Purchase Order No.: 8079000868
MPR Reference No.: 6492-005

MATHEMATICA
Policy Research, Inc.

SoonerCare 1115 Waiver Evaluation: Final Report

January 2009

James Verdier, JD
Margaret Colby, MPP
Debra Lipson, MHSA
Samuel Simon, PhD
Christal Stone, MPH
Thomas Bell, MBA
Vivian Byrd, MPP
Mindy Lipson
Victoria Pérez

Submitted to:

Oklahoma Health Care Authority
4545 N. Lincoln Blvd., Suite 124
Oklahoma City, OK 73105

Project Officer:
Beth Van Horn

Submitted by:

Mathematica Policy Research, Inc.
600 Maryland Ave. S.W., Suite 550
Washington, DC 20024-2512
Telephone: (202) 484-9220
Facsimile: (202) 863-1763

Project Director:
Jim Verdier

CONTENTS

CONTENTS *(continued)*

Chapter **Page**

CONTENTS *(continued)*

Chapter **Page**

TABLES

TABLES *(continued)*

Table **Page**

TABLES *(continued)*

FIGURES

FIGURES *(continued)*

Figure **Page**

FINAL EVALUATION SUMMARY

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 enrollees. During the subsequent 15 years, OHCA substantially modified the Medicaid program, called SoonerCare, through a Section 1115 waiver that uses managed care approaches to serve most non-elderly enrollees. Through the waiver, OHCA first implemented fully capitated services in urban areas (SoonerCare Plus) and then a partially capitated primary care case management (PCCM) program (SoonerCare Choice) in rural areas, before extending SoonerCare Choice throughout the state in 2004.[1] Over time the agency has assumed more direct responsibility for providing managed care services through SoonerCare Choice and other programs, and has begun extending coverage to groups with somewhat higher incomes who had previously not been eligible for the SoonerCare waiver programs.

As SoonerCare has grown and evolved, so has its impact on health care in Oklahoma. By October 2008, just over 610,000 individuals, representing 17 percent of the total population of Oklahoma, were enrolled in SoonerCare. About 65 percent of them were members of the SoonerCare Choice program. Moreover, OHCA programs now consume roughly 11 percent of the state's budget, an amount exceeded only by expenditures on education. State and federal Medicaid expenditures in fiscal year 2007 were estimated to have supported 111,500 direct and indirect jobs within Oklahoma's health care industry and to have provided $3 billion in income.

MATHEMATICA'S APPROACH TO THE EVALUATION

In order to broaden understanding about SoonerCare's role as a health insurance provider and economic force in Oklahoma, and to glean lessons for the future, OHCA contracted with Mathematica Policy Research, Inc. (MPR) to conduct a comprehensive evaluation of the SoonerCare 1115 waiver program. This report summarizes the results of that evaluation, which examined the waiver program from its inception in 1993 through its most recent activities in 2008. We applied a variety of analytic techniques to assess the impact of key policy and implementation decisions on enrollment trends, member access to care, provider participation, the health of enrolled members, and the financial costs to Oklahoma. The evaluation presents Oklahoma's Medicaid managed care experience within the context of national trends in Medicaid and health policy, sets out recommendations that can inform future SoonerCare

[1] Throughout this report the terms "SoonerCare Choice," "SoonerCare Plus," "SoonerCare waiver," and "SoonerCare managed care waiver" are used to refer to the managed care waiver that is the subject of our evaluation. When used alone, the term "SoonerCare" refers to Oklahoma Medicaid as a whole, including enrollees and programs that are not part of the managed care waiver. 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 [FFS] payment).

managed care initiatives, and identifies lessons that other states may draw upon when developing and modifying their own Medicaid programs.

To gather qualitative information for this evaluation we interviewed nearly 60 key stakeholders, including state officials, OHCA staff, OHCA contractors, physicians and other providers, managed care organizations (MCOs), enrollee advocates, and legislators during two visits to Oklahoma in May and June 2008, and in telephone interviews during August and September 2008. In addition, we conducted an extensive review of documents on Oklahoma's program history and structure, and reviewed the economic, health care market, and policy contexts in which the SoonerCare managed care waiver program developed, drawing on state budget documents and legislative records as well as nationally available data sources. To measure the effects of the SoonerCare managed care waiver, we used multiple state and national data sources to construct new measures of program performance and to examine trends over time using measures that OHCA routinely tracks.

OVERVIEW OF OKLAHOMA'S MEDICAID MANAGED CARE EXPERIENCE

In the early 1990s, as Oklahoma developed the SoonerCare managed care program, many other state Medicaid programs were implementing managed care initiatives. They ranged from PCCM programs, in which the state contracts directly with physicians to provide and coordinate a limited set of primary care services, to full-risk capitated programs operated under state contract by private MCOs, which cover a full range of primary and acute care services.[2] These managed care programs were aimed at stabilizing and containing costs and improving access to care. Several states combined managed care initiatives with efforts to expand Medicaid eligibility, anticipating that coverage expansions could be financed with managed care savings. Oklahoma's initial managed care initiatives did not include expanded coverage, although some expansions were implemented in later years.

Origin and Early Years of the SoonerCare Waiver: 1992 to 1996

Growth in Medicaid Costs. The SoonerCare waiver's development was initially motivated by the state legislature's interest in controlling 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.

Authorizing Legislation. Recommendations from the study 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

[2] The term "full-risk" capitation is used to describe the typical MCO contracting arrangement in which the state makes an upfront per-member per-month (PMPM) payment to the MCO to cover all services that enrollees are predicted to need. The MCO is responsible for paying for all needed services out of this capitation payment, even if actual service costs exceed the upfront payment. If costs for an enrollee are less than the capitated payment, the MCO can use the remaining amount to cover higher-than-expected costs for other enrollees, or add it to its profits.

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.

Oklahoma Health Care Authority. At the time OHCA was established by statute in 1993, only three other states (Arizona, Alabama, and Mississippi) had stand-alone Medicaid agencies, and there are still only seven states that take this approach rather than making Medicaid part of larger human services, welfare, or public health agencies. OHCA also has its own governing board, made up of citizens appointed by the governor and the legislature. While such appointed governing boards are common in Oklahoma, only one other state (Kansas) has an external governing board for its Medicaid agency.

SoonerCare Plus and Choice. While many in the legislature hoped Oklahoma would establish a fully capitated statewide Medicaid managed care program, OHCA ultimately determined that full capitation would not be feasible outside of the state's three urban areas (Oklahoma City, Tulsa, and Lawton). There was little experience with managed care in rural areas, and few MCOs seemed willing and able to serve the Medicaid population in those areas. OHCA therefore developed a fully capitated MCO model called SoonerCare Plus to 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, OHCA developed a partially capitated PCCM program called SoonerCare Choice that was launched in October 1996. The partial capitation feature was unique to Oklahoma. Participating physicians were paid about 10 percent of enrollees' total predicted costs upfront and, in turn, were responsible for providing a specified package of office-based primary care services, with all other needed services 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, and all physician and other services were paid for by the state on a FFS basis.

Development and Expansion of Managed Care: 1997 to 2003

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, but three of the initial five MCOs dropped out between 1996 and 2000. Although OHCA was able to find replacements, SoonerCare Plus remained vulnerable to turnover and potential departure of MCOs.

SoonerCare Choice Implementation. The SoonerCare Choice program in rural areas was implemented smoothly, even though attracting enough physicians to provide enrollees 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 (NPs) or physician assistants (PAs) as providers.

Medicaid Eligibility Expansion. By 1997, there was enough evidence of savings from managed care to take steps toward expanding Medicaid eligibility. With the overall state budget in good condition, and with the potential for additional federal funding from the State Children's

Health Insurance Program (SCHIP) then being considered in Congress, the legislature approved an increase in the maximum income limit for pregnant women and children from 150 percent to 185 percent of the federal poverty level (FPL). OHCA also took several administrative actions in 1997 and 1998 that facilitated expanded coverage.

Enrollment of the ABD Population in 1999. In 1999, OHCA began enrolling 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 the complex care needs of this population warranted additional time to lay the groundwork. Transitioning the ABD population into SoonerCare went smoothly in 1999-2000, but the costs of caring for this group were higher than expected, producing financial pressure on many MCOs, who argued that the capitated payments they were receiving from OHCA were not high enough to cover their costs.

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 increased Medicaid enrollment. OHCA made cuts in Medicaid services and enrollment in response to these pressures. At the same time, the SoonerCare Plus MCOs continued to press for higher capitated payments to meet the growing costs of serving the ABD and other populations.

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.[3] In October 2003, OHCA published its first full report on performance and quality in the SoonerCare managed care 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.

End of SoonerCare Plus. One additional MCO dropped out of SoonerCare Plus in 2002-2003, leaving only two 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 a 13.6 percent hike, which two of the three remaining MCOs accepted. One MCO that operated in all three areas held out for 18 percent, believing its bargaining position was quite strong, since if it dropped out the SoonerCare Plus program would no longer meet the usual federal requirements.

During the negotiations, OHCA developed an analysis that indicated OHCA could operate the Choice program in the three urban areas at approximately one-quarter of 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

[3] 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 the national Health Plan Employer Data and Information Set (HEDIS), now called the Healthcare Effectiveness Data and Information Set.

to replace it with the Choice program in all three urban areas. OHCA immediately began to transition all enrollees and their providers from the Plus to the Choice program and completed that effort in April 2004.

Enhancing the PCCM Model and Expanding Coverage: 2004 to 2007

Nurse Care Management. The legislature authorized a transfer of $10 million from program to administrative funds 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 the additional resources, OHCA hired 32 nurses and 2 social services coordinators, most of whom had served as exceptional needs coordinators with the SoonerCare Plus MCOs. These nurse care managers are now performing many of the care management and coordination functions that the MCOs previously performed in the urban areas, and have also extended their reach into rural areas.

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

Movement Toward a "Medical Home" Model. OHCA is also developing a "medical home" model for SoonerCare Choice that moves away from the partial capitation reimbursement approach toward one that relies on FFS reimbursement for office-based services, supplemented by care coordination payments that vary with the services offered in the practice and patient characteristics, and performance-based payments for specific preventive services and quality-related activities.

Expanded Coverage for Adults Through "Insure Oklahoma." In response to a 2004 legislative directive, OHCA, in partnership with the Oklahoma Insurance Department, established "Insure Oklahoma," which helps small employers provide health insurance coverage for employees with incomes up to 200 percent of FPL. The employer-sponsored insurance component went into effect in late 2005, and an individual plan, focused on individuals with incomes up to 200 percent of FPL who do not have access to employer coverage, went into effect in early 2007.

All Kids Act. In early 2007, the legislature authorized coverage of children in families with incomes up to 300 percent of FPL. However, the federal government announced in August 2007 that Medicaid state plans and waiver programs that covered children in families with incomes that high would not be approved. Accordingly, Oklahoma submitted a request for approval of expansion of coverage up to 250 percent of FPL. That request has not yet been approved.

MAJOR FINDINGS

Our major evaluation findings are organized into three main categories: (1) SoonerCare's impact on access to health care for lower-income Oklahomans, (2) measures of the quality of that

care, and (3) the cost of the program to Oklahoma's taxpayers. Finally, we look at how OHCA as an agency has shaped and managed the program over the last 13 years.

Access

SoonerCare has contributed to improvements in access to care for low-income Oklahomans from 1995 through 2008. Nonetheless, some aspects of access still lag behind national averages or could be significantly improved. To assess the SoonerCare program's impact on access, we looked in particular at health insurance coverage; physician participation, emergency room visits, and preventable hospitalizations in SoonerCare managed care; and primary care utilization among lower-income Oklahomans, many of whom are enrolled in or eligible for SoonerCare.

Health Insurance Coverage

SoonerCare has improved coverage for children. From 1997 to 2007, Oklahoma experienced a doubling in SoonerCare enrollment, and 90 percent of that was attributable to children. Oklahoma increased the estimated Medicaid participation rate among eligible children (in families earning up to 185 percent of FPL) from 55 percent on average in 2000 to 77 percent on average in 2006, a boost of 38 percent. Expanded Medicaid enrollment among children has reduced the uninsured rate among those in families earning up to twice the federal poverty level from 29 percent in 1995-1996 to 13 percent in 2006-2007, below the national average of 18 percent.

SoonerCare has made coverage more affordable for some low-income uninsured adults. With the launch of Insure Oklahoma in 2005, some low-income uninsured adults can receive subsidies to help them afford insurance premiums. After a slow start, enrollment has grown from 1,394 at the end of 2006 to 15,907 as of December 2008. The maximum income level for individuals eligible to receive premium subsidies rose from 185 percent to 200 percent of FPL in November 2007. Businesses with up to 50 workers are eligible to enroll in Insure Oklahoma's employer-sponsored insurance program, up from 25 workers at the program's inception.

Gaps remain that SoonerCare must address. Despite the accomplishments, estimated Medicaid participation rates are less than two-thirds for adolescents, very poor parents with dependent children, disabled adults, and the elderly. In addition, the uninsured rate in 2006-2007 among non-elderly adults up to twice the federal poverty level (37 percent) has stayed about the same over the last 10 years, since Oklahoma has done little (until Insure Oklahoma) to offset the declining rate of private insurance among this group. Further progress in reducing the uninsured rate in Oklahoma depends on obtaining federal approval to implement coverage expansions enacted by the Oklahoma legislature in 2006 and 2007.

Low Medicaid income eligibility levels for parents can create large differences in coverage rates relative to their children. Oklahoma's income eligibility standards for parents with dependent children are relatively low compared to those for children, and have not been adjusted for over a dozen years. In addition, fewer parents who are eligible are enrolling. This suggests that OHCA, in concert with the Department of Human Services, could improve efforts

to inform very poor parents that they, as well as their children, can qualify for Medicaid even if they do not receive public assistance. Oklahoma's effort to expand the Insure Oklahoma program to allow more individuals and businesses to receive subsidies that would enable them to afford insurance premiums would also increase coverage for adult parents.

Physician Participation

The total number of primary care provider (PCP) contracts has grown substantially since 1997, but the mix of contracts has changed, in part as a result of recent administrative changes that facilitate enrollment of practice groups as PCPs. From 1997 to 2007, the number of contracts for providers serving as SoonerCare PCPs increased from 414 to 595, a nearly 44 percent increase. The mix of PCP contracts has changed somewhat in recent years, following OHCA's decision in 2004 to allow groups to enroll as PCPs rather than requiring individual contracts with each provider within the group. In 2004, 61 percent of urban members were assigned to an individual MD, DO, NP, or PA. By 2007, about 34 percent of members were assigned to individual PCPs, and the remainder were assigned to multi-provider groups or clinics, which may result in improved access if members can seek treatment from any available group member. Similar trends were observed among rural members; about half of them were assigned to individual PCPs in 2007, down from 81 percent in 2004.

From 2004 to 2006, the total number of contracted specialists and MDs working as PCPs with SoonerCare Choice has increased by 14 percent. The number of contracted MDs grew from 4,287 in 2004 to 4,870 by 2006. Of these gains, new enrollment among PCPs accounted for one-quarter of the increase and new enrollment among specialists accounted for the remainder. By 2006 about 90 percent of all MDs in Oklahoma had contracts with the SoonerCare Choice program to deliver services to members, although not all of them serve as PCPs.

Approximately 37 percent of physicians specializing in general/family medicine, pediatrics, and obstetrics/gynecology participate as SoonerCare Choice PCPs, with particularly high participation rates in rural areas. In 2006, 24 percent of general/family medicine practitioners and 48 percent of pediatricians statewide participated in SoonerCare Choice as PCPs. In urban areas, the participation rate for both groups was just above 30 percent, while in rural areas about 60 percent of these physicians participated, including nearly all pediatricians.

The typical SoonerCare Choice PCP in 2007 provided 84 to 90 percent more visits to assigned members than the typical SoonerCare PCP in 1997. In rural areas, the median number of annual visits (encounters) per member for adults assigned to SoonerCare Choice PCPs rose from 0.82 in 1997 to 1.56 in 2007, an increase of 90 percent. The increase in visits for children rose from 0.67 per member in 1997 to 1.23 in 2007, an increase of 84 percent. Visit trends in urban areas showed similar increases, although the data in those areas may be less reliable because so many members were enrolled in fully capitated MCOs during the Plus period.

Emergency Room Visits

SoonerCare Choice members' emergency room (ER) utilization decreased between 2004 and 2007—a time when ER use among Medicaid enrollees in the rest of the country was increasing. There were 76 ER visits for every 1,000 months in which beneficiaries were enrolled in SoonerCare Choice in 2007, down from 80 in 2004. Nationally, by contrast, ER visits by Medicaid enrollees rose from 80 visits for every 100 enrollees in 2004 to 87 visits in 2006.[4]

Overall, care for SoonerCare Choice clients has shifted from emergency rooms to physician office visits. In 2003, SoonerCare Choice enrolles had 1.2 ER visits for every physician office visit. By 2007, the ratio was 0.74 ER visits for every physician office visit, a decline of 38 percent.

The SoonerCare Choice focus on high ER users appears to be effective. In 2003, the patients of the top 5 percent of providers, in terms of ER utilization relative to office visits, had 2.85 ER visits for every office visit. By 2007, the patients of the highest 5 percent of providers had 1.26 ER visits for every office visit, a reduction of more than 55 percent. In addition to actions that physicians may have taken on their own or with OHCA assistance, OHCA's efforts to provide education on appropriate ER use and self-management strategies to people who were unusually high and persistent ER users, which began in 2006, probably also had an impact.

Preventable Hospitalizations

The overall rate of preventable hospitalizations declined smong SoonerCare sdults from 2003 to 2006; trends for children were mixed. The overall rate of preventable hospitalizations among SoonerCare enrollees declined by 24 percent among urban adults and 15 percent among rural adults from 2003 to 2006. While most trends in preventable hospitalizations among children enrolled in SoonerCare were not statistically significant, there was a significant increase in gastroenteritis-related admissions in urban areas and a decrease in asthma-related admissions in rural areas.

The SoonerCare Choice program has performed as effectively as the SoonerCare Plus MCOs in managing most types of preventable hospitalizations, but trends in urban areas for some chronic conditions indicate opportunities for improved disease management. The Choice program may have performed less effectively than the Plus program in managing diabetes-related hospitalizations among urban adults and asthma-related admissions among urban children. This pattern could also indicate that the Choice program has more aggressively implemented disease management initiatives for diabetes and asthma in rural areas than in urban areas.

Rates of preventable hospitalizations varied by age and geographic location. In 2006 roughly 3,600 preventable hospitalizations occurred among SoonerCare Choice enrollees;

[4] OHCA calculates the SoonerCare ER visit rate in a somewhat more precise way (visits per 1,000 enrollee months) than it is reported in national data (annual visits per enrollee, unadjusted for months of enrollment), but it is the relative trends that are important, not the method of calculation.

children accounted for 42 percent of these hospitalizations and rural enrollees accounted for 46 percent. Rates of preventable hospitalizations were generally lower among urban adults relative to rural adults, but were higher among urban children relative to rural children.

Reducing preventable hospitalizations would lower SoonerCare expenditures. We estimate that SoonerCare Choice could save at least $8 million a year by cutting its rate of preventable hospitalizations in half. Actual savings could be much higher, given the strong link between preventable hospitalizations and emergency room utilization. About 68 percent of OHCA's preventable hospitalizations were preceded by an ER visit.

Primary Care Utilization Among Low-Income Oklahomans

Reported access to providers declined between 1995 and 2007 for low-income adults with children, who may or may not have been covered by SoonerCare. From 2001 to 2007 the percentage of low-income adults with children reporting that they had a personal doctor or health care provider decreased from 70 percent to 56 percent. At the same time, an increasing percentage reported that during the past year they had needed to see a doctor but did not because of cost.

Low-income adults with children reported fewer checkups between 2000 and 2007. Among low-income adults residing in households with children, the percentage who had received a checkup with a doctor within the past year declined by 28 percent from 2000 to 2007. Having health care coverage and having a primary care provider were strong predictors of routine checkup utilization. In 2007 low-income adults who had some form of health care coverage but no primary care provider were about as likely as adults who had a primary care provider but no health care coverage to have received a checkup within the past two years. Encouraging new SoonerCare enrollees to access preventive care services, such as routine checkups, within the first few months of enrollment may ultimately improve member outcomes, given the low level of contact most will have had previously with the health care system.

Linking enrollees to primary care providers is likely to be an ongoing challenge for SoonerCare. About half of respondents reported in 2007 that they had a personal health care provider. While only some of these low-income adults are currently enrolled in SoonerCare, this finding underscores the importance of enrolling as many providers as possible in the program to encourage the maintenance of existing "medical home" relationships and to improve continuity of care upon enrollment in the SoonerCare program.

Quality

OHCA has made a concerted effort to measure and report quality in the SoonerCare managed care program, using a combination of HEDIS, CAHPS, and ECHO to measure utilization of key services and enrollee satisfaction.[5] OHCA's use of these measures since 2001

[5] The Experience of Care and Health Outcomes (ECHO) survey is designed to collect consumers' ratings of their behavioral health treatment.

in its SoonerCare Choice program is especially noteworthy, since until recently only a few states with PCCM programs have done so. Key quality-related trends in SoonerCare Choice are summarized below, with comparisons to national benchmarks when available.

Process of Care Measures: HEDIS

Quality of care trends show improvement between 2001 and 2007 for SoonerCare Choice members. Among the 19 HEDIS measures tracked by OHCA, all showed some level of improvement over time. The average percentage improvement for the 8 measures tracked between 2001 and 2007 was 18.6 percent while the average improvement for the 10 measures tracked between 2003 and 2007 was 36.7 percent.

Quality of care is comparable to or better than national Medicaid averages for several of the measures. Of the 19 measures reported, 5 consistently met or exceeded national Medicaid benchmarks between 2001 and 2006, while the others fell below. Since the HEDIS Medicaid benchmarks include few if any PCCM programs, and since the MCOs that are included are likely to be relatively high-performing (since reporting is voluntary), the SoonerCare Choice performance on these measures is respectable.

Member Satisfaction: CAHPS and ECHO

In CAHPS surveys administered to SoonerCare Choice adults and children between 2003 and 2007, satisfaction levels were consistently high for measures most relevant to PCCM programs. Three-fourths or more of respondents gave high rankings to their overall health care and their personal health care providers, and said they were generally able to get the care they needed, and get it promptly.

SoonerCare Choice satisfaction ratings were below 2005 and 2006 CAHPS national Medicaid benchmarks, but by small margins. Since the AHRQ National CAHPS Benchmarking Database for Medicaid is made up almost entirely of MCOs that submit their results voluntarily, it is encouraging that the SoonerCare Choice ratings were reasonably close to the national benchmark on measures that a PCCM program can be expected to impact.

Satisfaction with SoonerCare behavioral health care has been consistently high in recent years. Adults were surveyed in 2004 and 2006 and approximately 7 of 10 respondents reported no problem seeing providers quickly and more than 8 out of 10 reported providers usually or always communicated well. There are no national benchmarks for the ECHO survey.

Cost

Medicaid costs per member in Oklahoma were substantially below the national average between 1996 and 2005. Among children and non-disabled adults, who account for approximately three-quarters of the enrollment in SoonerCare and in managed care programs in most other states, annual per-member costs in Oklahoma have been significantly below the national average every year between 1996 and 2005. Oklahoma's per-member expenditures for

those in the disabled eligibility category were also below the national average throughout the period, although by a smaller percentage than in the children and adult categories.

Medicaid accounted for a smaller share of total state expenditures in Oklahoma between 1996 and 2005 than the national average and 19 comparison states. Medicaid has accounted for a substantially smaller share of total state expenditures in Oklahoma than the national average from 1995 to 2006, and a smaller share than in any of the 19 comparison states we examined. Medicaid represented 6.5 percent of state expenditures in Oklahoma in 1995, rising to nearly 10 percent in 2006. During that same period, the national average remained relatively stable, with Medicaid expenditures rising from around 12.5 percent of total state expenditures in 1995 to nearly 14 percent in 2006.

OHCA Role and Performance

OHCA is unusual among state Medicaid agencies in several respects: its status as a separate, stand-alone agency; the continuity of its top leadership and key staff; its ability to maintain its own personnel and salary system; its governance by a separate appointed board; and its ability over time to obtain resources and flexibility from the legislature and governor. In combination, these factors have helped OHCA to construct a Medicaid managed care program that fits Oklahoma well and adapts as needs and circumstances change and as opportunities arise. OHCA has made modest efforts to expand health insurance coverage to children and lower-income workers, within the constraints of the state's political and fiscal circumstances. Recent coverage expansions have begun to increase the availability of employer-sponsored coverage, albeit to a limited extent.

Some of OHCA's most notable accomplishments include:

- ***SoonerCare Choice Design and Implementation.*** OHCA designed and implemented a PCCM program that increased physician participation and member access in rural areas, and that provided a solid managed care alternative in urban areas when the MCO program became too difficult to maintain in 2003.
- ***Smooth Transitions to New Programs.*** OHCA has invested substantial resources in making transitions to new programs and new forms of care as smooth as possible for beneficiaries and providers, including the initial transition to managed care in 1995-1996, the inclusion of the ABD population in managed care in 1999, the transition from the MCO to the PCCM program in urban areas in 2003-2004, and implementation of the Insure Oklahoma program in 2005-2006.
- ***Managed Care Enhancements in SoonerCare Choice.*** OHCA has continued to add care coordination and disease management capabilities to the SoonerCare Choice PCCM program through an in-house team of nurse care managers, the new HMP, and plans for improved performance incentives for providers in the new "medical home" model in SoonerCare Choice.

- ***Innovation and Strategic Planning.*** OHCA's leadership has built an agency culture that values careful innovation, and that is bolstered by a systematic and broadly inclusive strategic planning process.

- ***Information Technology Enhancements.*** OHCA has built and continually improved information technology capabilities that facilitate provider payment and data analysis and reporting, using a well-coordinated combination of skilled and experienced in-house staff and on-site outside contractors.

- ***Quality and Performance Monitoring and Reporting.*** OHCA has developed a strong emphasis on quality, performance monitoring, and reporting in SoonerCare and other programs, using both in-house staff and on-site outside contractors.

- ***Public Reporting and Accountability.*** OHCA has undergirded all its efforts with a commitment to public reporting and accountability, with publications ranging from detailed annual reports to short "Fast Facts" summaries of key program issues.

We also found some areas where OHCA could improve:

- ***Better Coordination of Care Coordination Initiatives.*** OHCA does not appear to have fully worked through the ways in which SoonerCare Choice nurse care managers will relate to the new HMP. Since the potential exists for overlap in the clients served through these two efforts, and since HMP is operated by an outside contractor, coordination will likely present challenges. OHCA has begun to address some of these coordination issues. In addition, the still-developing "medical home" model for SoonerCare Choice will likely have care coordination features that will have to be integrated into what currently exists.

- ***Better Coordination with Other State Agencies, Especially at the Staff Level.*** While OHCA collaborates effectively with a wide range of other state agencies, and while the relationships among agency heads appear very strong, we picked up some indications in our interviews that relationships with some agencies may not be as strong below the leadership level. Responsibility for home-and-community-based services (HCBS) waiver programs is shared between OHCA and the Department of Human Services, for example, so differences in perspectives and priorities can sometimes lead to tensions between the two agencies. Since some participants in HCBS waiver programs may also be served by OHCA's nurse care managers, greater attention to the linkages between HCBS waivers and the SoonerCare Choice program may be warranted. We also saw evidence that the Oklahoma Insurance Department perspective on the Insure Oklahoma program sometimes differs from that of OHCA, so continued efforts to improve communication and collaboration between the two agencies would likely benefit that program.

- ***Even More Communication, Especially with the Legislature.*** Despite OHCA's extensive public reporting on its activities, our interviews suggested that awareness of OHCA activities and programs in the legislature and among other key constituencies

is not widespread. Given the frequent turnover in Oklahoma's term-limited legislature, ongoing education programs should remain a priority.

- ***Leadership Transition Planning.*** Interviews made it clear that OHCA's success over the years can be attributed in large part to the skill, experience, and stability of the agency's leadership and top managers. OHCA leadership has built and enhanced the agency's institutional capabilities, so there will be strong organizational support for any new set of leaders that the future brings. Nonetheless, leadership transitions always present internal and external challenges to organizations, so any public agency should prepare for those challenges as part of its strategic planning agenda.

LESSONS AND IMPLICATIONS FOR OTHER STATES

We present here the key lessons that Oklahoma's experience illustrates for other states in terms of program design and management, agency management, and stakeholder relationships.

Program Design and Management

Contracting With MCOs Versus In-House Care Management

With sufficient resources and leadership commitment, state Medicaid agencies can manage care at lower costs than MCOs and with similar outcomes. Annual per-member costs in Oklahoma have been significantly below the national average for every year between 1996 and 2005, and in most cases below the average of states operating MCOs. Given the cost trajectory of Oklahoma's MCO contracts, and the limited competition that existed between companies at the time that the Plus program was terminated, it seems likely that SoonerCare would have been more costly to operate during the past four years had those contracts been maintained. Evidence from this evaluation suggests that provider participation and member outcomes have not been adversely affected as a result of the statewide expansion of SoonerCare Choice and termination of the MCO contracts, though we did find some evidence that preventable hospitalizations for diabetes and asthma may have increased. In states such as Oklahoma, where managed care penetration is low and turnover among MCOs is relatively high, MCOs' key advantage − utilizing resources more flexibly – may have limited effectiveness in achieving better outcomes. The growing concentration of Medicaid managed care interest and capabilities in a relatively small number of multi-state private MCOs has prompted many states to look at state-managed PCCM, care management, and disease management programs as potential alternatives. Oklahoma has demonstrated that such programs have the potential to produce results that are as good as those produced by private MCOs, and perhaps better, if state Medicaid agencies have the necessary resources and a commitment to truly manage care.

General Program Design

Models from other states can be important guides, but they must be adapted to the context of individual states. Oklahoma made extensive use of outside consultants and site visits to other states when developing the initial SoonerCare program from 1992 to 1994. It then

incorporated an innovative partial capitation feature in its PCCM program to encourage participation from rural physicians who had previously been reluctant to see Medicaid patients. It also set up a separate stand-alone Medicaid agency that had few counterparts in other states to help give a higher priority and greater focus to health care policy and Medicaid managed care. Other states would benefit from using an equally careful approach in borrowing and adapting successful features of other programs to their own specific context.

Wide consultation with external stakeholders on program design can pay major dividends. Oklahoma initially planned to include the ABD population in SoonerCare on a mandatory basis in 1997, a step few other states were taking at the time, but extensive consultation with disability advocacy groups, MCOs, and providers persuaded OHCA to delay implementation until 1999, when OHCA was able to phase in mandatory enrollment with little controversy or difficulty. An evaluation of the early years of SoonerCare implementation concluded that it went much more smoothly than similar managed care implementations in other states during that period, due in part to OHCA's extensive efforts to reach out to MCOs, providers, and enrollee advocates.

Ongoing Performance Measurement

Robust performance measurement capabilities, like those developed by OHCA, provide reliable data to support key management decisions. OHCA has made a strong commitment to measuring program performance. Though most states now use HEDIS and CAHPS measures to monitor MCOs' performance, and many states have begun using the measures within their PCCM programs, OHCA demonstrated an early commitment to tracking these measures. OHCA began administering CAHPS surveys in 1997, and first reported HEDIS measures in 2001. The availability of comparable quality and consumer satisfaction data, which showed strong performance in the Choice program, played a key role in supporting the difficult decision to terminate the Plus program in 2003. Since then, OHCA has continued an innovative approach to performance measurement, seeking new ways to examine data in a way that illuminates program management and implementation. Other states would benefit from Oklahoma's approach to reviewing their own performance as critically as they measure the performance of contracted MCOs.

Where data availability limits agency performance measurement capabilities, states should explore partnerships with other agencies that collect data on Medicaid populations. We built upon OHCA's existing partnership with the Oklahoma State Department of Health, combining data on inpatient hospitalizations and Medicaid enrollment in order to assess the performance of SoonerCare Plus MCOs in managing preventable hospitalizations. Data that Oklahoma received from SoonerCare Plus MCOs on patient encounters and hospitalizations were not consistently reliable, making it difficult to assess the performance of the Plus program. Many states have similar concerns about data completeness from their MCOs, and could follow the approach used in this evaluation by collaborating with the organizations in their state that collect and maintain inpatient discharge records.

States should develop measures that provide perspective on both performance improvement and performance constraints. State-specific measures that provide perspective

on performance constraints may be as valuable as those that measure program performance relative to an external benchmark, but few states have focused on such measures. For example, we found that although provider participation has been an important focus in Oklahoma, OHCA's recruitment success depends in large measure on physician supply. The SoonerCare Choice program has recruited 60 percent or more of general/family practitioners and pediatricians engaged in patient care in rural areas, while in urban areas only about 30 percent of these types of physicians participate. It may be difficult for SoonerCare Choice to further boost provider participation numbers in rural areas, though there is clearly potential for urban-provider enrollment growth.

Approach to Client Service

Focusing on providers as clients can significantly improve participation rates. OHCA increased Medicaid physician reimbursement to 100 percent of Medicare rates in 2005, making Oklahoma one of only a few states that reimburse physicians at that relatively high level. Providers also offered consistently positive feedback about initiatives that OHCA has undertaken in recent years to simplify their interactions with the agency, such as online real-time claims processing and upgrades to support more fluid call center interactions. Although the role of provider reimbursement cannot be ignored, these initiatives have almost certainly contributed to OHCA's continued provider participation growth. The rollout of online enrollment for providers later this year is likely to provide an additional recruitment boost.

Medicaid eligibility expansions for children, coupled with outreach and simplified applications such as those instituted in Oklahoma, can improve participation rates and reduce uninsurance. Oklahoma's Medicaid eligibility expansions, which began in 1997, have dramatically increased enrollment among low-income pregnant women and children in the program. However, concerted outreach and simplified application processes are essential to achieve high Medicaid participation rates. Uneven progress, as is likely to be the situation in most states, indicates the importance of targeted outreach efforts to ensure the benefits of expanded coverage are shared equally. Oklahoma's success in lowering the rate of uninsured low-income children reinforces the importance of Medicaid and SCHIP to these families, in light of continuing declines in rates of private insurance coverage for low-income children.

Agency Management

Though change is always disruptive, adequate resources and leadership can ensure that even difficult transitions are accomplished smoothly. OHCA's transition of the SoonerCare Plus population to SoonerCare Choice in the first three months of 2004 is a textbook example of how to accomplish a challenging and abrupt program transition with minimal disruptions. In early November 2003, the OHCA Board decided not to renew MCO contracts and to end the Plus program on December 31, 2003. Over the next several months, OHCA staff established a clear timeline to accomplish the transition of all Plus members to SoonerCare Choice by April 2004, and worked tirelessly to ensure deadlines were met. Top leadership participated in the necessary leg-work tasks, sending a clear signal about the importance of success. Afterward, the agency evaluated its own performance during the transition process and published a report on the transition effort.

Managing managed care programs requires major investments in infrastructure, staffing, monitoring, and reporting. While OHCA had an advantage from the outset as a stand-alone agency with unusual flexibility in staffing and salary levels, it built over time very sophisticated information technology, data analysis, and reporting capabilities, using a combination of experienced in-house staff and outside contractors, most of whom work on site in close conjunction with OHCA staff.

Good management to ensure the retention of skilled in-house staff is critical to working successfully with outside contractors and to overall agency success. The experience and stability of OHCA's top leaders and managers is relatively unusual among state Medicaid agencies, but it is not just tenure that makes a difference. OHCA's leaders and managers actively work to keep morale, commitment, and productivity high. As a result, many key OHCA staff have been with the agency since the 1990s, providing guidance and continuity for key functions that are performed by outside contractors, such as claims payment and data collection and analysis.

A well-developed strategic planning process can enable an agency to be prepared to take advantage of windows of opportunity that can open and close quickly. OHCA instituted an annual strategic planning process in part to fulfill a state budget requirement; however, the process has become integral to the agency as a way to focus priorities and engage stakeholders. Top leadership make explicit choices and rank projects by relative priority, and staff throughout the agency are aware of projects that have been identified as key priorities. This type of explicit planning process, conducted with the level of specificity and commitment demonstrated by OHCA, leaves the agency well prepared to take advantage of windows of opportunity that may open only briefly. For example, with the economic recovery in 2005 after several years of budget challenges, OHCA was able to establish the Insure Oklahoma program.

Changing circumstances provide new opportunities; states should continue to monitor whether program design meets current needs. The original SoonerCare Choice partial capitation model was a good solution to the physician participation problem that existed in rural Oklahoma in the early 1990s, but it offered few financial incentives for providers to actually deliver the services that were capitated. OHCA added payment incentives for EPSDT screening and immunizations, and in 2005 increased Medicaid physician reimbursement to 100 percent of Medicare. Recognizing the limits of partial capitation, the opportunities presented by higher FFS reimbursement, and the growing interest in pay-for-performance reimbursement systems, OHCA has taken advantage of the current interest in "medical home" models to propose further refinement of the SoonerCare Choice reimbursement system to build in more financial incentives for physicians to provide primary care services and to improve their performance on other dimensions. As in the past, OHCA is working closely with physicians and other stakeholders to ensure that this change is fully discussed and understood before implementation.

Relationships with External Stakeholders

Effective and continuous communication is a crucial task for state Medicaid agencies. OHCA has done a thorough and skillful job of reporting on OHCA programs and accomplishments. The agency reports shortcomings and areas for improvement, thereby

enhancing its credibility. The reports demonstrate a commitment to public accountability and openness that is critical in a program that serves hundreds of thousands of people, depends on thousands of providers, and uses billions of taxpayer dollars. Medicaid agencies should, as OHCA has done, seize every opportunity to provide program information to legislators, other key stakeholders, reporters, and the public as a whole, knowing that those opportunities may be fleeting. Having good information already on the shelf is the best way to be prepared to take advantage of opportunities when they arise.

Consultation with external stakeholders should be pursued in a targeted way that builds engagement and support. OHCA has created targeted opportunities for stakeholder engagement that have built its reputation as a willing and thoughtful partner. Most notably, OHCA holds its annual strategic planning meeting as an interactive forum in which the agency articulates priorities that have been identified internally, and holds a real-time dialogue with key constituents to refine those priorities, building stakeholder buy-in through the process. OHCA has also instituted a separate physicians-only advisory board to provide feedback, and annual summits with the American Indian community have resulted in productive collaborations that have enabled the agency to improve its services for this difficult-to-serve population.

I. INTRODUCTION

A. PURPOSE

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 enrollees. During the subsequent 15 years, OHCA substantially modified the Medicaid program, called SoonerCare, through a waiver program that uses managed care approaches to serve most non-elderly enrollees. Through the waiver, OHCA first implemented fully capitated services in urban areas (SoonerCare Plus) and then a partially capitated primary care case management (PCCM) program (SoonerCare Choice) in rural areas, before extending SoonerCare Choice throughout the state in 2004.[6] Over time the agency has assumed more direct responsibility for providing managed care services through SoonerCare Choice and other programs, and has begun extending coverage to groups with somewhat higher incomes who had been previously left out of the SoonerCare waiver programs.

As SoonerCare has grown and evolved, so has its impact on health care in Oklahoma, both in terms of lives covered and economic influence. By October 2008, slightly more than 610,000 individuals, representing 17 percent of the total population of Oklahoma, were enrolled in SoonerCare; about 65 percent of them were members of the partially capitated SoonerCare Choice program.[7] Moreover, OHCA programs now consume roughly 11 percent of the state's budget, an amount exceeded only by expenditures on education.[8] State and federal Medicaid expenditures in fiscal year 2007 were estimated to have supported 111,500 direct and indirect jobs within Oklahoma's health care industry and to have provided $3 billion in income.[9]

In order to broaden understanding about SoonerCare's role as a health insurance provider and economic force in Oklahoma, and to glean lessons for the future from past experience, OHCA contracted with Mathematica Policy Research, Inc. (MPR) to conduct a comprehensive evaluation of the SoonerCare waiver programs. This report presents the results of that evaluation,

---

[6] Throughout this report the terms "SoonerCare Choice," "SoonerCare Plus," "SoonerCare waiver," and "SoonerCare managed care waiver" are used to refer to the managed care waiver that is the subject of our evaluation. When used alone, the term "SoonerCare" refers to Oklahoma Medicaid as a whole, including enrollees and programs that are not part of the managed care waiver.

[7] OHCA. "SoonerCare Fast Facts: Total Enrollment. August 2008." www.ohca.state.ok.us/WorkArea/showcontent.aspx?id=9250. Accessed October 10, 2008.

[8] Governor Brad Henry. "FY-2009 Executive Budget Historical Document. February 4, 2008." www.ok.gov/OSF/Budget/Budget_Books.html. Appendix Table A-1. Accessed October 10, 2008.

[9] Governor Brad Henry. "FY-2009 Executive Budget. February 4, 2008." www.ok.gov/OSF/Budget/Budget_Books.html pg.B-135. Accessed October 10, 2008.

which examined the waiver program from its implementation in 1995 through its most recent activities in 2008. MPR applied diverse analytic techniques to assess the impact of key policy and management decisions on enrollment trends, member access to care, provider participation, the health of enrolled members, and the financial costs to Oklahoma. In synthesizing these aspects of program performance, the evaluation aims to present OHCA's experience within the larger context of national trends in health policy, provide recommendations that can inform future SoonerCare initiatives, and identify lessons and model approaches that other states may draw upon in modifying their own Medicaid programs.

This report first provides an overview of the SoonerCare waiver program's history (Chapter II) and continues with a detailed analysis of several national- and state-level data sources that shed light on key dimensions of program performance (Chapter III). Where possible, we draw comparisons between trends in Oklahoma during this period and those in other similar states. We synthesize our major findings from these two chapters in Chapter IV, and present the lessons and implications for other states from our evaluation in Chapter V. The remainder of this chapter summarizes the methodology used to develop the report.

B. METHODS

MPR developed the information for this evaluation using an array of qualitative and quantitative techniques. To support our analysis of program development and key managerial decisions we conducted a comprehensive set of 57 interviews with such key stakeholders as state officials, OHCA staff, contractors, physicians and other providers, member advocates, and legislators during two visits to Oklahoma in May and June 2008 and via telephone conversations during August and September 2008. Appendix A includes the full list of interviewees. In addition, MPR conducted an extensive review of documents about Oklahoma's program history and structure, including original committee reports from the early 1990s that led to the creation of OHCA as an agency through the most recent SoonerCare performance and quality reports issued in 2008.

To supplement these sources we conducted a thorough environmental scan of the economic, health care market, and policy contexts in which the SoonerCare waiver program developed, drawing on state budget documents and legislative records, as well as such nationally available data sources as the U.S. Census Bureau and the Centers for Medicare & Medicaid Services (CMS). Finally, to support our summary of lessons learned and implications for other states, we reviewed key program elements of other Medicaid programs that utilize primary care case management, either alone or in combination with fully capitated managed care arrangements.

Quantitative components of the evaluation utilized multiple data sources to construct new measures of program performance and to examine time trends for measures that OHCA routinely tracks. Appendix B presents statistical analyses beyond those discussed in detail in the text. In these quantitative analyses we:

- Estimated the percentage of eligible individuals enrolled in the SoonerCare waiver program using OHCA enrollment records and data from the U.S. Census Bureau's American Community Survey

- Measured the rates of preventable hospitalizations among SoonerCare waiver enrollees using OHCA enrollment records and hospital inpatient discharge data from the Oklahoma State Department of Health (OSDH)

- Estimated OHCA's success in recruiting physicians to act as primary care providers in the waiver program by comparing OHCA records on physician participation with data on the total number of physicians in the state, using the Area Resource File

- Analyzed trends in emergency room utilization among SoonerCare waiver members using claims data collected by OHCA

- Evaluated the SoonerCare waiver's performance on measures from the National Center for Quality Assurance's Healthcare Effectiveness Data and Information Set (HEDIS), compiled by OHCA

- Tracked SoonerCare enrollee satisfaction using the Consumer Assessment of Healthcare Providers and Systems (CAHPS) and the Experience of Care and Health Outcomes (ECHO) survey data provided by OHCA

- Trended measures of primary care utilization and health status within the low-income population in Oklahoma, using data from the annual Behavioral Risk Factor Surveillance System (BRFSS) survey

- Assessed the financial performance of the SoonerCare program by examining per-enrollee Medicaid costs in Oklahoma relative to other states, and tracked the impact of the Medicaid program over time on the state budget. These analyses drew on the annual Medicare and Medicaid Statistical Supplement published by CMS, and on financial data reported through the National Association of State Budget Officers (NASBO).

