims data, although some measures may require review of medical records, which is much more costly. CAHPS and similar enrollee surveys can be expensive if states want sample sizes and response rates to be high enough for the responses to be reliable at the practice level. However, measurement of the overall performance of an enhanced PCCM program can be done with smaller sample sizes and at lower cost. HEDIS and CAHPS measures can be useful in identifying general areas for improvement for both the Medicaid agency and providers, and they can provide evidence to beneficiaries, providers, legislators, and others that measuring and improving program quality is a priority for the Medicaid agency. These measures are rarely specific and detailed enough to enable enrollees to distinguish among providers in a PCCM program, however. Even when the measures are used to report the performance of large MCOs, most research shows that enrollees make only very limited use of the measures in choosing an MCO.⁹⁵

HEDIS and CAHPS are only indirect measures of the effects of care coordination, since the activities and conditions they measure may be the result of actions taken by individual providers without the involvement of care managers or care coordinators. Some of the P4P-related performance measures used in Oklahoma, Pennsylvania, and Indiana are more directly related to care coordination. Oklahoma, for example, pays higher care management/care coordination fees to provider practices that have more extensive “medical home” features. Pennsylvania pays extra amounts to providers who develop patient care plans. Indiana pays physicians \$40 per patient for participation in one-hour care coordination conferences. The P4P program in Pennsylvania is now moving toward making extra payments based on HEDIS measures.

Because HEDIS and CAHPS were designed primarily to measure the performance of capitated health plans rather than individual providers, some of the measures assume a level of information technology and management resources that individual practices may not have, or focus on plan-level rather than individual physician activities. Good performance on many of the HEDIS measures such as breast cancer screening and follow-up after hospitalization for mental illness require good patient tracking systems, while CAHPS measures of health plan performance or customer service are less relevant for PCCM programs.

The fact that HEDIS and CAHPS measures were designed to measure the performance of health plans and not PCCM programs means that comparing state PCCM program performance to national HEDIS and CAHPS benchmarks sets the bar fairly high for PCCM programs. The national benchmarks are also based largely on voluntary submissions by health plans, so the benchmarks are likely to reflect the results achieved by higher-performing plans.

⁹⁵ See, for example, Judith H. Hibbard. “What Can We Say about the Impact of Public Reporting? Inconsistent Execution Yields Variable Results.” *Annals of Internal Medicine*, Vol. 148, No. 2, January 15, 2008, pp. 160-161. See also James Verdier, et al. “Using Data Strategically in Medicaid Managed Care.” Center for Health Care Strategies, January 2002, Chapters 3 and 5. Available at: http://www.chcs.org/usr_doc/Using_Data_Strategically.pdf. Accessed May 13, 2009.

C. Measuring Costs and Savings of PCCM Enhancements

Major PCCM enhancements will not pay for themselves unless they lead to reductions in use of costly services, such as inpatient hospitalizations and ER visits. States can prepare ROI projections of potential enhancements to assess the extent to which they may produce those results, and to assess whether the potential savings could cover the projected costs of the enhancements. States can then commission retrospective evaluations to try to determine whether the projected savings have materialized, and to assess whether modifications to the program are warranted.

PCCM enhancements that may lead to reductions in hospital and ER use will generally be those that focus on enrollees with costly and complex chronic conditions that result in frequent hospitalizations and that can be effectively managed with medications and well-understood care management techniques (congestive heart failure, diabetes and asthma, for example). The Oklahoma Health Management Program provides an example of this approach. Initiatives that focus on heavy users of ERs can also result in measurable reductions in use over relatively short periods, as Oklahoma has demonstrated with its focus on ER use and persistent ER users.⁹⁶

Evaluations of Medicare care coordination demonstrations suggest that savings may be highest for beneficiaries whose predicted hospital use in the coming year is high, but that some beneficiaries with terminal illnesses may need other kinds of interventions, such as hospice care, since they may be so sick that care coordination activities will not have a major effect on hospital utilization or lengths of stay. The key to cost-effective care coordination is to find a group that is large enough and accounts for sufficient spending to have an overall impact on costs, but that is not so broad as to include people for whom there is little or no potential to reduce high-cost service use.

The care management programs in Oklahoma, Pennsylvania, and Indiana all use predictive modeling software to target enrollees for care management. Many of these software programs are relatively new, so their effectiveness in identifying enrollees for whom care management would be most cost-effective has not been fully tested and evaluated. This is an important area for future research, since effective targeting is a key element in effective care coordination programs.

Oklahoma has prepared some initial ROI projections for the Health Management Program, and has commissioned a five-year evaluation of the program. Mercer has prepared estimates of cost savings from the North Carolina program, and a comparison of the costs of the Pennsylvania ACCESS Plus program to those of a voluntary capitated managed care program. Indiana's prior chronic disease management program was extensively evaluated by an outside evaluator, and the state has commissioned an outside evaluation of the new Care Select program.

D. Implementing PCCM Enhancements

The decision on whether to provide PCCM enhancements with Medicaid agency staff or through contracts with outside vendors should be based on (1) the skills and experience of state staff; (2) the availability of qualified outside vendors; and (3) the likely sustainability of either arrangement over time. Selection and ongoing management of outside vendors can be as resource-intensive as providing the enhancements in-house, although different staff skills and experiences are needed to select and manage vendors.

⁹⁶ For details on Mathematica's analysis of ER use in Oklahoma, see Mathematica Policy Research, Inc. "SoonerCare 1115 Evaluation Final Report." Prepared for the Oklahoma Health Care Authority, January 2009, pp. 64-66. Available at: <http://okhca.org/research.aspx?id=10087&parts=7447>. Accessed July 21, 2009. This analysis was based on an examination of trends over time, not a randomized controlled trial.