II. SOONERCARE PROGRAM STRUCTURE AND HISTORY

A. INTRODUCTION

Oklahoma developed the SoonerCare managed care program in the early 1990s, a time when many other state Medicaid programs were developing and implementing various forms of managed care—from primary care case management (PCCM) programs to full-risk capitated programs operated under state contract by private managed care organizations (MCOs). The various programs were aimed at stabilizing and containing costs and improving access to care. Several states also combined these managed care initiatives with efforts to expand Medicaid eligibility, anticipating that coverage expansions could be financed with managed care savings. Oklahoma's initial managed care initiatives did not include expanded coverage, but some expansions were implemented in later years.

Like a number of states, Oklahoma implemented a PCCM program (SoonerCare Choice) in rural areas of the state, and a capitated MCO program (SoonerCare Plus) in urban areas. The state initially planned to expand the MCO program to cover the entire state but that proved not feasible, for reasons discussed below. Oklahoma also planned to include the aged, blind, and disabled (ABD) Medicaid population in managed care on a mandatory basis, a step only a limited number of states were taking at that time.

When Oklahoma initiated its managed care program in 1995, the state had a median household income that was below the national average ($26,991 versus $32,264) and a large percentage of the population was living in rural areas (35 percent versus the 22 percent national average). The state's unemployment rate was relatively low compared to the national average (4.6 percent versus 5.6 percent). The percent of the population without health insurance was well above the national average (22.3 percent versus 17.4 percent), the percent with Medicaid coverage was a bit above (13.6 percent versus 12.5 percent), and the percent with private insurance was substantially below (63.7 versus 70.7 percent). The black and Hispanic populations living in Oklahoma were well below the national average, while the American Indian population was well above.[10]

This chapter describes the major changes in SoonerCare's evolution over the 16-year period extending from 1992 to 2008. It is organized by three major periods in the program's development: (1) the conception and early years of implementation (1992 to 1996); (2) the further development and expansion of the PCCM and MCO managed care models (1997 to 2003); and (3) the end of the MCO model, the statewide expansion and further enhancement of the PCCM model, and the start of efforts to help low-income uninsured working adults gain health coverage (2004 to 2008). For each of these periods, the chapter discusses the influence of

[10] Oklahoma's black population in 1995 was 7.6 percent compared to the national average of 12.6 percent, its Hispanic population was 3.3 percent compared to a national average of 10.3 percent, and its American Indian population was 8 percent compared to a national average of less than 1 percent. U.S. Census Bureau. "Population Estimates for States by Race and Hispanic Origin: July 1, 1995." www.census.gov/popest/archives/1990s/strh/srh95.txt.Accessed October 15, 2008.

national Medicaid policies and trends in other state Medicaid managed care programs, as well as the political and budgetary context in Oklahoma. The chapter concludes with a description of OHCA's governance and management structure, explains how this structure differs from that of most other state Medicaid agencies, and discusses briefly how the program's administration may have affected the evolution of SoonerCare and the key program trends and outcomes examined in Chapters III and IV.

B. THE ORIGIN AND EARLY YEARS OF SOONERCARE: 1992 TO 1996

1. Search for a Solution to Burgeoning Medicaid Costs, 1992 and 1993

The original motivation for SoonerCare was the state legislature's interest in containing growth in the Medicaid budget. Like other states, Oklahoma experienced double-digit growth rates in Medicaid expenditures between 1988 and 1992, far outstripping the growth in state revenues during that period.[11] Medicaid enrollment grew by 47 percent from 1988 to 1992, from 245,000 individuals to 360,000, while expenditures increased by 72 percent, from $580 million to just over $1 billion.[12] State revenues, by contrast, grew by only 31 percent between 1988 and 1992.[13] Medicaid budget growth peaked at 19.2 percent per year between 1990 and 1992, comparable to the national average of 18.9 percent during that period, but well above the 8 percent per year growth in Oklahoma revenues between 1990 and 1992.[14]

In 1992, the legislature approved a broad-based provider tax that would have included hospitals and nursing homes to help fund Medicaid. However, a new state law required that new tax measures be approved by popular referenda, and the proposed tax was defeated by a two-to-one vote.

The legislature then approved several short-term measures to save money, including a 5 percent reduction in payments to providers, limits on office and hospital visits for adults, and elimination of dental benefits for adults. But state leaders also wanted longer-term solutions. In an effort to avoid additional, dramatic cuts in services and reductions in eligible populations, the governor and the legislature placed health care reform near the top of their agendas. The governor was a Democrat and both houses of the state legislature were controlled by Democrats in 1992 and 1993. (Table II.1 provides a summary of political control of the governor's office and the legislature in Oklahoma from 1992 to 2009.) In Washington, the Clinton administration's health care reform proposals were also under consideration in 1992 and 1993, and this served as additional impetus for state action.

---

[11] Leighton Ku and Susan Wall. "The Implementation of Oklahoma's Medicaid Reform Program: SoonerCare." Washington, DC: The Urban Institute and Mathematica Policy Research, Inc., October 23, 1997, p. 2.

[12] OHCA. "A History in Brief." Oklahoma City, OK: OHCA, September 2005, p. 2.

[13] National Association of State Budget Officers. "Fiscal Survey of States." Fall Reports. Washington, DC: NASBO, 1993-2007. Available at: www.nasbo.org/publicationsReport.php. Accessed November 17, 2008.

[14] Ku and Wall, pp. 8-9.

Table II.1. Oklahoma Political Context, 1992 to 2009

Year	Governor	House	Senate
1992	David Walters (D)	68 D, 32 R	37 D, 11 R
1993	David Walters (D)	68 D , 33 R	37 D, 11 R
1994	Frank Keating (R)	70D, 31 R	37 D, 11 R
1995	Frank Keating (R)	65 D, 36 R	35 D, 13 R
1996	Frank Keating (R)	64 D, 36 R, 1 vacant	35 D, 13 R
1997	Frank Keating (R)	65 D, 36 R	33 D, 15 R
1998	Frank Keating (R)	65 D, 36 R	33 D, 15 R
1999	Frank Keating (R)	61 D, 40 R	33 D, 15 R
2000	Frank Keating (R)	61 D, 40 R	33 D, 15 R
2001	Frank Keating (R)	53 D, 48 R	30 D, 18 R
2002	Frank Keating (R)	52 D, 48 R, 1 vacant	30 D, 18 R
2003	Brad Henry (D)	53 D, 48 R	27 D, 20 R, 1 vacant
2004	Brad Henry (D)	53 D, 48 R	28 D, 20 R
2005	Brad Henry (D)	57 R, 44 D	26 D, 22 R
2006	Brad Henry (D)	57 R, 44 D	25 D, 22 R
2007	Brad Henry (D)	57 R, 44 D	24 D, 24 R
2008	Brad Henry (D)	57 R, 44 D	24 D, 24 R
2009	Brad Henry (D)	61 R, 40 D	26 R, 22 D

Source: Leadership Directories, Inc. "State Yellow Book. A Leadership Directory." Spring 1992 through Spring 2007. http://www.leadershipdirectories.com/products/syb.html; National Conference of State Legislatures http://www.ncsl.org/public/ncsl/nav_legislatures.htm.

Oklahoma's leaders formed two special panels in 1992 to study general health care reform and Medicaid reform: the Commission on Oklahoma Health Care and the Task Force on Medicaid and Welfare Reform. Each was directed to study access and cost-containment problems within the existing system and to propose meaningful reforms.

The panels focused on ways to improve cost containment, budget predictability, and access to primary and preventive care through a coordinated system of managed care. Their recommendations laid the groundwork for two bills that passed the Oklahoma legislature in 1993. One of them, Senate Bill 76, mandated the conversion of the Oklahoma Medicaid program from fee-for-service (FFS) reimbursement to a statewide, comprehensive system of managed health care delivery. The legislation called for the establishment of a prepaid fully capitated system of managed care to be provided through private MCOs. It also provided for a PCCM system in more rural areas of the state that the legislature believed could not support the fully capitated MCO approach, at least at the outset.[15]

[15] OHCA. "A History in Brief." Oklahoma City, OK: OHCA, September 2005, pp. 3-4.

National Context. At the time this legislation was being considered, 26 states had initiated some form of Medicaid managed care, including 15 with PCCM programs, 19 with MCO programs, and 7 with both (Table II.2), and this allowed Oklahoma to draw upon others' experiences in developing its MCO and PCCM programs. The state and its consultants studied some of these programs, including those in Rhode Island and Arizona. Oklahoma focused on Arizona in particular, which had operated a statewide fully capitated MCO program since 1982. The Arizona program was managed by a large stand-alone state agency rather than being part of another state agency, such as welfare or public health.

2. No Expansion of Medicaid Eligibility in Original SoonerCare Waivers

The 1993 laws creating OHCA and requiring managed care enrollment for most enrollees did not explicitly aim to expand Medicaid coverage. As discussed in greater detail below, Oklahoma began its SoonerCare managed care program with a relatively limited Section 1915(b) "freedom of choice" waiver in 1995, which was then converted to a broader Section 1115 demonstration waiver in 1996. A number of states that obtained Section 1115 waivers during this period planned to use them in part to expand coverage of previously uninsured populations with savings from managed care.[16] Oklahoma did not follow this approach, largely because of the state's tight fiscal situation at the time its managed care program was being developed.[17]

According to a SoonerCare waiver extension request submitted to the federal government in 1999: "While other states used the demonstration option as a means to expand [Medicaid] eligibility, Oklahoma's initial goal was to achieve sufficient fiscal stability to avoid cutbacks to the fee-for-service program."[18] As a relatively low-income, rural state with no prior experience in Medicaid managed care and little commercial managed care infrastructure, there was some doubt about how much savings could be achieved. In this politically conservative state, policymakers were concerned about whether they could afford and maintain an eligibility expansion.

3. The Oklahoma Health Care Authority

The other bill approved in 1993, House Bill 1753, provided for the establishment of a new executive agency to administer the Medicaid program: the Oklahoma Health Care Authority (OHCA). The agency would have its own governing board, appointed by the governor and the legislative leadership. The Medicaid program was at that time part of the large Department of Human Services, the state's welfare agency. Legislators believed that putting Medicaid in a separate agency would sharpen the focus on health policy, cost containment, and managed care.

---

[16] Seven of the 12 states that were implementing comprehensive statewide health care reform demonstrations in 1997 had expansion enrollment in mid-1997. CMS. "1997 Medicaid Managed Care Enrollment Report," p. 11. www.cms.hhs.gov/MedicaidDataSourcesGenInfo/04_MdManCrEnrllRep.asp. Accessed November 17, 2008.

[17] Ku and Wall, p. iii

[18] OHCA. "SoonerCare Demonstration Waiver Extension Request." Oklahoma City, OK: OHCA, June 1999.

OHCA began operating as a separate stand-alone agency in April 1994, and the transition of the Medicaid program to OHCA was completed on January 1, 1995.

National Context. At the time OHCA was established, only three other states (Alabama, Arizona, and Mississippi) had stand-alone Medicaid agencies that were not part of broader state agencies. There are still only six states other than Oklahoma with a stand-alone Medicaid agency.[19] It is not unusual in Oklahoma for state agencies to have their own appointed governing boards. The Departments of Health, Human Services, and Mental Health and Substance Abuse Services, for example, have their own governing boards. Nationally, however, only the Kansas Medicaid agency has such an outside governing board, and it was not established until 2005.[20]

4. The SoonerCare Managed Care Program

Oklahoma initially implemented its fully capitated SoonerCare Plus MCO program on July 1, 1995 under a 1915(b) waiver.[21] Under this program, OHCA contracted directly with MCOs to provide Medicaid services to enrollees in Oklahoma City, Tulsa, Lawton, and counties immediately surrounding these urban areas. On October 1, 1996, under a newly approved comprehensive Section 1115(a) demonstration waiver, Oklahoma implemented its SoonerCare Choice PCCM model on a statewide basis in rural areas not covered by the SoonerCare Plus MCO model. Under the SoonerCare Choice model, OHCA contracted directly with primary care providers throughout the state to provide basic health care services and coordination of care for members assigned to them or who chose to enroll with them.[22]

The SoonerCare managed care program was developed under the administration of Governor David Walters, a Democrat, but was implemented under Governor Frank Keating, a Republican who succeeded Walters at the beginning of 1995. The legislature, which was a main force in shaping the Medicaid reform initiatives, had Democratic majorities in both the state Senate and House of Representatives before and after implementation (Table II.1).[23]

National Context. During the 1993 to 1996 period in which Oklahoma was developing and implementing SoonerCare, another 20 states and the District of Columbia were also establishing Medicaid managed care programs, leaving only two states (Wyoming and Alaska) with no form

[19] The six states are Alabama, Arizona, Colorado, Florida, Kansas, and Mississippi. American Public Human Services Association. "2008 Public Human Services Directory." Washington, DC: APHSA, 2007.

[20] The Kansas Health Policy Authority (KHPA) and its governing board were modeled closely on the OHCA. Andrew Allison, KHPA deputy director, interviewed by Jim Verdier, November 14, 2008.

[21] This is the basic Medicaid waiver type that most states use to implement their managed care programs. It waives provisions of the federal Medicaid law relating to freedom of choice of providers and statewide comparability of services. Oklahoma began with a Section 1915(b) waiver because OHCA knew CMS would approve it quickly, while a Section 1115 demonstration waiver would require more time (Ku and Wall, p. 3).

[22] OHCA. "A History in Brief." Oklahoma City, OK: OHCA, September 2005, p. 6.

[23] Ku and Wall, p. 3.

Table II.2. States with Medicaid PCCM and/or MCO Programs in 1992-1996

State	PCCM Program Operational in 1992	MCO Program Operational in 1992	PCCM Program Established in 1993-1996 Period	MCO Program Established in 1993-1996 Period
Arizona		X		
Arkansas			X	
California		X		
Colorado	X	X		
Connecticut				X
Delaware				X
District of Columbia			X	X
Florida	X	X		
Georgia			X	X
Hawaii				X
Idaho			X	
Illinois				X
Indiana			X	X
Iowa	X	X		
Kansas	X			X
Kentucky	X			
Louisiana	X			
Maine			X	
Maryland	X	X		
Massachusetts	X	X		
Michigan	X	X		
Minnesota		X		
Mississippi			X	
Missouri	X			X
Montana			X	X

Table II.2 *(continued)*

State	PCCM Program Operational in 1992	MCO Program Operational in 1992	PCCM Program Established in 1993-1996 Period	MCO Program Established in 1993-1996 Period
Nebraska			X	X
Nevada		X		
New Hampshire		X		
New Jersey		X		
New Mexico	X			
New York		X		
North Carolina	X	X		
North Dakota			X	
Ohio		X		
Oklahoma			X	X
Oregon			X	X
Pennsylvania		X	X	
Rhode Island				X
South Carolina			X	X
South Dakota			X	
Tennessee				X
Texas			X	X
Utah	X	X		
Virginia	X			X
Vermont				X
Washington		X	X	
West Virginia	X			
Wisconsin		X	X	
Totals	**15**	**19**	**18**	**19**

Source: National Academy for State Health Policy. "Medicaid Managed Care: A Guide for States." 3rd Edition, 1997, pp. I-D-1 to I-D-5.

of Medicaid managed care in 1996. Eight of the 21 new managed care states, including Oklahoma, established both PCCM and MCO programs, as did the District of Columbia.

a. SoonerCare Plus

In the SoonerCare Plus fully capitated MCO program, OHCA began by contracting with five MCOs; three or four operated in each urban area. (See Table II.3 for a list of the MCOs operating in each area.) The MCOs were organized around competing hospitals and affiliated providers, and no one MCO dominated any market. By the end of the first year of the SoonerCare Plus program (June 1996), there were 64,631 MCO enrollees.

b. SoonerCare Choice

The SoonerCare Choice PCCM program, which operated in mostly rural areas outside of the three major urban areas of the state, began on a pilot basis in April 1996 and was fully implemented by October 1996, with 51,907 enrollees. Ku and Wall called this rural PCCM program the "most innovative" component of the SoonerCare program, noting its emphasis on providing a "medical home" for rural patients.[24] Its most unusual feature was a partial capitation arrangement under which physicians were paid in advance a monthly capitated amount that covered a fixed set of services, primarily office visits for primary and preventive care, Early and Periodic Screening, Diagnostic and Treatment (EPSDT) screening, injections and immunizations, and some basic lab and X-ray services. All other services were paid for on a FFS basis. The capitated services accounted for about 10 percent of the total Medicaid services received by a typical enrollee during the course of a year.[25]

The major goal of this partial capitation arrangement was to encourage greater participation by physicians in the Medicaid program. OHCA also viewed it as a way of getting rural physicians accustomed to capitation, in the hope that this would help pave the way for full-risk managed care in rural areas.[26] In the past, many physicians in rural areas of Oklahoma were reluctant to see Medicaid patients. With a guarantee of a monthly payment in advance for every SoonerCare member a physician agreed to include in his or her practice, OHCA hoped to enlist more physicians in the SoonerCare Choice program. The risk, of course, was that physicians might limit services to Medicaid patients under the partial capitation arrangement, since the payment would be made whether or not services were provided. At this point in the development of the SoonerCare program, however, the most important goal was to get more rural physicians to agree to see Medicaid enrollees.[27]

---

[24] Ku and Wall, pp. 39, 41.

[25] Ku and Wall, pp. 16, 40-41.

[26] Ku and Wall, p. 41.

[27] OHCA also sought to address this problem by allowing nurse practitioners to serve as providers in physician shortage areas (Ku and Wall, p. 43).

Table II.3. Oklahoma SoonerCare Plus MCO Regions and Years of Service

Region	HMO Name	Fiscal Year of Operation	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04 (Ended 12/31/2003)
Oklahoma City Area	BlueLincs	1996-2000	X	X	X	X	X	-	-	-	-
	Communitycare	1996-2002	X	X	X	X	X	X	X		
	Foundation Health	1996-1998	X	X	X	-	-	-	-	-	-
	Heartland Health Plan	1996-2003	X	X	X	X	X	X	X	X	X
	UNICARE	2001-2003	-	-	-	-	-	X	X	X	X
Tulsa Area	BlueLincs	1996-1999	X	X	X	X	-	-	-	-	-
	Communitycare	1996-2002	X	X	X	X	X	X	-		
	Foundation Health	1996-1998	X	X	X	-	-	-	-	-	-
	Heartland Health Plan	2000-2002	-	-	-	-	X	X	X		
Southwest Area (Lawton)	BlueLincs	1996, 1998-2000	X	-[a]	X	X	X	-	-	-	-
	Foundation Health	1996	X	X	-	-	-	-	-	-	-
	Heartland	1997-1999	-	X	X	X	-				
	Pacificare	1996	X	-	-	-	-	-	-	-	-
	Prime Advantage	1997-2003		X	X	X	X	X	X	X	X
	UNICARE	2001-2003	-	-	-	-	-	X	X	X	X

Sources: Ku and Wall, 1997; CMS Medicaid Managed Care Enrollment Reports http://www.cms.hhs.gov/medicaiddatasourcesgeninfo/downloads/mmcer02.pdf

[a] CMS Medicaid Managed Care Enrollment Report, 1997 indicates BlueLincs served Southwest as of June 30, 1997 (FY97), but Wall and Ku, 1997 report BlueLincs lost the bid for Year 2, but re-won it in Year 3.

Accordingly, the SoonerCare Choice partial capitation payment rates were 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.[28]

The state planned to begin quality monitoring of the Choice program in spring 1997, using a combination of provider credentialing, complaint tracking, focused studies, and provider profiling.[29]

5. 1997 Evaluation of Initial Implementation of SoonerCare

In their 1997 evaluation of the initial years of SoonerCare implementation, Ku and Wall concluded:

> In designing and implementing SoonerCare, Oklahoma studied and learned from the experience of other states such as Rhode Island and proceeded carefully and gradually. OHCA anticipated many implementation challenges and worked to correct them or minimize their impact. OHCA actively listened to HMOs, providers, and advocates to hear about problems and try to ameliorate them, where feasible.
>
> While providers and beneficiaries complained about confusion during the early stages of implementation, particularly regarding eligibility and enrollment, problems appeared to be less severe than in other states. The HMO contracting process appeared to function well. Unlike states that undertook major eligibility expansions, there have been no serious budget problems yet. The progress with the automated data systems, including encounter data, and with quality assurance protocols was quite good compared with other states at similar stages of development.[30]

6. Coverage of the Aged, Blind, and Disabled (ABD) Populations

Aged, blind, and disabled (ABD) Medicaid populations were scheduled to be included in the SoonerCare managed care delivery systems as of July 1, 1997 under the original SB 76 legislation. As that date approached, however, the legislature, OHCA, and other stakeholders (including the MCOs and some members of the disability community) concluded that more time was needed, given the complexity of building provider networks and care management systems capable of serving the disabled. Accordingly, legislation was approved in 1997 that delayed the

[28] The Pacific Health Policy Group. "SoonerCare Choice Operational and Financial Status Report." Laguna Beach, CA: The Pacific Health Policy Group, May 2002, pp. 18-21.

[29] Ku and Wall, p. 48.

[30] Ku and Wall, pp. viii-ix.

effective date for mandatory enrollment of the ABD population until July 1999. The delay was intended to give the MCOs and providers more time to prepare, and to allow the state to develop risk adjustment mechanisms for paying plans.[31]

National Context. In 1996, fewer than half of all states were enrolling their ABD populations in capitated managed care, and only 16 states were doing so on a mandatory basis,[32] so Oklahoma's decision to move more deliberately in enrolling this population was similar to the experience of other states. The next section describes Oklahoma's experience in extending SoonerCare to the ABD population beginning in 1999, and some of its implications for clients and MCOs.

C. DEVELOPMENT AND EXPANSION OF MANAGED CARE: 1997 TO 2003

1. Continued Development of SoonerCare Plus

As shown in Table II.3, OHCA contracted with five MCOs to serve the three urban areas in the initial year of SoonerCare Plus: BlueLincs and Foundation Health in all three areas, CommunityCare in Oklahoma City and Tulsa, Heartland in Oklahoma City and Lawton, and PacifiCare in Lawton. A newly formed MCO, Prime Advantage, replaced PacifiCare in Lawton in 1997.

Foundation Health dropped out of Lawton in 1998 and Oklahoma City and Tulsa in 1999. BlueLincs dropped out of Tulsa in 1999, and Oklahoma City and Lawton in 2000. A new MCO—UniCare, a subsidiary of WellPoint—began operating in Oklahoma City and Lawton in 2000, and in Tulsa in 2002.

As shown in Table II.4, BlueLincs was an affiliate of the Oklahoma Blue Cross/Blue Shield Association; Foundation Health, PacifiCare, and UniCare were part of multi-state companies; and Heartland, CommunityCare, and Prime Advantage were local hospital-based plans.

Four of the five plans operated or planned to establish commercial lines of business in addition to Medicaid. BlueLincs, Foundation Health, PacifiCare, and UniCare all did substantial commercial business through their parent companies. CommunityCare also did commercial business, and Prime Advantage planned to. In contrast, Heartland was established solely to do SoonerCare business. It was part of the state-owned University of Oklahoma academic medical center in Oklahoma City. As Ku and Wall note, "the medical center was encouraged by the legislature and OHCA to develop its own HMO to help protect its Medicaid revenue, about a third of total revenue.[33]

---

[31] Ku and Wall, p. 7.

[32] Neva Kaye and Cynthia Pernice. "Medicaid Managed Care: A Guide for States, Fourth Edition." Portland, ME: National Academy for State Health Policy, March 1999, pp. III-6 and III-11.

[33] This source provides a detailed summary of the characteristics of the initial SoonerCare Plus MCOs. Ku and Wall, p. 27.

Table II.4. Oklahoma SoonerCare Plus MCO Characteristics

HMO Name	Local or Multistate Company	Provider-Based (Y/N)	Medicaid Dominated ≥75% (Y/N)	Commercial Business ≥25% (Y/N)[a]
Bluelincs	Local (HMO arm of OK's Blue Cross/ Blue Shield)	N	N	Y
Community Care	Local (Four Catholic hospitals: St. Anthony, Mercy (OKC), St. Francis, St. John (Tulsa))	Y	N	Y
Foundation Health	Multistate (Subsidiary of Foundation Health Corporation)	N	(Initially, SoonerCare was dominant product)	(Government business, CHAMPUS)
Heartland	Local (University of Oklahoma Health Sciences Center)	Y	Y	N
PacifiCare	Multistate	N	N	Y
Prime Advantage	Local (Comanche County Memorial Hospital)	Y	Y	N
UniCare/WellPoint	Multistate (Medicaid-only HMO in OK, Subsidiary of WellPoint)	N	Y (In Oklahoma)	Y

Sources: Ku and Wall, 1997; Source: CMS Medicaid Managed Care Enrollment Reports http://www.cms.hhs.gov/medicaiddatasourcesgeninfo/downloads/mmcer02.pdf

[a]Includes commercial business done through parent companies.

National Context. Oklahoma was not unusual in its reliance on a combination of home-grown provider-based MCOs and commercial plans. There were 339 full-risk MCOs participating in Medicaid throughout the country in 1997; 118 (35 percent) were Medicaid-dominated and the rest commercial. In 15 states, Medicaid-dominated plans accounted for more than 30 percent of all full-risk enrollees, while 23 other states (including Oklahoma) had a significant share of their enrollment in such plans.[34]

Beginning in 1997 and accelerating in 1998 and 1999, commercial plans nationwide began exiting from the Medicaid market, reducing the percentage of Medicaid enrollees covered by such plans from 64 percent in 1997 to just over 50 percent by mid-2000.[35] As noted above, there

[34] Suzanne Felt-Lisk. "The Characteristics and Roles of Medicaid-Dominated Managed Care Plans." Washington, DC: The Kaiser Commission on Medicaid and the Uninsured, February 2000, p. 3.

[35] Suzanne Felt-Lisk, Rebecca Dodge, and Megan McHugh. "Trends in Health Plans Serving Medicaid—2000 Data Update." Washington, DC: The Kaiser Commission on Medicaid and the Uninsured, November 2001. See also Robert E. Hurley and Michael A. McCue. "Medicaid and Commercial HMOs: An At-Risk Relationship." Princeton, NJ: Center for Health Care Strategies, May 1998; Neva Kaye. "Medicaid Managed Care: A Guide for States, Fifth Edition." Portland, ME: National Academy for State Health Policy, May 2001, pp. 5-9.

were several departures from SoonerCare by commercial MCOs in the 1997 to 2000 period; PacifiCare, BlueLincs, and Foundation Health all exited one or more SoonerCare markets.

Oklahoma was also not unusual in having a number of hospital-based MCOs, including some that were established with a primary goal of protecting the sponsor's Medicaid hospital revenue. Several national observers have commented on the tensions this can set up between a state's managed care cost containment goals and an MCO's revenue protection goals.[36] How this tension played out in Oklahoma in the 2000 to 2003 period is detailed below.

2. Continued Development of SoonerCare Choice

SoonerCare Choice enrollment did not grow significantly in 1997. There were 47,491 enrollees in June 1997, down somewhat from the 51,907 enrolled in October 1996. This reflected in part the difficulty OHCA had in recruiting rural physicians to participate in the Choice program, owing partly to physician shortages in many rural areas of the state, and partly to physician concerns about added administrative hassles, having to ensure 24-hour coverage, and potential "crowding out" of private patients. There was also concern about the new partial capitation payment system, since most rural physicians had no experience with capitated payments.[37]

By December 1996, according to Ku and Wall, 296 physicians were participating in SoonerCare Choice in rural counties, about 55 percent of the practicing physicians in those counties.[38] This meant that there was an average of about one physician for each 150 enrollees.[39]

SoonerCare Choice enrollment grew steadily from 1997 to 2000, reaching 71,297 in June 1998, 95,762 in mid-1999, and 136,678 in mid-2000—about 45 percent of total SoonerCare enrollment.[40] Provider participation also continued to grow, according to OHCA's Pacific Health Policy Group consultants, with more than 650 contracting providers in mid-2000, up from 448 in

[36] Robert E. Hurley and Michael J. McCue. "Partnership Pays: Making Medicaid Managed Care Work in a Turbulent Environment." Princeton, NJ: Center for Health Care Strategies, May 2000; James M. Verdier and Cheryl G. Young. "Medicaid Managed Care Purchasing: What Works and What Doesn't." Princeton, NJ: Center for Health Care Strategies, July 2000.

[37] Ku and Wall, p. 44.

[38] Nearly 200 more SoonerCare Choice providers were practicing in urban MCO counties and serving adjacent rural areas.

[39] Ku and Wall, pp. 45-46.

[40] CMS. "Medicaid Managed Care Enrollment Reports," 1997-2000. www.cms.hhs.gov/medicaiddatasourcesgeninfo/downloads/mmcer02.pdf. Accessed November 21, 2008.

1996. On average, the number of enrollees for each participating physician was slightly more than 200 in mid-2000.[41]

3. Expansion of Medicaid Eligibility in 1997

By 1997, there was early evidence of sufficient savings from managed care to take some steps toward expanding Medicaid eligibility. State officials estimated that SoonerCare managed care programs saved $85.2 million in the first three years of the program, or about 9 percent of total expenditures.[42] These savings, in combination with an improved state budget, prompted the state legislature to pass a law (SB 639) in June 1997 authorizing Medicaid eligibility expansions for pregnant women and children, raising the maximum income level needed to qualify from 150 percent to 185 percent of the federal poverty level (FPL). Children up to age 15 in families with qualifying income were eligible immediately, while those between ages 15 and 19 were phased in over time, so that by 2002 all children below age 19 in families with qualifying income were eligible. The asset test also was eliminated for pregnant women, children, and adults with dependent children in December 1997.

In 1997 and 1998, OHCA in conjunction with the Department of Human Services made several other changes designed to simplify application and eligibility determination processes. These included: reducing the application form from 17 pages to 2; permitting mail applications, which removed the necessity of conducting a face-to-face interview; replacing income verification with income declaration; and launching an education and outreach campaign to eligible individuals and families.

The 1997 law, SB 639, also directed OHCA to develop a Medicaid "buy-in" program for families with incomes up to 250 percent of FPL, using sliding fee scale premiums. OHCA submitted an amendment to the state's Section 1115 waiver to the federal government in September 1997 to implement this provision, but withdrew the request before receiving a decision from the U.S. Department of Health and Human Services.

4. Transition of ABD Populations to SoonerCare

Enrollment of the ABD populations in SoonerCare Plus and Choice was phased in over a three-month period, starting in July 1999 and ending in October 1999. OHCA initiated a variety of outreach efforts to smooth the transition, including extensive community work with enrollees and their representatives, focus groups to ensure that the enrollment materials were

[41] The number of participating providers reported in this source exceeds the number of provider contracts reported in Chapter III, probably because some contracts include more than one provider. Based on OHCA provider records, the number of provider contracts rose from 414 in 1997 to 525 in 2000. The Pacific Health Policy Group. "SoonerCare Choice Operational and Financial Status Report." Laguna Beach, CA: The Pacific Health Policy Group, May 2002, pp. 16-17.

[42] OHCA. "*SoonerCare* Demonstration Waiver Extension Request." Oklahoma City, OK: OHCA, June 30, 1999, p. 7.

understandable, mailings to inform enrollees of the upcoming transition, and personal telephone calls from OHCA staff to answer member questions and facilitate enrollment into a health plan.[43]

Just under 15,000 ABD enrollees were members in SoonerCare Plus MCOs by the end of 2000, and 16,500 were members in SoonerCare Choice. As a result, approximately 31 percent of the total of 100,000 ABD enrollees were members in SoonerCare managed care programs at the end of 2000.[44]

5. Capitated Rate-Setting for the ABD Populations in SoonerCare Plus

Most states, including Oklahoma, had relatively little experience in setting capitated rates for ABD populations in 1997, the period when Oklahoma was developing its plans to include that population in SoonerCare. The costs of care for ABD populations vary widely, and much of this variation cannot be predicted by factors that states typically use to set capitated rates, such as age, sex, eligibility category, and place of residence. More sophisticated rate-setting systems that adjust capitated rates based on the health status of beneficiaries had been developed by 1997, but few states were using them.[45] In 1996, only 3 states were basing capitation payments on health status, and by 1998 only 10 were doing so.[46]

Capitation rates for the ABD population were set by OHCA financial staff, working in conjunction with the state's actuarial and policy consultants (Mercer and the Pacific Health Policy Group). Separate ABD rates were set for children and adults, but there was no explicit adjustment for variations in health status. Adjusting for health status is especially important for the ABD population, since many enrollees may have very complex and costly health care needs that cannot be predicted adequately without information on their health condition.

In setting the ABD rates, OHCA faced significant challenges in fully taking into account potential service use by the ABD population. Prior to their enrollment in SoonerCare Plus, ABD adults were subject to limits on their use of Medicaid services: hospital days were capped at 12 per year, physician visits at 3 per month, and prescriptions at 3 per month. There were also limits on durable medical equipment services. The limits did not apply in the SoonerCare Plus program, so utilization of these services would clearly increase by some amount to reflect accumulated unmet need and ongoing future needs. The problem was in estimating how much that increase would be.[47] Past service use—especially for enrollees with very high needs—would

[43] OHCA. "Annual Report, SFY 2000." Oklahoma City, OK: OHCA, 2000, p. 66.

[44] Significant portions of the ABD population are not eligible for enrollment in the SoonerCare managed care waiver, including residents of nursing facilities, persons receiving home- and community-based waiver services, and persons dually eligible for Medicare and Medicaid.

[45] Richard Kronick, Zhiyuan Shou, and Tony Dreyfus. "Making Risk Adjustment Work for Everyone." *Inquiry,* vol. 32, spring 1995, pp. 41-55.

[46] Kaye and Pernice, p. III-22.

[47] The Pacific Health Policy Group. "SoonerCare Plus Operational/Financial Status Report & Capitation Rate Recommendations." Laguna Beach, CA: The Pacific Health Policy Group, February 2001, pp. 8-10, 23-26.

have been constrained by the FFS benefit limits, so past use was not a reliable guide to future use. In addition, without reliable and systematic information on the diagnoses and health conditions of enrollees, future use of such expensive services as emergency rooms, hospital inpatient services, and prescription drugs could not be predicted reliably. Other states used various forms of reinsurance and special outlier payments to cover the costs of such extremely high-cost enrollees, but Oklahoma chose at this point not to follow that approach.

In theory, rates that were set too high or too low in the first year could be adjusted in subsequent years as the state received data on service use and expenditures from MCOs participating in the Plus program. Unfortunately, OHCA and the MCOs were not successful in developing systems that could collect and report the kind of "encounter data" that would support such ongoing adjustments in the rates—a problem that was common in Medicaid managed care programs throughout the country during this period.[48]

A further complicating factor arose in 2001, when the legislature passed House Bill 2019, increasing the Medicaid fee-for-service rates paid to hospitals, physicians, and dentists. The legislature approved funding to pay higher rates to the MCOs to cover these higher payments to providers, but the impact of these higher payments on access and service use by ABD enrollees was difficult for OHCA to predict and incorporate in capitated payments to the MCOs.

As the SoonerCare Plus program developed, several of the participating MCOs found that the costs of serving the ABD population were higher than expected, and they argued to OHCA that the capitated rates they were receiving were insufficient. As will be discussed in greater detail below, this controversy over ABD costs and rates was one of the underlying factors that resulted in the end of the SoonerCare Plus program in late 2003.

6. Increasing Medicaid Budget Pressures in 2002 and 2003

Oklahoma state general fund revenues grew by about 5.5 percent a year between 1998 and 2001, while state expenditures on Medicaid increased by somewhat more, about 7 percent a year.[49] In state fiscal years 2002 and 2003, however, an economic downturn reduced state revenues by more than 5 percent a year, confronting the state with serious budget shortfalls ($412 million in SFY 2002, and $342 million in SFY 2003). Medicaid expenditure growth of 9 percent a year between 2001 and 2003 contributed significantly to these budget pressures.[50]

In April 2002, amid concerns over the state deficit and Medicaid spending growth, Governor Keating and the leaders of the state House and Senate assembled a team of analysts from the

[48] James Verdier et al. "Using Data Strategically in Medicaid Managed Care." Princeton, NJ: Center for Health Care Strategies, January 2002, pp. 24-41.

[49] National Association of State Budget Officers (NASBO). "Fiscal Survey of States." Washington, DC: NASBO, 1993-2007; NASBO. "State Expenditure Report." Washington, DC: NASBO, 1993-2007.

[50] This represents the growth rate after the implementation of OHCA expenditure reduction initiatives during this period.

state budget agency, OHCA, and other state agencies to review the Medicaid program and options for cost containment. In its May 2002 report, this task force identified several factors that were contributing to the Medicaid cost growth, including increased enrollment due to the softening economy, the provider rate increases in 2001, and increasing prescription drug expenditures for disabled and elderly enrollees. While noting that increases in MCO payments had added to Medicaid expenditures, the task force said these higher payments had prevented the erosion of access for Medicaid enrollees. The task force recommended against eliminating the capitated SoonerCare Plus program, calling this "a simplistic solution with little or no savings."[51]

For most of 2002, OHCA was able to postpone most cuts in services and all reductions in eligibility for pregnant women and children. In December 2002, however, OHCA initiated some cuts in services, including the elimination of the medically needy program, reductions in some benefits in the SoonerCare Plus MCO program to match the levels in the Choice program, limits on nursing home services and rates, and more stringent prior-authorization requirements for prescription drugs.[52]

7. Rising Costs in SoonerCare Plus

When Brad Henry, the newly elected Democratic governor, took office in January 2003, the state was still suffering from revenue shortfalls and Medicaid and other state expenditures were continuing to grow. OHCA took additional steps to control costs in early 2003, eliminating dental services, reducing the number of covered hospital days, and reducing the number of prescription drugs paid for per month for adults.[53]

At the same time, the SoonerCare Plus MCOs were continuing to argue that the state's capitated payments were not sufficient to cover their costs, especially for the ABD population. Heartland, the MCO owned by the University of Oklahoma academic medical center, made this case most aggressively, using its long-established contacts in the legislature to help build support for capitated rate increases. Nearly 60 percent of the 17,000 ABD beneficiaries in the SoonerCare Plus program in December 2002 were enrolled in the Heartland MCO, with the remainder divided among UniCare (WellPoint), CommunityCare, and Prime Advantage. ABD enrollees represented about 9 to 11 percent of total enrollees in each of the four plans.[54]

---

[51] Oklahoma Health Care Authority Study Task Force. "Findings." Oklahoma City, OK: Oklahoma Department of Human Services, May 3, 2002, p. 26.

[52] Governor Brad Henry. "FY 2004 Executive Budget." Oklahoma City, OK: Oklahoma Office of State Finance, February 3, 2003, pp. 142-143.

[53] Governor Brad Henry. "FY 2005 Executive Budget." Oklahoma City, OK: Oklahoma Office of State Finance, February 2, 2004, p. 250.

[54] OHCA, Finance Division. "Development of SoonerCare Plus Per Capita Using SoonerCare Choice Base." Oklahoma City, OK: OHCA, 2003, p. 2.; OHCA, Finance Division, "ABD vs. Children/Parents Enrollment (1998-2008," provided to MPR on November 21, 2008.

OHCA took steps to address this problem in 2002, developing with its Mercer actuaries a system of risk-adjusting the MCO rates to reflect enrollees' health conditions, based on a system that by then was widely used in other states (the Chronic Illness and Disability Payment System [CDPS]). OHCA began to phase this system in for calendar year 2003 rates, and planned to continue the phase-in in calendar year 2004.[55]

The MCOs argued that the federal government's requirement that Medicaid MCO capitated rates be "actuarially sound" meant that the projected costs of serving the MCOs' enrolled populations must be covered by their capitated payments.[56] Since actuaries often disagree in their projections of future costs, the actuarial soundness requirement is not a completely precise standard.[57]

In addition to the start of the new health-based risk adjustment system in 2003, OHCA gave MCOs greater leeway to control their costs beginning in 2003 by allowing them to put limits on some services for adults (3 drugs per month, 2 specialty doctor visits per month, 36 nurse home visits per year), end some services for adults (speech, physical, or occupational therapy; dental and vision services), and impose co-payments of from $1 to $3 on prescription drugs and hospital, physician, and home health care services.

Faced with continuing budget pressures, OHCA financial analysts were conducting their own analysis of MCO revenue needs, and concluded that capitated rates could be held down in the upcoming 2004 contract year without a reduction in services, while still remaining consistent with actuarial soundness requirements. The OHCA analysis compared what the state was paying on a per-member per-month (PMPM) basis in the SoonerCare Plus and Choice programs, and concluded that the state was paying somewhat more in the Plus program. The OHCA analysis noted that the MCOs were doing a "plausible" job of controlling hospital, prescription drug, and behavioral health service utilization, and that these efficiencies enabled the MCOs to provide better benefits to their enrollees than they could obtain in the FFS system.[58] OHCA's Mercer actuaries also conducted an analysis of SoonerCare Plus funding needs in April that showed the budgetary effects of various rate-setting options for calendar year 2004.[59]

---

[55] Letters from Denise Blank (Mercer) to Kevin Rupe (OHCA), "2003a (January through June) Risk Adjustment Methodology," November 26, 2002; and "2003b (July through December) Risk Adjustment Methodology," June 13, 2003.

[56] The actuarial soundness requirements are in 42 CFR sec. 438.6(c).

[57] Medicaid Rate Certification Work Group of the American Academy of Actuaries. "Actuarial Certification of Rates for Medicaid Managed Care Programs." Health Practice Council Practice Note. Washington, DC: American Academy of Actuaries, August 2005.

[58] OHCA, Finance Division. "Development of SoonerCare Plus Per Capita Using SoonerCare Choice Base." Oklahoma City, OK: OHCA, 2003, p. 11.; Mercer Government Human Services Consulting. "Funding Adequacy Analysis for the SoonerCare Plus Program for Calendar Year 2004." Prepared for OHCA, April 18, 2003.

[59] Mercer Government Human Services Consulting. "Funding Adequacy Analysis for the SoonerCare Plus Program for Calendar Year 2004." Prepared for OHCA, April 18, 2003.

8. Positive Results in SoonerCare Choice

In October 2003, OHCA issued its first Performance & Quality report on SoonerCare, titled "Minding our P's and Q's." The report compared the SoonerCare Plus and Choice programs on several dimensions, including rankings under the Quality Improvement System for Managed Care (QISMC), measures of service use and access from the Health Plan Employer Data and Information Set (HEDIS), and enrollee satisfaction measures from the Consumer Assessment of Health Plans Survey (CAHPS).

In general, the rankings for the Choice program were comparable to those for the Plus program, and in several cases were somewhat better.[60] This new report raised questions about how much extra value OHCA was receiving from the higher payments it was making to the MCOs.

9. End of SoonerCare Plus

CommunityCare had dropped out of the Tulsa market in 2002, leaving only two plans there (Heartland and UniCare). In May of 2003, CommunityCare also dropped out of the Oklahoma City market, leaving only Heartland and UniCare in that area.

That left three MCOs in the SoonerCare Plus program: two hospital-based plans (Heartland and Prime Advantage) and one commercial plan (UniCare/WellPoint). As part of the process of developing rates for calendar year 2004, the state's Mercer actuaries estimated in October that a 19 percent increase in rates would meet the CMS actuarial soundness standard. Based in part on the Mercer funding adequacy analysis in April, the legislature earlier in the year had appropriated enough funding to accommodate a 13.6 percent rate increase. OHCA therefore proposed a 13.6 percent increase to the plans, which was accepted by Heartland and Prime Advantage.[61]

UniCare continued to push for an 18 percent increase, concerned that it could not pass on its higher costs to its provider network without losing key providers. UniCare was also under pressure from its parent company, WellPoint, to maintain its profit margins. UniCare believed it was in a strong bargaining position, since its departure from SoonerCare Plus would leave only one MCO in each of the three urban areas. Oklahoma would then no longer be able to meet the federal requirement that a minimum of two MCOs must generally be offered in each area, leaving the viability of the SoonerCare 1115 waiver in jeopardy. UniCare therefore declined OHCA's offer of a 14 percent rate increase, and notified OHCA in October 2003 that it planned to pull out of the SoonerCare Plus program in all three urban areas, effective December 31, 2003.

---

[60] OHCA. "Minding Our P's & Q's." www.ohca.state.ok.us/reports/pdflib/pq_2003.pdf. Accessed October 3, 2008.

[61] OHCA. "SoonerCare Plus Transition." Presented to the National Association of State Human Services Finance Officers. Oklahoma City, OK: OHCA, August 2004.

During the rate negotiations with the MCOs, OHCA told the legislature and its board that it could perform "in house" the SoonerCare Plus administration functions at one-quarter of what MCOs were receiving and with one-quarter of the staff.[62] With that option available, OHCA and its Board determined that the SoonerCare managed care program could be continued without the MCOs.[63]

In an emergency meeting on November 7, 2003, the OHCA board voted to end the SoonerCare Plus program and to transition clients to the SoonerCare Choice program. The board's actions required OHCA to disenroll approximately 187,000 SoonerCare Plus members at midnight on December 31, 2003.

OHCA initially enrolled all of these members in the Medicaid FFS program on January 1, 2004, intending to move them into the SoonerCare Choice program by April, starting with those in Lawton, followed by those in Tulsa, then those in Oklahoma City. This required a major effort by OHCA to notify members and providers about the upcoming changes, and to make sure that members were linked to appropriate SoonerCare Choice providers. "We canceled all holiday leave in November and December," OHCA CEO Mike Fogarty said, "and staff cranked things out 24/7 until we got it done."[64]

By April 2004, 83 percent of the 187,000 former Plus enrollees had either enrolled with their current primary care provider or had selected a new provider. Only 17 percent were autoassigned to a new provider they had not specifically chosen. During the four-month transition period, OHCA mailed out more than 100,000 enrollment packets, called nearly 70,000 households, and sponsored 47 enrollment fairs.

OHCA also made considerable effort to reach out to providers during the transition, sending recruitment letters and making calls to nearly 600 SoonerCare Plus physicians, and visiting 248 provider sites that together included more than 1,000 individual practitioners. Approximately 45 OHCA staff were involved in a separate effort to recruit nearly 500 specialty providers.[65]

National Context. Nine other states ended their full-risk Medicaid managed care programs between 1999 and 2004: Alabama, Georgia, Maine, Mississippi, Montana, New Hampshire, Tennessee, Utah, and Virginia. All except Oklahoma, Tennessee, and Utah had small full-risk programs. Tennessee and Utah continued to contract with MCOs when they ended their full-risk programs in 2002, but on an administrative-services-only (ASO) basis in which the plans were

[62] Mike Fogarty, OHCA chief executive officer, interview by MPR staff, May 21, 2008.

[63] OHCA could have continued the SoonerCare Plus program with just one MCO in each urban area, with the Choice program as an option for enrollees in those areas, but OHCA chose not to pursue that approach.

[64] Fogarty interview, May 21, 2008.

[65] OHCA. "Report on the 2004 Transition of SoonerCare Plus Members to the SoonerCare Choice Program in the Southwest, Northeast & Central Service Areas of the State." Oklahoma City, OK: OHCA, July 2004; OHCA. OHCA. "State Fiscal Year 2004 Annual Report." Oklahoma City, OK: OHCA,. 2004, p. 26-27.

not at risk for the cost of health care services.[66] Unlike Oklahoma, Tennessee did not have a PCCM program to serve as an alternative to full-risk MCOs, and Utah had only a very small rural PCCM program.

D. ENHANCING THE PCCM MODEL AND EXPANDING COVERAGE: 2004 TO 2008

With the MCOs no longer involved and SoonerCare Choice now operating statewide, OHCA began enhancing the Choice program to enable OHCA to perform the care management functions previously performed by the MCOs. Later during this period OHCA took additional steps to expand coverage, concentrating on children and lower-income workers, and setting up a new Health Management Program to focus on enrollees with complex and high-cost medical conditions. A major part of the impetus for these later changes came from Medicaid reform legislation approved by the legislature in 2004 and 2006.

1. A New Era for SoonerCare Choice

As part of the transition to the statewide SoonerCare Choice model, the legislature authorized an additional 99 full-time-equivalent (FTE) staff positions for OHCA and $10 million for additional administrative expenses. This was approximately 25 percent of what OHCA estimated the MCOs were being paid for care management functions, and about 25 percent of the 400 staff that OHCA estimated the MCOs devoted to these functions. The new staff positions increased OHCA staffing to about 400 FTEs.[67]

a. Nurse Care Management

With the additional resources, OHCA hired 28 nurse care managers, most of whom had served as exceptional-needs coordinators with the MCOs. These nurse care managers helped to identify more than 600 former SoonerCare Plus enrollees with special and complex needs and worked with OHCA staff during the transition to contact these members and get them enrolled with SoonerCare Choice providers.

Once the transition was complete, the nurse care management team (expanded to 32 nurses and 2 social services coordinators) took on a broader range of responsibilities related to enrollees with complex conditions and special needs. The nurse care managers are currently divided into six geographic teams who respond to physician referrals and member self-referrals, and focus specifically on children with serious physical or mental disabilities who are living at home and children receiving in-home private duty nursing, transplant patients, women in the breast and cervical cancer program, and women with high-risk pregnancies. The nurses currently handle a

[66] Suzanne Felt-Lisk, Allison Barrett, and Jim Verdier. "Trends in Health Plans Serving Medicaid 1999-2004." Washington, DC: Mathematica Policy Research, Inc., January 6, 2006.

[67] Fogarty interview, May 21, 2008.

caseload of around 230 members per month.[68] They also play a major role in OHCA's Emergency Room (ER) Utilization Program, which was started in October 2004, and is aimed at reducing ER utilization by individuals who make heavy use of the ER.[69]

a. Physician Reimbursement

In 2005, the legislature approved an increase in Medicaid physician reimbursement rates in Oklahoma 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 had been increased the year before to 140 percent of Medicare.[70] As will be discussed further in Chapter III, it is not possible to determine whether this reimbursement increase had a direct impact on physician participation in SoonerCare, since changes in OHCA contracting procedures in 2004 make comparisons with prior years difficult, but several physicians we interviewed commented favorably on the increase.

National Context. Oklahoma was one of only a handful of states that paid physicians 100 percent of Medicare rates during this period. 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.[71]

OHCA had sought legislative approval for physician rate increases prior to 2005, but without success. The OHCA Board in 2004 identified increasing provider reimbursement rates as the highest priority for the SoonerCare program. OHCA concern with physician reimbursement was prompted in part by a lawsuit brought against the agency in March 2001 by the Oklahoma Chapter of the American Academy of Pediatrics, which alleged that OHCA was in violation of a federal law that requires state Medicaid programs to ensure that payments to providers are "sufficient to enlist enough providers so that care and services are available [under Medicaid] at least to the extent that such care and services are available to the general population in the geographic area."[72]

The trial court ruled in favor of the plaintiff physicians in May 2005, and ordered OHCA to increase Medicaid physician reimbursement to 100 percent of Medicare. OHCA appealed the

[68] OHCA nurse care managers, interview by MPR staff, May 21, 2008.

[69] For details on the ER Utilization Program, see www.okhca.org/WorkArea/showcontent.aspx?id=9184.

[70] The higher rates for state-employed physicians were financed in part through intergovernmental transfers from the state universities to OHCA, which in turn enabled OHCA to obtain additional federal Medicaid funding. OHCA. "SFY 2006 Service Efforts and Accomplishments Report." Oklahoma City, OK: OHCA, December 2006, p. 77.

[71] Stephen Zuckerman, Joshua McFeeters, Peter Cunningham, and Len Nichols. "Changes in Medicaid Physician Fees, 1998-2003: Implications for Physician Participation." *Health Affairs* Web Exclusive. http://content.healthaffairs.org/cgi/content/full/hlthaff.w4.374/DC1. Accessed November 21, 2008.

[72] 42 USC section 1396(a)(30).

decision on legal grounds, but as noted above, OHCA obtained legislative approval for a physician rate increase that complied with the trial court order. The trial court order was ultimately reversed in January 2007 by the United States Court of Appeals for the Tenth Circuit on the grounds that the physician plaintiffs did not have a right to sue on behalf of enrollees, but the physician rate increase has remained in place.[73]

2. Comparison with Enhanced PCCM Programs in Other States

States have followed a variety of approaches in seeking to "enhance" their PCCM programs beyond the basic 1990s model of paying physicians a $3 to $5 fee per member per month (PMPM) to improve access and care coordination in the context of a FFS reimbursement system. Some states, such as Massachusetts, paid a higher monthly fee, some used provider profiling and performance reports to encourage improved provider performance, and many states experimented with ways of improving care coordination by working more closely with physicians through in-house state staff, outside contractors, or local networks.[74] More recently, disease management and care management programs have been developed as an adjunct to PCCM programs, or as separate stand-alone programs.[75]

Oklahoma is the only state that adopted a partial capitation approach to paying PCCM providers, and it has the largest in-house staff of nurse case managers. Other states, such as Pennsylvania and Indiana, have contracted with outside vendors for PCCM program and care management, while North Carolina has built its enhanced PCCM program on an extensive set of local care networks.[76]

3. Health Management Program

In 2006, the Oklahoma Medicaid Reform Act (House Bill 2842) included a requirement that OHCA develop a disease management program to address the needs of chronically ill SoonerCare members and the concerns about growing healthcare costs. Since the legislature did not authorize any additional OHCA staff to implement this new program, the agency decided to contract with an outside vendor to develop and operate it. The Iowa Foundation for Medical Care

[73] Oklahoma Chapter of the American College of Pediatrics v. Fogarty, 472 F.3d 1208 (10th Circuit 2007).

[74] For a discussion of some of these earlier approaches, see Vernon K. Smith, Terrisca Des Jardins, and Karin A. Peterson. "Exemplary Practices in Primary Care Case Management." Princeton, NJ: Center for Health Care Strategies, June 2000; Margo Rosenbach and Cheryl G. Young. "Care Coordination in Medicaid Managed Care: A Primer for States, Managed Care Organizations, Providers, and Advocates." Princeton, NJ: Center for Health Care Strategies, May 2000.

[75] For a detailed recent summary, see The Lewin Group. "Designing and Implementing Medicaid Disease and Care Management Programs: A User's Guide." Washington, DC: Agency for Healthcare Research and Quality, March 2008.

[76] For profiles of the programs in Indiana, North Carolina and Pennsylvania, see The Lewin Group. "Designing and Implementing Medicaid Disease and Care Management Programs: A User's Guide." Washington, DC: Agency for Healthcare Research and Quality, March 2008, pp. 7-9, 15-16, and 19-21.

(IFMC), which operated a similar Medicaid program and several commercial programs in other states, was awarded the contract.

The SoonerCare Health Management Program (HMP) was launched in February, 2008 and uses practice facilitators and nurse care managers to work with SoonerCare Choice primary care providers to better meet the needs of high-cost, high-need members. SoonerCare Choice members are selected for the program by using predictive modeling software to identify the 5,000 members who are at highest risk for poor outcomes and increased health care costs. Out of those 5,000, the 1,000 members with the highest predicted costs receive in-person nurse care management and education to improve their self-management skills. The remaining members receive less intensive services from call-center-based nurse care managers. High-volume providers who agree to participate receive support from an on-site practice facilitator to enhance practice site quality and efficiency as well as financial incentives and access to a disease registry to help integrate evidence-based practices into care management.[77]

OHCA is currently working through how best to coordinate the new HMP and the nurse care management functions of the SoonerCare Choice program. The SoonerCare Choice nurse care management program is somewhat reactive, responding to physician referrals and member self-referrals, and is focused on members in specific categories, such as children with private duty nurses, women in the breast and cervical cancer prevention and treatment program, and children with serious physical and mental disabilities living at home. The work of the nurse care managers on the ER Utilization Program is more proactive, since the program identifies high ER users for care management efforts.[78]

The HMP takes the identification of members who can benefit from care management a step further by applying predictive modeling software to a wider range of past service use, not just ER use. In addition, the HMP formalizes the practice facilitator role, a role that the SoonerCare Choice nurse care managers may have performed on occasion, but not in a systematic way. Nonetheless, integrating the nurse care management functions of the two programs is likely to remain a work in progress over the next year or two.

4. SoonerCare Choice Next Steps–Toward a "Medical Home" Model

OHCA is currently developing further refinements in the SoonerCare Choice PCCM model, with an emphasis on revising the partial-capitation payment approach to incorporate more incentives for provision of primary care services, and including additional "pay for performance" incentives.

---

[77] OHCA. "OHCA to Launch SoonerCare Health Management Program." www.ohca.state.ok.us/about.aspx?id=8203. Accessed November 21, 2008. Also see Center for Health Care Strategies. "Medicaid Best Buys: Improving Care Management for High-Need, High-Cost Beneficiaries." www.chcs.org/publications3960/publications_show.htm?doc_id=674876. Accessed November 21, 2008.

[78] Lynn Mitchell, Oklahoma Medicaid director, interview by MPR staff, May 23, 2008.

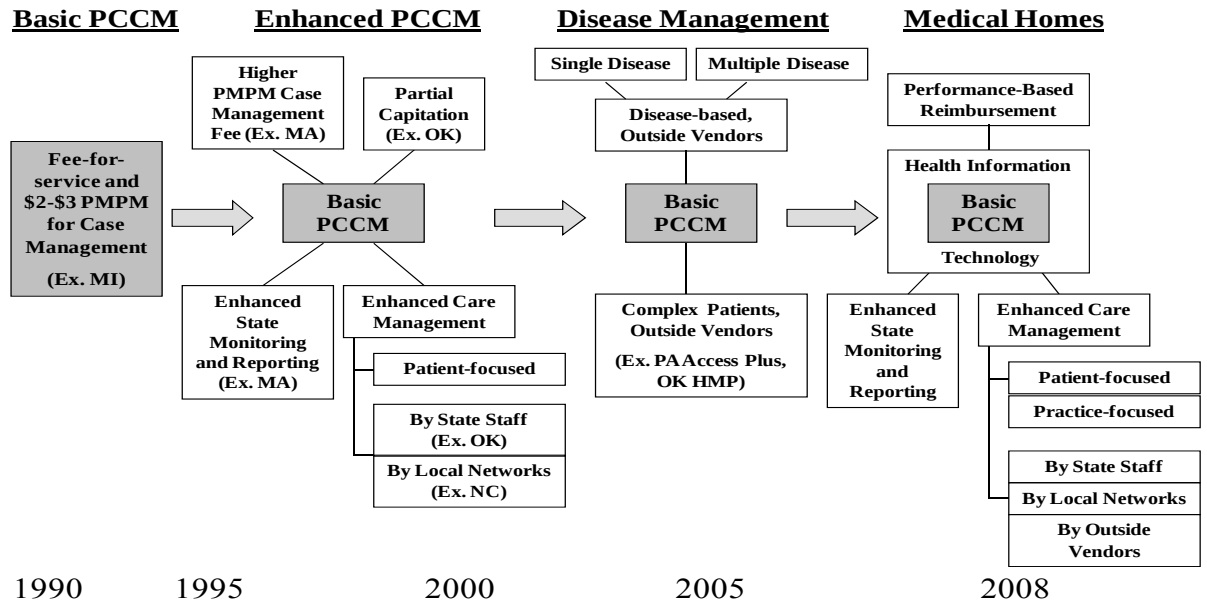
Current "medical home" payment refinements call for:

- ***A monthly care coordination payment*** of approximately $3 to $13 PMPM depending on services offered in the practice and patient characteristics
- ***A visit-based FFS component,*** essentially the existing FFS payment system
- ***An expanded performance-based component***, including factors for EPSDT screening, cervical and breast cancer screenings, physician inpatient admitting and visits, and ER utilization[79]

In developing this medical home approach, OHCA visited North Carolina and Arkansas to review their enhanced PCCM program models, and is currently consulting with a Medical Advisory Task Force created in February 2007 that is made up of physicians representing the various provider associations in Oklahoma.[80]

Figure II.1 ("Basic PCCM to Medical Homes: Trends from 1980 to 2008") shows how the basic PCCM model of the early 1990s has evolved into the "medical home" model currently being considered in Oklahoma and other states.

Figure II.1. Basic PCCM to Medical Homes Trends from 1990 to 2008



[79] Deborah Ogles, OHCA. "A Medical Home for Every SoonerCare Choice Member." Presentation at National Academy for State Health Policy Medical Homes Summit, Washington, DC, July 24, 2008.

[80] OHCA. "OHCA Moving Toward Patient-Centered Medical Home for all SoonerCare Choice Members." www.ohca.state.ok.us/assets/0/1065/33f22250-d895-41d4-81f4-ab97fd646ec3.pdf. Accessed October 8, 2008.

5. Expanding Coverage for Uninsured Children and Adults

When Governor Brad Henry (Dem.) took office in 2004, he proposed a tobacco tax increase of 55 cents to fund a set of health care initiatives, including $50 million for premium assistance to businesses to help provide medical coverage to employees, $50 million for increased Medicaid provider rates, and smaller amounts for a variety of other programs. The Democratic legislature approved these proposals, enacting Senate Bill 1546 in 2004, which charged OHCA with designing a health insurance program for adults with incomes up to 185 percent of FPL, to be funded by an increase in tobacco taxes. Voters endorsed the tobacco tax hike in a referendum in the fall 2004 election. In 2007, the governor and legislature took further steps toward expanding coverage by enacting a bill to include children in families earning up to three times FPL.

a. Coverage Expansion for Adults Through "Insure Oklahoma"

In 2003-2004, OHCA conducted a set of studies on the state's uninsured population, with support from a federal government grant (Health Resources and Services Administration State Planning Grant). Among its major findings were: (1) about 20 percent (675,000) of the state's population lacked health insurance, placing Oklahoma's uninsured rate at ninth highest in the nation; (2) seven in 10 uninsured people were low-income working adults; (3) only 37 percent of small businesses (with 50 or fewer employees) offered health benefits, compared to 47 percent nationally; and (4) small businesses that did not offer employee health benefits ranked financial assistance and flexibility in benefits as important incentives to do so.[81] These findings led to the emphasis in the 2004 law (Senate Bill 1546) on expanding coverage to low-income uninsured working adults, and developing a subsidy program targeted to small businesses and low-income workers. In response to SB 1546, OHCA, working closely with the Oklahoma Insurance Department (OID), created the Oklahoma Employer/Employee Partnership for Insurance Coverage (O-EPIC) Program, later re-named Insure Oklahoma. It consists of two parts:

- ***Employer-Sponsored Insurance (ESI) Plan.*** This plan provides subsidies to qualifying Oklahoma businesses to help them afford the cost of paying private insurance premiums for qualifying employees. It began in November 2005. Eligible workers must be adults (ages 19 to 64) earning up to 200 percent of the federal poverty level[82] working for an enrolled employer, which must have 50 or fewer workers. Workers must enroll in an Insure Oklahoma qualified plan, which must cover certain minimum benefits and be approved by the state Oklahoma Insurance Department. Employers must pay at least 25 percent of the worker's monthly premium; employees pay up to 15 percent of the monthly premium for themselves and a spouse, but no more than 3 percent of the family income (children in the family

[81] OHCA. "Oklahoma State Planning Grant, Interim Report." www.okhca.org/reports/pdflib/InterimReport.pdf. Accessed November 21, 2008.

[82] When the program began in 2005, the maximum income allowed for subsidies was set at 185 percent of FPL. When enrollment caps were not exceeded at this level, the income limit was raised to 200 percent one year later.

are eligible for SoonerCare); the state covers the remaining share of the premium, which is financed by tobacco tax revenues and federal matching funds available through the Section 1115 Medicaid demonstration waiver.

- ***Individual Plan.*** This plan is for self-employed individuals and those who do not have access to employer-sponsored health benefits. It began in early 2007. Eligible individuals include adults ages 19 to 64, earning up to 200 percent of FPL. Enrollees must be workers at small businesses who are not eligible to participate in their employer's health plan or whose employer does not offer qualifying Insure Oklahoma coverage, or self-employed individuals not eligible for small group health coverage, or temporarily unemployed individuals who are eligible to receive unemployment benefits, or working adults with a disability who work for any size employer. Those enrolled in the Individual Plan have access to a limited version of the SoonerCare benefit package and contracted providers and there is a $1 million lifetime benefit cap. Premiums are based on a sliding scale and co-payments are required for some services. There are no pre-existing condition exclusions. Services excluded from the Individual Plan that are covered by Medicaid include dental, vision, hearing, transportation, long-term care and transplants.

Financing for Insure Oklahoma comes from federal and state funds. The state capped program enrollment at 50,000 to ensure that state revenues, matched by federal funds, would be sufficient to cover estimated subsidy costs. Federal financing (approximately $7 for every $3 in state funds) depended on gaining federal approval to amend the state's Medicaid Section 1115 demonstration waiver, enabling the state to tap as much as $1.8 billion in savings that it had accumulated since SoonerCare began in 1996. OHCA submitted the waiver amendment request to CMS in January 2005 and obtained CMS approval in September of that year.

The state share of program costs is financed with additional tobacco tax revenue, which was expected to produce as much as $149 million in state revenue and up to $400 million with federal matching funds for health care programs.[83] Initially, the tobacco tax revenue produced less than projected and lawmakers sought stricter enforcement.[84]

Insure Oklahoma had a slow start despite new funding from the tobacco tax. Enrollment in Insure Oklahoma was below 6,000 for the first two years; it reached 10,000 in the spring of 2008, due in part to a media campaign in the fall of 2007. As of December 2008, enrollment stood at 15,907. To increase enrollment, OHCA in 2007 proposed and the legislature passed a bill authorizing further expansions in eligibility: the size of qualifying businesses would rise from 50 to 250 employees; full-time college students ages 19 to 22 with income up to 250 percent of FPL would be eligible; the maximum household income also was increased from 200 to 250 percent of FPL; and children below age 19 in families with income up to 250 percent of

[82] Oklahoma Office of State Finance. "Oklahoma FY-04 Comprehensive Annual Financial Report." Oklahoma City, OK: OSF, 2005.

[84] Janice Francis-Smith. "Oklahoma Treasurer Meacham Asks for Help in Enforcing Tobacco Tax." http://findarticles.com/p/articles/mi_qn4182/is_20051122/ai_n15846734/. Accessed October 16, 2008.

FPL would be allowed to enroll in Insure Oklahoma plans, along with their parents. In August 2007, OHCA submitted a Section 1115 waiver amendment to CMS to authorize these changes.[85] In May 2008, however, CMS indicated it would not approve expansions for adults earning more than 200 percent of FPL, so that is the current limit.

b. All Kids Act

Recognizing that Oklahoma lagged behind the U.S. average in its coverage of low-income children and adults, the Oklahoma legislature passed the All Kids Act in 2007. The law authorized premium assistance coverage eligibility for children up to age 18 in families earning up to 300 percent of FPL, which would cover an estimated 40,000 additional children under SoonerCare.

Shortly after the legislation passed, on August 17, 2007, CMS issued a directive to all states seeking to increase Medicaid or SCHIP income eligibility standards above 250 percent of FPL. It established several requirements, some of which were quite difficult to meet.[86] To comply with CMS directions, OHCA officials decided to scale back the planned eligibility expansion from 300 to 250 percent of FPL, and revised a waiver amendment request to CMS in December 2007 to that effect. In May 2008, however, CMS told the state that its methodology for counting income for children in qualifying families, which disregards monthly earned income up to $240 in work-related expenses and up to $200 in day care expenses, ran counter to the August 17 directive because it would raise the "effective" maximum income level above 250 percent FPL. As of this writing, 14 months after OHCA's initial waiver amendment submission, CMS still had not approved the request, putting the planned expansion on indefinite hold.

c. Oklahoma Coverage Initiatives and Medicaid Eligibility Standards in the National Context

While Oklahoma has sought to expand coverage to additional low-income workers and children since state budget pressures diminished after 2003, some other states moved more aggressively in this direction. In 2005 and 2006, Massachusetts debated and enacted landmark health reform legislation which aims to achieve universal coverage by: requiring employers and individuals to contribute to premium costs, setting up an insurance exchange to make insurance policies more accessible to individuals and small employers, and providing state subsidies to low-income workers and individuals. In 2005, Illinois enacted the "Covering All Kids" law, which builds on previous Medicaid and SCHIP expansions to make health coverage available to

[85] OHCA. "OHCA SoonerCare Section 1115 Demonstration Waiver Amendment Request." Oklahoma City, OK: OHCA, August 2007.

[86] CMS required states to: (1) enroll at least 95 percent of eligible children with family income below 200 percent of FPL in either public or private insurance programs, (2) provide assurance that children in the target population insured through private employer coverage had not decreased more than 2 percentage points in the prior five-year period, and (3) establish a one-year period of uninsurance for new enrollees with family income greater than 250 percent FPL. See CMS. "State Health Official Letter, SHO #07-001." www.cms.hhs.gov/smdl/downloads/SHO081707.pdf. Accessed November 21, 2008.

all children, with premiums charged on a sliding fee scale. More than 20 states, including Oklahoma, are using Medicaid or SCHIP waivers to expand coverage to populations not otherwise eligible for coverage.[87] Oklahoma is also one of more than 20 states with premium assistance programs that make health insurance more affordable to small businesses and low-income workers.[88]

Over the life of the SoonerCare program, Oklahoma's income eligibility thresholds for pregnant women and children were (and still are) higher than the federally mandated minimums. But they are also much lower than those in most other states (see Table II. 5). Over the past 15 years, only in 1996–just before the enactment of the federal State Children's Health Insurance program–did Oklahoma's income eligibility level for children put it in the top 20 percent of states. After SCHIP was enacted in 1997, most states expanded income eligibility for pregnant women and children to at least 200 percent of FPL. By 2006, Oklahoma was one of only seven states whose maximum income eligibility level was 200 percent of FPL. Consequently, the 2007 All Kids Act represents an important step for Oklahoma to bring its income eligibility for children closer to that of some of the leading states.

6. American Indians and SoonerCare

Oklahoma is home to 39 tribal governments and 390,000 American Indians, which is about 11 percent of the population in Oklahoma.[89] Oklahoma' American Indian population is the third highest in the United States.[90] Currently, about 80,000 American Indians are enrolled in SoonerCare, but it is estimated that many more qualify, given the disproportionate rates of poverty in this group.[91]

---

[87] Cynthia Shirk. "Shaping Medicaid and SCHIP Through Waivers: The Fundamentals." www.nhpf.org/pdfs_bp/BP64_MedicaidSCHIP.Waivers_07-22-08.pdf. Accessed November 18, 2008; CMS. "State Children's Health Insurance Program (SCHIP) Section 1115 Demonstration Projects." www.cms.hhs.gov/LowCostHealthInsFamChild/downloads/Section1115ReportApprovedUnderReview.pdf. Accessed November 18, 2008.

[88] Dan Belnap and Sonya Schwartz. "Premium Assistance." *State Health Policy Monitor*, vol. 1, no. 3. Portland, ME: National Academy for State Health Policy, October 2007.

[89] U.S. Census Bureau. "2006 American Community Survey." http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=04000US40&-qr_name=ACS_2006_EST_G00_DP5&-ds_name=ACS_2006_EST_G00_&-_lang=en&-_sse=on. Accessed October 16, 2008.

[90] U.S. Census Bureau. "The American Community—American Indians and Alaska Natives: 2004." http://www.census.gov/prod/2007pubs/acs-07.pdf. Accessed October 15, 2008.

[91] OHCA. "American Indian Fast Facts: August 2008." www.okhca.org/assets/0/1065/6043e0e0-4650-42ec-bff3-1afbc2f3bbda.pdf. Accessed October 15, 2008; U.S. Census Bureau. "The American Community—American Indians and Alaska Natives: 2004." www.census.gov/prod/2007pubs/acs-07.pdf. Accessed October 15, 2008.

Table II.5. Oklahoma Medicaid Eligibility Income Levels Relative to Federal Poverty Standards and Other States

	Federal Minimum	Medicaid or SCHIP Maximum in any other state	OK	Number of States Exceeding OK's income standard
1996				
Pregnant Women and Infants	133%	185%	150%	28
Children Ages 1-6	133%	N/A	133%	10
Children older than age 6	100%[a]	N/A	100%	10
1998 (after SCHIP enacted)				
Pregnant Women and Infants	133%	300%	185%	27
Children Ages 1-6	133%	200%/300%[b]	185%	26
Children older than age 6	100%[a]	300%	185%	25
2006				
Pregnant Women and Infants	133%	300%	185%	42[c]
Children Ages 1-6	133%	300%	185%	42[c]
Children older than age 6	100%	300%	185%	43[c]

Source: National Governors' Association *MCH Updates*, September 1996, September 1998, and February 2006.

Note: Eligibility levels shown as a percent of the federal poverty level (FPL), based on income standards applicable for that year.

[a]The Balanced Budget Act of 1997 expanded Medicaid eligibility in all states to children born after September 30, 1983 on a phased-in basis; those up to age 13 were eligible in 1996 and those up to age 15 were eligible in 1998. All children up to age 19 were eligible in 2002.

[b]If the pre-1997 level was near 200%, states were permitted to increase eligibility level by up to 50 percentage points.

[c]Maximum income level established under state Medicaid or SCHIP program.

Oklahoma's evolving efforts to address the unique relationship between American Indians and SoonerCare exemplifies OHCA's approach to making modifications over time based on careful consideration of stakeholder concerns. While the actions taken to accommodate American Indian Medicaid enrollees are specific to Oklahoma, their approach, according to OHCA, "strives to serve as a model for other state agencies that desire to strengthen relationships with tribal governments."[92]

a. The Federal Role

The health care of American Indians is a federal trust responsibility, which means free care is provided at Indian Health Services (IHS) facilities, tribal health facilities, and urban Indian clinics.[93] The federal appropriation to Indian health facilities is continually under-funded,

[92] OHCA. "Inaugural SoonerCare Tribal Consultation a Success." www.ohca.state.ok.us/provider/updates/pdflib/2007_fall.pdf. Accessed October 15, 2008.

[93] OHCA. "Understanding Indian Health Services." www.okhca.org/WorkArea/showcontent.aspx?id=1614. Accessed October 15, 2008.

covering about 60 percent of their costs.[94] There are no mandatory benefits and access to specialty services is often very limited. The limited resources result in rationing of care, long waiting periods, reduced hours of operation, and inadequate staffing.[95] Tribal governments have taken steps to leverage additional federal resources to help fill the gap. Indian health facilities are considered the payer of last resort, so Medicare, private health insurance, and Medicaid pay first. Medicaid has become the largest third party payer for services provided at Indian health facilities.[96]

The additional revenue from Medicaid gives Indian health facilities strong motivation to facilitate enrollment of patients. But the unique status tribes hold as sovereign nations presents challenges for fitting American Indians into the SoonerCare structure, since they are not bound by many state rules without entering into a formal government-to-government agreement. Barriers also exist for enrolling eligible American Indians, since they may believe enrollment is unnecessary because free care is provided at an Indian health facility.[97] The incentive to enroll in Medicaid often comes when additional services, such as specialty care, are required outside an Indian health facility.[98]

b. OHCA Initiatives

OHCA's attention to American Indian issues has evolved during the last decade as federal policy has influenced the dynamic between Medicaid and the IHS. It was not until the early 1990s that Indian health facilities could bill Medicaid or Medicare. Later, as SoonerCare was being implemented, many tribal-run and Urban Indian clinics decided not to contract with managed care plans to be recognized providers in SoonerCare Plus. One reason was that Indian health facilities could receive higher compensation compared to the rates offered by the MCOs if they continued to utilize the Office of Management and Budget's reimbursement rate (OMB rate), a flat daily rate per visit paid to Indian health facilities.[99]

---

[94] Northwest Portland Area Indian Health Board. "A Special Report: A National Roundtable on the Indian Health System and Medicaid Reform." www.ihs.gov/Misc/links_gateway/download.cfm?doc_id=10095&app_dir_id=4&doc_file=MRT_report.pdf. Accessed October 15, 2008.

[95] Melissa Gower. "Overview of the Indian Health System." www.ok.gov/oid/documents/Indian%20Health%20System%20101%20summ-Melissa%20Gower.ppt. Accessed October 15, 2008.

[96] OHCA. "Understanding Indian Health Services." www.okhca.org/WorkArea/showcontent.aspx?id=1614. Accessed October 15, 2008.

[97] Melissa Gower, p.4.

[98] Carmelita Skeeter, Indian Health Care Resource Center of Tulsa, Inc executive director, interview with MPR staff, June 17, 2008.

[99] Trevlyn Cross, OHCA Indian Health Unit Manager, interview with MPR staff, June 17, 2008.

Minimal participation in SoonerCare Plus meant that American Indian issues remained a lower priority for OHCA during the early implementation of SoonerCare.[100] Then in 1996, CMS and IHS issued a Memorandum of Understanding that allowed states to receive a 100 percent Federal Medical Assistance Percentage (FMAP) for Medicaid services provided at Indian health facilities versus the 69 percent FMAP in Oklahoma for other Medicaid enrollees. At the same time, there was growing interest among tribes to participate as primary care providers (PCPs) in the SoonerCare Choice program in order to leverage additional federal funds and facilitate access to care for their Medicaid patients who had to navigate the Indian health and Medicaid systems. In 1999, OHCA was compelled to consult with tribes about American Indians' inclusion in SoonerCare after their first section 1115 waiver renewal request was halted by IHS.

A first step to partnering between OHCA and Indian health providers occurred when they developed a model Medicaid program for American Indians in 2001 as part of the waiver renewal that had been halted. These contracts allowed Indian health facility providers to serve as PCPs in SoonerCare Choice and make referrals outside the Indian health networks but maintain the OMB rate plus a $2 to $3 per member per month case management fee. In exchange, Indian health facilities agreed to comply with certain licensure, auditing, and regulatory requirements. OHCA sets American Indian-specific policies and ensures American Indian-specific language is included in SoonerCare waivers.

OHCA went on to develop and strengthen partnerships with tribal governments and organizations focused on American Indian health. These efforts were facilitated by Governor Henry's appointment of Chickasaw Nation Governor Bill Anoatubby to the OHCA Board. Some of the actions taken by OHCA include hiring dedicated staff to perform liaison services, holding quarterly meetings with Indian health facility staff, starting a Program of All-Inclusive Care for the Elderly (PACE) at the Cherokee Elder Care Center, and developing a formal tribal consultation policy. This policy was developed in 2007 with the goal of "maximizing partnerships with sovereign tribal government by consulting with them on SoonerCare issues affecting their service delivery, such as program development, strategic planning and legislation."[101] One feature of the new policy is the SoonerCare Tribal Consultation, an annual meeting between tribal leaders, American Indian organizations, and state and federal government representatives. Carmelita Skeeter, executive director of the Indian Health Care Resource Center of Tulsa, Inc., has commented: "The state is willing to work with the Indian programs. It was not like this initially, but OHCA has made a strong effort to include Indian-specific language in any decision-making. Overall, Oklahoma is far and above what other states are doing with their Indian populations. It is the staff and the leadership at OHCA that has made the difference here in Oklahoma."[102]

[100] Cross interview, June 17, 2008.

[101] OHCA. "Inaugural SoonerCare Tribal Consultation a Success." www.ohca.state.ok.us/provider/updates/pdflib/2007_fall.pdf. Accessed October 15, 2008.

[102] Skeeter interview, June 17, 2008.

E. OHCA STRUCTURE, MANAGEMENT, AND COMMUNICATIONS

1. OHCA Structure and Governance

As noted earlier, OHCA is a stand-alone agency with its own governing board. Only six other states have stand-alone Medicaid agencies, and only Kansas has a separate governing board with authority similar to that of OHCA's board.

2. OHCA Organization and Management

OHCA currently has about 440 FTE employees organized into six divisions.[103] From the beginning, OHCA has had its own personnel system and salary structure, separate from the state civil service system. This has given OHCA unusual flexibility to organize and reorganize the agency, promote and dismiss staff, and pay salaries that are more competitive with those in the private sector. This flexibility and ability to pay higher salaries has enabled OHCA to attract staff and managers and to retain them for long periods. Many key staff and managers have been with the agency since it was established. Among executive staff, 67 percent have been with OHCA since 1995 and 70 percent of all supervisory staff have been employed with OHCA since 2000.

There has also been unusual stability in OHCA's top management. Mike Fogarty, the CEO, served as Medicaid director when OHCA was established in 1995, and became the CEO in 1999. Lynn Mitchell, the current Medicaid director, has been in that position since 2000, and prior to that served as the OHCA Medical Director, starting in 1995.

OHCA makes extensive efforts to involve the agency's board in the development of OHCA's annual strategic plan during an annual two-day retreat that is open to the public. The strategic plan is then published, along with a performance report on the agency's service efforts and accomplishments.[104]

We discuss in more detail in Chapter IV the impact these organizational factors may have had on the evolution of the SoonerCare program.

3. Advances in Information Technology

In recent years, OHCA has made three notable improvements to its information technology infrastructure that have streamlined OHCA's managerial operations and simplified interactions with providers and members: implementing real-time online claims processing, consolidating call center databases, and developing online enrollment systems. These advances were enabled in part by OHCA's deep technical knowledge base, which has facilitated productive collaborations

[103] For an OHCA organization chart and a description of core functions, see OHCA. "About Us." www.ohca.state.ok.us/about.aspx?id=32. Accessed October 8, 2008.

[104] For details on OHCA's annual strategic planning effort and the strategic planning and performance report see www.ohca.state.ok.us/about.aspx?id=32. Accessed October 8, 2008.

with key data processing contractors. Many information technology staff joined the agency when it was first formed, or transitioned to OHCA from one of the managed care organizations that participated in SoonerCare Plus, so they bring a thorough understanding of OHCA's particular information technology infrastructure to the development of new projects.

In December 2002 the agency transitioned to a real-time claims processing system developed by Electronic Data Systems (EDS) which included an online interface for providers to submit claims. EDS reports that fewer than 5 percent of claims are now processed on paper, compared to 20 percent of claims when they first implemented the system in 2002. With the new system providers also receive real-time notification of claims that fail the adjudication process, and can troubleshoot and confirm payment of those claims with a live call center. Online real-time processing has also improved provider cash flow, as reimbursements from OHCA can be processed weekly rather than monthly. Anecdotally, the new system has had a positive impact on provider participation and customer service.

Several advances have been made in the databases that support OHCA's call centers. In 2002, Oklahoma began using the Atlantes case management system to track contacts with the nurse care management program. Since Atlantes also pulls in data feeds from the Medicaid Management Information System (MMIS), nurse care managers are able to view a complete and up-to-date picture of members' contacts and medical claims history when they interact with clients. The agency is working to link the Atlantes system with a database for tracking behavioral health encounters so nurses can view both medical and behavioral service histories. In 2004, EDS also began operating a first-tier call center, with its databases acting as a central repository for information about claims processing. Information captured upon call intake is transferred with the provider, so call center representatives can access complete claims processing information and providers do not have to repeat information.

Finally, OHCA has begun online enrollment initiatives for both providers and members. As a first step in 2007, OHCA launched an online system that employees can use to enroll in Insure Oklahoma once their employers have registered. Though online enrollment volume has been lower than anticipated due to less internet connectivity in rural parts of the state, about 10 percent of Insure Oklahoma applications are now received electronically. In April 2008 an online system was launched that allows hospitals and providers to enroll newborns of SoonerCare-enrolled mothers on-site. The online tool includes real-time PCP assignment and immediately issues a SoonerCare identification number. Going forward, the agency plans to launch an online provider enrollment program that will be operational by the end of 2008 and an online SoonerCare Choice member enrollment system scheduled for implementation in 2009. The online system for members will be supported by free-standing kiosks in provider offices so that potential members can assess their eligibility at the point of service.

4. OHCA Communications

OHCA over the years has done an unusually thorough job of documenting its activities, plans, and accomplishments. OHCA's major publications include:

- Annual Reports for State Fiscal Years 2000-2008

- Service Efforts and Accomplishments Reports for State Fiscal Years 2000-2008
- Strategic Plans published in 2004, 2005, 2006, and 2008
- "Minding Our P's and Q's" Performance and Quality Reports, 2003-2008
- Monthly Enrollment "Fast Facts" and other short "Fast Facts" reports on a variety of topics
- Detailed quality-related studies on a variety of topics, including EPSDT screening, prenatal care, diabetes care, and ER utilization

All of these reports and studies are available on the OHCA web site at: www.ohca.state.ok.us/research.aspx.

In addition, OHCA prepares very thorough and informative quarterly and annual reports on its SoonerCare 1115 waiver, which are available on the CMS web site at: www.cms.hhs.gov/MedicaidStWaivProgDemoPGI/MWDL/.

We relied extensively on these reports in preparing our evaluation. We discuss in Chapters IV and V what we were told in our interviews about who in Oklahoma uses these reports, and what impact they may have.

III. OUTCOMES AND TRENDS WITHIN OKLAHOMA'S SOONERCARE PLUS AND CHOICE PROGRAMS

In moving away from a fee-for-service delivery system, the initial objectives of SoonerCare Plus and SoonerCare Choice were to improve access to primary care, reduce costs, and introduce greater budget predictability. As the SoonerCare program has evolved and cost savings have been realized, the expansion of eligibility and enrollment have also become important goals, as evidenced by initiatives such as Insure Oklahoma, which makes new groups of low-income Oklahomans eligible for coverage, and outreach approaches, such as online eligibility determination, that facilitate enrollment of the qualified population. This chapter presents evidence to assess the degree to which the SoonerCare waiver program has met both its initial and evolving goals. Specifically, we examine changes in member access to care by analyzing physician participation, the incidence of preventable hospitalizations, and emergency room utilization patterns. We also examine trends in enrollment within the qualifying population, SoonerCare Choice's performance on health care quality measures, and financial outcomes realized by the program. To provide context for our discussion of SoonerCare members, the final section of this chapter discusses trends in primary care utilization and health status among low-income Oklahomans in general. Each section provides a brief overview of analytic methods and key considerations for interpreting the results; additional statistics beyond those included in this chapter can be found in Appendix B.

A. SOONERCARE WAIVER MEMBERS' ACCESS TO PRIMARY CARE

Several objectives of the SoonerCare waiver program were aimed at improving access to primary care, which program architects believed could lead to improved health outcomes and, in turn, lower health care costs over time. Specifically, the program aimed to expand provider capacity in rural areas and to ensure member choice of a primary care provider (PCP), who would deliver basic medical services and coordinate more complex care.[105] These issues have remained important as the program has evolved, and OHCA now conducts a monthly assessment of the number of providers who have agreed to serve as PCPs relative to its total enrolled population. For example, in August 2008, OHCA reported having 1,357 unduplicated providers as PCPs for the SoonerCare Choice program, who would have the capacity to serve a total of 1,371,876 members if their panels were the maximum size that they requested and that OHCA permits. In aggregate, 28 percent of this total capacity is used by current enrollees, though this measure ranges widely across counties, from a high of 89 percent to a low of just 7 percent of capacity. In addition, of Oklahoma's 77 counties, three have no SoonerCare Choice PCPs, and

[105] OHCA. "Application to the Department of Health and Human Services for the Development of SoonerCare: A Statewide Demonstration Project Incorporating Rural Managed Care Initiatives." Oklahoma City, OK: OHCA, December 1, 1994, pp. 2-3.

22 have fewer than five PCPs, indicating that access remains somewhat uneven across the state.[106]

To complement OHCA's thorough and ongoing analyses on the distribution of providers, in this section we examine several additional measures of physician participation, focusing on PCPs, and two measures of the frequency of high-cost events (inpatient hospitalization and emergency room [ER] visits) that provide insights into the quality of primary care that SoonerCare members receive.

First, we combine data from OHCA with data from the Health Resources and Services Administration (HRSA) Area Resource File (ARF) and assess how successfully OHCA has enrolled PCPs from the available pool of primary care practitioners in the state. Since partial capitation provides incentives for providers to enlarge their patient panel size, but not necessarily to provide adequate services to those patients, we evaluate whether participating PCPs appear to be providing services to their panel members. While PCPs are the cornerstone of the SoonerCare Choice program, OHCA has also focused recruitment efforts on specialists over the years, aiming to improve member access to advanced care when needed. Accordingly, we also examine trends in total provider enrollment, including PCPs and specialists.