PCCM enhancements that are primarily data-based, such as provider profiling or use of HEDIS and CAHPS measures, can be designed and managed by agency staff with policy and data analysis skills, or contracted out to vendors with similar skills and experience. Reimbursement-related enhancements, such as P4P systems, can also generally be designed and managed by agency staff with policy, financial, and data skills, although they may require some up-front assistance from consultants who specialize in these kinds of reimbursement systems.

Care management and care coordination is much more resource-intensive, requiring staff with clinical skills and experience, well-developed information systems to help select enrollees most in need of more intensive care and track their care over time, and skillful management to ensure that care management and coordination activities are properly focused. State hiring limits and salary levels may make it difficult to recruit and retain people with these skills. If the care management and coordination function is contracted to outside vendors, the agency must have staff and managers with the skills and experience needed to select qualified vendors and oversee and manage their performance over time.

When assessing agency staff and management capabilities, program designers should also take into account the ability of the state agency to recruit and retain people with the needed skills, and the likelihood that qualified outside vendors will continue to be available over time. In making these sustainability assessments, program designers should also take into account the external environment in which the program will be operating, including continuing support (or lack thereof) from the governor, legislature, providers, beneficiaries, and advocates.

E. MCOs or Enhanced PCCMs?

Enhanced PCCM programs may equal or exceed capitated MCO programs on measures of access, cost, and quality, but only if states devote substantial resources to designing, implementing, managing, and funding the enhancements. The Oklahoma SoonerCare Choice program has a track record of improving access in rural areas, performing well on HEDIS and CAHPS measures, and controlling unnecessary use of hospitals and ERs. OHCA has devoted substantial resources to achieving this record, however, including a sizable staff of state-employed nurse care managers, significant financial incentives for providers, enrollee education on proper ER use, highly visible reporting of performance and quality measures, and a new Health Management Program to deal with high-cost, high-need beneficiaries. North Carolina and Pennsylvania have also devoted substantial resources to their enhanced PCCM program. Arkansas has devoted fewer overall resources to their ConnectCare PCCM program, but its use of the EQRO to administer the program is a model that other states may want to consider as a cost-effective way of implementing some basic PCCM enhancements. In any event, states should not assume that PCCM programs can match the performance of the most effective MCO programs without the investment of significant state administrative resources.

The choice between capitated MCO and enhanced PCCM managed care models must be state-specific, based on the availability and stability of qualified Medicaid MCOs, the ability of state agencies to provide PCCM enhancements and/or monitor MCO and PCCM vendors, and the suitability and acceptability of the MCO and PCCM models in the broader state context, taking into account the perspectives of providers, beneficiaries, and political leaders. MCOs whose major experience is with mothers and children in Medicaid or with commercial populations may not have the skills and experience needed to serve the Medicaid ABD population.

The Oklahoma experience illustrates a significant range of options, starting in the mid-1990s with an enhanced PCCM program in rural areas and fully capitated MCOs in urban areas, moving in 2004 to a statewide PCCM program, and adding a significant contracted-out health management program in 2008. The managed care programs in Arkansas and North Carolina are PCCM-only programs, while Indiana and Pennsylvania operate both enhanced PCCM programs and fully capitated MCO programs. In Indiana the enhanced PCCM program focuses primarily on enrollees with disabilities and chronic conditions, while the

MCO program focuses primarily on mothers and children. In Pennsylvania, both the enhanced PCCM and MCO programs include almost all Medicaid enrollees, but the PCCM program operates mainly in rural areas and the MCO program mainly in urban areas.

Among the five states we reviewed, Oklahoma relies least on outside entities for its PCCM enhancements, although the new Health Management Program is being operated by an outside vendor, and OHCA contractors assist with several aspects of the SoonerCare Choice program. Arkansas and Indiana rely on outside entities to operate their PCCM and care management programs, while North Carolina relies on local provider networks. The RFP for the new ACCESS Plus program in Pennsylvania suggests that the state is looking for vendors that will provide all the care management services that a capitated MCO would provide, with a substantial portion of the state's payments to the vendors for those services on a risk basis, but not the entire payment.

The Oklahoma experience also illustrates the strategic and negotiating value for states of having a viable PCCM alternative to a fully capitated MCO program. Since the Medicaid MCO marketplace is becoming increasingly dominated by multi-state publicly held MCOs that may not have strong and reliable commitments to particular states, states may want to protect their future managed care options by having enhanced PCCM programs that can replace departing or low-performing MCOs. States with both PCCM and MCO programs can also compare performance between the two programs as a way of providing incentives for improved performance in both programs.

F. Concluding Thoughts

Many states do not have the option of capitated MCOs for ABD/SSI beneficiaries. MCOs may not have the needed capabilities, or may not be interested. Opposition from providers or beneficiary advocates may be too strong. The limited availability of hospitals and physicians in rural areas may make it difficult for MCOs to build networks.

Enhanced PCCM programs may be as good for ABD/SSI beneficiaries (and taxpayers) as good capitated MCOs, but only if they do most of the things that good MCOs do, including care coordination, preventive care, and utilization management. Some states have the resources to perform MCO-like functions with state staff (Oklahoma and Pennsylvania), local community networks (North Carolina), or outside contractors (Oklahoma, Pennsylvania, Indiana, and Arkansas).

Even in states with strong Medicaid MCO programs, enhanced PCCM programs can provide competition for MCOs, options for beneficiaries, and bargaining leverage for states.