Second, we match OHCA enrollment records with inpatient discharge records maintained by the Oklahoma State Department of Health (OSDH) and use a tool developed by the Agency for Healthcare Research and Quality (AHRQ) to identify the incidence of hospitalizations for ambulatory care sensitive conditions (preventable hospitalizations). These are conditions for which hospitalization could be avoided if the patient received timely and adequate outpatient care; therefore, this measure reflects the performance of the primary care system as a whole, including care management efforts by OHCA. This inpatient discharge data permits us to make comparisons between the SoonerCare Plus and Choice programs on this measure of preventable hospitalizations, something OHCA was not able to do in the past because the SoonerCare Plus managed care organizations (MCOs) did not submit complete and reliable encounter data on hospital use.

Finally, we examine ER utilization as a proxy measure that can be used to infer the degree of physician and OHCA oversight of SoonerCare Choice members. We expect that greater oversight would result in more appropriate preventive care and chronic care management with a concomitant decrease in the ratio of ER to office visits.

1. Provider Participation

a. Data Sources and Methods

OHCA supplied records on contracted PCPs, their assigned member panel sizes, and total capitated encounters provided by those PCPs from 1997 to 2007. The data include contracted PCPs in both the SoonerCare Plus and SoonerCare Choice programs; however, records for urban

[106] OHCA. "Provider Fast Facts: August 2008." www.ohca.state.ok.us/WorkArea/showcontent.aspx?id=9252. Accessed October 14, 2008.

Plus providers covering the period from 1997 to 2003 may be less accurate than those for rural Choice providers, since OHCA was dependent upon Plus-participating plans to submit data. From 2004 to 2007, records for all providers were collected directly by OHCA and are considered reasonably reliable. However, encounter data for services provided under the partial capitation arrangement in SoonerCare Choice may not fully reflect services rendered. Internal studies of the quality of reporting on early and periodic diagnostic, screening, and treatment (EPSDT) visits, which are covered under the partial capitation rate paid to SoonerCare Choice PCPs, suggest that such encounters may be underreported by 4 to 15 percent.[107]

In 2004, OHCA began enrolling provider groups as PCPs, rather than requiring individual PCP contracts with each of the providers within the group. SoonerCare members are assigned to the group, rather than to an individual provider within the group. This shift in contracting has simplified the process for provider groups, and may create efficiencies for patients who now have the flexibility to schedule appointments with any available group staff; however, associated changes in the way PCPs are counted make it difficult to compare the number of participating PCPs before and after 2004. Specifically, since 2004, OHCA has counted all providers within the group as potential PCPs, though they may not all actually provide care to Medicaid patients, inflating the number who appear to be participating providers.

Accordingly, we conduct our analysis in two parts. First, we focus on contract-level analyses, which are the level at which SoonerCare members are assigned, and examine trends in the number of PCP contracts by provider type (physicians [MD], doctors of osteopathic medicine [DO], nurse practitioners [NP], physician assistants [PA], multi-provider groups, and safety-net clinics[108]) from 1997 to 2007. We also examine the distribution of members across the different provider contract types, and the distribution of capitated encounters provided to assigned members during the calendar year. For each of these measures, we examine trends separately for the urban population and the rural population.[109] Finally, we assess the contract turnover rate, which is defined as the number of PCP contracts that had lapsed in December, divided by the total number of active contracts for PCP services at any point during the year.

For the second phase of analysis, we focus on trends since 2004 in the number of potentially available PCPs and total contracted MDs (PCPs and specialists). First, we analyze potential PCPs by provider type. For our PCP analysis, all providers associated with group practice locations that had assigned SoonerCare members were counted individually. Next, to assess how successfully OHCA has recruited physicians from the available pool in the state, we combine county-level data from OHCA with county-level data from the ARF for 2004 to 2006. We examine overall participation rates among physicians (including specialists), as well as PCP participation rates among primary care specialties of particular interest to the SoonerCare

[107] OHCA. "Early and Periodic Screening, Diagnosis, and Treatment (EPSDT): SoonerCare Choice Report for Fiscal Year 2007." Oklahoma City, OK: OHCA, June 2007, p.14.

[108] Safety-net clinics include Federally Qualified Health Centers and Rural Health Clinics.

[109] Urban counties include those in which the SoonerCare Plus program operated from 1995 to 2003. These counties include Canadian, Cleveland, Comanche, Creek, Grady, Jackson, Kiowa, Lincoln, Logan, McClain, Oklahoma, Pottawatomie, Rogers, Tillman, Tulsa, and Wagoner.

program (family medicine/general medicine, pediatrics, and obstetrics/gynecology). Again, PCP analyses are presented separately for urban and rural providers.

b. Results

Trends in SoonerCare Choice PCP Contracts. From 1997 to 2007, the number of contracts for providers serving as SoonerCare PCPs increased from 414 to 595, a nearly 44 percent increase (Table III.1). The biggest increase came in 2004, when a large number of providers in urban areas joined SoonerCare Choice as PCPs, following the end of the Plus program. Many of these providers may have participated previously in the SoonerCare Plus program without a direct PCP contract with OHCA.

As expected, given administrative changes that facilitate the enrollment of groups as PCPs, the mix of PCP contracts has changed somewhat in recent years. About three-fourths of PCP contracts were with individual MDs or DOs in 2004; by 2007 only 60 percent of PCP contracts were with individual MDs or DOs, and multi-provider groups represented just over 25 percent of contracts. Accordingly, though the overall number of contracts has declined by 9 percent since 2004, this should not be interpreted as an indication of declines in access to PCPs. This pattern may simply reflect that two or more PCPs within a group, who may have had individual contracts in the past, may now be covered under a single PCP contract, creating administrative efficiencies for OHCA, members, and providers without affecting access to care.

The mix of PCP contract types differed somewhat across urban and rural areas. In 2007, just 6 percent of PCP contracts in urban areas were with individual NPs or PAs, while nearly 16 percent of PCP contracts in rural areas were with NPs or PAs.[110] Safety-net clinics were also more common as PCPs in rural areas.

Trends and patterns in rural areas are more reliable over the full time period examined than those observed for urban areas, since PCP data for urban areas during the SoonerCare Plus period (1997-2003) may be incomplete. In rural Oklahoma, the total number of PCP contracts increased notably, from 283 in 1998 to 315 in 1999, with the addition of the ABD population to the SoonerCare program. PCP participation in rural areas continued to grow substantially from 2002 to 2004, and included 360 contracts by 2004, before administrative changes were introduced that have since led to a consolidation in the number of contracts. Overall, the number of contracts in rural areas increased 34 percent from 1997 through 2004, suggesting significant gains in provider recruitment.

The average annual contract turnover rate was 15.7 percent from 1997 to 2007 (Table III.2). Consistent with the transition between Plus and Choice programs in 2004, the turnover rate jumped to 23.2 percent in that year, but has since returned to its historic average.

[110] Initially NPs were able to serve as providers for SoonerCare Choice only in physician shortage areas. OHCA later qualified PAs as providers to further fill gaps in provider availability. (Ku and Wall, pp.43). Both NPs and PAs now play important roles as providers in the SoonerCare Choice program and are not restricted to physician shortage areas.

Table III.1. SoonerCare Plus and Choice Primary Care Provider (PCP) Contracts by Type and Region, 1997-2007

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Providers	414	454	520	525	468	507	490	653	602	586	595
Urban Counties--Total	146	170	205	211	158	165	138	293	274	275	293
MDs and DOs	130	145	155	153	124	123	118	240	216	202	191
NPs and PAs	10	12	12	15	7	8	12	30	17	13	18
Multi-Provider Groups	6	13	38	43	27	34	8	22	37	55	79
Clinics	0	0	0	0	0	0	0	1	4	5	5
Rural Counties--Total	268	284	315	314	310	342	352	360	328	311	302
MDs and DOs	211	214	198	210	210	236	249	251	213	186	163
NPs and PAs	36	43	46	41	48	54	77	88	55	52	48
Multi-Provider Groups	21	27	71	63	52	52	26	21	40	49	66
Clinics	0	0	0	0	0	0	0	0	20	24	25

Source: MPR analysis of OHCA Provider Records.

Table III.2. SoonerCare Plus and Choice PCP Contracts Turnover Rate, 1997-2007

Year	Turnover Rate (%)
1997	18.12
1998	11.23
1999	17.12
2000	16.38
2001	16.03
2002	9.86
2003	11.63
2004	23.28
2005	13.29
2006	16.72
2007	18.66
Average 1997-2007	15.66

Source: MPR analysis of OHCA provider records.

Note: Provider turnover rate is defined as the number of contracts for PCP services that were lapsed in December, divided by the number of contracts in place at any point during the year.

Distribution of Members Across SoonerCare Choice Providers. In urban areas, the proportion of members assigned to individual PCPs declined substantially from 2004 to 2007, reflecting the shift towards multi-provider groups, as noted above. (Table III.3). In 2004, 61 percent of members were assigned to an individual MD, DO, NP, or PA. By 2007, about 34 percent of members were assigned to individual PCPs; the remainder were assigned to multi-provider groups or clinics, which may result in improved access if members are able to seek treatment from any available group member. Similar trends were observed among rural members; about half of all rural members were assigned to individual PCPs in 2007, down from 81 percent in 2004.

Safety-net clinics have played a small, but important role as PCPs in both urban and rural areas, serving about 6-8 percent of members. Individual PAs and NPs also continue to play a significant role as PCPs in rural areas. Over time, 8 to 19 percent of rural enrollees have been assigned to individual PA or NP PCPs, a consistently higher assignment rate than that observed among urban enrollees for these provider types. In recent years, fewer than 5 percent of urban members were assigned to individual PA or NP PCPs.

Average Capitated Visits with Assigned SoonerCare Members. The median number of annual encounters (visits that are prepaid under the partial capitation rate) per member for adults assigned to SoonerCare Choice PCPs in rural areas rose from 0.82 in 1997 to 1.56 in 2007, an increase of 90 percent (Table III.4). The increase in visits for children in rural areas was similar, rising from 0.67 per member in 1997 to 1.23 in 2007, an increase of 84 percent. The visit trends in urban areas show similar increases, although the data in those areas may be less reliable because so many members were enrolled in fully capitated MCOs during the Plus period.

Table III.3. Total Panel Assignments by PCP Contract Type and Region, 1997-2007

	Number of Panel Members					Percent of Panel Members				
	Total	MDs and DOs	NPs and PAs	Multi-Provider Groups	Clinics	Total	MDs and DOs	NPs and PAs	Multi-Provider Groups	Clinics
Urban Counties										
1997	4,504	3,957	518	29	-	100%	87.86%	11.50%	0.64%	0.00%
1998	6,566	5,238	951	377	-	100%	79.77%	14.48%	5.74%	0.00%
1999	10,112	8,353	1,179	580	-	100%	82.60%	11.66%	5.74%	0.00%
2000	12,221	8,164	1,981	2,076	-	100%	66.80%	16.21%	16.99%	0.00%
2001	5,367	4,433	266	668	-	100%	82.60%	4.96%	12.45%	0.00%
2002	6,942	5,308	200	1,434	-	100%	76.46%	2.88%	20.66%	0.00%
2003	5,902	5,324	390	188	-	100%	90.21%	6.61%	3.19%	0.00%
2004	176,969	92,254	15,140	66,309	3,266	100%	52.13%	8.56%	37.47%	1.85%
2005	181,246	80,286	9,036	79,031	12,893	100%	44.30%	4.99%	43.60%	7.11%
2006	194,970	79,643	7,238	94,485	13,604	100%	40.85%	3.71%	48.46%	6.98%
2007	193,096	60,970	3,766	114,441	13,919	100%	31.57%	1.95%	59.27%	7.21%
Rural Counties										
1997	41,183	34,846	3,133	3,204	-	100%	84.61%	7.61%	7.78%	0.00%
1998	60,728	50,826	6,074	3,828	-	100%	83.69%	10.00%	6.30%	0.00%
1999	94,008	63,822	11,812	18,374	-	100%	67.89%	12.56%	19.55%	0.00%
2000	119,403	75,193	12,807	31,403	-	100%	62.97%	10.73%	26.30%	0.00%
2001	129,184	79,259	16,370	33,555	-	100%	61.35%	12.67%	25.97%	0.00%
2002	134,052	82,726	17,970	33,356	-	100%	61.71%	13.41%	24.88%	0.00%
2003	143,052	91,867	25,225	26,418	-	100%	64.22%	17.63%	18.47%	0.00%
2004	150,513	94,506	28,071	27,936	-	100%	62.79%	18.65%	18.56%	0.00%
2005	143,227	76,941	20,435	36,670	9,181	100%	53.72%	14.27%	25.60%	6.41%
2006	148,368	71,105	21,309	44,462	11,492	100%	47.92%	14.36%	29.97%	7.75%
2007	144,578	57,418	17,807	57,073	12,280	100%	39.71%	12.32%	39.48%	8.49%

Source: MPR analysis of OHCA Provider Records.

Table III.4. Services Covered by the SoonerCare Choice Partial Capitation Rate: Distribution of Encounters Provided to Members by Contract by Region, 1997-2007

	Capitated Encounters Per Member (Adults)			Capitated Encounters Per Member (Children)		
	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile
Urban Counties						
1997	0.33	0.71	1.39	0.23	0.47	0.98
1998	0.44	0.79	1.38	0.25	0.62	1.19
1999	0.60	1.00	2.00	0.50	0.95	1.67
2000	0.86	1.29	2.23	0.51	1.05	1.62
2001	1.06	2.11	4.33	0.30	1.12	2.00
2002	0.86	1.67	2.42	0.33	0.82	1.50
2003	1.00	1.29	2.67	0.40	0.84	1.50
2004	0.55	1.13	1.81	0.45	0.83	1.46
2005	0.78	1.49	2.53	0.62	1.23	2.17
2006	0.84	1.50	2.57	0.67	1.20	2.00
2007	0.79	1.49	2.51	0.77	1.38	2.33
Rural Counties						
1997	0.31	0.82	1.59	0.23	0.67	1.22
1998	0.37	0.82	1.54	0.34	0.63	0.98
1999	0.33	0.75	1.34	0.39	0.87	1.25
2000	0.68	1.24	1.81	0.47	1.02	1.59
2001	0.89	1.46	2.23	0.55	1.12	1.87
2002	0.80	1.52	2.40	0.57	1.08	1.66
2003	0.88	1.50	2.10	0.51	0.95	1.47
2004	0.89	1.45	2.33	0.52	0.96	1.53
2005	1.00	1.62	2.42	0.63	1.06	1.53
2006	1.00	1.56	2.33	0.73	1.15	1.61
2007	0.94	1.56	2.30	0.77	1.23	1.68

Source: MPR analysis of OHCA provider records.

Notable improvements also occurred at the lower tail of the distribution. In 1997, rural providers at the 25th percentile delivered an average of 0.31 visits per adult member that were prepaid under the partial capitation rate, and therefore not separately reimbursed. Even considering that capitated encounters may have been underreported, these findings suggest that a substantial minority of PCPs did not see their assigned members during the year at the beginning of the PCP program. By 2007, providers at the 25th percentile delivered an average of 0.94 encounters per adult member, suggesting that most PCPs had at least one contact with their assigned members during the year.

Number of Providers Participating as PCPs. Although the number of PCP contracts has declined somewhat, the total number of potentially available PCPs has increased dramatically, due to OHCA's group contracting approach. From 2004 to 2007 the number of potentially available PCPs increased from 529 to 831 in urban areas (57 percent) and 362 to 487 in rural areas (34 percent), when each provider within a contracted group is counted individually (Table III.5). Overall, about 80 percent of PCPs in non-safety-net settings are MDs or DOs, and 11 percent are NPs or PAs. Six percent of potential PCPs practice exclusively in safety-net settings.

Medicaid Participating Providers as a Percentage of Total Providers. OHCA's current pool of PCPs could support nearly one million additional members, if they were assigned the maximum panel size that they have requested, subject to OHCA's limits.[111] In this sense, OHCA has sufficient capacity to ensure access to PCPs, even if the program were to undergo significant expansion. However, enrollees may perceive limits to access if their choices of PCPs are constrained because few providers in their communities participate in the Medicaid program. In addition, OHCA loses the opportunity to benefit from continuity of care in cases where new enrollees must discontinue their relationships with former providers who are not participating as PCPs in the Medicaid program. Members may also perceive limitations on access to care if they have difficulty obtaining timely referrals to specialists when more advanced care is warranted. To provide an alternative perspective on provider participation, we examine the rate of Medicaid participation among all providers in the state.

PCP participation rates among key primary care physician specialties differ across urban and rural areas. For example, in 2006 just over 30 percent of primary care specialists (32 percent of general and family practitioners, 37 percent of pediatricians, and 18 percent of OBGYNs) in urban areas participated as SoonerCare Choice PCPs (Table III.6). In rural areas, SoonerCare Choice has enrolled an impressive 60 percent of all potential MD primary care specialists as PCPs. While it appears likely that OHCA has recruited all, or nearly all pediatricians in rural areas to participate as PCPs, data also suggest that a small number of physicians who are licensed as general or family practitioners have been incorrectly recorded in OHCA's provider files as pediatricians, since the number of pediatricians that OHCA reports exceeds the number recorded in the ARF.

[111] OHCA. "Provider Fast Facts: August 2008." www.ohca.state.ok.us/WorkArea/showcontent.aspx?id=9252. Accessed October 14, 2008.

Table III.5. SoonerCare Choice PCPs by Type and Region, 2004-2007

	2004	2005	2006	2007
Total Providers	891	1,133	1,237	1,318
Urban Counties--Total	529	682	764	831
Non-Safety Net Providers	524	648	723	794
MDs and DOs	472	561	611	634
NPs and PAs	36	47	56	84
Other	16	40	56	76
Safety Net Providers	5	34	41	37
Rural Counties--Total	362	451	475	487
Non-Safety Net Providers	362	409	422	442
MDs and DOs	263	310	319	325
NPs and PAs	92	82	85	85
Other	7	17	18	32
Safety Net Providers	0	42	53	45

Source: MPR analysis of OHCA Provider Records.

Finally, we examined the rate of participation among all MDs, including both specialists and PCPs. From 2004 to 2006, the total number of contracted providers increased by 14 percent (Table III.7). Of these gains, new enrollment among PCPs accounted for a quarter of the increase and new enrollment among specialists accounted for the remainder. By 2006 about 90 percent of all MDs in Oklahoma had contracts with the SoonerCare Choice program to deliver services to members.

2. Hospitalizations for Ambulatory Care Sensitive Conditions (Preventable Hospitalizations)

a. Data Sources and Methods

Preventable hospitalizations are cases in which hospitalization could be avoided if the patient received timely and adequate treatment in ambulatory care settings; therefore, this measure reflects the performance of the primary care system as a whole, including care management efforts by OHCA and the accessibility of PCPs. To assess changes over time in the rate of preventable hospitalizations, and to compare the performance of SoonerCare Plus and SoonerCare Choice, we use inpatient discharge data collected and maintained by OSDH. Encounter data submission and reliability varied across MCOs participating in the SoonerCare Plus program; therefore, it is likely that OHCA's historic records on Plus inpatient admissions significantly undercount admissions for that group. Using OSDH inpatient discharge data allows us to capture admissions for both the SoonerCare Choice and Plus populations without a disproportionate downward bias for Plus admissions.

Table III.6. SoonerCare Choice PCP Participation Rates Among Primary Care Specialists, 2004-2006

	2004			2005			**2006**		
	SoonerCare MDs	Total MDs in Region	SoonerCare MDs as a Percentage of Total MDs	SoonerCare MDs	Total MDs in Region	SoonerCare MDs as a Percentage of Total MDs	SoonerCare MDs	Total MDs in Region	SoonerCare MDs as a Percentage of Total MDs
Total Oklahoma									
All Primary Care MDs	467	1556	30.0	545	1562	34.9	591	1587	37.2
General and Family Practitioners	301	961	31.3	337	1507	22.4	370	1519	24.4
Pediatricians	124	360	34.4	164	358	45.8	176	364	48.4
OBGYNs	42	235	17.9	44	229	19.2	45	233	19.3
Urban Counties									
All Primary Care MDs	312	1208	25.8	361	1222	29.5	386	1250	30.9
General and Family Practitioners	181	647	28.0	196	666	29.4	222	686	32.4
Pediatricians	94	334	28.1	126	336	37.5	125	341	36.7
OBGYNs	37	227	16.3	39	220	17.7	39	223	17.5
Rural Counties									
All Primary Care MDs	155	348	44.5	184	340	54.1	205	337	60.8
General and Family Practitioners	120	314	38.2	141	309	45.6	148	304	48.7
Pediatricians	30	26	115.4	38	22	172.7	51	23	221.7
OBGYNs	5	8	62.5	5	9	55.6	6	10	60.0

Source: MPR analysis of OHCA provider records and Area Resource File.

Table III.7. SoonerCare Choice Participation Rates Among All MDs, 2004-2006

	Participating SoonerCare MDs	Total MDs in Oklahoma	SoonerCare MDs as a Percentage of Total MDs
Total Oklahoma			
2004	4,287	5,330	80.4
2005	4,621	5,405	85.5
2006	4,870	5,441	89.5

Source: MPR analysis of OHCA provider files.

OSDH has collected hospital discharge data since 1998; its records from 2002 through 2006 were considered sufficiently complete for our analyses. This time period includes two years (2002 and 2003) when both SoonerCare Plus (urban areas) and SoonerCare Choice (rural areas) were operational, and three years when SoonerCare Choice was operational statewide (2004, 2005, 2006). To identify SoonerCare Plus and Choice admissions, we matched OHCA eligibility files for individuals with at least three months of continuous SoonerCare enrollment to OSDH hospital inpatient discharge records.

From the group of matched SoonerCare admissions each year, we selected admissions that were preceded by at least 30 days of Medicaid eligibility. This restriction ensured that events that precipitated Medicaid enrollment (and therefore could not have been influenced by SoonerCare's primary care system) would be excluded from rate calculations.[112] A software tool designed by AHRQ was used to identify 12 types of preventable hospitalizations among adults and four types of preventable hospitalizations among children; we converted these into rates per 100,000 members. AHRQ refers to these rates as prevention quality indicators (PQIs). Calculated rates for 2002 likely understate the true rates of preventable hospitalization, since diagnosis coding was notably less complete for 2002 records than for those collected during 2003-2006.

Rates of preventable hospitalizations were standardized by age, sex, and geographic distribution to the 2006 SoonerCare Choice population, and trends were examined over time. Statistical significance tests for change between 2003 and 2006 were conducted using logistic regression analysis. To evaluate the potential impact of the transition from SoonerCare Plus to SoonerCare Choice in urban areas in 2004, we performed additional logistic regressions, which controlled for statewide trends in preventable hospitalizations, changes in the number of

[112] Although we limited admissions to those preceded by 30 days of Medicaid eligibility, it is possible that a small number of the remaining admissions may have led to enrollment in the Medicaid program, with little or no opportunity for the SoonerCare program to intervene. This is due to retroactive eligibility rules. Beginning in February 2003, retroactive eligibility for pregnant women and children was limited to the first of the month that they applied for coverage. For all SoonerCare enrollees prior to February 2003 and for ABD enrollees both before and after 2003, retroactive eligibility extended for three months prior to application. Therefore, the analysis may have retained some pre-2003 and ABD admissions that would ideally be excluded from calculations of preventable hospitalizations. However, the inclusion of these admissions should not bias our comparison of rates across the Plus and Choice populations, or over time from 2003 to 2006.

physicians per capita, the overall health status of the low-income population in Oklahoma, and the prevalence of diabetes and asthma among low-income Oklahomans.[113]

b. Results

Total SoonerCare Plus and Choice Hospitalizations and Medicaid Eligibility. From 2002 to 2006, just over half of hospitalizations experienced by SoonerCare Plus and Choice members were preceded by at least 30 days of Medicaid eligibility (Table III.8). For the remainder of hospitalizations, it is probable that hospitalization led to SoonerCare enrollment and that OHCA had little opportunity to influence the likelihood of those admissions occurring.

Table III.8. Matched Inpatient Hospitalizations among SoonerCare Plus and Choice Members, 2002-2006

	Total Inpatient Hospitalizations Matched to SoonerCare Plus and Choice Members	Hospitalizations Preceded by At Least 30 Days Medicaid Eligibility	Percentage of Total Hospitalizations Matched	Hospitalizations Preceded by At Least 60 Days Medicaid Eligibility	Percentage of Total Hospitalizations Matched
2002	65,608	39,137	59.7%	35,633	54.3%
2003	72,635	41,362	56.9%	37,534	51.7%
2004	70,614	33,346	47.2%	28,980	41.0%
2005	75,487	42,215	55.9%	37,847	50.1%
2006	78,283	44,358	56.7%	40,303	51.5%

Source: MPR analysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

Consistent with 2004 being a transitional year between the Plus and Choice programs, we found that fewer members had been enrolled for at least three continuous months in 2004, and significantly fewer hospitalizations had been preceded by at least 30 days of Medicaid eligibility. These artifacts of the data mean that calculated rates for 2004 likely understate the "true" admission rates that occurred during the transition from Plus to Choice.

Rates of Preventable Hospitalizations

Adults. In 2006 preventable hospitalizations occurred at a rate of 2,018 per 100,000 among adult urban SoonerCare Choice members with at least three months continuous enrollment; the rate was 2,461 per 100,000 among rural adult members, 22 percent higher (Table III.9). These

[113] Additional control variables were constructed from BRFSS and ARF data. BRFSS data from 2003 and 2006 were used to calculate region-level measures of the self-reported prevalence of diabetes and asthma among Oklahomans with household incomes less than $25,000, as well as the percentage of the population reporting fair or poor health status and the percentage who were Hispanic. Data from the ARF were used to calculate region-level measures of the number of physicians per capita.

Table III.9. Standardized Rates of Preventable Hospitalizations per 100,000 Among Adult (Ages 20 to 64) SoonerCare Members with At Least Three Months Continuous Enrollment in the Calendar Year, 2002-2006[1]

	2002	2003	2004	2005	2006	Rate Change 2003-2006
Urban: Oklahoma City, Tulsa, Lawton						
Total Preventable Hospitalizations	2,313	2,639	1,872	2,312	2,018	-621 **
Any diabetes hospitalization	379	417	348	427	459	42
Diabetes short term complication	149	192	135	207	206	14
Diabetes long term complication	181	172	174	164	192	20
Uncontrolled diabetes without complications	38	45	37	46	47	2
Diabetes-related lower extremity amputation	30	24	19	33	41	17
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	413	486	302	398	296	-190 **
Asthma	272	343	223	233	214	-129 **
Circulatory Diseases						
Hypertension	63	100	40	89	125	25
Congestive heart failure	419	497	356	383	342	-155 **
Angina without procedure	62	54	32	63	30	-24 *
Acute Conditions						
Dehydration	116	114	107	106	99	-15
Bacterial pneumonia	417	460	327	447	313	-147 **
Urinary infection	171	170	138	165	141	-29
Rural						
Total Preventable Hospitalizations	2,858	2,892	2,809	2,627	2,461	-431 **
Any Diabetes Hospitalization	343	391	338	448	399	8
Diabetes short term complication	134	100	118	137	149	49
Diabetes long term complication	120	230	170	219	184	-46
Uncontrolled diabetes without complications	73	51	46	67	57	5
Diabetes-related lower extremity amputation	27	32	41	64	28	-4
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	623	705	703	545	555	-150 *
Asthma	393	332	319	241	241	-91 *
Circulatory Diseases						
Hypertension	83	95	58	67	92	-3
Congestive heart failure	391	357	341	294	279	-79
Angina without procedure	129	89	109	97	94	5
Acute Conditions						
Dehydration	158	104	149	145	132	29
Bacterial pneumonia	552	630	567	616	524	-106 *
Urinary infection	187	191	224	174	144	-47

Source: MPR analysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

[1] Standardized by age, sex, and geographic distribution to the 2006 population.

* Statistically significant change at the p=0.10 level.

** Statistically significant change at the p=0.05 level.

rates translate into about 2,127 preventable hospitalizations among all SoonerCare Choice adults in 2006. Preventable hospitalizations due to diabetes, congestive heart failure (CHF), bacterial pneumonia, chronic obstructive pulmonary disease (COPD), and asthma were the most common preventable hospitalizations in both urban and rural regions.

Rates of preventable hospitalizations varied significantly across key demographic subgroups. As expected, preventable hospitalizations occurred more frequently among SoonerCare Choice members ages 45 to 64 than among those ages 20 to 44. Overall rates of preventable hospitalizations were more than five times higher among enrollees ages 45 to 64 (Table III.11), when compared with rates observed among enrollees ages 20 to 45 (Table III.10). With the exception of asthma-related hospitalizations, rates for preventable hospitalizations were generally higher among males than among females, after controlling for age and geographic distribution. For example, male SoonerCare Choice enrollees experienced diabetes-related preventable hospitalizations at the rate of 733 per 100,000 in urban areas and 553 per 100,000 in rural areas in 2006 (Table III.13). By comparison, females experienced rates of just 401 per 100,000 in urban areas and 356 per 100,000 in rural areas (Table III.12).

Children. In 2006, preventable hospitalizations occurred at a rate of 425 per 100,000 among urban children with at least three months continuous enrollment in SoonerCare Choice. Contrary to the pattern observed among adults, the rate among rural children was 14 percent lower than for urban children (Table III.14). Although preventable hospitalizations occur much less frequently among children than among adults, the SoonerCare waiver covers about four times as many children. Therefore, these rates translate into about 1,517 additional preventable hospitalizations in 2006. Preventable hospitalizations for asthma and gastroenteritis were the most common among children. As with adults, females were significantly less likely to have preventable hospitalizations for asthma when compared to males, but they were more likely to have preventable hospitalizations related to urinary tract infections (Tables III.15 and III.16).

Cost Impact. In 2006 roughly 3,600 preventable hospitalizations occurred among SoonerCare Choice enrollees; children accounted for about 42 percent of all preventable hospitalizations. OHCA reported that the average payment for an inpatient hospitalization during state fiscal year 2007 was $4,469; therefore, SoonerCare Choice could potentially save $8.1 million by cutting the rate of preventable hospitalizations in half among enrollees. This represents a conservative estimate of potential savings given the strong link between preventable hospitalizations and emergency room utilization. Among SoonerCare waiver enrollees, 25 percent of adults and 37 percent of children with non-preventable hospitalizations were admitted after visiting the emergency room. However, 68 percent of adults and 67 percent of children with a preventable hospitalization first visited the emergency room. Many individuals with preventable hospitalizations also require additional health care services after discharge. One study found that 20 percent of pediatric preventable hospitalizations and 27 percent of working-age adult preventable hospitalizations were followed by home health services or care in another health care facility.[114] Once emergency transportation and utilization as well as follow-on care

[114] Connecticut Office of Health Care Access. "Preventable Hospitalizations in Connecticut: An Updated Assessment of Access to Community Health Services, FYs 2000-2006." Hartford, CT: Connecticut Office of Health Care Access, April 2008, p.14.

Table III.10. Standardized Rates of Preventable Hospitalizations per 100,000 Among SoonerCare Members Ages 20 to 44 with At Least Three Months Continuous Enrollment in the Calendar Year, 2002-2006[1]

	2002	2003	2004	2005	2006	Rate Change 2003 - 2006
Urban: Oklahoma City, Tulsa, Lawton						
Total Preventable Hospitalizations	1,013	1,135	898	1,114	1,028	-108 **
Any diabetes hospitalization	244	289	249	324	370	81
Diabetes short term complication	145	189	130	220	215	26
Diabetes long term complication	62	69	103	87	127	58
Uncontrolled diabetes without complications	29	29	16	17	26	-3
Diabetes-related lower extremity amputation	8	15	5	5	12	-3
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	41	57	63	64	35	-22
Asthma	199	203	168	152	141	-61 *
Circulatory Diseases						
Hypertension	45	37	14	36	64	27
Congestive heart failure	111	137	53	122	118	-19
Angina without procedure	7	21	14	24	14	-7
Acute Conditions						
Dehydration	58	63	58	63	47	-16
Bacterial pneumonia	160	195	165	201	130	-65 **
Urinary infection	148	133	113	127	108	-25
Rural						
Total Preventable Hospitalizations	1,342	1,263	1,140	1,123	1,150	-112
Any Diabetes Hospitalization	205	254	207	363	290	36
Diabetes short term complication	114	111	123	136	166	55
Diabetes long term complication	54	118	61	174	99	-19
Uncontrolled diabetes without complications	37	26	19	37	25	0
Diabetes-related lower extremity amputation	4	6	26	43	13	7
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	152	94	126	93	118	24
Asthma	298	209	182	129	163	-46
Circulatory Diseases						
Hypertension	43	47	19	17	48	1
Congestive heart failure	94	124	77	62	73	-51
Angina without procedure	36	26	36	35	35	9
Acute Conditions						
Dehydration	108	76	70	78	76	1
Bacterial pneumonia	214	277	254	196	239	-38
Urinary infection	191	156	169	152	108	-48

Source: MPR anlaysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

[1] Standardized by sex and geographic distribution to the 2006 population.

* Statistically significant change at the p=0.10 level.

** Statistically significant change at the p=0.05 level.

Table III.11. Standardized Rates of Preventable Hospitalizations per 100,000 Among SoonerCare Members Ages 45 to 64 with At Least Three Months Continuous Enrollment in the Calendar Year, 2002-2006[1]

	2002	2003	2004	2005	2006	Rate Change 2003-2006
Urban: Oklahoma City, Tulsa, Lawton						
Total Preventable Hospitalizations	7,179	8,268	5,517	6,793	5,725	-2,542 **
Any diabetes hospitalization	885	896	719	812	794	-102
Diabetes short term complication	166	205	153	158	176	-28
Diabetes long term complication	625	556	438	452	432	-123
Uncontrolled diabetes without complications	73	106	117	156	124	18
Diabetes-related lower extremity amputation	113	58	71	138	150	92
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	1,805	2,091	1,194	1,646	1,270	-821 **
Asthma	546	865	425	537	485	-380 **
Circulatory Diseases						
Hypertension	130	335	139	285	353	18
Congestive heart failure	1,574	1,842	1,489	1,360	1,182	-660 **
Angina without procedure	269	174	98	211	88	-86
Acute Conditions						
Dehydration	333	304	288	267	291	-13
Bacterial pneumonia	1,379	1,451	930	1,370	997	-454 **
Urinary infection	257	310	234	305	265	-45
Rural						
Total Preventable Hospitalizations	7,196	7,556	7,587	6,930	6,212	-1,344 **
Any Diabetes Hospitalization	736	783	713	691	711	-71
Diabetes short term complication	189	68	103	139	100	33
Diabetes long term complication	310	551	479	349	429	-122
Uncontrolled diabetes without complications	176	126	122	155	146	20
Diabetes-related lower extremity amputation	93	106	85	121	73	-33
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	1,972	2,454	2,352	1,840	1,806	-648 *
Asthma	664	686	711	564	465	-221 *
Circulatory Diseases						
Hypertension	197	232	169	210	219	-13
Congestive heart failure	1,241	1,024	1,099	959	867	-158
Angina without procedure	393	271	320	274	265	-6
Acute Conditions						
Dehydration	299	184	375	338	292	108
Bacterial pneumonia	1,519	1,643	1,463	1,819	1,341	-302
Urinary infection	174	290	384	236	246	-44

Source: MPR anlaysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

[1] Standardized by sex and geographic distribution to the 2006 population.

* Statistically significant change at the p=0.10 level.

** Statistically significant change at the p=0.05 level.

Table III.12. Standardized Rates of Preventable Hospitalizations per 100,000 Among Adult (Ages 20 to 64) Female SoonerCare Members with At Least Three Months Continuous Enrollment in the Calendar Year, 2002-2006[1]

	2002	2003	2004	2005	2006	Rate Change 2003-2006
Urban: Oklahoma City, Tulsa, Lawton						
Total Preventable Hospitalizations	2,013	2,188	1,596	1,925	1,723	-466 **
Any diabetes hospitalization	340	318	300	332	401	84
Diabetes short term complication	149	164	135	143	194	30
Diabetes long term complication	151	114	127	147	165	50
Uncontrolled diabetes without complications	33	37	37	42	36	-1
Diabetes-related lower extremity amputation	22	9	10	19	20	11
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	312	383	259	308	207	-176 **
Asthma	273	333	240	229	223	-110 **
Circulatory Diseases						
Hypertension	54	106	38	70	104	-2
Congestive heart failure	348	337	228	257	271	-67 *
Angina without procedure	51	45	25	60	27	-18
Acute Conditions						
Dehydration	75	98	81	91	92	-6
Bacterial pneumonia	380	393	269	392	264	-129 **
Urinary infection	180	175	156	187	133	-42 **
Rural						
Total Preventable Hospitalizations	2,512	2,651	2,460	2,355	2,240	-410 **
Any Diabetes Hospitalization	269	332	256	381	356	24
Diabetes short term complication	93	89	97	124	124	35
Diabetes long term complication	98	184	123	181	172	-12
Uncontrolled diabetes without complications	62	46	37	57	57	11
Diabetes-related lower extremity amputation	17	31	15	30	15	-16
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	502	647	641	477	456	-192 *
Asthma	421	363	342	274	284	-79
Circulatory Diseases						
Hypertension	67	102	34	66	85	-18
Congestive heart failure	311	273	252	210	238	-35
Angina without procedure	108	79	52	96	97	18
Acute Conditions						
Dehydration	159	103	143	144	115	11
Bacterial pneumonia	467	555	486	508	453	-102 *
Urinary infection	207	199	255	199	157	-42

Source: MPR analysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

[1] Standardized by age and geographic distribution to the 2006 population.

* Statistically significant change at the p=0.10 level.

** Statistically significant change at the p=0.05 level.

Table III.13. Standardized Rates of Preventable Hospitalizations per 100,000 Among Adult (Ages 20 to 64) Male SoonerCare Members with At Least Three Months Continuous Enrollment in the Calendar Year, 2002-2006[1]

	2002	2003	2004	2005	2006	Rate Change 2003-2006
Urban: Oklahoma City, Tulsa, Lawton						
Total Preventable Hospitalizations	3,730	4,766	3,172	4,133	3,412	-1,354 **
Any diabetes hospitalization	562	886	573	876	733	-153
Diabetes short term complication	153	325	131	509	266	-60
Diabetes long term complication	321	445	393	246	319	-126
Uncontrolled diabetes without complications	62	80	37	66	96	15
Diabetes-related lower extremity amputation	65	93	60	100	138	45
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	891	970	502	822	712	-258 *
Asthma	271	385	142	253	170	-215 *
Circulatory Diseases						
Hypertension	103	71	51	179	223	153 **
Congestive heart failure	752	1,249	959	978	680	-568 **
Angina without procedure	116	94	63	77	43	-51
Acute Conditions						
Dehydration	310	187	230	180	128	-60
Bacterial pneumonia	594	775	599	710	542	-233
Urinary infection	129	150	54	58	181	31
Rural						
Total Preventable Hospitalizations	4,101	3,760	4,062	3,603	3,255	-506
Any Diabetes Hospitalization	606	603	634	688	553	-49
Diabetes short term complication	278	140	194	183	239	99
Diabetes long term complication	202	393	338	357	228	-165
Uncontrolled diabetes without complications	114	70	79	104	54	-15
Diabetes-related lower extremity amputation	63	34	136	183	76	41
Chronic Respiratory Diseases						
Chronic obstructive pulmonary disease	1,060	911	924	790	911	0
Asthma	292	221	238	125	87	-135 *
Circulatory Diseases						
Hypertension	139	70	146	68	119	50
Congestive heart failure	680	660	664	596	423	-237
Angina without procedure	201	127	316	101	87	-41
Acute Conditions						
Dehydration	151	104	169	149	195	91
Bacterial pneumonia	857	902	858	1,004	781	-121
Urinary infection	114	162	113	81	98	-64

Source: MPR analysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

[1] Standardized by age and geographic distribution to the 2006 population.

* Statistically significant change at the p=0.10 level.

** Statistically significant change at the p=0.05 level.

Table III.14. Standardized Rates of Preventable Hospitalizations per 100,000 Among SoonerCare Members Ages 0 to 19 with At Least Three Months Continuous Enrollment in the Calendar Year, 2002-2006[1]

	2002	2003	2004	2005	2006	Rate Change 2003-2006
Urban: Oklahoma City, Tulsa, Lawton						
Total Preventable Hospitalizations	422	383	273	387	425	42 *
Asthma	200	176	145	157	187	11
Diabetes Short Term Complication	16	26	20	33	31	5
Gastroenteritis	169	137	72	153	166	29 **
Urinary Tract Infection	38	45	37	44	41	-4
Rural						
Total Preventable Hospitalizations	411	391	406	398	365	-26
Asthma	120	127	122	102	91	-35 **
Diabetes Short Term Complication	23	25	24	31	24	-1
Gastroenteritis	218	200	206	233	215	15
Urinary Tract Infection	50	39	53	33	34	-5

Source: MPR anlaysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

[1] Standardized by age, sex, and geographic distribution to the 2006 population.

* Statistically significant change at the p=0.10 level.

** Statistically significant change at the p=0.05 level.

Table III.15. Standardized Rates of Preventable Hospitalizations per 100,000 Among Male SoonerCare Members Ages 0 to 19 with At Least Three Months Continuous Enrollment in the Calendar Year, 2002-2006[1]

	2002	2003	2004	2005	2006	Rate Change 2003-2006
Urban: Oklahoma City, Tulsa, Lawton						
Total Preventable Hospitalizations	463	395	291	412	427	32
Asthma	246	221	192	199	233	12
Diabetes Short Term Complication	9	19	14	36	20	1
Gastroenteritis	196	142	73	166	159	17
Urinary Tract Infection	11	13	12	11	15	2
Rural						
Total Preventable Hospitalizations	373	415	406	390	373	-42
Asthma	130	166	154	116	117	-49 **
Diabetes Short Term Complication	15	20	19	34	29	8
Gastroenteritis	216	223	226	237	221	-2
Urinary Tract Infection	12	6	7	3	7	1

Source: MPR anlaysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

[1] Standardized by age, sex, and geographic distribution to the 2006 population.

* Statistically significant change at the p=0.10 level.

** Statistically significant change at the p=0.05 level.

Table III.16. Standardized Rates of Preventable Hospitalizations per 100,000 Among Female SoonerCare Members Aged 0-19 with At Least Three Months Continuous Enrollment in the Calendar Year, 2002-2006[1]

	2002	2003	2004	2005	2006	Rate Change 2003-2006
Urban: Oklahoma City, Tulsa, Lawton						
Total Preventable Hospitalizations	381	370	255	361	422	52
Asthma	153	129	98	113	140	11
Diabetes Short Term Complication	23	32	25	31	42	10
Gastroenteritis	141	132	70	140	173	41 **
Urinary Tract Infection	65	77	62	78	67	-10
Rural						
Total Preventable Hospitalizations	450	366	406	406	356	-10
Asthma	111	87	89	87	66	-21
Diabetes Short Term Complication	31	30	30	27	20	-10
Gastroenteritis	219	177	186	228	210	32
Urinary Tract Infection	89	72	100	64	61	-11

Source: MPR anlaysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

[1] Standardized by age, sex, and geographic distribution to the 2006 population.

* Statistically significant change at the p=0.10 level.

** Statistically significant change at the p=0.05 level.

are considered, the potential cost savings to the program of reducing preventable hospitalizations would be considerably higher.

Changes in the Rates of Preventable Hospitalizations

Adults. The rate of total preventable hospitalizations among SoonerCare adults decreased significantly from 2003 to 2006 in both urban and rural areas (Table III.9). The decreases occurred among all urban subgroups, as well as among rural females and those ages 45 to 64 (Tables III.10-13). The rates of preventable hospitalizations for COPD, bacterial pneumonia, and adult asthma also declined significantly in both urban and rural areas of Oklahoma (Table III.9). The only increase in preventable hospitalizations that was statistically significant occurred among urban males, who experienced a significant increase in the rate of preventable admissions for hypertension. The rate jumped from 71 per 100,000 in 2003 to 223 per 100,000 in 2006 (Table III.12).

Trends in hospitalization rates for the SoonerCare waiver population were generally consistent with those observed for the U.S. population as a whole, though increases in some measures that occurred at a national level from 2000 to 2004 did not appear to occur in Oklahoma from 2003 to 2006 (Table III.17).

Table III.17. Trends in Preventable Hospitalization Rates in Oklahoma vs. Overall U.S. Population

	U.S. Adults 2000-2004	Urban Adults in Oklahoma 2003-2006	Rural Adults in Oklahoma 2003-2006
Diabetes-related Hospitalizations			
Diabetes short term complication	Increase	No Change	No Change
Diabetes long term complication	Increase	No Change	No Change
Uncontrolled diabetes without complications	Decrease	No Change	No Change
Diabetes-related lower extremity amputation	No Change	No Change	No Change
Chronic Respiratory Diseases			
COPD	Decrease	Decrease	Decrease
Asthma	No Change	Decrease	Decrease
Circulatory Diseases			
Hypertension	Increase	No Change	No Change
CHF	Decrease	Decrease	No Change
Angina without Procedure	Decrease	Decrease	No Change
Acute Conditions			
Dehydration	Decrease	No Change	No Change
Bacterial pneumonia	No Change	Decrease	Decrease
Urinary infection	Increase	No Change	No Change

Source: MPR analysis and Allison Russo, H. Joanna Jiang, and Marguerite Barrett. "Trends in Potentially Preventable Hospitalizations Among Adults and Children, 1997-2004." HCUP Statistical Brief #36. August 2007.Agency for Healthcare Research and Quality. Rockville, MD. www.hcup-us.ahrq.gov/reports/statbriefs/sb36.pdf.

Children. Most trends in the rates of preventable hospitalizations among children were not statistically significant over the period from 2003 to 2006. Exceptions were a statistically significant decline in asthma-related hospitalizations among male rural enrollees (Table III.15), and a significant increase in gastroenteritis-related admissions among female urban enrollees (Table III.16). Nationally, no changes were observed in preventable hospitalizations among children for gastroenteritis, diabetes, or urinary infections from 2000 to 2004; however, decreases were observed for asthma-related admissions.[115]

Comparative Performance of Plus and Choice Programs. To compare the performance of the Plus and Choice programs, we conducted additional logistic regression analyses that controlled for statewide trends in the rate of preventable hospitalizations over time.[116] From

[115] Allison Russo, H. Joanna Jiang, and Marguerite Barrett. "Trends in Potentially Preventable Hospitalizations Among Adults and Children, 1997-2004." www.hcup-us.ahrq.gov/reports/statbriefs/sb36.pdf. Accessed October 14, 2008.

[116] The basic logistic regression for adults was specified as follows, where p is the probability of a preventable hospitalization occurring: $\ln(p/(1-p))=\beta_0+\beta_1 year2006+\beta_2 urban+\beta_3 year2006*urban+\beta_4 female+\beta_5 age45\_64+\mu$. The

2003 to 2006 significant changes may have occurred in the primary care system and overall disease burden in Oklahoma that would make unadjusted comparisons between the 2003 period and the 2006 period misleading. For example, the number of physicians and the prevalence of chronic diseases like diabetes may have changed. Therefore, for adults we also constructed regressions that controlled for changes in physicians per capita, overall health status of low-income Oklahomans, the prevalence of diabetes and asthma among low-income Oklahomans, and the proportion of the population that was Hispanic.[117] These additional control variables could not be appropriately constructed for children; therefore, an additional regression was not implemented for that group.

Adults. Initial logistic regressions found that a modest and marginally statistically significant reduction in the likelihood of a SoonerCare member experiencing a preventable hospitalization was associated with the transition to SoonerCare Choice. Improvements in the rate of preventable hospitalizations for COPD were also observed. For the remaining individual preventable hospitalization measures, the transition to SoonerCare Choice in urban areas in Oklahoma was not associated with any statistically significant change in preventable hospitalizations for urban adult enrollees. When additional controls for demographics, disease prevalence, and physicians per capita were included, the initially observed improvements in the overall rate of preventable hospitalizations were no longer statistically significant. However, a statistically significant increase in the likelihood of experiencing a diabetes-related hospitalization, particularly one associated with long-term complications, was associated with the transition to the Choice program in urban areas. Considering both models, we conclude that the Choice program has not performed significantly differently than the Plus program with respect to preventable hospitalizations among adults.

Children. The transition to SoonerCare Choice in urban areas in Oklahoma was associated with a statistically significant increase in total preventable hospitalizations for children, primarily driven by an increase in the rate of hospitalizations for asthma. No statistically significant

---

(continued)

basic model for children was specified as: $\ln(p/(1-p))=\beta_0+\beta_1 year2006+\beta_2 urban+\beta_3 year2006*urban+\beta_4 female+\mu$. These regression models were run separately for overall preventable hospitalizations and each of the individual preventable hospitalization measures. The regression term β_3 indicates the impact of the transition from SoonerCare Plus to SoonerCare Choice in urban areas; a negative, statistically significant (p-value <0.10) coefficient indicates that the SoonerCare Choice program is associated with lower rates of preventable hospitalizations than the Plus program. Appendix B presents the coefficient estimates and p-values for β_3. For example, Table B.1 shows that the coefficient on β_3 in the initial model for all preventable hospitalizations is equal to -0.113, and has a p-value of 0.113. The negative sign on the coefficient indicates that SoonerCare Choice was associated with lower rates of preventable hospitalizations when compared to the Plus program. The p-value is slightly higher than the threshold for statistical significance, therefore we report this finding as marginally statistically significant.

[117]The logistic regression with additional controls for adults was specified as follows: $\ln(p/(1-p))=\beta_0+\beta_1 year2006+\beta_2 urban+\beta_3 year2006*urban+\beta_4 female+\beta_5 age45\_64+\beta_6 percent\_asthma+\beta_7 percent\_diabetes+\beta_8 MDs\_per\_capita+\beta_9 percent\_hispanic+\mu$. The regression term β_3 indicates the impact of the transition from SoonerCare Plus to SoonerCare Choice in urban areas; a negative, statistically significant (p-value <0.10) coefficient indicates that the SoonerCare Choice program is associated with lower rates of preventable hospitalizations than the Plus program. Appendix B presents the coefficient estimates and p-values for β_3.

changes were associated with the transition to SoonerCare Choice for the three other types of preventable hospitalization.

3. Emergency Room Utilization Trends

Stemming the growth of emergency room (ER) utilization for non-emergent care has been an area of targeted focus for OHCA since 2004. This focus is warranted given the $109 million cost of ER visits to OHCA in fiscal year 2008, an average of $316 per visit. OHCA's quality improvement initiative employs member and provider education, including provider profiling and care management efforts, as well as face-to-face interventions with persistent users of ER care.[118] Interventions for persistent ER users began in late 2006. Prior studies funded by OHCA have reported on factors associated with ER utilization and factors related to preventable ER utilization for SoonerCare members.[119] Our analysis complements this previous work by examining whether targeted efforts by OHCA to address persistent ER utilization have brought about changes in the pattern of care by shifting care away from ERs toward primary care visits.

a. Data Sources and Methods

OHCA supplied provider-level counts of office and emergency room visits among contracted providers between calendar years 2003 and 2007 for SoonerCare Choice members. Patients with at least one office or emergency room visit were included in the OHCA-supplied data set. OHCA also provided emergency room utilization data denominated by member months.

To infer the degree of physician care coordination for SoonerCare Choice members, we created a proxy measure consisting of the ratio of ER visits divided by physician office visits for a given provider. We expect that greater physician oversight would result in a lower ratio of ER to office visits as the site of care shifted from ERs to offices. For example, a physician's panel with 15 ER visits and 5 office visits would yield a ratio of 3.0 ER visits for each office visit. Lower ratios are indicative of more care provided in physician office settings relative to ERs, and generally represent a desired outcome from both a cost and quality-of-care perspective. This ratio is simply a measure of whether changes occurred. It does not tell us whether changes in the direction of more office visits are a direct result of changes in physician oversight, or whether they are attributable to efforts by OHCA staff to reduce ER use through member education and other initiatives.

[118] Defined as 10 or more ER visits per quarter for three consecutive quarters.

[119] OFMQ. "Final Technical Report of Emergency Room Utilization Among Oklahoma Medicaid Enrollees." Oklahoma City, OK: OFMQ, June 2005; APS Healthcare. "Emergency Room Utilization: SoonerCare Choice, Report for Fiscal Year 2007." White Plains, NY: APS Healthcare, June 2007.

b. Results

SoonerCare members' ER utilization decreased between 2004 and 2007 during a time of increases in ER use among the broad population of Medicaid beneficiaries in the United States. Between 2004 and 2006, ER visits by Medicaid enrollees nationwide rose from 80 per 100 enrollees to 87 per 100 enrollees.[120] In contrast, between 2004 and 2007, OHCA reported a 5 percent decrease, from 80 ER visits per 1,000 member months to 76 visits per 1,000 member months.[121]

The average ratio of ER visits to office visits fluctuated between 2003 and 2007, with the most recent data showing a decrease in the number of ER visits relative to the number of office visits, indicating a shift toward office visits. The average ratio of ER visits to office visits per provider declined from 1.2 in 2003 to 0.74 ER visits for every office visit in 2007, a decrease of 38 percent (see Figure III.1). This ratio increased by 45 percent between 2003 and 2006, then fell substantially between 2006 and 2007. The decrease in the ER to office visit ratio in 2007 suggests that some changes may have been brought about by the OHCA ER utilization program, including a provider-focused initiative and another initiative focused on beneficiaries who frequently utilize emergency care. Continued efforts will be needed to insure that this gain is sustained.

To further explore the impact that OHCA efforts had on persistent ER users, we also examined the 95th percentile of providers across each year to understand how providers with the highest 5 percent of ER-to-office visit ratios may have changed the way they manage their panel of patients. In 2003, providers with an ER-to-office-visit ratio at the 95th percentile reported 2.85 ER visits for every office visit. By 2007, providers at the 95th percentile reported 1.26 ER visits for every office visit, a reduction of over 55 percent (see Figure III.2). This reduction indicates that the providers with the highest rates of ER admissions were especially successful in reducing the number of emergency room visits relative to office visits. It is also likely a reflection of OHCA efforts to focus especially on persistent ER utilizers.[122]

---

[120] Centers for Disease Control and Prevention, National Center for Health Statistics. "National Hospital Ambulatory Medical Care Survey: 2006 Emergency Department Summary." Atlanta, GA: CDC, August 6, 2008. Centers for Disease Control and Prevention, National Center for Health Statistics. "National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department Summary." Atlanta, GA: CDC, June 2006.

[121] OFMQ, "Final Technical Report of Emergency Room Utilization Among Oklahoma Medicaid Enrollees." Oklahoma City, OK: OFMQ, June 2005, p. 15. 2004. Data from 2004 include the last two quarters of 2004 and first quarter of 2005. 2007 data are taken from the OHCA's HEDIS Report for Ambulatory Care for calendar year 2007. The OHCA method of calculating the ER utilization rate is more precise, since it adjusts for partial-year enrollment; however, we cite data that is calculated per enrollee to compare trends in Oklahoma to those occurring nationally. Since we are primarily interested in measure trends rather than absolute values, the slightly different method of calculation for the national rate still provides a reasonable basis for comparison. We note that the 2004 OFMQ data exclude Medicaid FFS members and the 2006 data exclude SoonerCare members' ER use in Medicaid FFS and IHS.

[122] For details on this OHCA effort to target persistent utilizers, see: OHCA. "ER Utilization Persistent Population. Fast Facts: April-June 2008." http://www.ohca.state.ok.us/WorkArea/showcontent.aspx?id=9182. Accessed October 14, 2008.

There are some caveats inherent in our analysis of the ER data that are worthy of mention. A primary limitation of this analysis is our inability to control for changes in member characteristics and health status over time due to the aggregated nature of these data. Second, without a comparison group, we cannot determine whether OHCA's actions are responsible for this change or whether the trends shown in Figures III.1 and III.2 were also occurring for Oklahomans not in SoonerCare. Further, we do not know from these data whether office visits occur as a preventive action (for example, an office visit occurs instead of a potential ER visit) or are reactive in nature (for example, if an ER visit results in multiple, follow-up office visits).

In spite of the limitations inherent in the ER data, it appears that OHCA's efforts to gain control of a difficult-to-manage population are working, as the mix of ER visits relative to office visits indicates that care is shifting toward the primary care setting. This finding underscores OHCA's success with ongoing efforts to reduce unnecessary ER utilization starting in 2004, though additional years of data will be needed to determine whether this positive trend continues.

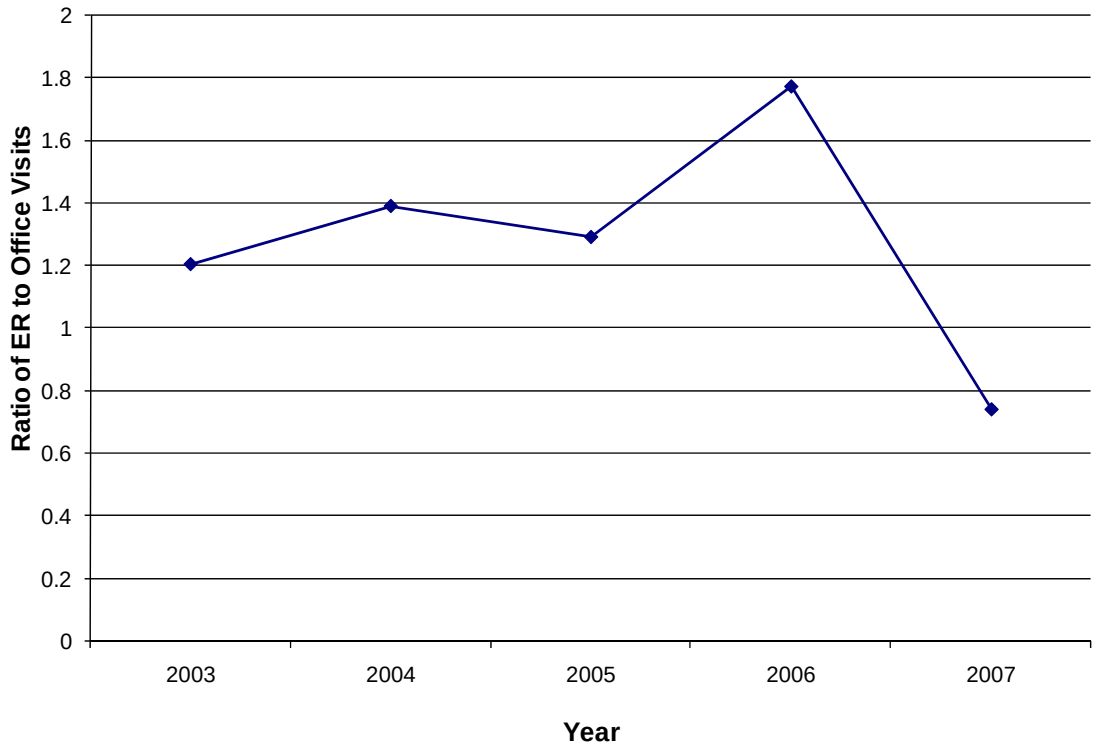
B. EFFECTS OF MEDICAID ELIGIBILITY EXPANSIONS ON SOONERCARE ENROLLMENT, PARTICIPATION RATES, AND INSURANCE COVERAGE

Starting in 1997, SoonerCare expanded eligibility to cover more low-income children, pregnant women, and previously uninsured working adults. After the first significant expansion of eligibility to low-income pregnant women and children in 1997-98, OHCA made concerted efforts to simplify the application and re-enrollment process for these groups and conducted a major outreach campaign to encourage qualified individuals to apply, while also eliminating the asset test for pregnant women, children, and adults with dependent children. By 2002, all pregnant women and children below age 19 living in families earning up to 185 percent of the federal poverty level (FPL) were eligible for Medicaid.

No subsequent changes to eligibility were made until a state budget shortfall in 2003 led the state to eliminate the medically needy program, causing about 2,500 individuals to lose eligibility for SoonerCare. By 2004, the budget crisis had passed and concern about the state's high uninsurance rate led the Governor and the state legislature to enact Senate Bill 1546, which directed OHCA to design a health insurance program targeting working adults with income up to 185 percent of FPL. OHCA, working closely with the Oklahoma Insurance Department (OID), created the Oklahoma Employer/Employee Partnership for Insurance Coverage (O-EPIC) program, later re-named Insure Oklahoma.[123] Enrollment in Insure Oklahoma began in November 2005 for employees in participating businesses, and in March 2007 for individuals not eligible for employer health benefits.

[123] See Chapter II.5 for a brief description of this program.

Figure III.1. Ratio of Emergency Room to Office Visits, by Year



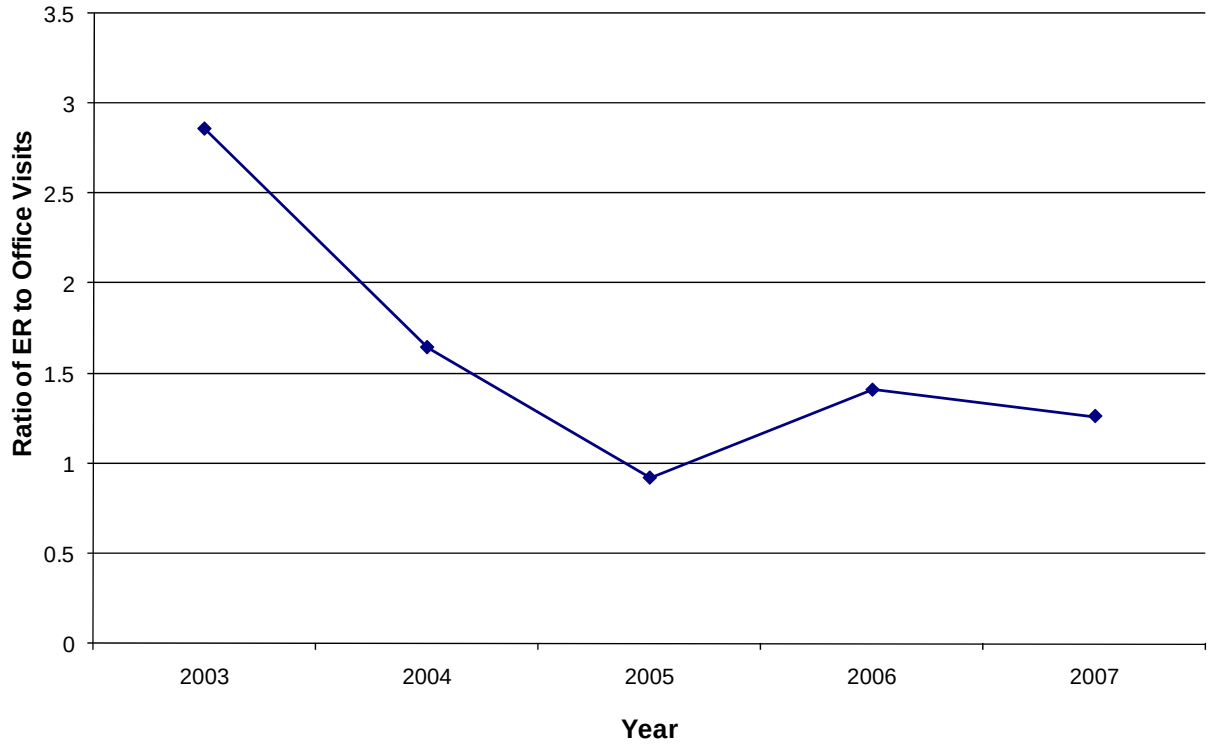
Source: MPR analysis of OHCA ER utilization data.

This section examines how changes in SoonerCare eligibility rules affected the number of low-income Oklahomans enrolled over time. It also presents estimates of the participation rate—the proportion of qualified individuals who enrolled—as an indicator of the effectiveness of program outreach and application processes. Lastly, it examines how expanded eligibility and enrollment in SoonerCare may have affected health insurance coverage, and compares Oklahoma's coverage rates of low-income children and adults to the national average.

1. Data and Methods

SoonerCare enrollment trends are drawn directly from OHCA data for the 1995-2007 period for certain categories of qualified individuals, including children; pregnant women; parents of dependent children; and aged, blind, and disabled (ABD) individuals not using long-term care services. Groups *excluded* from the analysis are: people who are institutionalized in nursing homes and intermediate care facilities for the mentally retarded (ICFs-MR), people enrolled in home and community-based service waiver programs, disabled children enrolled via coverage authorized by the Tax Equity and Responsibility Act of 1982 ("TEFRA" children), and single-benefit program enrollees (family planning and breast/cervical cancer treatment patients).

Figure III.2. 95th Percentile: ER to Office Visit Ratio, by Year



Source: MPR analysis of OHCA ER utilization data.

Enrollment numbers by Medicaid Eligibility Group (MEG) include all other SoonerCare members—some who do and some who do not participate in SoonerCare Choice program.[124] Enrollment data represent the average of two points in time (June and December) each year from June 1997—the earliest data available in OHCA archives—to December 2007.

To estimate SoonerCare participation rates, we computed the number of qualified individuals in each MEG based on demographic characteristics, household composition, and monthly income and expenses, using U.S. Census data for the Oklahoma population in 2000 and 2006, the years for which reliable state-level data are available. For 2000, we used the U.S. Census Bureau's Public Use Microdata Sample (PUMS) Files for Oklahoma, which contain data for 81,350 households and 173,843 persons. For 2006, we used Oklahoma data in the Census

[124] For example, from 2004 to 2007, total SoonerCare enrollment (excluding institutionalized and HCBS long-term care beneficiaries, TEFRA children, and single-benefit beneficiaries) exceeded the number who participated in SoonerCare Choice by an average 129,000 per year. Most of those in SoonerCare but not enrolled in the Choice program (79,000) are Medicare-Medicaid dual eligibles. The remainder (50,000) includes individuals exempt from SoonerCare Choice participation, for example, those unable to access primary care services within state-established time/distance standards.

Bureau's American Community Survey (ACS) PUMS, which contains data for 16,074 households.[125]

The numbers of people enrolled in SoonerCare by MEG (the numerator used to compute participation rates) were drawn from point-in-time enrollment data provided by OHCA. We used point-in-time enrollment, rather than counts of those ever-enrolled in SoonerCare during a given year, because they more closely resemble the population data in the ACS surveys. In addition, ever-enrolled counts may contain duplicates of the same individual; even though OHCA's ever-enrolled data claim to be unduplicated counts, they are still likely to contain some duplicate records, with the number varying over time. Moreover, ever-enrolled counts reflect turnover in enrollment throughout the year and include people enrolled in Medicaid for any length of time, whether one month or all 12 months.[126] Point-in-time counts remove the effects of duplicate records and fluctuating turnover rates over the 12-year period of interest.

To compare Oklahoma trends in insurance coverage among the low-income population—those with family incomes up to 200 percent of FPL—with trends for the U.S. as a whole, we used data from the U.S. Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplements. Note that CPS data on the number of people with Medicaid coverage are generally lower than those derived from state Medicaid enrollment data. For example according to one analysis, CPS was estimated to undercount Medicaid enrollment by an average of 32 percent in both 2000 and 2001.[127] CPS data on the uninsured are considered to be more reliable than data on Medicaid enrollment.

2. Results

a. Medicaid Enrollment Trends—1997 to 2007

Due to eligibility expansions, some growth in the population, and simplified application forms and procedures, Medicaid enrollment has grown steadily. According to OHCA-supplied data, average monthly enrollment in SoonerCare (excluding the groups listed above) more than doubled, from 257,352 in 1997 to 537,510 in 2007 (Table III.18).

[125] ACS-PUMS data for 2007 were expected to become available in late 2008; they were not available in time for this analysis.

[126] The number of individuals who were enrolled in SoonerCare at any time during a one-year period is 10 to 40 percent higher than point-in-time enrollment numbers (SoonerCare Enrollment Fast Facts, www.ohca.state.ok.us/research.aspx?id=2987). These differences occur because some individuals who enroll during the year may not be eligible for the program at the end of the year, for example: pregnant women, those whose income increased above the qualifying amount, children who "age-out", and those who do not provide required information to ascertain continued eligibility at regular redetermination periods.

[127] M. Davern, J. A. Klerman, and J. Ziegenfuss. "Medicaid Under-reporting in the Current Population Survey and One Approach for a Partial Correction," 2007. www.sph.umn.edu/img/assets/18528/CPSMedicaid_Adj_Oct2007.pdf. Accessed October 1, 2008.

Table III.18. SoonerCare Average Monthly Enrollment by Medicaid Eligibility Group, 1997-2007

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Infants, below age 1	20,388	23,042	24,944	26,698	27,781	28,377	29,376	29,820	30,441	32,186	34,081
Children, ages 1-12	96,131	117,204	161,076	187,312	205,758	219,109	227,473	236,536	245,446	254,848	268,234
Children, ages 13-18	22,605	28,165	44,271	53,419	60,583	68,386	72,633	77,813	82,095	85,959	89,842
Pregnant Women	13,586	15,289	18,604	20,102	20,496	20,182	19,016	21,080	22,556	21,929	21,944
Adults with dependent children	34,211	31,211	30,931	29,264	32,593	36,875	36,953	32,464	29,841	31,244	29,293
Aged, blind or disabled	70,432	68,582	68,203	70,751	76,417	80,350	84,698	89,429	91,590	92,254	94,118
TOTAL	257,352	283,492	348,027	387,545	423,628	453,279	470,147	487,141	501,967	518,419	537,510

Source: MPR analysis of OHCA enrollment records.

Notes: 1. Foster children included in age-appropriate children's groups.
2. Years 1996 to 2002 include/exclude a few thousand people who qualified under the Medically Needy program.

As expected, there was a spike in enrollment among children and pregnant women in 1998, due to the increase in income eligibility levels that went into effect in 1997 and the intensive outreach and application simplification initiatives of 1998 (Figure III.3). The number of children ages 1 to 12 has grown steadily each year. As older children were phased into SoonerCare between 1997 and 2002, the number of adolescents enrolled tripled.

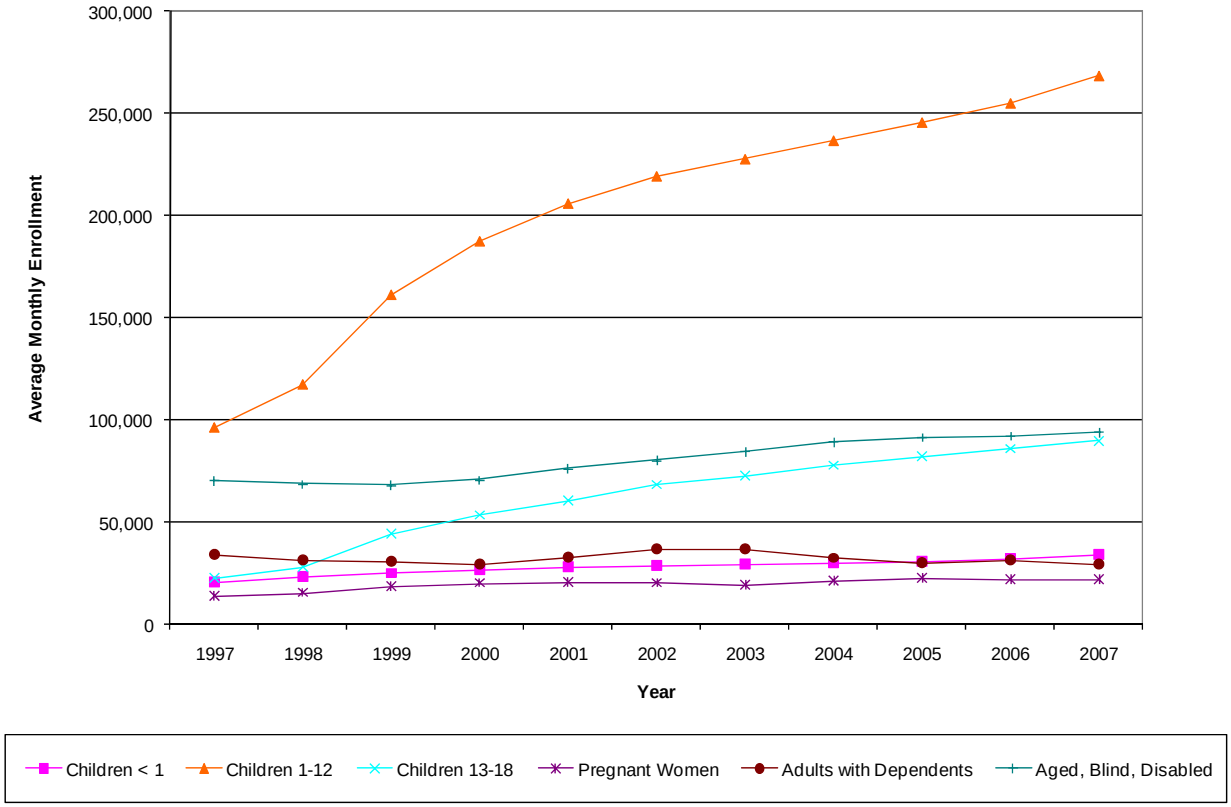
The state's unemployment rate seems to have had an effect on enrollment among adults with dependent children. Periods of low unemployment—for instance, 2.7 percent in January 2001—correspond with low numbers of such individuals enrolled; in the same way, a period of high unemployment (mid-2003) was associated with the highest enrollment of adults with dependent children.[128]

b. SoonerCare Participation Rates

The SoonerCare participation rate—the estimated proportion of qualified people who are enrolled in the program—is a useful indicator of OHCA's ability to reach and enroll qualified populations. Most means-tested public benefit programs do not achieve 100 percent participation rates. Even for entitlement programs—which support everyone who applies and qualifies—participation rates in the year 2000 ranged from about 50 percent to more than 70 percent,

[128] Bureau of Labor Statistics. "Local Area Unemployment Statistics: Oklahoma." www.bls.gov/lau/. Accessed October 13, 2008.

Figure III.3. SoonerCare Enrollment Trends, 1997-2007



Source: MPR analysis of OHCA enrollment records.

because eligible individuals must know about the program, complete application forms, and produce documentation to prove eligibility. [129]

Oklahoma's Medicaid participation rates are compared to the U.S. average in 2000, the only available benchmark. In 2000, the nationwide Medicaid participation rate was estimated to be between 66 and 70 percent. [130] Medicaid participation rates are generally highest for children (74-79 percent), in the middle of the range for adults (56-64 percent), and lowest for the elderly (40-43 percent).

SoonerCare Participation Rates by MEG. In 2000, Oklahoma's estimated SoonerCare participation rates were highest for pregnant women and infants (85 percent and 92 percent

[129] Government Accountability Office. "Means Tested Programs: Information on Program Access Can Be an Important Management Tool." Washington, DC: GAO, 2005.; Congressional Budget Office. "A Detailed Description of CBO's Cost Estimate for the Medicare Prescription Drug Benefit." Washington, DC: CBO, 2004.

[130] GAO. "Means Tested Programs." 2005. Estimated Medicaid participation rates do not include individuals who are institutionalized, but do account for variation in state eligibility rules and for people who may be eligible for only part of the year.

respectively), among the nine MEGs for which reliable estimates could be produced (Table III.19). These groups, as well as children ages 1 to 5, continued to have participation rates exceeding 90 percent in 2006.[131] These estimated participation rates are higher than the national average for 2000, and likely reflect OHCA's concerted outreach and application simplification reforms. The estimated participation rate for children ages 1 to 5 (66 percent) and disabled children (54 percent) were about the same as the U.S. average in 2000, and were slightly higher for adults with dependent children (68 percent) relative to the U.S. overall.

Oklahoma's estimated SoonerCare participation rates in 2000 were less than 50 percent for three groups: (1) adolescents ages 13 to 18 (39 percent), (2) adults with disabilities (43 percent), and (3) elderly (32 percent). While the first two are somewhat lower than national averages, low Medicaid participation among the elderly is consistent with the national average.

Change in SoonerCare Participation Rates, 2000-2006. Estimated participation rates in Oklahoma's SoonerCare program increased for all but one MEG between 2000 and 2006 (Table III.19). Increases were particularly notable for non-disabled children (26 percent to 58 percent greater), and for ABD children and adults (24 percent and 28 percent greater, respectively). There was a smaller increase in the estimated participation rate for pregnant women (5 percent), perhaps because the participation rate was high to start with and hospitals have an incentive to help women apply for assistance in order to receive reimbursement for delivery-related care.

There was, however, a 29 percent decline in the Medicaid participation rate among adults with dependent children from 2000 to 2006, suggesting that OHCA and the Oklahoma Department of Human Services could do more to inform very poor parents (those making less than half of FPL) that they, as well as their children, can qualify for Medicaid even if they do not receive public assistance. And, while the participation rate for the elderly increased by 10 percent from 2000 to 2006, it is still extremely low—only 35 percent.

Participation Rates by County. While estimated SoonerCare participation rates in all of the eligibility categories except adults with dependent children improved from 2000 to 2006 for Oklahoma as a whole, not all 10 regions within the state improved equally (data not shown). For example, the SoonerCare participation rate increased for low-income infants below age 1 in seven regions (North Central, South Central, East, Tulsa, Southeast, East Central, and Northeast), but dropped in three regions (Northwest, Southwest, and South Central West). Estimated participation rates for all groups of children ages 1 to 18 increased in all but one of the 10 regions. (The exception was the Southwest, for children ages 1 to 5.) Despite statewide improvement in estimated participation rates among low-income pregnant women over time, the rates declined in five regions: Northwest, Southwest, South Central West, Northeast, and

[131] Participation rates exceeding 100 percent do not reflect actual participation above 100 percent (that is, fraud). Participation rates can exceed 100 percent for populations that have a high enrollment rate because U.S. Census data are survey data that have both sampling and non-sampling errors. The rate of error in the estimate increases with smaller populations. In addition the income level used for the qualifying population for infants was the annual income of the parents, but actual enrollment would use income for a shorter time frame—thus leading to more variability in the eligibility estimate for infants than for other groups.

Table III.19. Estimated Medicaid Participation Rates in Oklahoma, 2000 and 2006

	2000			2006			Change 2000-2006
	OHCA Enrollment	Eligible Oklahoma population	Participation Rate (%)	OHCA Enrollment	Eligible Oklahoma population	Participation Rate (%)	
Children below age 1	26,698	28,964 ± 539	92 ± 2	32,186	27,807 ± 1,170	116 ± 5	26%
Children, age 1-5	90,141	135,836 ± 1,149	66 ± 1	124,862	135,499 ± 2,695	92 ± 2	39%
Children, age 6-12	97,171	178,887 ± 1,310	54 ± 1	129,986	183,830 ± 3,795	71 ± 3	30%
Children, age 13-18	53,419	135,999 ± 1,149	39 ± 1	85,959	138,462 ± 2,798	62 ± 1	58%
Pregnant Women	20,102	23,647 ± 487	85 ± 2	21,929	24,546 ± 1,240	89 ± 5	5%
Parents with dependent children (<age 18)	29,264	42,831 ± 654	68 ± 1	31,244	64,456 ± 2,351	48 ± 2	-29%
ABD, <age 19	8,186	15,071 ± 390	54 ± 2	12,272	18,185 ± 1,101	67 ± 5	24%
ABD, ages 19-64	40,353	94,147 ± 962	43 ± 1	55,677	101,485 ± 2,553	55 ± 1	28%
ABD, age 65+	22,213	70,430 ± 835	32 ± 1	24,306	69,789 ± 1,799	35 ± 1	10%
TOTAL	**387,545**	**725,812 ± 2,407**	**53 ± 1**	**518,419**	**764,059 ± 8,086**	**68 ± 1**	**27%**

Source: MPR analysis of OHCA enrollment data and U.S. Census data.

Notes: 1. ABD = Aged, Blind, or Disabled.
2. Enrollment is average of June and December enrolled each year.
3. Margin of error represents a 90 percent confidence level around the estimate. The margin of error is higher for estimates in 2006 relative to 2000, because the sample size in 2006 was smaller (81,350 households in 2000 vs. 16,074 households in 2006).

Oklahoma City. Uneven progress throughout the state suggests areas that might be a focus for targeted outreach efforts to the eligibility groups that have not shown improvements in participation rates.

c. Coverage of Low-Income Individuals—Oklahoma Relative to U.S.

Increased enrollment in the Oklahoma SoonerCare program led to a corresponding increase in the percentage of the non-elderly population covered by Medicaid. The percent of Oklahoma's population below age 65 who reported having Medicaid coverage increased from 7.7 percent in 1999 to 15.4 percent in 2007.[132] Nonetheless, the overall proportion of the Oklahoma population under age 65 who reported being uninsured changed very little, or even increased, over this period, measuring 18.2 percent in 1999 and 20.3 percent in 2007. This pattern in the uninsurance rate occurred despite increasing Medicaid coverage, because the proportion of people with any private coverage declined significantly, from 71.3 percent in 1999 to 62.1 percent in 2007.

Because insurance coverage trends for the entire population under age 65 mask what is happening to the low-income population, we conducted an analysis of coverage rates among sub-groups of the Oklahoma population earning up to 200 percent of FPL. For all non-elderly individuals below this income threshold, the proportion covered by Medicaid increased from 26 percent in 1995-96 to 32 percent in 2006-07, bringing Oklahoma close to the national average of 34 percent in 2006-07 (Tables III.20 and III.21).[133]

Expanded Medicaid coverage in Oklahoma contributed to an overall decline in the percentage of the low-income non-elderly population *lacking* insurance. This rate decreased from 33 percent in 1995-96 (slightly higher than the U.S. average) to 27 percent in 2006-07, five percentage points less than the U.S. average of 32 percent. But the trends in coverage over this period are substantially different for children and adults.

---

[132] U.S. Census Bureau. "Current Population Survey, Annual Social and Economic Supplements, Historical Health Insurance Tables, Table HIA-6. Health Insurance Coverage Status and Type of Coverage by State—Persons Under 65: 1999 to 2007." www.census.gov/hhes/www/hlthins/historic/hihistt6.xls. Accessed October 3, 2008. Data before 1999 is not comparable to data from subsequent years because the 2005 and 2006 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) data were revised in March 2007 to improve the consistency of estimates for the insured and uninsured. Data for 1999 to 2003 were revised to make them consistent with the revision to the 2005 and 2006 estimates, but data before 1999 have not been revised and so are not directly comparable. Hence, trends from 2000-01 to 2006-07 are more reliable.

[133] Tables III.20 and III.21 report two-year averages of the uninsurance rate because these measures are considered more stable than one-year statistics, due to sample sizes in the annual CPS. CPS is known to undercount Medicaid enrollment by as much as 30 percent; for more information, see M. Davern, J. A. Klerman, and J. Ziegenfuss. "Medicaid Under-reporting in the Current Population Survey and One Approach for a Partial Correction." www.sph.umn.edu/img/assets/18528/CPSMedicaid_Adj_Oct2007.pdf. Accessed October 1, 2008.

Table III.20. Source of Insurance for Non-Elderly Individuals in Families Earning Up to 200 Percent of FPL: Oklahoma and U.S., 1995-2007

	1995-1996		2000-2001		2006-2007	
	OK	US	OK	US	OK	US
Children ages 0-18 (under age 19)						
Private	36%	38%	33%	39%	31%	33%
Medicaid	25%	43%	39%	45%	56%	53%
All other Public	9%	4%	10%	4%	6%	3%
IHS Only	5%	0%	5%	0%	3%	0%
Not covered	29%	23%	21%	20%	13%	18%
Adults, ages 19-64						
Private	40%	40%	38%	41%	35%	35%
Medicaid	11%	21%	12%	19%	15%	21%
All other public	14%	8%	14%	9%	13%	10%
IHS Only	6%	0%	5%	0%	8%	0%
Not covered	35%	37%	38%	37%	37%	40%
Total Under age 65						
Private	39%	39%	36%	41%	34%	34%
Medicaid	17%	30%	23%	29%	32%	34%
All other public	12%	6%	12%	7%	10%	7%
IHS Only	6%	0%	5%	0%	6%	0%
Not covered	33%	31%	31%	30%	27%	32%

Source: MPR analysis of U.S. Census Bureau, CPS data 1995-1996, 2000-2001, and 2006-2007.

Notes: 1. IHS = Indian Health Service.
2. All other public = Veterans Affairs, Tricare, Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), Medicare.
3. Data shown represent the average of the two years in the header column.
4. Percents shown do not add to 100% as persons may be enrolled in more than one insurance type during the year.

Table III. 21. Change in Source of Insurance Coverage for Non-Elderly Individuals in Families Earning Up to 200 Percent of FPL, Oklahoma and U.S., 1995-2007

	Percent Change in Proportion of Total					
	1995-1996 to 2001-2002		2001-2002 to 2006-2007		1995-1996 to 2006-2007	
	OK	US	OK	US	OK	US
Children (under age 19)						
Private	-10%	4%	-5%	-19%	-14%	-13%
Medicaid	57%	4%	41%	16%	122%	24%
All other Public	10%	8%	-40%	-30%	-34%	-17%
IHS Only	-4%	-8%	-36%	-23%	-39%	-25%
Not Covered	-28%	-14%	-37%	-11%	-55%	-22%
Adults 19 to 64						
Private	-7%	4%	-6%	-17%	-12%	-11%
Medicaid	14%	-10%	27%	11%	44%	1%
All other Public	3%	11%	-9%	5%	-6%	17%
IHS Only	-14%	-6%	40%	20%	21%	17%
Not Covered	8%	-1%	-3%	8%	5%	7%
Total under 65						
Private	-8%	4%	-6%	-18%	-13%	-12%
Medicaid	39%	-3%	35%	13%	89%	11%
All other Public	6%	12%	-19%	-0%	-15%	11%
IHS Only	-10%	-7%	10%	8%	-1%	1%
Not Covered	-5%	-4%	-12%	4%	-16%	0%

Source: MPR analysis of U.S. Census Bureau, CPS data 1995-1996, 2000-2001, and 2006-2007.

Notes: 1. IHS = Indian Health Service.
2. All other public = Veterans' Affairs, Tricare, Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), Medicare.
3. Data shown represent the average of the two years in the header column.
4. Percents shown do not add to 100% as persons may be enrolled in more than one insurance type during the year.

- ***Low-Income Children.*** The results show steady and significant increases in the proportion of low-income children covered by Medicaid from 1995-96 to 2006-2007, rising from 25 percent in the mid-1990s to 56 percent in 2006-07. There is a corresponding drop in the percentage of low-income children who were uninsured, from 29 percent in 1995-96 to just 13 percent in 2006-07. Because private insurance coverage for low-income children declined over the 12-year period, from 36 percent to 31 percent, the uninsured rate for this group would have grown without the considerable increase in Medicaid coverage.

- ***Low-Income Adults.*** Among Oklahoma adults ages 19 to 64 in families up to 200 percent of FPL, the percentage receiving Medicaid stayed about the same between 1995-96 and 2000-01 (11 to 12 percent). In the United States as a whole, this proportion decreased from 21 to 19 percent, largely due to the passage of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, which de-linked Medicaid and food-stamp eligibility from receipt of welfare. However, after 2000 the proportion of low-income adults in Oklahoma and in the overall U.S., receiving Medicaid increased, as steps were taken to ensure that those eligible for Medicaid continued to receive benefits when they left welfare, and as many states expanded Medicaid coverage to low-income parents, and even to childless adults.

  While some low-income adults in Oklahoma gained Medicaid coverage between 2000-2001 and 2006-07, increasing the percentage with Medicaid from 12 percent to 15 percent, this remained below the national average of 21 percent in 2006-07. Hence the uninsured rate among low-income adults remained essentially the same over this period (37 to 38 percent). The launch of the Insure Oklahoma program in 2005 and 2006 was designed to address the high rate of uninsurance among low-income adults, but due to slow program start-up, only about 5,600 adults had enrolled in the program at the end of 2007, not yet enough to significantly affect the uninsurance rate among low-income adults.[134]

C. SOONERCARE CHOICE: QUALITY MEASURES AND MEMBER SATISFACTION

Any health care delivery system that shifts from a fee-for-service model to a model of full or partial capitation requires close surveillance of quality of care. Monitoring of care outcomes and satisfaction for SoonerCare Choice members is important because capitation payment approaches introduce incentives to limit the volume or intensity of services provided that are covered by the capitation contract. Therefore, to ensure that outcomes of care and member satisfaction have been maintained, this section reviews recent data for SoonerCare Choice members' care outcomes and their satisfaction with care received. OHCA has reported outcome

[134] Enrollment in Insure Oklahoma grew significantly in 2008; as of September 2008, total enrollment was over 14,000 (*Insure Oklahoma Fast Facts, http://www.oepic.ok.gov/WorkArea/showcontent.aspx?id=3304, September 2008)* Even with this growth, however, the numbers of adults who became newly insured are unlikely to lower the uninsurance rate significantly.

measures and member satisfaction in prior reports; we incorporate and summarize this data here.[135]

1. Data Sources and Methods

For purposes of this evaluation, we use OHCA-reported data for 2001-2007 from the National Center for Quality Assurance's (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS). The HEDIS measures are benchmarked with national Medicaid managed care means and can be used to estimate changes in specific measures of healthcare utilization for SoonerCare Choice members between 2001 and 2007.[136] Analogous data on SoonerCare Plus members were not available for our analysis, although OHCA itself has reported comparisons between the Choice and Plus programs using several of these quality measures in its 2003 "Minding our P's and Q's" report.[137] We also summarize findings from reports on the Consumer Assessment of Healthcare Providers and Systems (CAHPS) and the Experience of Care and Health Outcomes (ECHO) surveys conducted between 2003 and 2007. All CAHPS and ECHO data provided by OHCA were also limited to SoonerCare Choice members.

To analyze HEDIS measures for the SoonerCare Choice population, we assess time trends and compare SoonerCare Choice members' measures to Medicaid managed care means, published by NCQA. We note, however, that the national benchmarks reported by NCQA are derived from information reported by a subset of Medicaid managed care organizations that voluntarily submit their HEDIS scores and are not reflective of all Medicaid managed care enrollees. For example, the 2006 HEDIS National Medicaid means reflect data submissions from 139 Medicaid managed care plans. PCCM plans like SoonerCare Choice are not as tightly organized as MCOs and therefore have fewer "levers" to impact primary-care-based outcomes such as those reflected in HEDIS measures. Since NCQA data are presented in an aggregated form, we do not test for statistical significance between SoonerCare Choice and NCQA-reported Medicaid averages.

We note similar limitations to comparing SoonerCare Choice member scores and Medicaid CAHPS benchmark scores. First, Medicaid benchmark scores are reported in the aggregate; significance testing between the individual-level data and the aggregated benchmark scores is not appropriate. Second, several of the CAHPS benchmark measures are aimed at assessing enrollees' satisfaction with the performance of the health plan as a whole, which is more relevant

[135] OFMQ. "SoonerCare Choice Final Technical Report of CAHPS Survey Findings: Medicaid Adult Survey." Oklahoma City, OK: OFMQ, March 2006; OFMQ. "SoonerCare Choice Final Technical Report of ECHO Survey Findings: Medicaid Child Survey." Oklahoma City, OK: OFMQ, March 2006.; The Myers Group. "CAHPS 2007 Medicaid Child Survey, Final Report." Snellville, GA: The Myers Group, 2007.; The Myers Group. "ECHO 2007 Behavioral Health Member Satisfaction Survey, Final Report," Snellville, GA: The Myers Group, 2007.

[136] Data were provided by OHCA for the years 2001–2007. HEDIS measures were computed prior to 2001 but are not included in this analysis. We note that the HEDIS data in this report were calculated using HEDIS measure specifications but do not imply data were audited by the NCQA.

[137] OHCA. "Minding our Ps and Qs: Performance and Quality for Oklahoma SoonerCare Programs." www.ohca.state.ok.us/reports/pdflib/pq_2003.pdf. Accessed October 14, 2008.

to MCOs than to PCCM programs like SoonerCare Choice. Last, reporting of data is voluntary and may not be representative of all or most managed Medicaid programs. Therefore, we believe it is generally more useful to measure SoonerCare Choice trends over time rather than to make comparisons to external benchmarks. Nonetheless, we include some CAHPS national benchmark comparisons, focusing on measures that are most relevant to a PCCM program, like satisfaction with individual providers. No national ECHO database is available for benchmarking purposes.

2. Results

a. HEDIS Measures

Table III.22 displays the SoonerCare Choice program's relative performance across a broad array of HEDIS measures over time, when compared with the yearly HEDIS national Medicaid mean for each measure. HEDIS national Medicaid means were available for 2001 to 2006. Measures in the upper left quadrant of the table indicate a SoonerCare Choice measure lags behind the national Medicaid mean for most or all years measured and demonstrate an overall trend of improvement. Measures in the upper right quadrant of the table either meet or exceed the national benchmark during the measurement period and also demonstrate an overall trend of improvement over the measurement period.

As indicated by Table III.22, all HEDIS measures reported by OHCA demonstrate a trend of improving performance over the measurement period. Further, five of the 19 measures (26 percent) consistently met or exceeded the national benchmark. Fourteen measures showed improvement over time but were consistently below the national Medicaid benchmark. Figures B.1 – B.19 (Appendix B) trend SoonerCare Choice performance for each of the 19 HEDIS measures.

The average percentage improvement for the 8 measures tracked between 2001 and 2007 was 18.6 percent while the average improvement for the 10 measures tracked between 2003 and 2007 was 36.7 percent.[138]The largest improvements occurred for a diabetes measure followed between 2003 and 2007—Annual Eye Exam (86.5 percent)—and for the Annual Child Health Checkup (ages 3 to 6 years) measure, which improved 62.2 percent between 2001 and 2007. The smallest improvements were for primary care provider visits among those 12 to 19 years old (3.5 percent improvement) and those ages 7 to 11 (5.3 percent improvement), with both measures being reported between 2003 and 2007. Similarly, the percentage of adults ages 45 to 64 who accessed preventive or ambulatory care showed marginal improvement (6 percent) between 2001 and 2007.

[138] Nephropathy screening is excluded from our calculation of improvement over time calculation as this measure changed definition in the 2006 measurement year.

Table III.22. OHCA HEDIS Measure Performance Over Time (2001 – 2007) and in Comparison to National Medicaid Means

Performance Over Time (2001-2007)	OHCA Performance (2001–2007) Compared to Yearly National Medicaid Mean (2001–2006)	
	Worse	Equivalent or Better
Improving	• Mammography • Cervical CA Screen • Adult (Age 20-44) Access to Prev/Amb. Care • EPSDT (3-6 years) • PCP Visit (25 months–6 years) • PCP Visit (7–11 years) • PCP Visit (12–19 years) • Annual A1c Test • Annual LDL-C Test • Annual Eye Exam • Annual Child Health Checkup (Adolescent) • Appropriate Asthma Medications (Age 5-9) • Appropriate Asthma Medications (Age 10-17) • Appropriate Asthma Medications (Age 18–56)	• Dental Visits < 21 years • EPSDT (0-15 months) • PCP Visit (12-24 Months) • Adult (Age 45-64) Access to Prev/Amb Care • Nephropathy Screening
Declining	—	—

Source: OHCA.

Notes: 1. Differences presented in this table do not imply statistically significant differences.
2. The following HEDIS indicators have been reported since 2003: Cervical CA screen, Mammography, Annual Child Health Adolescent Checkup (Adolescent), PCP Visit (Ages 12-19), HbA1c testing, LDL-C testing, Annual Eye Exam, Nephropathy screening, Asthma Medication (3 measures).

b. SoonerCare Choice Member Satisfaction

OHCA SoonerCare Choice members' satisfaction with care has been assessed since 1997, although we review data from only the 2003-2007 period.[139] For this analysis, we reviewed CAHPS reports for SoonerCare Choice members' satisfaction with care for adults (2003 and 2005) and for children (2006 and 2007).[140] In addition to the CAHPS surveys, the ECHO survey was administered to assess behavioral healthcare for both adults (2006) and children (2005) in SoonerCare Choice.[141] For this report, we summarize the main findings from these studies to provide additional context regarding the health and well-being of SoonerCare Choice members.

Satisfaction with Health Care and Health Care Providers

Adults. CAHPS surveys were administered to SoonerCare Choice adults in 2003 and 2005. As shown in Table III.23, there were small changes in adult satisfaction ratings between 2003 and 2005, but these changes were not statistically significant.

Looking just at the measures where there is likely to be greater comparability between PCCM and MCO programs, approximately three-fourths of SoonerCare Choice members ranked their overall health care and their personal health care providers (doctors, nurses, specialists) at 7 or higher on a scale of 10. Approximately 80 percent said that getting needed care was not a problem, or only a small problem, and that their doctors always or usually communicated well. Two-thirds said they always or usually got needed care quickly.

For each of the measures, the 2005 SoonerCare Choice results were below the 2005 national Medicaid CAHPS managed care benchmark (Table III.23). SoonerCare Choice adult responses were closest to the national benchmark in the area of access to care, with 80 percent reporting "no problem or a small problem" getting needed care, compared with 86 percent for the national Medicaid population. SoonerCare Choice responses were similarly close to the national benchmark in enrollees' ratings of their experience in getting care quickly and how well their doctors communicate. They were a bit further below the national benchmark in their overall rating of their doctors, nurses, and specialists, and in their overall rating of their health care.

[139] Some of the CAHPS results from earlier periods are summarized on pp. 23-30 in OHCA, "Minding our Ps and Qs: Performance and Quality for Oklahoma SoonerCare Programs." www.ohca.state.ok.us/reports/pdflib/pq_2003.pdf. Accessed October 14, 2008.

[140] OFMQ. "SoonerCare Choice Final Technical Report of CAHPS Survey Findings Medicaid Adult Survey." Oklahoma City, OK: OFMQ, March 2006; The Myers Group. "SoonerCare Choice CAHPS 2007 Medicaid Child Survey, Final Report." Snellville, GA: The Myers Group, 2007.

[141] OFMQ. "SoonerCare Choice Final Technical Report of ECHO Survey Findings Medicaid Child Survey," March 2006; The Myers Group. "SoonerCare Choice ECHO 2007 Behavioral Health Member Satisfaction Survey, Final Report," 2007.

Table III.23. SoonerCare Choice CAHPS Adult Surveys and Comparison with National Medicaid Benchmarks

Measure	2003 OHCA Rate	2005 OHCA Rate	2004-2005 National Benchmark (76 plans)
Overall Rating of Personal Doctor (7-10)	79%	77%	86%
Overall Rating of Specialist (7-10)	79%	73%	83%
Overall Rating of Health Care (7-10)	73%	69%	83%
Overall Rating of Health Plan (7-10)	64%	65%	80%
Getting Needed Care (Not a Problem/Small Problem)	79%	80%	86%
Getting Care Quickly (Usually/Always)	66%	65%	72%
How Well Doctors Communicate (Usually/Always)	82%	80%	86%
Courteous and Helpful Office Staff (Usually/Always)	85%	82%	88%
Customer Service (Not a Problem/Small Problem)		83%	91%

Source: OHCA.

Note: The CAHPS® Database report contained data from 2004 and 2005 survey administrations, while the 2005 SoonerCare Choice survey was based on collected survey data between September 2005 and February 2006, which was after the data for the national benchmarks had been compiled.

Children. CAHPS surveys for SoonerCare Choice children were administered in 2006 and 2007. Since the small changes between the results in the two years were not statistically significant, only the 2007 results are shown in Table III.24. Looking just at the measures that are most relevant for PCCM programs, well over half of respondents gave rankings of 9 or 10 to their overall health care and their personal health care providers. Getting needed care and getting it quickly was generally not a problem, as with adults.

Satisfaction ratings for SoonerCare Choice children were in most cases similar to those reported nationally for Medicaid populations in the CAHPS benchmarks, although SoonerCare Choice members consistently reported lower satisfaction. The largest difference was in the percentage of SoonerCare Choice members stating they always received care quickly (46 percent for SoonerCare Choice vs. 57 percent for the national Medicaid average). There was a similar gap in the overall rating of health care for SoonerCare Choice children and in the ratings of their personal doctor. The smallest difference was for respondents reporting that getting needed care was not a problem, with 72 percent of SoonerCare Choice members reporting this level of access, compared with 74 percent nationally.

Overall, from 2003 to 2007, a large proportion of SoonerCare Choice members appeared to be satisfied with the care they received, and most gave their providers high ratings. Although SoonerCare Choice members were below the national average on most of these measures, PCCM programs are at somewhat of a disadvantage in these comparisons with the MCO-dominated national CAHPS benchmarks.

Table III.24. SoonerCare Choice CAHPS Child Surveys and Comparison with National Medicaid Benchmarks

Measure	2007 OHCA Rate	2006 National Benchmark Rate
Overall Rating of Personal Doctor (9-10)	57%	66%
Overall Rating of Specialist (9-10)	58%	60%
Overall Rating of Health Care (9-10)	54%	66%
Overall Rating of Health Plan (9-10)	53%	62%
Getting Needed Care (Not a problem)	72%	74%
Getting Care Quickly (Always)	46%	57%
How Well Doctors Communicate (Always)	66%	71%
Courteous and Helpful Office Staff (Always)	68%	74%
Customer Service (Not a problem)	74%	75%

Source: OHCA.

Satisfaction with Behavioral Health and Behavioral Health Care Providers

We examined OHCA-supplied reports of ECHO data from 2003 to 2007 for changes in satisfaction with behavioral health care providers. Table III.25 provides a summary of the results for children, and Table III.26 summarizes the results for adults. Satisfaction with behavioral care for children was assessed in 2003 and 2005; care for adults was assessed in 2004 and 2007. While there were differences between the two years in the surveys, the differences were not statistically significant. Again, overall satisfaction appeared to be high. As noted earlier, there is no national benchmark for the ECHO survey.

D. SOONERCARE FINANCIAL OUTCOMES

Facing skyrocketing health care costs in the early 1990s, Oklahoma turned to managed care to help control costs and introduce greater predictability into the budgeting processes. Thus, the degree to which OHCA has successfully moderated the growth in per-member expenditures is an important dimension of program performance. To assess this program outcome, we tracked per-member costs over time within key eligibility groups (adults, children, aged, and disabled) as reported in the annual *Medicare and Medicaid Statistical Supplement* released by the Centers for Medicare and Medicaid Services (CMS). Because health care program expansion competes with other state expenditure priorities for limited revenues, OHCA's financial performance also has an impact on the long-term affordability of the current benefit package and the sustainability of planned expansions. Therefore, we used data from the National Association of State Budget Officers (NASBO) to examine total SoonerCare expenditures relative to Oklahoma's budget constraints over time and assess potential bounds on expenditure growth. For both analyses we include comparisons between Oklahoma and selected other states to provide perspective on Oklahoma's relative level of expenditures.

Table III.25. 2003 – 2005 SoonerCare Choice ECHO Ratings (Children)

Measure	2003 SC	2005 SC	2003–2005 % Change
Getting treatment quickly (Usually/Always)	70%	62%	-11%
Clinicians communicate well (Usually/Always)	89%	84%	-6%
Perceived improvement (Same/Better)	94%	93%	-1%
Information about treatment options (Yes)	59%	60%	2%
Informed of medication side effects (Yes)	77%	78%	1%
Given information to manage condition (Yes)	72%	66%	-8%
Given information on patients rights (Yes)	94%	87%	-7%
Amount helped by treatment (A lot)	42%	41%	-2%
Average rating of counseling or treatment (0-6=1; 7-8=2; 9-10=3)	2.2	2.1	-5%

Source: OHCA.

Table III.26. 2004 – 2007 SoonerCare Choice ECHO Ratings (Adults)

Measure	2004 SC	2007 SC	2004-2007 Change
Getting treatment quickly (Usually/Always)	66%	65%	-2%
Clinicians communicate well (Usually/Always)	83%	80%	-4%
Clinicians explained things in a way you could understand (Usually/Always)	84%	79%	-6%
Clinicians showed respect for what you had to say (Usually/Always)	85%	81%	-5%
Clinicians spent enough time with you (Usually/Always)	81%	77%	-5%
Informed about treatment options (Yes)	47%	49%	4%
Told about self-help or support groups (Yes)	44%	47%	7%
Given information about different kinds of counseling or treatment (Yes)	49%	51%	4%
Informed about medication side effects (Yes)	72%	76%	6%
Rating of counseling or treatment (8-10)	65%	59%	-9%

Source: OHCA.

1. Per-Member Costs

a. Data Sources and Methods

We present per-member Medicaid expenditures by basis of eligibility group (aged, disabled, adults, and children)[142], as calculated by CMS and reported in the annual *Medicare and Medicaid Statistical Supplement* from 1997 to 2008. Since the *Statistical Supplement* calculates per-member costs in a standardized way, we are able to compare Oklahoma's expenditures and trends with those of other states. Only payments that could be associated with an individual member (such as physician fees, long-term care facility billings, and prescription drug expenditures) were considered in computing these measures; payments such as disproportionate share payments to hospitals and lump-sum provider reimbursement adjustments were excluded. Though comparability across states is improved by excluding such payments and by calculating expenditures within eligibility groups, per-member expenditures continue to reflect differences across states in member utilization rates, provider reimbursement levels, and benefit package generosity.

In Figures III.4 and III.5 we compare Oklahoma's per-member expenditures and growth rates to the national average, as well as to the averages within three groups of states with geographic or program structure similarities. These groupings were determined by the states' Medicaid managed care system over the past decade: primary care case management (PCCM), managed care organizations (MCOs), or a combination of PCCM and MCOs. As a point of comparison, we also include a fourth group, of states that continue to rely primarily on fee-for-service (FFS).[143] Capitated premiums for enrollees in Medicaid MCOs were first included as expenditures in fiscal year 1998; however, data were unavailable for Oklahoma that year. Therefore, while Figures III.4 and III.5 show trends from fiscal years 1996 through 2005, we focus the discussion on per-member expenditure trends from fiscal years 1999 through 2005.

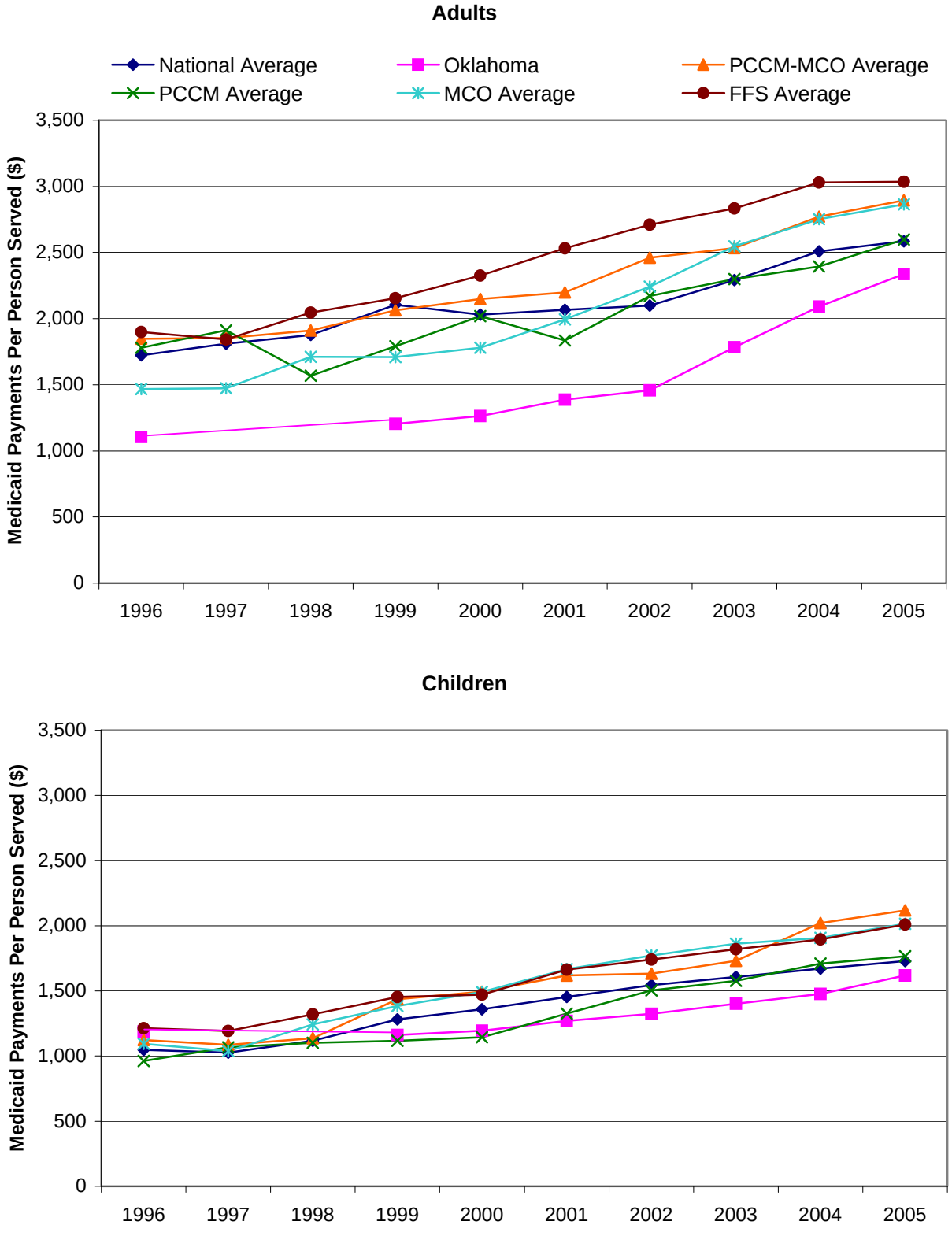
b. Results

Level of Per-Member Costs Relative to Other States. In fiscal years 1999-2005, Oklahoma reported consistently lower per-member costs for all eligibility groups when compared to the national average, as well as to FFS, MCO, and PCCM-MCO comparison states (Figures III.4 and III.5). For example, in 2005 per-member costs for children and adults in Oklahoma were 6 to 10 percent below the national average, and for the aged and disabled costs were about 20 percent below the national average. When compared to other states with PCCM

[142]Aged individuals include those over age 65; disabled individuals include children and adults under age 64 who have disabilities; adults include nondisabled adults younger than age 64; and children include nondisabled children and foster care children.

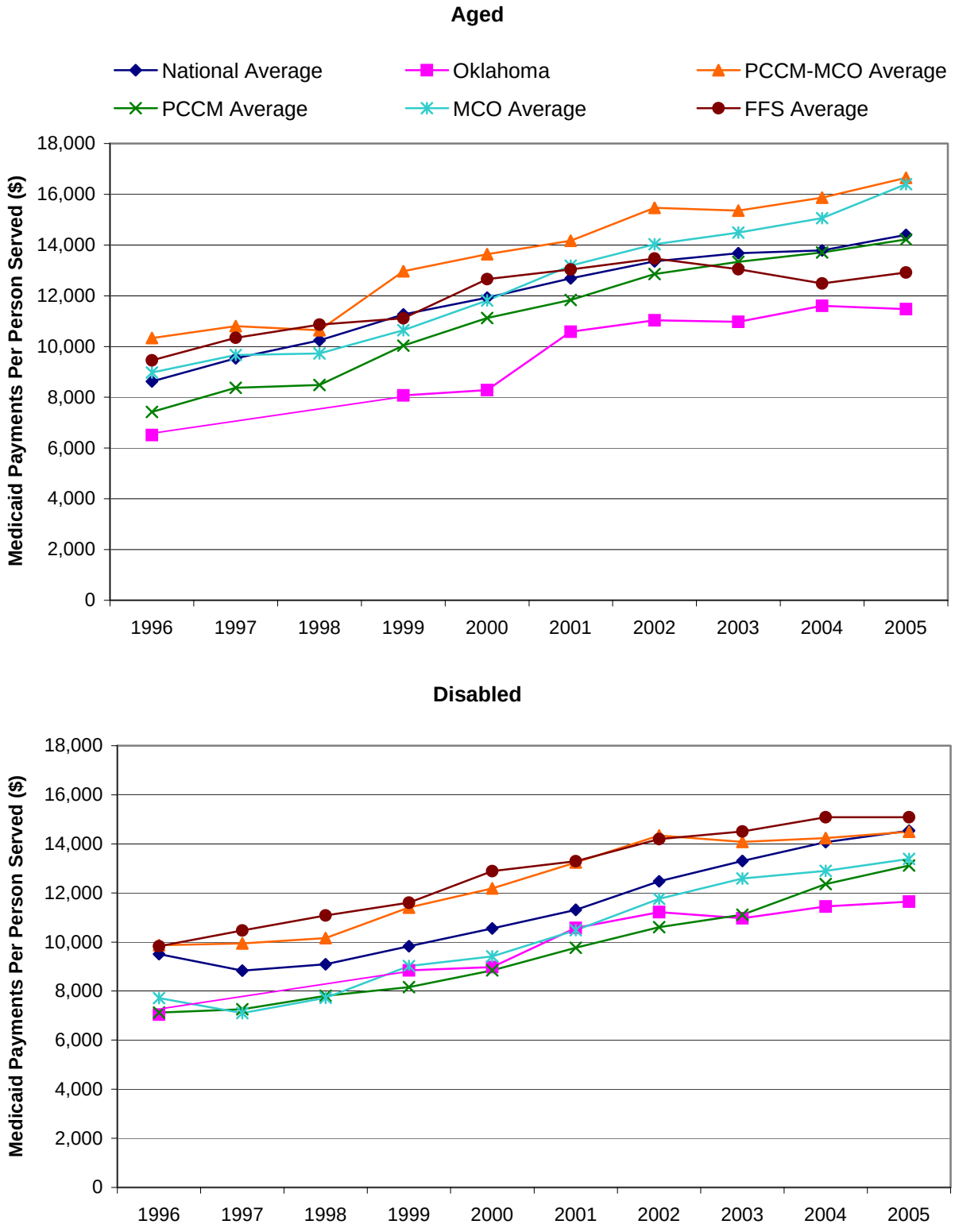
[143] PCCM states include Alabama, Arkansas, Georgia, Iowa, Kansas, and North Carolina. MCO states include Missouri, New Mexico, and Pennsylvania. PCCM-MCO states include Colorado, Indiana, Massachusetts, Nebraska, and Texas. FFS states include Illinois, Mississippi, New Hampshire, South Carolina, and Wyoming.

Figure III.4. Medicaid Payments Per Enrollee, Fiscal Years 1996-2005



Source: *Medicare and Medicaid Statistical Supplement*, Centers for Medicare and Medicaid Services, 1997-2008.

Figure III.5. Medicaid Payments Per Enrollee, Fiscal Years 1996-2005



Source: *Medicare and Medicaid Statistical Supplement*, Centers for Medicare and Medicaid Services, 1997-2008.

programs, costs in Oklahoma were substantially lower for the adult and aged populations, however, Oklahoma's costs for children and the disabled were more similar to the PCCM group average.

Per-Member Cost Growth. During fiscal years 1999-2005, the average annual growth rate of per-member costs in Oklahoma exceeded the national average for all eligibility groups except the disabled (Table III.27). When compared to other states with PCCM programs, Oklahoma had a comparable growth rate for expenditures on the aged, a lower rate for the disabled and children, and a much higher rate for adults.

Oklahoma's higher expenditure growth rates were somewhat expected, particularly for adults, given OHCA's initiatives to expand the benefit package for this population and to increase physician reimbursement up to Medicare levels. Since physician fees represent a relatively large proportion of the costs of caring for adults, we observe a sharp increase in the trend line for per-member costs for adults beginning around 2003 (Figure III.4), concurrent with the implementation of physician reimbursement initiatives.

Despite its higher annual expenditure growth rates, Oklahoma continued to have lower absolute per-member costs throughout 1999-2005 because the cost gap at the beginning of this period had been so substantial. For example, at the gap's widest point in 1999, per-member costs for adults in Oklahoma were 43 percent lower than the national average.

2. State Expenditures and Revenue

a. Data Sources and Methods

We present annual general fund revenues and state expenditures on Medicaid as reported by NASBO in their annual state expenditure report and semi-annual fiscal survey of the states. In Figure III.6 we compare Oklahoma's annual growth in state revenues and expenditures on Medicaid to the national average. In Figure III.7 we trend Medicaid expenditures as a percentage of total state expenditures, and compare Oklahoma to the national average, as well as to the average within four groups of states with different Medicaid management systems (FFS, MCO, PCCM, PCCM-MCO).[144]

b. Results

General Revenue Growth and SoonerCare Expenditures. Both general revenues and total SoonerCare expenditures in Oklahoma increased for nine of the 11 years from 1996 to 2006 (Figure III.6). Though state revenues contracted in consecutive years in 2002 and 2003,

[144] As with the per-member expenditure analysis, PCCM states included Alabama, Arkansas, Georgia, Iowa, Kansas, and North Carolina. MCO states include Missouri, New Mexico, and Pennsylvania. PCCM-MCO states include Colorado, Indiana, Massachusetts, Nebraska, and Texas. FFS states include Illinois, Mississippi, New Hampshire, and South Carolina. The data reported by NASBO for Wyoming was not reliable over this period, so it was excluded from the FFS group for these analyses.

Table III.27. Per-Enrollee Medicaid Expenditures and Average Annual Growth Rate by Eligibility Group, Fiscal Year 1999-2005.

	Oklahoma	PCCM Average	National Average
Children			
Per-member expenditures 1999	$1,161	$1,116	$1,282
Per-member expenditures 2005	$1,618	$1,765	$1,729
Average annual growth rate	5.69%	7.94%	5.11%
Adults			
Per-member expenditures 1999	$1,205	$1,791	$2,104
Per-member expenditures 2005	$2,337	$2,598	$2,585
Average annual growth rate	11.67%	6.39%	3.49%
Aged			
Per-member expenditures 1999	$8,073	$10,031	$11,268
Per-member expenditures 2005	$11,472	$14,222	$14,402
Average annual growth rate	6.03%	5.99%	4.17%
Disabled			
Per-member expenditures 1999	$8,848	$8,163	$9,832
Per-member expenditures 2005	$11,648	$13,121	$14,536
Average annual growth rate	4.69%	8.23%	6.73%

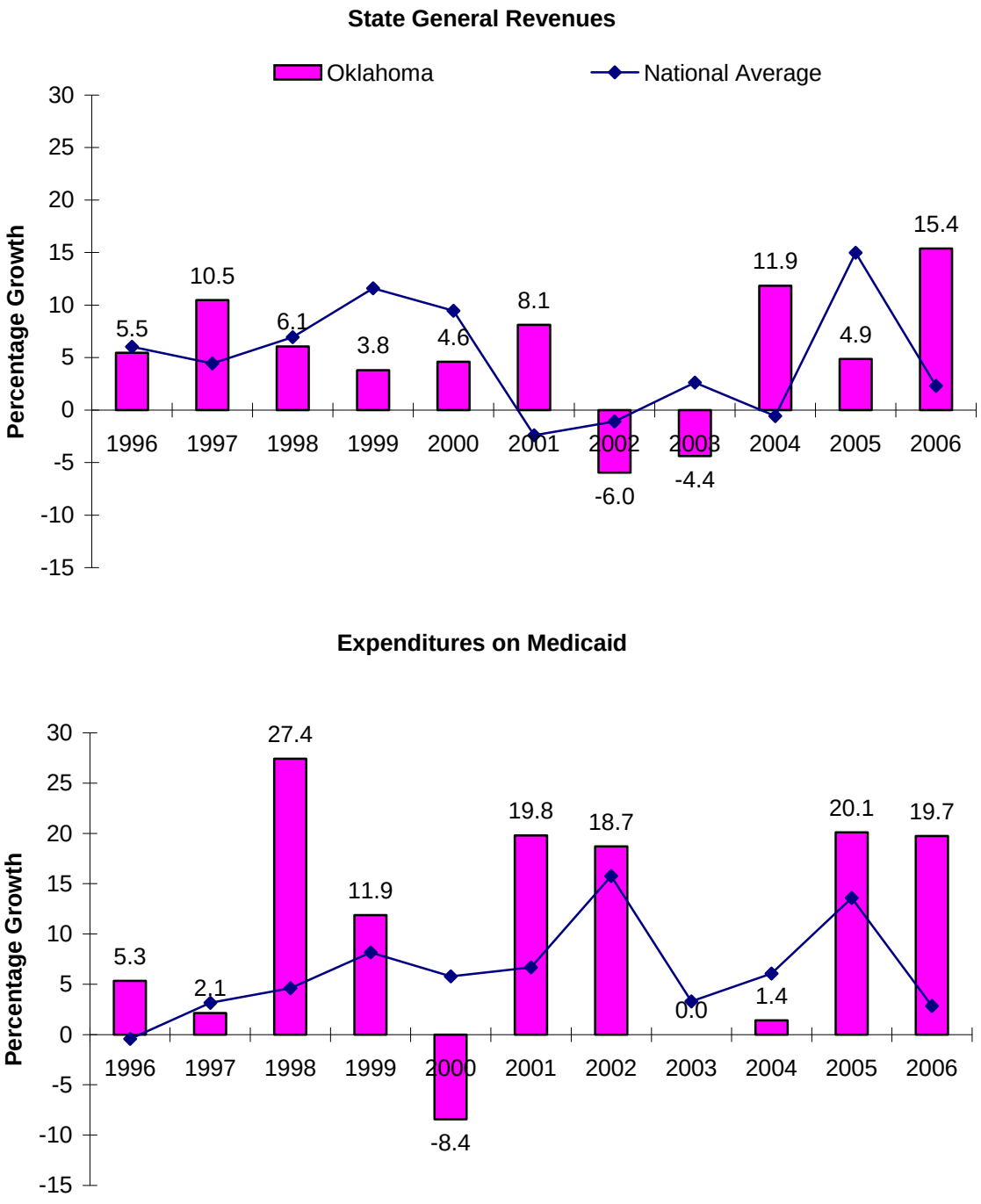
Source: *Medicare and Medicaid Statistical Supplement*, Centers for Medicare and Medicaid Services, 1997-2008.

SoonerCare expenditures experienced modest growth over this period as enrollment increased during the economic recession. In fact, for eight of 10 years from 1997 to 2006, the percentage growth in SoonerCare expenditures was substantially higher than the general revenue growth from the prior year. Oklahoma's percentage growth in SoonerCare expenditures was also generally higher than the national average growth in Medicaid expenditures. Some of this additional spending resulted from specific initiatives designed to support SoonerCare, such as a tobacco tax in 2005 whose revenues were partially earmarked for SoonerCare, and a provision that allowed taxpayers to donate part of their state tax refund to the SoonerCare program beginning in 2004.[145] However, the consistent pattern of expenditure increases suggests a relatively strong political commitment to the program, and willingness to allocate increasing portions of the general revenue to SoonerCare expansions.

SoonerCare Expenditures vs. Total Expenditures. Oklahoma's SoonerCare expenditures as a proportion of total state expenditures increased more than 50 percent over the past several years, rising from about 6.5 percent in 1995 to a high of 10.3 percent of total expenditures by 2005 (Figure III.7). While the Oklahoma trend line is roughly consistent with that seen for other states, and tracks quite closely with the average among PCCM states, the absolute level of Medicaid expenditures as a percentage of total expenditures in 2006 remained 28 percent below the national average (9.6 percent vs. 13.4 percent) and 5 percent below the average among other states with PCCM programs (10.1 percent). Overall, states with MCO and FFS Medicaid systems allotted a relatively higher proportion of expenditures to Medicaid than did Oklahoma and other PCCM states. States with blended MCO-PCCM programs closely tracked the national average.

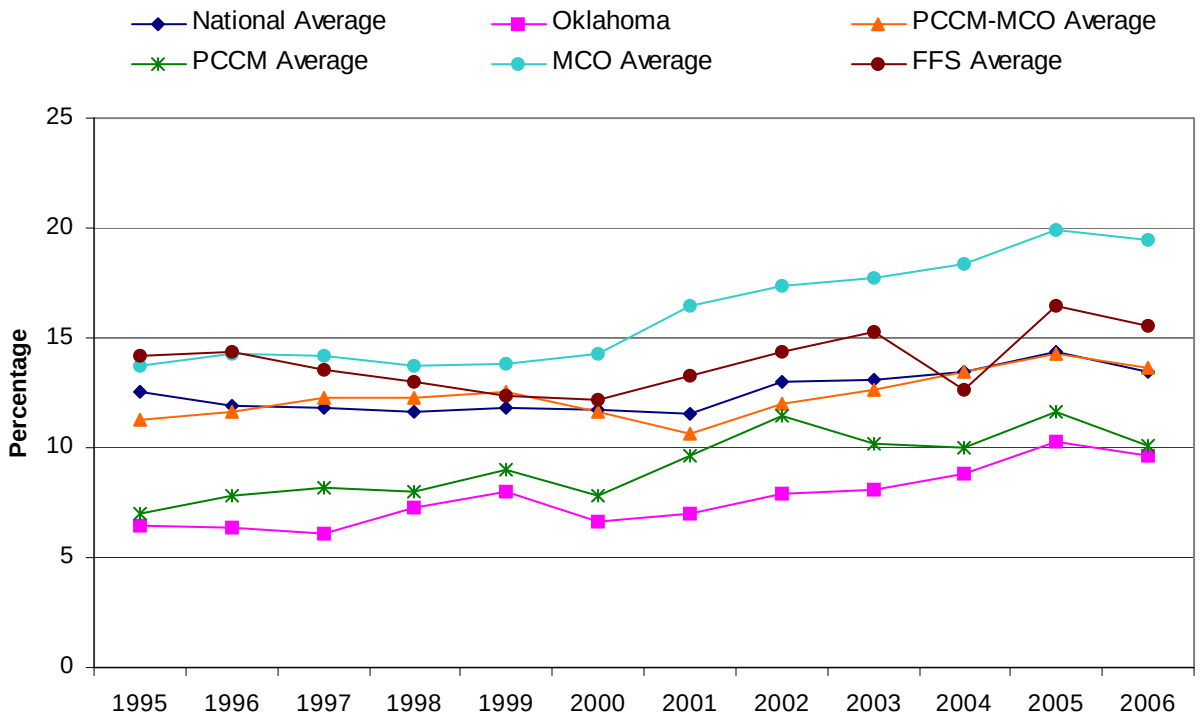
[145] OHCA. "A History in Brief." Oklahoma City, OK: OHCA, September 2005, p. 19.

Figure III.6. Percentage Growth in State Revenues and Expenditures on Medicaid, Oklahoma vs. National Average, 1996-2006



Source: NASBO Annual State Expenditure Report, 1996-2006 and Spring Fiscal Survey of the States, 1996-2007.

Figure III.7. Percentage of Total State Expenditures on Medicaid, 1995-2006



Source: NASBO Annual State Expenditure Report, 1996-2006.

E. TRENDS IN PRIMARY CARE UTILIZATION AND HEALTH CARE STATUS AMONG LOW-INCOME OKLAHOMANS

Like most Medicaid programs, SoonerCare's enrollment turnover rate is relatively high. Many more people participate in SoonerCare during a year than are reflected in point-in-time enrollment measures. For example, in June 2007, 612,699 individuals were enrolled in one of OHCA's programs; however, over the course of the fiscal year that ended that month, the agency had served 763,535 unduplicated individuals—about 25 percent more than were captured in the June snapshot.[146] Because the roster of SoonerCare members changes so frequently, trends in health care utilization and health status within the low-income population as a whole can offer important insights about the population that OHCA may serve in the future, or may have served in the past. Though low-income Oklahomans may or may not be currently enrolled in SoonerCare, analyses of their characteristics offer important lessons for program design as OHCA continues its efforts to expand coverage to low-income groups through the Insure Oklahoma program. We use the Behavioral Risk Factor Surveillance System (BRFSS) to examine trends in primary care utilization and health care status within this pool of potential enrollees, noting that while observed trends within the low-income population may be useful to OHCA policymakers, they should not be considered a reflection of SoonerCare performance.

[146] OHCA. "SoonerCare Fast Facts Total Enrollment: June 2007." www.ohca.state.ok.us/reports/pdflib/ff_overview/2007_06.pdf. Accessed October 10, 2008.

Data Sources and Methods. The BRFSS is administered by the Centers for Disease Control and Prevention in cooperation with state Departments of Health. It is the world's largest ongoing telephone health survey system, tracking health conditions and risk behaviors within the U.S. adult population annually since 1984.[147] Four BRFSS measures that have been collected consistently in Oklahoma from 1995 to 2007 provide insight into changes in access to primary care providers and utilization of preventive services: (1) having a personal doctor or health care provider; (2) needing to see a doctor, but not visiting one because of cost; (3) receipt of routine checkups with a physician; and (4) receipt of influenza vaccinations. In addition, Oklahoma's BRFSS has consistently asked respondents about their overall health status and the number of poor mental and physical health days that they experienced in the past month. We computed each of these measures for the low-income adult population in Oklahoma from 1995 to 2007. While fluctuations in these measures should not be attributed directly to SoonerCare's performance, observed trends over time do provide a valuable general perspective on OHCA's potential pool of enrollees.

Since BRFSS is a telephone survey, results may be biased by differential telephone ownership across demographic subgroups, and by changing survey response rates over time. From 1995 through 2007, response rates for Oklahoma's BRFSS have measured between 56 and 76 percent, well above the national median in each survey year, giving us confidence that reported findings are reasonably representative of the target populations. Measures where the underlying sample size is smaller than 50 respondents are considered unreliable due to the complex survey design. Annual sample survey sizes were not sufficient to present analyses by region, educational status, race/ethnicity, or employment status prior to 2001.

We define low-income adults as those ages 18 to 64 who reside in households with incomes less than $25,000. The BRFSS survey records income in nominal dollar categories (that is, less than $10,000, $10,000-$14,999, $15,000-$19,999, and so on). Poverty thresholds used to establish a person's eligibility for SoonerCare are updated each year to account for inflation. Hence, BRFSS income data cannot be compared directly with federal poverty thresholds. A nominal income of $25,000 in 1995 represents a higher level of income relative to the poverty threshold than the same amount did in 2007. For example, a family of four with an income of $25,000 in 1995 would have been at 165 percent of FPL; in 2007 this same nominal income level represented just 121 percent of FPL.

Results are presented separately for adults who reside in households with children and those who reside in households without children, as these two groups have significantly different income levels and demographic profiles (See Table III.28). Since income can strongly influence health care utilization and health status, overall trends from 1995 to 2007 in BRFSS measures may be driven by changes in the relative wealth of households included in the sample population. The difference in relative income levels is less pronounced when considering trends from 1995 to 2001, or from 2001 to 2007, therefore readers can place more weight in these intermediate trends than in measures of performance over the full period from 1995-2007.

[147] Centers for Disease Control and Prevention. "Behavioral Risk Factor Surveillance System." www.cdc.gov/brfss/. Accessed September 20, 2008.

Table III.28. Characteristics of Low-Income Adults in Oklahoma, 1995-2007

	1995	2001	2007
Households without Children			
100% FPL (2-member household)	$10,030	$11,610	$13,690
$25,000 as %FPL (2-member household)	249% FPL	215% FPL	183% FPL
Average age	37.0	41.0	43.8
Percent employed	59	56	41
Percent with at least a high school degree	76	80	79
Percent with some college education	48	49	34
Households with Children			
100% FPL (4-member household)	$15,150	$17,650	$20,650
$25,000 as % FPL (4-member household)	165% FPL	142% FPL	121% FPL
Average age	34.7	35.3	34.1
Percent employed	65	59	50
Percent with at least a high school degree	77	68	73
Percent with some college education	32	28	30

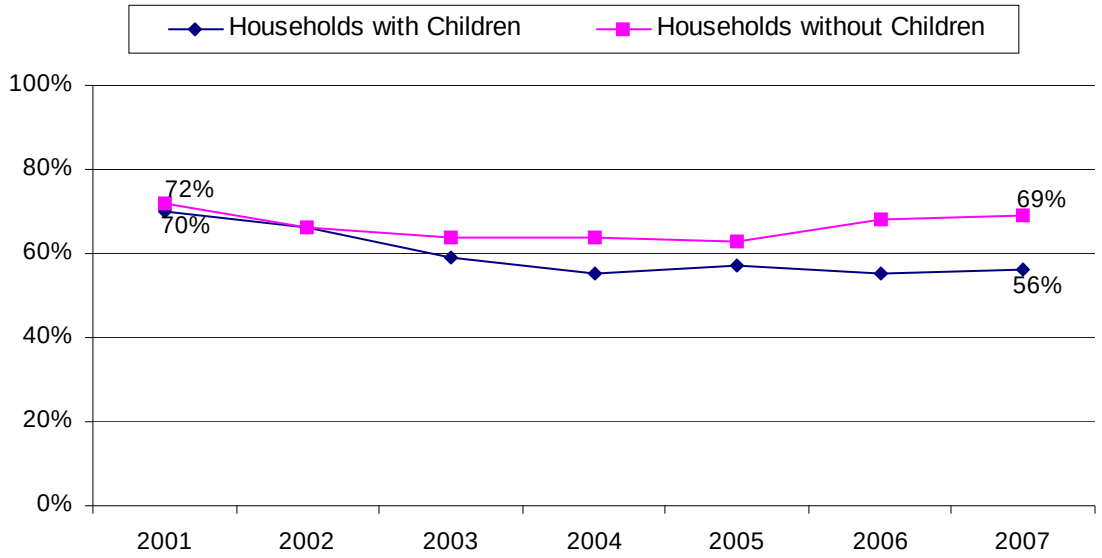
Source: MPR analysis of BRFSS, 1995-2007.

Results

Access to Primary Care Providers. Overall, self-reported access to primary care providers declined from 1995 to 2007 among low-income adults residing in households with children. From 2001 to 2007 the percentage of adults reporting that they had a personal doctor or health care provider decreased from 70 to 56 percent (Figure III.8). At the same time, an increasing percentage of low-income adults in households with children reported that at least once during the past year they had needed to see a doctor but did not because of costs (Figure III.9). By 2007 nearly half of respondents reported this concern.

Low-income adults residing in households without children had better self-reported access to primary care providers in Oklahoma during this period when compared to adults residing in households with children. Among this group no significant declines were observed from 2001 to 2007 in the percentage of adults reporting that they had a personal doctor or health care provider (Figure III.8). While the percentage of respondents who did not see a doctor because of costs increased during 2000 to 2007, costs were less of a concern among adults residing in households without children. By 2007, just over one-third of adult respondents without children reported that they needed to see a doctor, but did not because of costs (Figure III.9). Better self-reported access to primary care providers among this group, when compared to adults in households with children, may reflect their higher relative income and older average age.

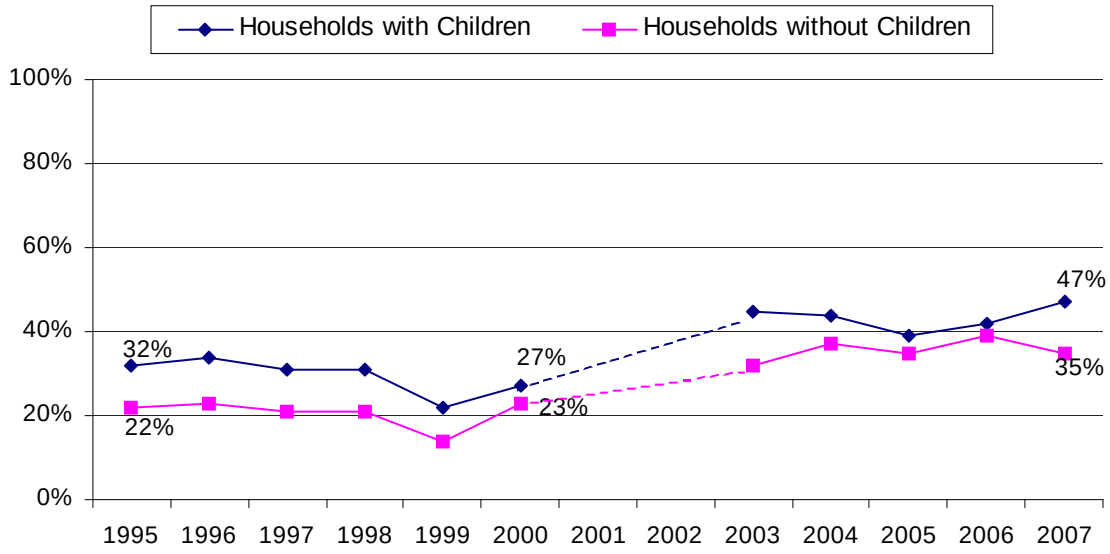
Figure III.8. Percentage of Low-Income Adults in Oklahoma Reporting that They Have a Personal Health Care Provider, BRFSS 2001-2007



	Households with Children	Households without Children
Change 2001-2007	-20%*	-4%

*Statistically significant change at the 5% level.

Figure III.9. Percentage of Low-Income Adults in Oklahoma Who Did Not See a Doctor Because of Cost, BRFSS 1995-2007



	Households with Children	Households without Children
Change 1995-2000	-16%	5%
Change 2000-2007	74%	52%*
Change 1995-2007	47%	59%*

*Statistically significant change at the 5% level.

We also examined trends in these measures by region, race/ethnicity, educational attainment, and employment status (see Appendix B for additional detail on subgroup analyses). Subgroup trends were generally similar to those observed for the overall population; however, non-Hispanic American Indian adults appeared more consistently connected to primary care providers during the period 2001-2007 than other race/ethnic groups. For example, in 2007 about three-quarters of low-income American Indian adults reported having a personal health care provider; in contrast, fewer than 60 percent of non-Hispanic whites and non-Hispanic blacks reported having a personal health care provider (Appendix B, Table B-3). We also observe that the employed often have better access to primary care providers relative to the unemployed.

Utilization of Preventive Care. Overall, the percentage of low-income adults reporting that they had received a recent checkup with a doctor declined significantly from 2000 to 2007 (Figure III.10).[148] For example, among adults residing in households with children, the percentage who had received a checkup within the past year declined by 28 percent from 2000 to 2007, and the percentage who had received a checkup within the past two years declined by 24 percent. For most years from 1995-2007, adults residing in households without children were more likely to have received a checkup within the past year or two years, when compared to adults residing in households with children. We again observe that American Indian low-income adults were more likely to utilize routine checkups than non-Hispanic white adults, particularly among those residing in households with children. For example, in 2007, 60 percent of non-Hispanic American Indian adults residing with children had received a checkup within the past year, compared to just 37 percent of non-Hispanic white adults (Appendix B, Table B-5).

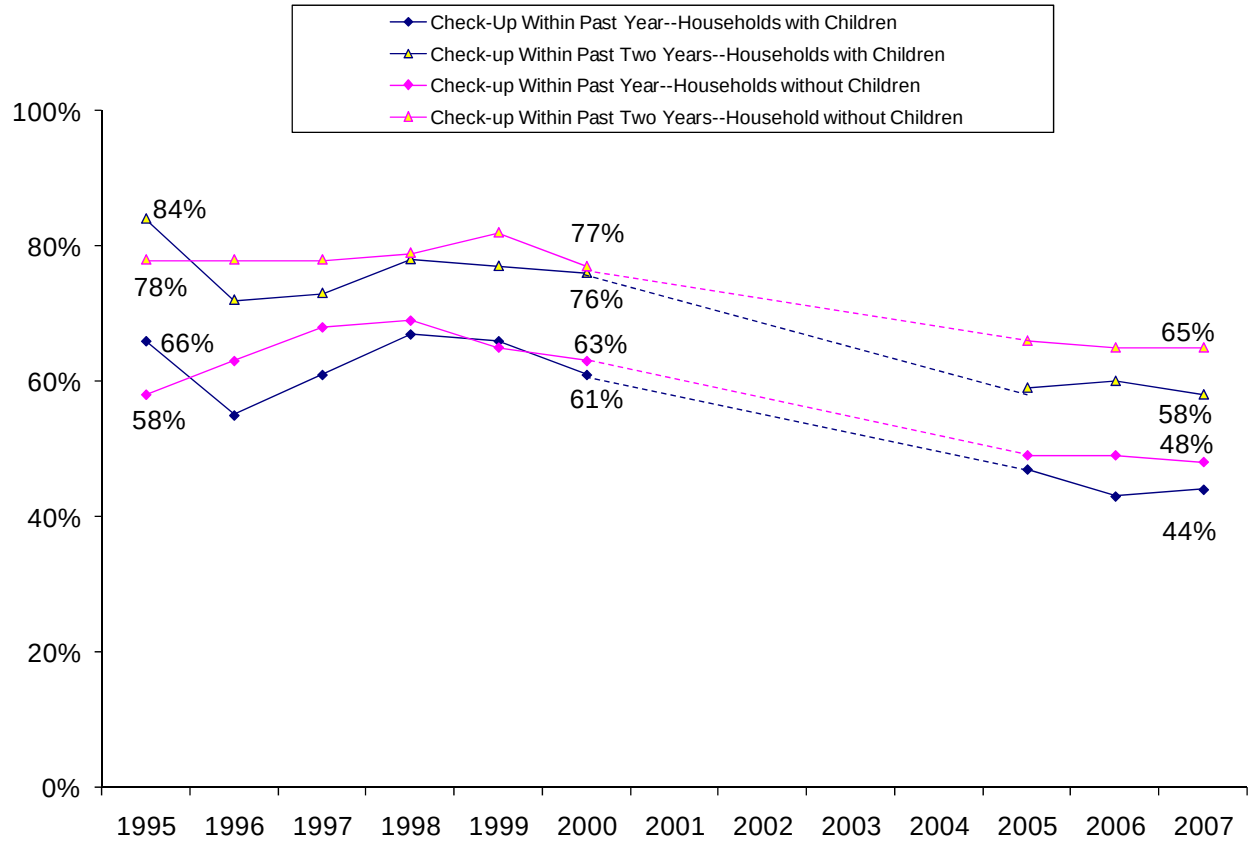
Having health care coverage and having a primary care provider were strong predictors of routine checkup utilization. In 2007 low-income adults who had some form of health care coverage, but no primary care provider were about as likely as adults who had a primary care provider, but no health care coverage, to have received a checkup within the past two years (Table III.29).

Table III.29. Percentage of Low-income Oklahoman Adults in Households with Children Receiving Routine Checkups, by Health Care Coverage Status and Primary Care Provider Access, BRFSS 2007

	Has Health Care Coverage		Does Not Have Health Care Coverage	
	Has Primary Provider	Does Not Have Primary Provider	Has Primary Provider	Does Not Have Primary Provider
Checkup Within the Past Year	60%	55%	40%	27%
Checkup Within the Past Two Years	74%	65%	59%	40%

[148] Respondents were not asked about receipt of a routine checkup during survey years 2001-2004.

Figure III.10. Percentage of Low-Income Adults in Oklahoma Receiving a Recent Checkup, BRFSS 1995-2007



Checkup Within the Past Year

	Households with Children	Households without Children
Change 1995-2000	-8%	9%
Change 2000-2007	-28%*	-24%*
Change 1995-2007	-33%*	-17%*

*Statistically significant change at the 5% level.

Checkup Within the Past Two Years

	Households with Children	Households without Children
Change 1995-2000	-10%	-1%
Change 2000-2007	-24%*	-16%*
Change 1995-2007	-31%*	-17%*

*Statistically significant change at the 5% level.

Although measures of access to primary care providers and utilization of routine checkups appeared on the decline from 1995 to 2007, a higher percentage of low-income adult Oklahomans received a flu shot in 2007 than in 1995 (Figure III.11). Among adults without children, this measure increased steadily from 1995 to 2007; however, among adults with children, the measure dropped to 17 percent in 2001, before recovering to 1995-levels by 2007. Despite the recent upward trend, the rate of vaccination continues to be quite low; fewer than 40 percent of low-income adults were vaccinated in 2007.

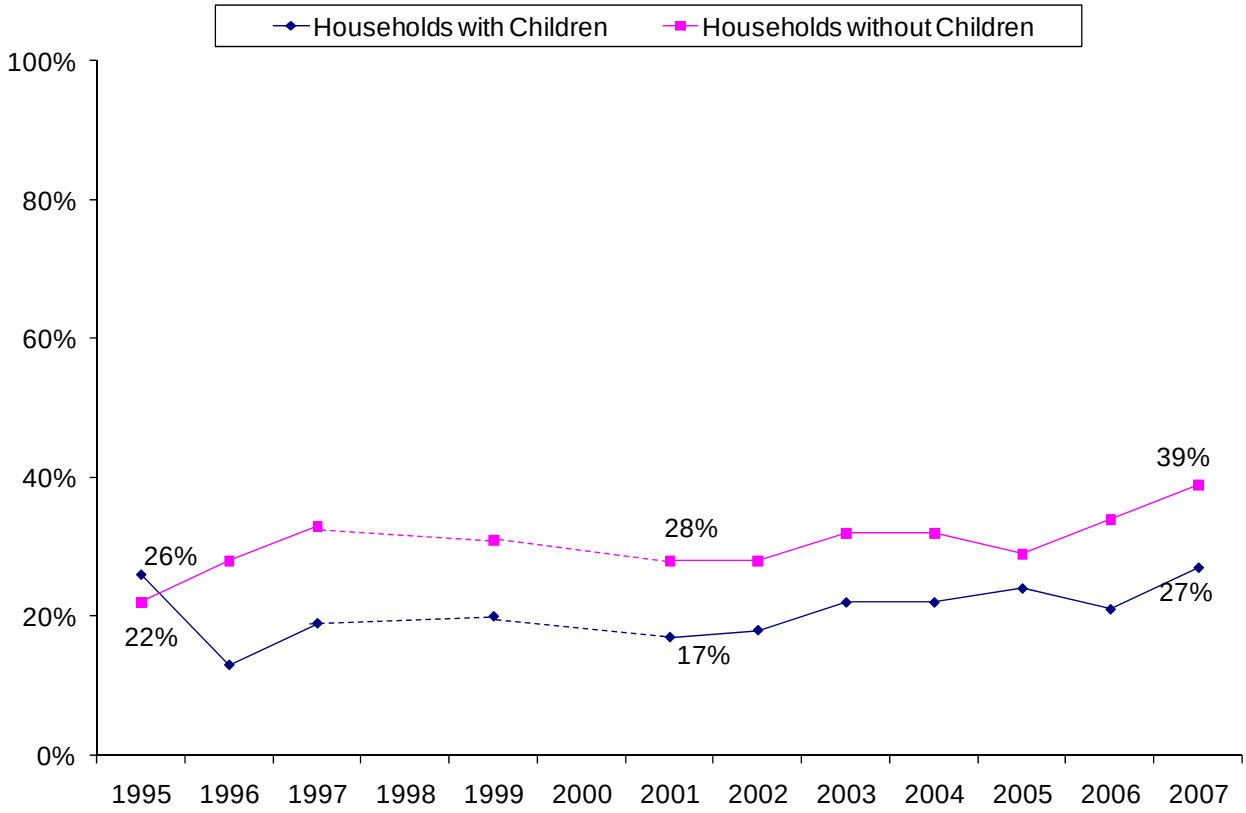
Health Status. Self-reported health status worsened for low-income adults in Oklahoma from 1995 to 2007. The percentage of adults reporting their health status as excellent, very good, or good declined (Figure III.12), as did the percentage of adults who reported having zero poor mental

Changes in health status were most substantial for the adult population in households without children. A significant decline in the percentage of this group reporting excellent, very good, or good health status was reported both from 1995 to 2001 and again from 2001 to 2007. In addition, from 1995 to 2001 the percentage reporting zero poor physical health days fell from 74 to 54 percent, and the percentage reporting zero poor mental health days fell from 74 to 61 percent. Continued declines in physical and mental health measures were observed from 2001 to 2007, although the changes were not statistically significant.

While adults in households with children also experienced apparent declines in these measures, the changes were often not statistically significant because the population estimates were less precise for this group. Two exceptions were: (1) a significant decline in the percentage reporting zero poor mental health days, from 64 percent in 2001 to 48 percent 2007; and (2) a significant increase in mean poor physical health days, from 7.8 days in 1995 to 12.7 days in 2001.

Trends in health status within key subgroups were as expected. The employed and those with higher levels of education were significantly more likely to report their health status as excellent, very good, or good, as well as to report having zero poor mental or physical health days in the past month. American Indians were somewhat less likely to report excellent, very good, or good health (Appendix B, Table B-4).

Figure III.11. Percentage of Low-Income Adults in Oklahoma Receiving a Flu Shot Within the Past Year, BRFSS 1995-2007

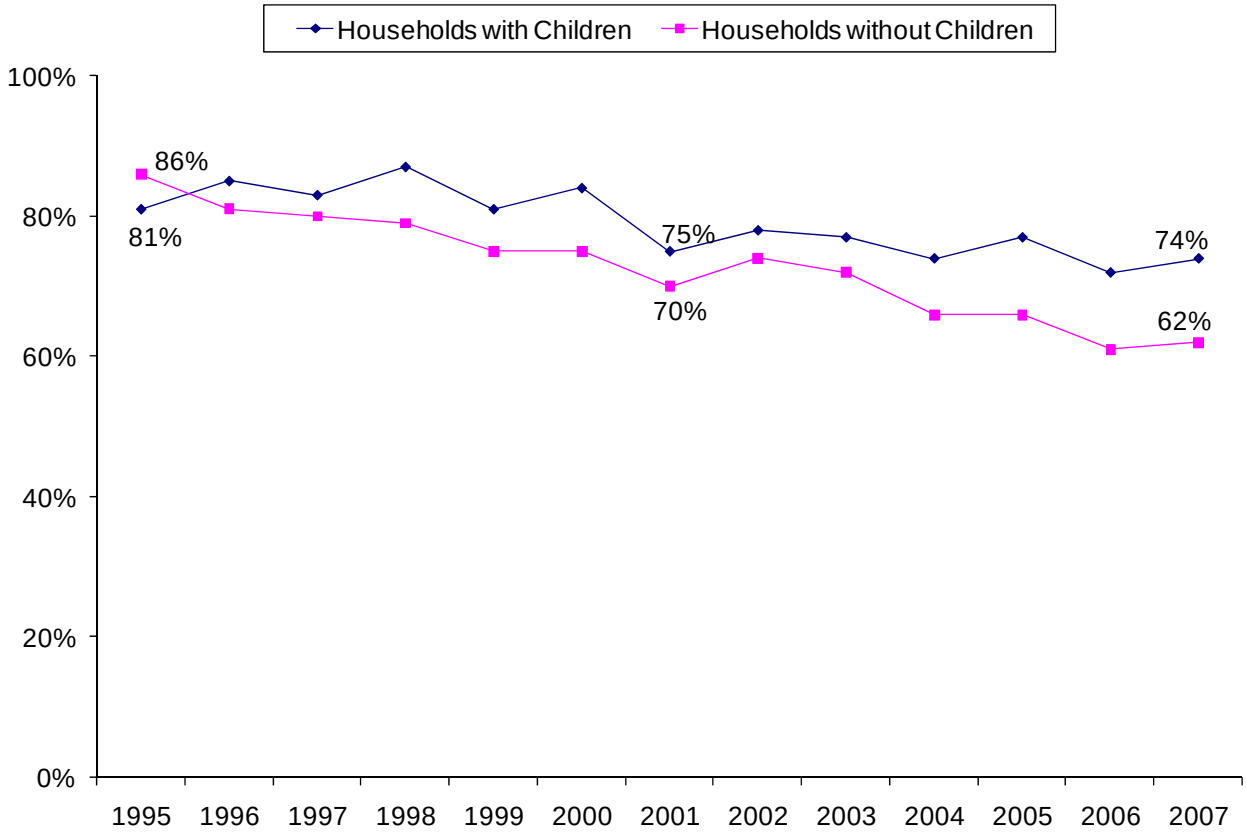


Receipt of Flu Shot Within the Past Year

	Households with Children	Households without Children
Change 1995-2001	-35%	27%
Change 2001-2007	59%*	39%*
Change 1995-2007	4%	77%*

*Statistically significant change at the 5% level.

Figure III.12. Percentage of Low-Income Adults in Oklahoma Reporting Excellent, Very Good, or Good Overall Health Status, BRFSS 1995-2007

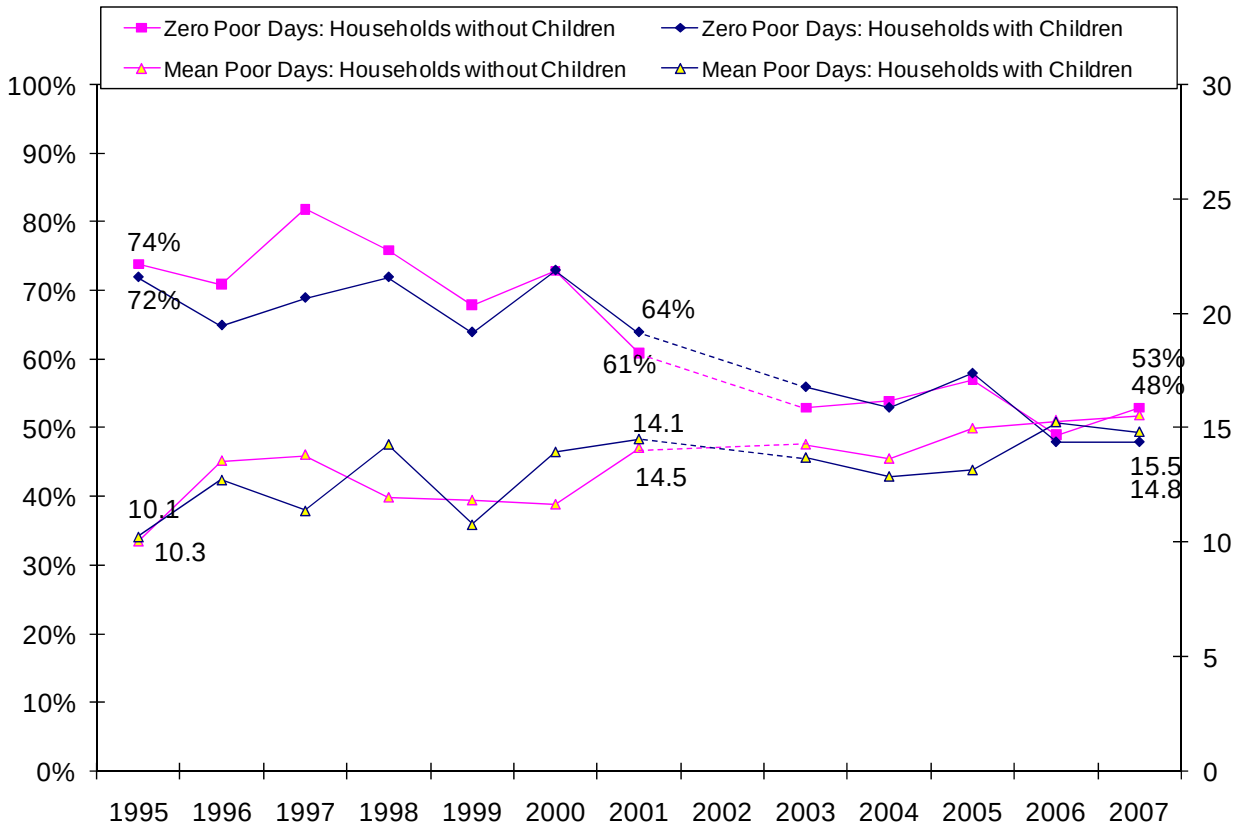


Excellent, Very Good, or Good Health Status

	Households with Children	Households without Children
Change 1995-2001	-7%	-19%*
Change 2001-2007	-1%	-11%*
Change 1995-2007	-9%	-28%*

*Statistically significant change at the 5% level.

Figure III.13. Percentage of Low-Income Adults in Oklahoma Reporting Zero Poor Mental Health Days and the Mean Number of Poor Days Reported Among Those with Some Poor Days, BRFSS 1995-2007



Percentage Reporting Zero Poor Mental Health Days

	Households with Children	Households without Children
Change 1995-2001	-11%	-18%*
Change 2001-2007	-25%*	-13%
Change 1995-2007	-33%	-28%*

*Statistically significant change at the 5% level.

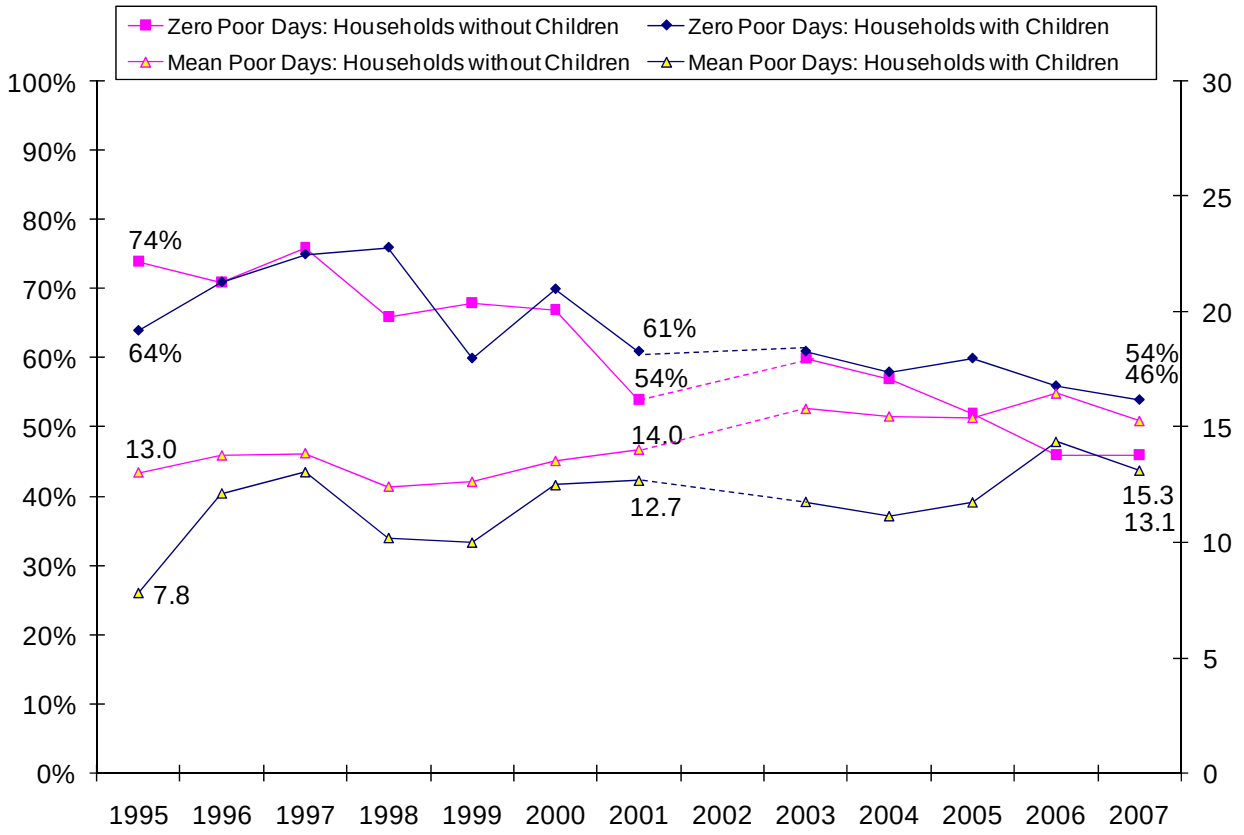
Mean Poor Mental Health Days Among Those Reporting Some Poor Days

	Households with Children	Households without Children
Change 1995-2001	#	40%*
Change 2001-2007	0%	10%
Change 1995-2007	#	55%*

*Statistically significant change at the 5% level.

Change not calculated. Sample include fewer than 50 respondents in 1995.

Figure III.14. Percentage of Low-Income Adults in Oklahoma Reporting Zero Poor Physical Health Days and the Mean Number of Poor Days Reported Among Those with Some Poor Days, BRFSS 1995-2007



Percentage Reporting Zero Poor Physical Health Days

	Households with Children	Households without Children
Change 1995-2001	-5%	-27%*
Change 2001-2007	-11%*	-15%
Change 1995-2007	-16%*	-38%*

*Statistically significant change at the 5% level.

Mean Poor Physical Health Days Among Those Reporting Some Poor Days

	Households with Children	Households without Children
Change 1995-2001	#	8%
Change 2001-2007	3%	9%
Change 1995-2007	#	17%

*Statistically significant change at the 5% level.

Change not calculated. Sample include fewer than 50 respondents in 1995.

IV. MAJOR FINDINGS

This chapter summarizes our major findings regarding the SoonerCare 1115 waiver program and its impact on Oklahomans. We look first at its impact on access to health care for low-income Oklahomans, and then at various measures of the quality of that care. We look next at the cost of the SoonerCare program to Oklahoma's taxpayers. Finally, we look at how OHCA as an agency has shaped and managed the SoonerCare waiver program over the last 13 years.

A. ACCESS

Although the SoonerCare 1115 waiver program contributed to improvements in access to care for low-income Oklahomans from 1995 through 2008, coverage for some populations either lags behind national averages or could be significantly improved. In general, health insurance coverage for lower-income populations in the state has increased during the last decade, especially for children, with increases in Medicaid coverage offsetting declines in private insurance coverage. Some low-income populations in Oklahoma have experienced declining access to primary and preventive care in recent years, creating both challenges and opportunities for OHCA as the program considers expansions.

1. Health Insurance Coverage

SoonerCare has improved coverage substantially for children during the last 10 years, but there has been less progress in coverage for adults. From 1997 to 2007, Oklahoma experienced a doubling in SoonerCare enrollment, with 90 percent of the increase attributable to children. Oklahoma also increased the estimated Medicaid participation rate among children; SoonerCare-eligible children living in eligible families earning up to 185 percent of the federal poverty level (FPL) who were enrolled in Medicaid rose from 55 percent on average in 2000 to 77 percent in 2006, a 38 percent increase. Expanded Medicaid enrollment among children has reduced the uninsured rate among those in low-income families—earning up to twice the federal poverty level—from 29 percent in 1995-1996 to 13 percent in 2006-2007, below the national average of 18 percent. The uninsured rate for low-income adults in Oklahoma was also below the national average in 2006-2007 (37 percent versus 40 percent), but was up somewhat from the 35 percent rate in 1995-1996. Overall, the percentage of the state's under-65 low-income population covered by Medicaid was just slightly below the national average in 2006-2007 (32 percent versus 34 percent), due mainly to high rates of coverage for children.

With the launch of the Insure Oklahoma program at the end of 2005, some low-income uninsured adults can now receive subsidies to help them afford insurance premiums. After a slow start, enrollment in the program grew from 1,394 at the end of 2006 to 15,907 as of December 2008.[149] The maximum income level for individuals eligible to receive premium subsidies rose from 185 percent to 200 percent of FPL in November 2007, as authorized in a

[149] OHCA. "Insure Oklahoma. Fast Facts." Oklahoma City, OK: OHCA, December 2006 and September 2008.

waiver amendment approved by the federal government. Businesses with up to 50 workers are now eligible to enroll in Insure Oklahoma's employer-sponsored insurance program, up from 25 workers at the program's inception.

Some gaps remain that SoonerCare must address. Enrollment of 68 percent of qualified Oklahomans in Medicaid in 2006 was comparable to the national average; however, the state's participation rates were significantly lower than the national average for certain groups: adolescents, very poor parents with dependent children, disabled adults, and elderly. In addition, the uninsured rate among non-elderly adults earning up to 200 percent of FPL (37 percent) has stayed about the same over the last 10 years, and the percentage of this population covered by Medicaid has increased only modestly, from 11 percent in 1995-1996 to 15 percent in 2006-2007. Oklahoma did little until the launch of Insure Oklahoma to offset the declining rate of private insurance among this group. Progress in reducing the rate of uninsurance in Oklahoma and improving access to care for low-income adults and children depends on obtaining federal approval to implement the coverage expansions enacted by the Oklahoma legislature in 2006 and 2007.

Low Medicaid income eligibility levels for parents can create large differences in coverage rates relative to their children. Oklahoma's income eligibility standards for parents with dependent children are relatively low compared to those for children, and have not been adjusted for over a dozen years. In addition, fewer parents who are eligible are enrolling. This suggests that OHCA, in concert with the Department of Human Services, could improve efforts to inform very poor parents that they, as well as their children, can qualify for Medicaid even if they do not receive public assistance. Oklahoma's effort to expand the Insure Oklahoma program to allow more individuals and businesses to receive subsidies that would enable them to afford insurance premiums would also increase coverage for adult parents.

2. Physician Participation

The total number of primary care provider (PCP) contracts has grown substantially since 1997, but the mix of contracts has changed, partly as a result of recent administrative changes that facilitate the enrollment of practice groups as PCPs. From 1997 to 2007, the number of contracts for providers serving as SoonerCare PCPs increased from 414 to 595, a nearly 44 percent increase. The mix of PCP contracts has changed somewhat in recent years, following OHCA's decision in 2004 to allow groups to enroll as PCPs rather than requiring individual contracts with each provider within the group. In 2004, 61 percent of urban members were assigned to an individual MD, doctor of osteopathic medicine (DO), nurse practitioner (NP), or physician assistant (PA). By 2007, about 34 percent of members were assigned to individual PCPs, and the remainder were assigned to multi-provider groups or clinics, which may result in improved access if members are able to seek treatment from any available group member. Similar trends were observed among rural members; about half of all rural members were assigned to individual PCPs in 2007, down from 81 percent in 2004.

From 2004 to 2006, the total number of contracted specialists and MDs working as PCPs for SoonerCare Choice has increased by 14 percent. The number of contracted MDs increased from 4,287 in 2004 to 4,870 by 2006. Of these gains, new enrollment among PCPs accounted for one-quarter of the increase and new enrollment among specialists accounted for

the remainder. By 2006 about 90 percent of all MDs in Oklahoma had contracts with the SoonerCare Choice program to deliver services to members.

Approximately 37 percent of physicians specializing in general/family medicine, pediatrics, and obstetrics/gynecology participate as SoonerCare Choice PCPs, with particularly high participation rates in rural areas. In 2006, 24 percent of general/family medicine practitioners and 48 percent of pediatricians statewide participated in SoonerCare Choice as PCPs. In urban areas, the participation rate for both groups was slightly more than 30 percent, while in rural areas about 60 percent of these physicians participated, including nearly all pediatricians.

The typical SoonerCare Choice PCP in 2007 provided between 84 and 90 percent more visits to assigned members than the typical SoonerCare PCP in 1997. In rural areas, the median number of annual visits (encounters) per member for adults assigned to SoonerCare Choice PCPs rose from 0.82 in 1997 to 1.56 in 2007, an increase of 90 percent. The increase in visits for children rose from 0.67 per member in 1997 to 1.23 in 2007, a jump of 84 percent. Visit trends in urban areas show similar increases, although the data in those areas may be less reliable because so many members were enrolled in fully capitated MCOs during the Plus period. Notable improvements also occurred at the lower end of the distribution. The number of encounters provided by PCPs at the 25th percentile rose from 0.33 in 1997 to 0.94 by 2007, suggesting that most PCPs had at least one contact with their assigned members during the year.

Turnover among SoonerCare Choice contracts has averaged about 16 percent a year from 1997 to 2007, so recruitment of providers remains an ongoing challenge. About 16 percent of PCP contracts that were active at some point during the year had lapsed by the end of the year.

3. Emergency Room (ER) Visits

SoonerCare members' ER utilization decreased between 2004 and 2007— a time when ER use among Medicaid enrollees in the rest of the country was increasing. Between 2004 and 2006, ER visits by Medicaid enrollees nationwide rose from 80 per 100 enrollees to 87 per 100 enrollees. In contrast, OHCA (using a more precise measure) reported a 5 percent decrease between 2004 and 2007, from 80 visits per 1,000 member months to 76 visits per 1,000 member months.

Overall, care for SoonerCare Choice members is shifting from ERs to physicians' office visits. In 2003, SoonerCare Choice beneficiaries had 1.2 ER visits for every physician office visit. By 2007, the ratio was 0.74 Er visits for every physician office visit, a decline of 38 percent.

The SoonerCare Choice focus on high ER users appears to be effective. In 2003, among patients enrolled with the 5 percent of physicians whose patients used the ER the most, there were 2.85 ER visits for every office visit. By 2007, there were 1.26 ER visits for every office visit by patients enrolled with the 5 percent of physicians whose patients used the ER the most, a reduction of more than 55 percent. In addition to actions that physicians may have taken on their own or with OHCA assistance, OHCA's efforts to provide education on appropriate ER use and

self-management strategies to people who were unusually high and persistent ER users, which began in 2006, probably also had an impact on this measure.

4. Preventable Hospitalizations

The overall rate of preventable hospitalizations declined among SoonerCare adults from 2003 to 2006. The overall rate of preventable hospitalizations among SoonerCare enrollees declined by 24 percent among urban adults and 15 percent among rural adults from 2003 to 2006. Preventable hospitalizations for chronic obstructive pulmonary diseases, asthma, and bacterial pneumonia declined statewide. While most trends in preventable hospitalizations among children enrolled in the SoonerCare waiver program were not statistically significant, an increase in gastroenteritis-related admissions in urban areas and a decrease in asthma-related admissions in rural areas were observed.

The transition from the Plus to the Choice program in urban areas was not generally associated with changes in the rate of preventable hospitalizations; however, trends for some chronic conditions spotlight areas where improved disease management is needed. After controlling for trends in the number of physicians per capita, demographic changes, and the prevalence of chronic disease among low-income Oklahomans, we found evidence that SoonerCare Choice has performed as effectively as SoonerCare Plus MCOs in managing most types of preventable hospitalizations. However, we also found evidence that the Choice program may have performed less effectively than the Plus program in managing diabetes-related hospitalizations among urban adults and asthma-related admissions among urban children. This pattern could also indicate that the Choice program has more aggressively implemented disease management initiatives for diabetes and asthma in rural areas than has been the case in urban areas.

Rates of preventable hospitalizations varied by age and geographic location. In 2006 roughly 3,600 preventable hospitalizations occurred among SoonerCare Choice enrollees; children accounted for 42 percent of these hospitalizations and rural enrollees accounted for 46 percent. Rates of preventable hospitalizations were generally lower among urban adults relative to rural adults, but were higher among urban children relative to rural children. Hospitalizations related to diabetes, congestive heart failure (CHF), bacterial pneumonia, chronic obstructive pulmonary disease (COPD), and asthma were the most common preventable admissions among adults; asthma admissions were also common among children.

Reducing preventable hospitalizations would lower SoonerCare expenditures. We estimate that SoonerCare Choice could save at least $8 million a year by cutting its rate of preventable hospitalizations in half. Actual savings could be much higher, given the strong link between preventable hospitalizations and emergency room utilization. About 68 percent of OHCA's preventable hospitalizations were preceded by a visit to the emergency room.

5. Primary Care Utilization Among Low-Income Oklahomans

Reported access to providers declined between 1995 and 2007 for low-income adults with children. Self-reported access to primary care providers declined from 1995 to 2007 among adults residing in households with children, many of whom may have been eligible for

SoonerCare, but were not necessarily enrolled. From 2001 to 2007 the percentage of adults reporting that they had a personal doctor or health care provider decreased from 70 to 56 percent. At the same time, an increasing percentage reported that at least once during the past year they had needed to see a doctor but did not because of cost.

Low-income adults with children reported fewer checkups between 2000 and 2007. Among low-income adults residing in households with children, the percentage who had received a checkup with a doctor within the last year declined by 28 percent from 2000 to 2007; the percentage who had received a checkup within the last two years declined by 24 percent. Having health care coverage and having a primary care provider were strong predictors of routine checkup utilization. In 2007 low-income adults who had some form of health care coverage but no primary care provider were about as likely as adults who had a primary care provider but no health care coverage to have received a checkup in the last two years. Encouraging new SoonerCare enrollees clients to access preventive care services, such as routine checkups, within the first few months of enrollment may ultimately improve member outcomes, given the low level of contact most will have had with the health care system prior to enrollment.

Linking enrollees to primary care providers is likely to be an ongoing challenge for SoonerCare. About half of respondents in all subgroups reported in 2007 that they had a personal health care provider. While only some of these low-income adults are currently enrolled in SoonerCare, this finding underscores the importance of enrolling as many providers as possible in the program to encourage the maintenance of existing "medical home" relationships and improve continuity of care upon enrollment in the SoonerCare program.

B. QUALITY

OHCA has made a concerted effort over the years to measure quality in the SoonerCare program, using a combination of HEDIS, CAHPS, and ECHO measures to determine utilization of key services and enrollee satisfaction. It is especially noteworthy that OHCA has used these measures in its SoonerCare Choice program, since only a limited number of states with PCCM programs do so.[150] We summarize below key quality-related trends in SoonerCare Choice from OHCA data, with emphasis on trends over time and comparisons to national benchmarks when they are available.

1. HEDIS

Quality of care trends show improvement between 2001 and 2007 for SoonerCare Choice members. Among the 19 HEDIS measures tracked by OHCA, all showed some level of improvement over time. The average percentage improvement for the 8 measures tracked between 2001 and 2007 was 18.6 percent while the average improvement for the 10 measures tracked between 2003 and 2007 was 36.7 percent.

[150] Eric C. Schneider, Bruce E. Landon, Carol Tobias, and Arnold Epstein. "Quality Oversight in Medicaid Primary Care Case Management Programs." *Health Affairs*, Volume. 23, Number 6, November-December 2004, pp. 235-242.

Quality of care is comparable to or better than national Medicaid averages for several of the measures. Five of the 19 measures reported consistently met or exceeded national Medicaid benchmarks between 2001 and 2006; the others fell below. Since the HEDIS Medicaid benchmarks include few if any PCCM programs, and since the MCOs that are included are likely to be relatively high-performing (since reporting is voluntary), the SoonerCare Choice performance on these measures is respectable.

2. CAHPS

In CAHPS surveys administered to SoonerCare Choice adults and children between 2003 and 2007, satisfaction levels were consistently high for measures most relevant to PCCM programs. Three-fourths or more of respondents gave high rankings to their overall health care and their personal health care providers, and said they were generally able to get the care they needed, and get it promptly.

SoonerCare Choice satisfaction ratings were below 2005 and 2006 CAHPS national Medicaid benchmarks, but by small margins. Since the AHRQ National CAHPS Benchmarking Database for Medicaid is made up almost entirely of MCOs that submit their results voluntarily, it is encouraging that the SoonerCare Choice ratings were reasonably close to the national benchmark on measures that a PCCM program can be expected to impact.

3. ECHO

Satisfaction with SoonerCare behavioral health care has been consistently high in recent years. Adults were surveyed in 2004 and 2006 and approximately 7 out of 10 respondents reported no problem seeing providers quickly and more than 8 out of 10 reported providers usually or always communicated well. There are no national benchmarks for the ECHO survey.

4. Health Care Status Among Low-Income Oklahomans

The percentage of low-income adults with children who reported their own health status as excellent, very good, or good declined from 81 percent in 1995 to 74 percent in 2007. The decline was even sharper for lower-income adults without children (from 86 percent in 1995 to 62 percent in 2007), but adults without children are less likely to be on Medicaid than those with children. These trends may reflect to some extent the limits on health insurance coverage for lower-income adults in Oklahoma, since private insurance coverage for lower-income adults declined over this period, and Medicaid coverage increased only modestly.

C. COST

Medicaid costs per member in Oklahoma were substantially below the national average between 1996 and 2005. Compared to national averages and to a selection of 19 other states with various kinds of managed care and FFS delivery systems, Oklahoma's Medicaid program has had relatively low costs on a per-member basis since the inception of the SoonerCare managed care program. Looking just at children and non-disabled adults, who account for approximately three-quarters of the enrollment in SoonerCare and in managed care

programs in most other states, annual per-member costs in Oklahoma have been significantly below the national average every year between 1996 and 2005. Oklahoma's per-member expenditures for those in the disabled eligibility category were also below the national average throughout the period, although by a smaller percentage than in the children and adult categories.

Medicaid costs per member were generally lower between 1996 and 2005 in managed care states. In our analysis of per-member expenditure trends, states without any form of managed care had significantly higher per-member expenditures for adults throughout the period, compared to states with PCCM and MCO managed care programs. The pattern was essentially the same for per-member expenditures for children and disabled eligibility categories. The distinctions among states with different forms of managed care (PCCM-only, PCCM-MCO combined, and MCO-only) were less clear and consistent.

Medicaid accounted for a smaller share of total state expenditures in Oklahoma between 1996 and 2005 than the national average and 19 comparison states. Medicaid has accounted for a substantially smaller share of total state expenditures in Oklahoma than the national average throughout the period from 1995 to 2006, and a smaller share than in any of the 19 comparison states we examined. Medicaid represented 6.5 percent of state expenditures in Oklahoma in 1995, rising to just under 10 percent in 2006. During that same period, the national average remained relatively stable, with Medicaid expenditures rising from around 12.5 percent of total state expenditures in 1995 to just under 14 percent in 2006.

State revenue growth constrains Medicaid growth, especially during economic downturns. The growth in expenditures on Medicaid over time in Oklahoma is constrained by growth in state revenues, as it is in other states, since states are generally required to balance their budgets every year. As in other states, there were times in Oklahoma between 1996 and 2006 in which economic conditions and Medicaid program trends combined to produce revenue declines and expenditure increases at the same time, requiring hard decisions to control costs in Medicaid. This occurred most strikingly from 2001 to 2004 in Oklahoma, as it did in most other states.

D. OHCA PERFORMANCE

OHCA is unusual among state Medicaid agencies in several respects: its status as a separate, stand-alone agency; the stability and continuity of its top leadership and key staff; its ability to maintain its own personnel and salary system; its governance by a separate appointed board; and its ability over time to obtain needed resources and flexibility from the legislature and the governor.

In combination, these factors have helped OHCA to construct a Medicaid managed care program that fits Oklahoma well and adapts as needs and circumstances change and as opportunities arise. OHCA has made modest efforts to expand health insurance coverage to children and lower-income workers, within the constraints of the state's political and fiscal circumstances. Recent coverage expansions, for example, have begun to increase the availability of employer-sponsored coverage, albeit to a limited extent.

Some of OHCA's most notable accomplishments include:

- ***SoonerCare Choice Design and Implementation.*** OHCA designed and implemented a PCCM program that increased physician participation and member access in rural areas, and that provided a solid managed care alternative in urban areas when the MCO program became too difficult to maintain in 2003.
- ***Smooth Transitions to New Programs.*** OHCA has invested substantial resources in making transitions to new programs and new forms of care as smooth as possible for members and providers, including the initial transition to managed care in 1995-1996, the inclusion of the ABD population in managed care in 1999, the transition from the MCO to the PCCM program in urban areas in 2003-2004, and implementation of the Insure Oklahoma program in 2005-2006.
- ***Managed Care Enhancements in SoonerCare Choice.*** OHCA has continued to add care coordination and disease management capabilities to the SoonerCare Choice PCCM program through an in-house team of nurse care managers, the new Health Management Program, and plans for improved performance incentives for providers in the new "medical home" model in SoonerCare Choice.
- ***Innovation and Strategic Planning.*** OHCA's leadership has built an agency culture that values careful innovation, bolstered by a systematic and broadly inclusive strategic planning process.
- ***Information Technology Enhancements.*** OHCA has built and continually improved information technology capabilities that facilitate provider payment and data analysis and reporting, using a well-coordinated combination of skilled and experienced in-house staff and on-site outside contractors.
- ***Quality and Performance Monitoring and Reporting.*** OHCA has developed a strong emphasis on quality, performance monitoring, and reporting in SoonerCare and other programs, using both in-house staff and on-site outside contractors.
- ***Public Reporting and Accountability.*** OHCA has undergirded all of its efforts with a systematic commitment to public reporting and accountability, with publications ranging from detailed annual reports to short "Fast Facts" summaries of key program issues.

We also found some areas where OHCA could improve:

- ***Better Coordination of Care Coordination.*** OHCA does not appear to have fully worked through all the ways in which the SoonerCare Choice nurse care managers will relate to the new Health Management Program (HMP). Since there is the potential for overlap in the clients served through these two efforts, and since the HMP is being operated by an outside contractor, coordination is likely to present some challenges. OHCA has already begun to address some of these coordination issues. In addition, the still-developing "medical home" model for SoonerCare Choice

will likely have some additional care coordination features that will have to be integrated into what currently exists.

- ***Better Coordination with Other State Agencies, Especially at the Staff Level.*** While OHCA collaborates effectively with a wide range of other state agencies, and while the relationships among agency heads appear very strong, we picked up some indications in our interviews that relationships with some agencies may not be as strong below the leadership level. Responsibility for home-and-community-based services (HCBS) waiver programs is shared between OHCA and the Department of Human Services, for example, so differences in perspectives and priorities can sometimes lead to tensions between the two agencies. Since some participants in HCBS waiver programs may also be served by OHCA's nurse care managers, greater attention to the linkages between HCBS waivers and the SoonerCare Choice program may be warranted. We also saw evidence that the Oklahoma Insurance Department perspective on the Insure Oklahoma program sometimes differs from that of OHCA, so continued efforts to improve communication and collaboration between the two agencies would likely benefit that program.

- ***Improved Data Collection on PCP Participation within Provider Groups.*** Our analyses considered individual providers within each provider group as a potential PCP; however, one concern that we were not able to address with currently available data was whether each individual group member actually rendered services to Medicaid patients. OHCA indicated that, while some groups reliably report the rendering provider for each service, others have claims patterns that suggest data submission is incomplete (i.e. all claims have the same rendering provider number). Improving the quality of rendering provider data would enable analyses of the number of providers actually delivering care. Tracking the count of rendering PCPs, as opposed to the count of potential PCPs who are members of contracted groups, would provide a more accurate way of monitoring PCP participation. If OHCA implements the new "medical home" reimbursement system it is considering for the SoonerCare Choice program, the more complete FFS claims data on primary care visits provided by that system would facilitate this kind of enhanced tracking of PCP participation.

- ***Even More Communication, Especially with the Legislature.*** Despite OHCA's extensive public reporting on its activities, our interviews suggested that awareness of OHCA activities and programs is not widespread among legislators and other key constituents. Given the frequent turnover in Oklahoma's term-limited legislature, ongoing education programs should remain a priority.

- ***Leadership Transition Planning.*** Our interviews with a wide range of OHCA staff and external stakeholders made it very clear that a large part of OHCA's success over the years can be attributed to the skill, experience, and stability of the agency's leadership and top managers. OHCA's leaders have done a great deal to build and enhance the agency's institutional capability, so there will be strong organizational support for any new set of leaders that the future may bring. Nonetheless, leadership transitions always present both internal and external challenges to organizations, so preparing for those challenges should be part of the strategic planning agenda for any public agency.

V. LESSONS AND IMPLICATIONS FOR OTHER STATES

We conclude this report by presenting lessons and implications for other states that have emerged from our evaluation of the Oklahoma SoonerCare 1115 waiver program. Specifically, we examine the key lessons that Oklahoma illustrates in program design and management, agency management, and stakeholder relationships.

A. PROGRAM DESIGN AND MANAGEMENT

1. Managed Care Organizations (MCOs) vs. In-House Care Management

With sufficient resources and leadership commitment, state Medicaid agencies can manage care at lower costs than MCOs and with similar outcomes. Annual per-member costs in Oklahoma have been significantly below the national average for every year between 1996 and 2005, and in most cases below the average of states operating MCOs. Given the cost trajectory of Oklahoma's MCO contracts, and the limited competition that existed between companies at the time that the Plus program was terminated, it seems likely that SoonerCare would have been more costly to operate during the past four years had those contracts been maintained. Evidence from this evaluation suggests that provider participation and member outcomes have not been adversely affected as a result of the statewide expansion of SoonerCare Choice and termination of the MCO contracts, though we did find some evidence that preventable hospitalizations for diabetes and asthma may have increased. In states such as Oklahoma, where managed care penetration is low and turnover among MCOs is relatively high, MCOs' key advantage—utilizing resources more flexibly—may have limited effectiveness in achieving better outcomes. The growing concentration of Medicaid managed care interest and capabilities in a relatively small number of multi-state private MCOs have prompted many states to look at state-managed PCCM, care management, and disease management programs as potential alternatives.[151] Oklahoma has demonstrated that such programs have the potential to produce results that are as good as those produced by private MCOs, and perhaps better, if state Medicaid agencies have the necessary resources and a commitment to truly manage care.

2. General Program Design

Models from other states can be important guides, but they must be adapted to the context of individual states. Oklahoma made extensive use of outside consultants and site visits to other states when developing the initial SoonerCare program from 1992 to 1994. It then incorporated an innovative partial capitation feature into its PCCM program to encourage the

[151] Robert Hurley, Michael McCue, Mary Beth Dyer, and Michael Bailit. "Understanding the Influence of Publicly Traded Health Plans on Medicaid Managed Care." Princeton, NJ: Center for Health Care Strategies, November, 2006; Robert E. Hurley and Stephen A. Somers. "Medicaid Managed Care," in Peter J. Kongstvedt, *Essentials of Managed Health Care*, Fifth Edition, 2007, pp. 619-632; Melanie Bella, Chad Shearer, Karen LLanos, and Stephen A. Somers. "Purchasing Strategies to Improve Care Management for Complex Populations: A National Scan of State Purchasers," Princeton, NJ: Center for Health Care Strategies, March 2008.

participation of rural physicians who had previously been reluctant to see Medicaid patients. It also set up a separate, stand-alone Medicaid agency that had few counterparts in other states, to help give a higher priority and greater focus to health care policy and Medicaid managed care. Other states would benefit from using an equally careful approach when borrowing and adapting successful features of other programs to their own specific context.

Wide consultation with external stakeholders on program design can pay major dividends. Oklahoma initially planned to include the ABD population in SoonerCare on a mandatory basis in 1997, a step few other states were taking at the time; but extensive consultation with disability advocacy groups, MCOs, and providers persuaded OHCA to delay implementation until 1999, when OHCA was able to phase in mandatory enrollment with little controversy or difficulty. As discussed in Chapter II, the Ku and Wall evaluation of the early years of SoonerCare implementation concluded that it went much more smoothly than similar managed care implementations in other states during that period, due in part to OHCA's extensive efforts to reach out to MCOs, providers, and member advocates.

3. Ongoing Performance Measurement

Robust performance measurement capabilities, like those developed by OHCA, provide reliable data to support key management decisions. OHCA has made a strong commitment to measuring program performance. Though most states now use Healthcare Effectiveness Data and Information Set (HEDIS) and Consumer Assessment of Healthcare Providers and Systems (CAHPS) measures to monitor the performance of contracted MCOs, and many states have begun using the measures within their PCCM programs, OHCA demonstrated an early commitment to tracking these measures for the SoonerCare Choice program.[152] OHCA began administering CAHPS surveys in 1997, and reported HEDIS measures as early as 2001.[153] The availability of comparable quality and consumer satisfaction data, which showed strong performance in the Choice program, played a key role in supporting the difficult decision to terminate the Plus program in 2003, as MCOs began to drop out of Medicaid managed care in Oklahoma and hospital-based MCOs encountered challenges in managing utilization and costs. Since then, OHCA has continued an innovative approach to performance measurement, seeking new approaches to examining its data in a way that illuminates program management, such as its analysis of ER utilization, development of individual primary care provider (PCP) performance profiles, and analysis of the impact of care management on utilization of behavioral health services.[154] Other states would benefit from viewing their own performance as critically as they measure the performance of contracted MCOs.

---

[152] Vernon Smith, Kathleen Gifford, and Eileen Ellis. "Headed for a Crunch: An Update on Medicaid Spending, Coverage, and Policy Heading into an Economic Downturn." Washington, DC: Kaiser Family Foundation, September 2008.

[153] OHCA. "Minding our Ps and Qs: Performance and Quality for Oklahoma SoonerCare Programs." Oklahoma City, OK: OHCA, 2003.

[154] OHCA. "Minding our Ps and Qs: Performance and Quality for Oklahoma SoonerCare Programs." Oklahoma City, OK: OHCA, 2006.

Where data availability limits agency performance measurement capabilities, states should explore partnerships with other agencies that collect data on Medicaid populations. OHCA has engaged in collaborative data-sharing initiatives with the Oklahoma State Department of Health (OSDH) to complement and expand access to data on its members. For example, in order to obtain a clearer picture of enrollee immunization histories, OHCA has worked with OSDH to compile a common immunization registry. For this report, we built upon that existing partnership, combining data on inpatient hospitalizations and Medicaid enrollment in order to gain insights on the performance of Medicaid MCOs. Data that Oklahoma received from SoonerCare Plus MCOs on patient encounters and hospitalizations were not consistently reliable across MCOs, making it difficult to assess the overall performance of the SoonerCare Plus program. Many states have similar concerns about encounter data completeness from their MCOs. By applying publicly available software tools to records of inpatient discharges, Medicaid programs can calculate the rate of preventable hospitalizations and gain a valuable perspective on the performance of their MCOs. Thirty-nine states now systematically collect inpatient discharge data through a project led by the Agency for Healthcare Research and Quality (AHRQ) and could make use of this approach by collaborating with the entities within their state that maintain discharge records.[155] Analysis in Oklahoma provided evidence that the statewide SoonerCare Choice PCCM program is generally performing as effectively as the MCOs in its Plus program had performed in urban areas.

States should develop measures that provide perspective on both performance improvement and performance constraints. Measures that provide perspective on internal performance constraints may be as valuable as those that measure program performance relative to an external benchmark. This report includes several measures intended to both illuminate Oklahoma's performance and identify notable constraints on performance improvement. For example, we examined OHCA's success in recruiting PCPs from the pool of potential providers and found that the SoonerCare Choice program has recruited 60 percent or more of family/general practitioners and pediatricians in rural areas. Given these already high participation rates in rural areas, it may be difficult for SoonerCare Choice to further boost its PCP participation numbers. In a separate analysis we found that about 50 percent of Medicaid hospital admissions occur in such close proximity to Medicaid eligibility that the agency cannot reasonably expect to influence the likelihood of those events occurring or to avoid their associated costs. This type of data helps to set reasonable expectations about the potential for cost savings associated with new initiatives.

4. Approach to Client Service

Focusing on providers as clients can significantly improve participation rates. OHCA increased Medicaid physician reimbursement to 100 percent of Medicare rates in 2005, making Oklahoma one of only a few states that reimburse physicians at that relatively high level. Providers offered consistently positive feedback about the initiatives that OHCA has undertaken in recent years to simplify their interactions with the agency. Most of these initiatives have been information technology based, such as online real-time claims processing and upgrades in the

[155] Agency for Healthcare Research and Quality. "Healthcare Cost and Utilization Project: State Inpatient Databases." www.hcup-us.ahrq.gov/sidoverview.jsp#States. Accessed October 10, 2008.

call center to support more fluid call transfers. While the role of provider reimbursement cannot be ignored, these kinds of initiatives have almost certainly contributed to OHCA's continued provider participation growth.[156] The rollout of online enrollment for providers later this year is likely to provide an additional recruitment boost.

Medicaid eligibility expansions for children, coupled with outreach and simplified applications such as those instituted in Oklahoma, can improve participation rates and reduce uninsurance. Like many other states, Oklahoma's Medicaid eligibility expansions, have dramatically increased enrollment among low-income pregnant women and children in the program. However, to ensure that all those eligible can enroll and to achieve high Medicaid participation rates, concerted outreach and simplified application processes like those Oklahoma carried out are essential. On the other hand, uneven progress throughout Oklahoma—as is likely to be the situation in most states—indicates the importance of targeted outreach efforts in certain regions to ensure that the benefits of expanded coverage are shared equally. Oklahoma's success in lowering the rate of uninsured low-income children, (in families earning up to twice the federal poverty level), reinforces the importance of Medicaid and SCHIP to these families in light of continuing declines in rates of private insurance coverage for low-income children.

B. AGENCY MANAGEMENT

Though change is always disruptive, adequate resources and leadership can ensure that even difficult transitions are accomplished smoothly. OHCA's transition of the SoonerCare Plus population to SoonerCare Choice in the first three months of 2004 is a textbook example of how to accomplish a challenging and abrupt program transition with minimal disruptions. In early November 2003, the OHCA Board decided not to renew MCO contracts for the following year and to end the SoonerCare Plus program on December 31, 2003. Over the next several months, OHCA staff established a clear timeline to accomplish the transition of all Plus members to SoonerCare Choice by April 2004, and worked tirelessly to ensure that deadlines were met. Top leadership participated in some of the necessary legwork tasks, sending a clear signal about the importance of success. Afterward, the agency evaluated its own performance during the transition process and published a report on the transition effort.

Managing managed care programs requires major investments in infrastructure, staffing, monitoring, and reporting. While OHCA had an advantage from the outset as a stand-alone agency with unusual flexibility in staffing and salary levels, over time it has built very sophisticated information technology, data analysis, and reporting capabilities, using a combination of experienced in-house staff and outside contractors, most of whom work on-site in close conjunction with OHCA staff.

Good management to ensure the retention of skilled in-house staff is critical to working successfully with outside contractors and to overall agency success. The experience and

[156] Recent research supports the view that higher reimbursement alone may not be enough to increase physician participation in Medicaid if it is not accompanied by steps to reduce payment delays and other administrative obstacles. See Peter J. Cunningham and Ann S. O'Malley. "Do Reimbursement Delays Discourage Medicaid Participation By Physicians?" *Health Affairs*, Web Exclusive, November 18, 2008, pp. w17-28.

stability of OHCA's top leaders and managers is relatively unusual among state Medicaid agencies, but it is not just tenure that makes a difference. OHCA's leaders and managers actively work to keep morale, commitment, and productivity high. As a result, many key OHCA staff members have been with the agency since the 1990s, providing guidance and continuity for key functions that are performed by outside contractors, such as claims payment, and data collection and analysis. Two-thirds of the top executive staff have been with OHCA since 1995, as have well over one-third of all supervisory staff.[157]

A well-developed strategic planning process enables an agency to be prepared to take advantage of windows of opportunity that can open and close quickly. OHCA instituted an annual strategic planning process in part to fulfill a state budget requirement; however the process has become integral to the agency as a way to focus priorities and engage stakeholders. Top leadership makes explicit choices and ranks projects by relative priority; staff throughout the agency are aware of projects that have been identified as key agency priorities. This type of explicit planning process, conducted with the level of specificity and commitment demonstrated by OHCA, leaves the agency far better prepared to take advantage of windows of opportunity that may open fairly briefly. For example, with the economic recovery in 2005 after several years of budget challenges, OHCA was able to establish the Insure Oklahoma program.

Changing circumstances provide new opportunities; states should continue to monitor whether program design best meets current needs. The original SoonerCare Choice partial capitation model was a good solution to the physician participation problem that existed in rural Oklahoma in the early 1990s, but it provided few financial incentives for providers to actually provide the services that were capitated. OHCA added payment incentives for EPSDT screening and immunizations, and in 2005 increased Medicaid physician reimbursement to 100 percent of Medicare. Recognizing the limits of partial capitation, the opportunities presented by higher FFS reimbursement, and the growing interest in pay-for-performance reimbursement systems, OHCA has taken advantage of the current interest in "medical home" models to propose further refinement of the SoonerCare Choice reimbursement system in order to build in more financial incentives for physicians to provide primary care services and to improve their performance on other dimensions. As in the past, OHCA is working closely with physicians and other stakeholders to assure that this change in reimbursement is fully discussed and understood before being implemented.

C. RELATIONSHIPS WITH EXTERNAL STAKEHOLDERS

Effective and continuous communication is a crucial task for state Medicaid agencies. OHCA has done a thorough and skillful job of reporting on OHCA programs and accomplishments. The agency reports shortcomings and areas for improvement, thereby enhancing its credibility. While the number of people who read these reports cover-to-cover may be limited, the reports demonstrate a commitment to public accountability and openness that is critical in a program that serves hundreds of thousands of people, depends on thousands of providers, and uses billions of taxpayer dollars. OHCA's investment in this type of communication tool also leaves the agency in a better position to tackle one of the most difficult

[157] OHCA Workforce Analysis, provided to MPR on November 10, 2008.

problems facing Medicaid agencies: Medicaid is a very complicated program that can be difficult for people to understand**.** Most people see only small parts of the program, if they are aware of it at all. Medicaid agencies should, as OHCA has done, seize every opportunity to provide information on the program to legislators, other key stakeholders, reporters, and the public as a whole, knowing that those opportunities may be fleeting. Having good information already on the shelf is the best way to be prepared to take advantage of those opportunities when they arise.[158]

Consultation with external stakeholders should be pursued in a targeted way that builds engagement and support. OHCA has created targeted opportunities for stakeholder engagement that have built its reputation as a willing and thoughtful partner. Most notably, OHCA holds its annual strategic planning meeting as an open and interactive forum in which the agency can articulate priorities that have been identified internally, and hold a real-time dialogue with key constituents to refine those priorities, building stakeholder buy-in through the process. OHCA has also instituted a separate physicians-only advisory board with representatives from key Medicaid provider groups (family practitioners, pediatricians, geriatricians, and so on) that has been instrumental in developing new initiatives and providing OHCA with feedback on how to improve the engagement of the physician community. OHCA's annual summits with the American Indian community, recognizing their unique expertise in providing culturally appropriate care, have also resulted in productive collaborations that have enabled the agency to reach this difficult-to-serve population and to address those needs of most concern to Oklahoma tribes.

[158] For more discussion of these communication issues, see James M. Verdier and Robert E. Hurley. "State Medicaid Managed Care Evaluations and Reports: Themes, Variations, and Lessons." Princeton, NJ: Center for Health Care Strategies, May 2004; James M. Verdier and Rebecca Dodge. "Using Data Strategically in Medicaid Managed Care." Princeton, NJ: Center for Health Care Strategies, January 2002; and James M. Verdier. "Implementing Medicaid Managed Care: Suggestions for Dealing with the Media, Legislators, Providers, Recipients, and Advocates." Princeton, NJ: Center for Health Care Strategies, November 1997.

APPENDIX A
COMPLETED INTERVIEWS

OHCA Staff

- Mike Fogarty, Chief Executive Officer
- Garth Splinter, former Chief Executive Officer
- Dr. Lynn Mitchell, State Medicaid Director
- Policy, Planning and Integrity
  - Cindy Roberts, Deputy Chief Executive Officer
  - Buffy Heater, Planning and Development Manager
- SoonerCare Operations
  - Dr. J. Paul Keenan, Chief Medical Officer
  - Becky Pasternik-Ikard, Chief Operating Officer
  - Debra Johnson, MMIS Reprocurement Manager
  - Patricia Johnson, Quality Assurance/Quality Improvement Director
  - Beverly Rupert, Systems Integrity Review Nurse
  - Kacey Hawkins, Quality Assurance Project Manager
  - Kevin Rupe, Member Services Director
  - Melody Anthony, Provider Services Director
  - Terrie Fritz, Child Health Unit Director
  - Dr. Michael Herndon, Health Care Management Medical Director
  - Margaret Pitt-Helm, Health Management Manager
  - Trevlyn Cross, Indian Health Manager
  - Teri Dalton, Health Wellness Manager
  - Melinda Jones, Waiver Development and Reporting Director
  - Matt Lucas, Insure Oklahoma Director
  - Nicole Altobello, Insure Oklahoma Operations Manager
  - Care Management Staff
    - Marlene Asmussen, SoonerCare Care Management and Medical Authorization Services Director
    - Carolyn Reconnu, Care Management Supervisor
    - Diana Capps, Care Management Supervisor
    - Cheryl Moore, Care Management Supervisor
    - Connie Wildman, SoonerRide Manager
    - Jennifer Laizure, Senior Exceptional Needs Coordinator

- Michelle Meixel, Senior Exceptional Needs Coordinator
- Reneé Davis, Senior Exceptional Needs Coordinator
- Rebekah Gossett, Senior Exceptional Needs Coordinator
- Jeanne Leopard, Senior Exceptional Needs Coordinator

- Legal Services
  - Howard Pallotta, General Counsel
  - Beth VanHorn, Legal Operations Director
  - Peggy Hanson, Provider Contracting Manager
  - Theresa Isenhour, Senior Contract Coordinator
- Information Services
  - John Calabro, Chief Information Officer
  - Lynn Puckett, Contract Services Director
  - Lise DeShea, Statistician
  - Connie Steffee, Reporting and Statistics Manager
  - Brett May, Data Processing Analyst/Planning Specialist IV
  - Holly Stoner, Data Processing Analyst/Planning Specialist IV
  - Judi Worsham, Data Processing Administrator
- Financial Services
  - Anne Garcia, Chief Financial Officer
  - Debbie Ogles, Financial Management Director
  - Carrie Evans, Chief Financial Officer (effective February 2009)
  - Juarez McCann, Chief Budget Officer
  - Marianne Lingle, Federal Reporting Financial Manager

Other Stakeholders

- OHCA Board and Committee Members
  - Lyle Roggow, OHCA Board Member
  - Dr. Daniel McNeill, Vice Chair, OHCA Medical Advisory Committee
  - Dr. Dale Askins, President, Morning Star Emergency Physicians, and OHCA Medical Advisory Task Force Member

- Oklahoma State Legislators
  - Senator Brian Crain (R), Co-Chair, Appropriations Subcommittee on Health and Social Services
  - Representative Doug Cox (R), Medicaid Reform Commission and Chair, Committee on Public Health
  - Angela Munson, former Oklahoma State Senator, involved in OHCA formative stages
- Oklahoma State Agencies
  - Kim Holland, Oklahoma Insurance Commissioner, and former OHCA Board Member
  - Craig Knutson, Chief of Staff, Oklahoma Insurance Department
  - Yvonne Meyers, Chief of Federal Funds Development, Oklahoma State Department of Health
- SoonerCare Plus Health Plans
  - Brian Maddy, Chief Executive Officer, University of Oklahoma Physicians, and former lobbyist for Heartland Health Plan
  - Tanya Case, Executive Director, Lawton Community Health Center, and former Chief Executive Officer, Prime Advantage
  - Joe Anderson, former Chief Executive Officer, Schaller Anderson
- Advocates and Other Stakeholders
  - Carmelita Skeeter, Chief Executive Officer, Indian Health Care Resource Center of Tulsa
  - Anne Roberts, Executive Director, Oklahoma Institute for Child Advocacy, and former OHCA Board Member
  - Kenneth King, Executive Director, Oklahoma State Medical Association
  - Melissa Johnson, Director of Health Care Policy, Oklahoma State Medical Association
- Data Contractors
  - Scott Mack, General Manager—Midwest Region, State Health and Human Services, EDS
  - James Lanier, Business Analyst, EDS
  - Daniel Sorrells, Executive Director, APS Healthcare of Oklahoma
  - Ryan Morlock, Health Intelligence Consultant, APS Healthcare of Oklahoma

APPENDIX B

ADDITIONAL QUANTITATIVE ANALYSES

PREVENTABLE HOSPITALIZATION LOGISTIC REGRESSION RESULTS

Table B.1. Logistic Regression Coefficients Estimating the Impact of the Transition from SoonerCare Plus to SoonerCare Choice on Preventable Hospitalizations Among Urban Adults, Ages 20 to 64.

	Initial Regression Model*		Regression Model with Additional Controls**	
	Coefficient Estimate on Year2006*Urban [Effect of Transition to Choice Program]	P-Value	Coefficient Estimate on Year2006*Urban [Effect of Transition to Choice Program]	P-Value
Any Preventable Hospitalization	-0.113	0.113	0.071	0.439
Any diabetes hospitalization	0.062	0.727	0.448	0.056
Diabetes short term complication	-0.136	0.653	0.028	0.949
Diabetes long term complication	0.209	0.393	0.676	0.045
Uncontrolled diabetes without complications	-0.121	0.781	0.172	0.757
Diabetes-related lower extremity amputation	0.556	0.316	1.420	0.086
Chronic Respiratory Diseases				
Chronic obstructive pulmonary disease	-0.311	0.055	-0.238	0.330
Asthma	-0.069	0.728	0.198	0.451
Circulatory Diseases				
Hypertension	-0.003	0.994	-0.184	0.658
Congestive heart failure	-0.168	0.365	0.188	0.467
Angina without procedure	-0.575	0.147	-0.188	0.716
Acute Conditions				
Dehydration	-0.303	0.290	-0.166	0.640
Bacterial pneumonia	-0.164	0.253	0.063	0.733
Urinary infection	-0.002	0.993	-0.328	0.296

Source: MPR analysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

Note: A negative, statistically significant (p-value < 0.10) coefficient indicates that the transition to SoonerCare Choice in urban areas was associated with a decrease in preventable hospitalizations.

* The regression model was specified as follows, where p is the probability of a preventable hospitalization occurring: $\ln(p/(1-p))=\beta 0+ \beta 1 year2006+ \beta 2 urban+ \beta 3 year2006*urban+ \beta 4 female+ \beta 5 aged\_45\text{-}64+ \mu$.

** The regression model with additional controls was specified as follows, where p is the probability of a preventable hospitalization occurring: $\ln(p/(1-p))=\beta_0+ \beta_1 year2006+ \beta_2 urban+ \beta_3 year2006*urban+ \beta_4 female+ \beta_5 age45\_64+ \beta_6 percent\_asthma+ \beta_7 percent\_diabetes+ \beta_8 MDs\_per\_capita+ \beta_9 percent\_hispanic+\mu$.

Table B.2. Logistic Regression Coefficients Estimating the Impact of the Transition from SoonerCare Plus to SoonerCare Choice on Preventable Hospitalizations Among Urban Children, Ages 0 to 19*

Preventable Hospitalization	Coefficient Estimate on Year2006*Urban [Effect of Transition to Choice Program]	P-Value
Asthma	0.329	0.016
Diabetes Short Term Complication	-0.231	0.528
Gastroenteritis	0.128	0.261
Urinary Tract Infection	0.098	0.684

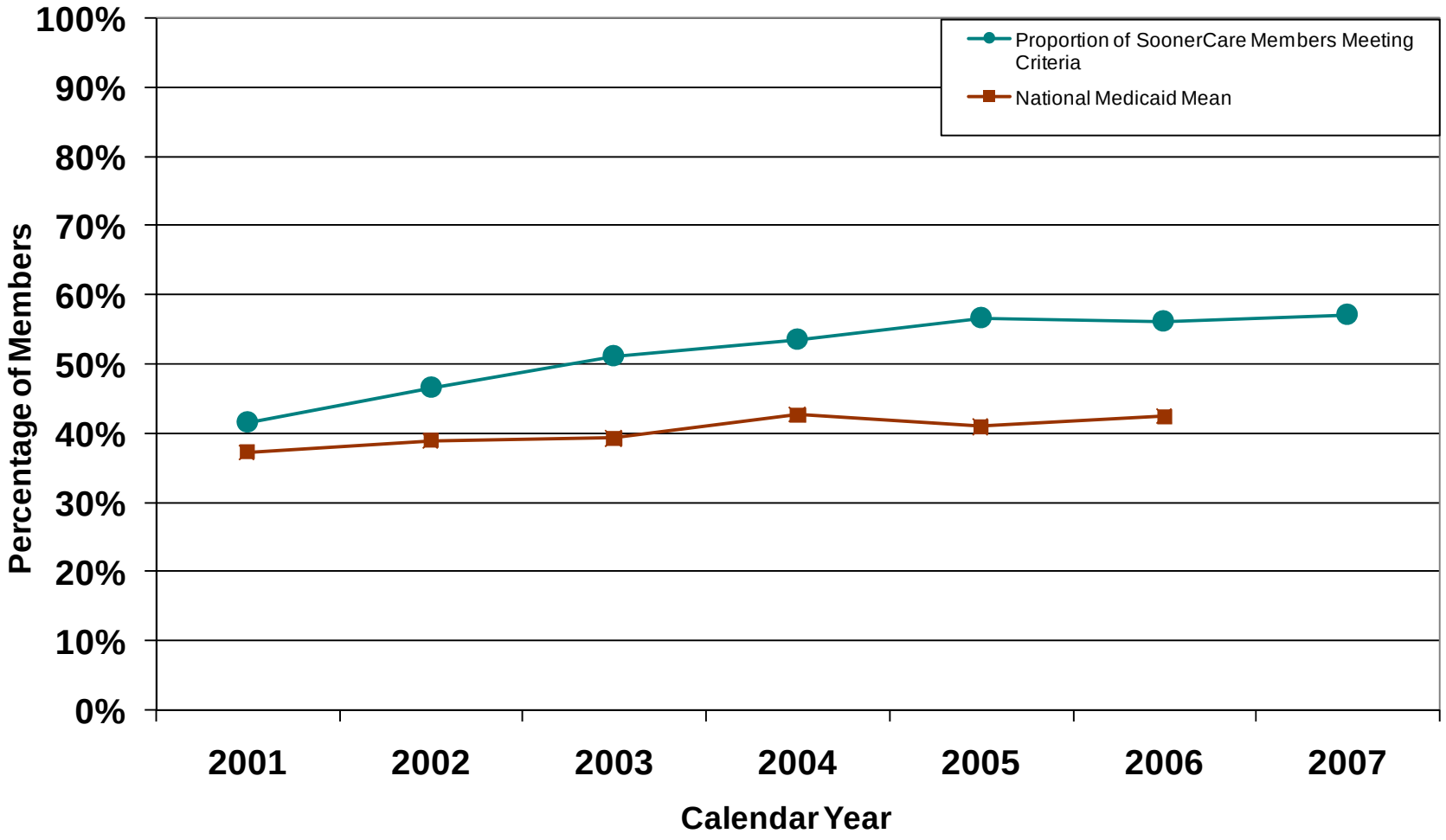
Source: MPR analysis of OHCA Medicaid enrollment records and OSDH inpatient discharge records.

Note: A negative, statistically significant (p-value < 0.10) coefficient indicates that the transition to SoonerCare Choice in urban areas was associated with a decrease in preventable hospitalizations.

* The regression model was specified as follows, where p is the probability of a preventable hospitalization occurring: $\ln(p/(1-p))=\beta 0+ \beta 1 year2006+ \beta 2 urban+ \beta 3 year2006*urban+ \beta 4 female+ \mu$.

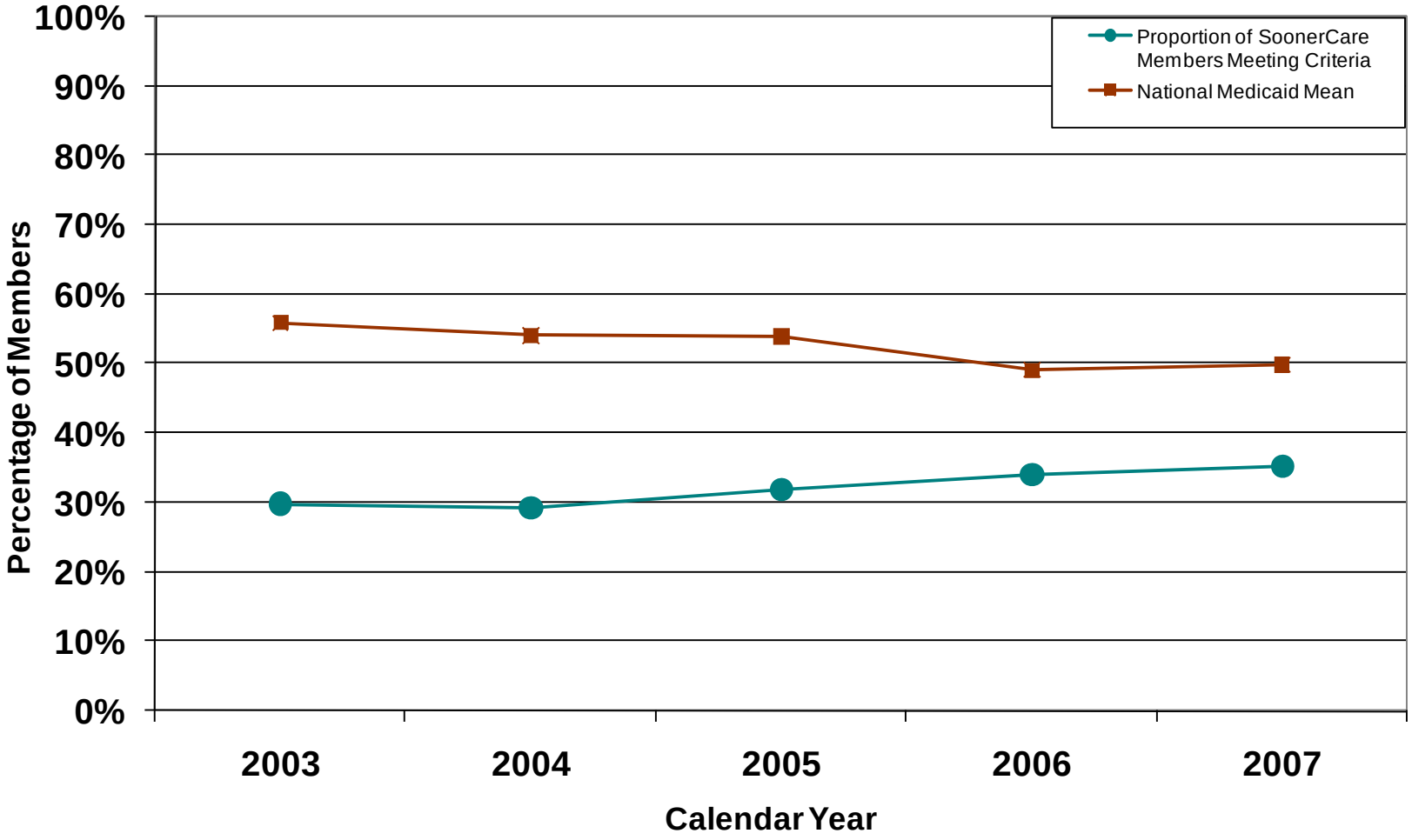
HEDIS MEASURES

Figure B.1
Annual Dental Visit, Members < 21 Years



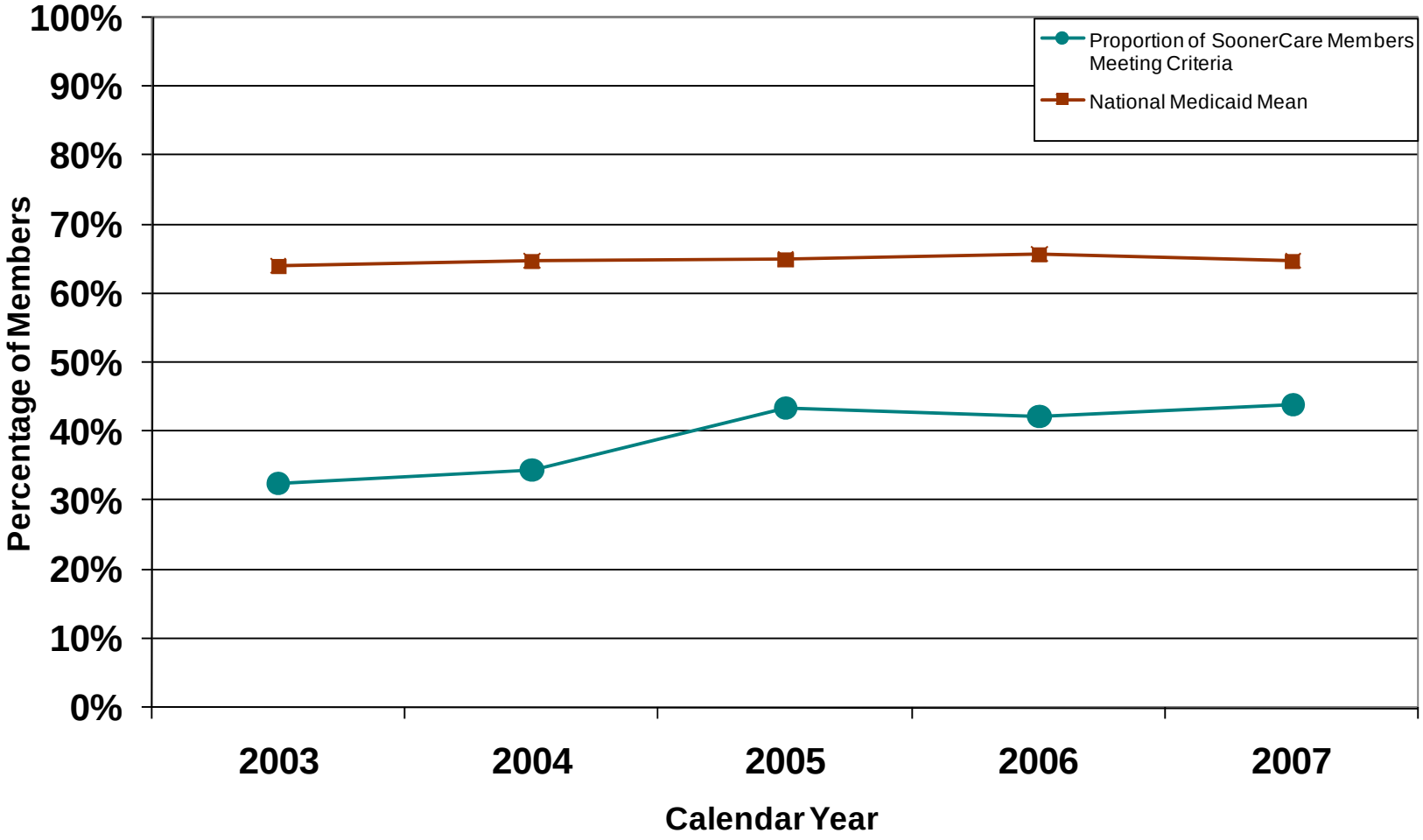
Source: OHCA.

Figure B.2
Breast Cancer Screening



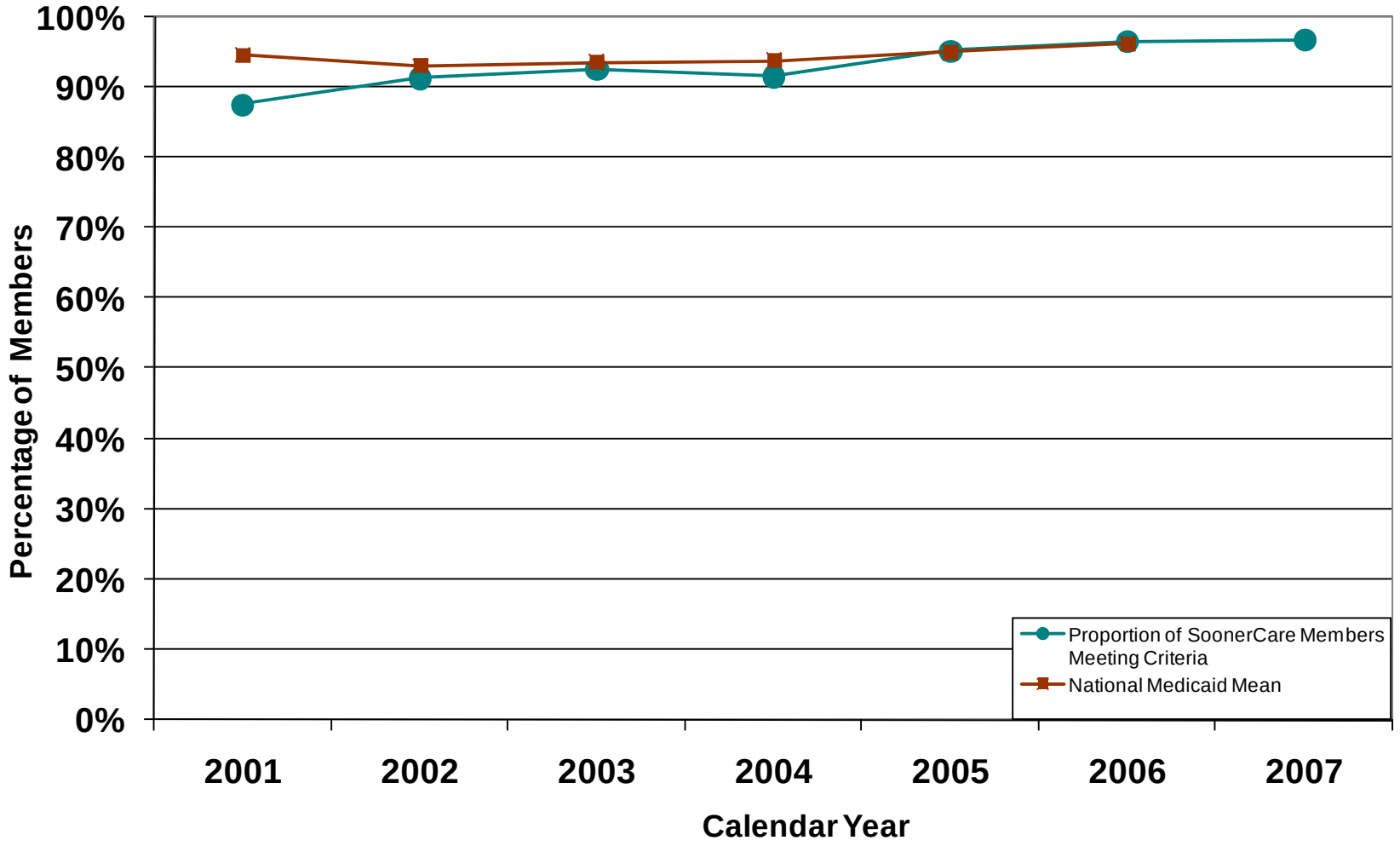
Source: OHCA.

Figure B.3
Cervical Cancer Screening



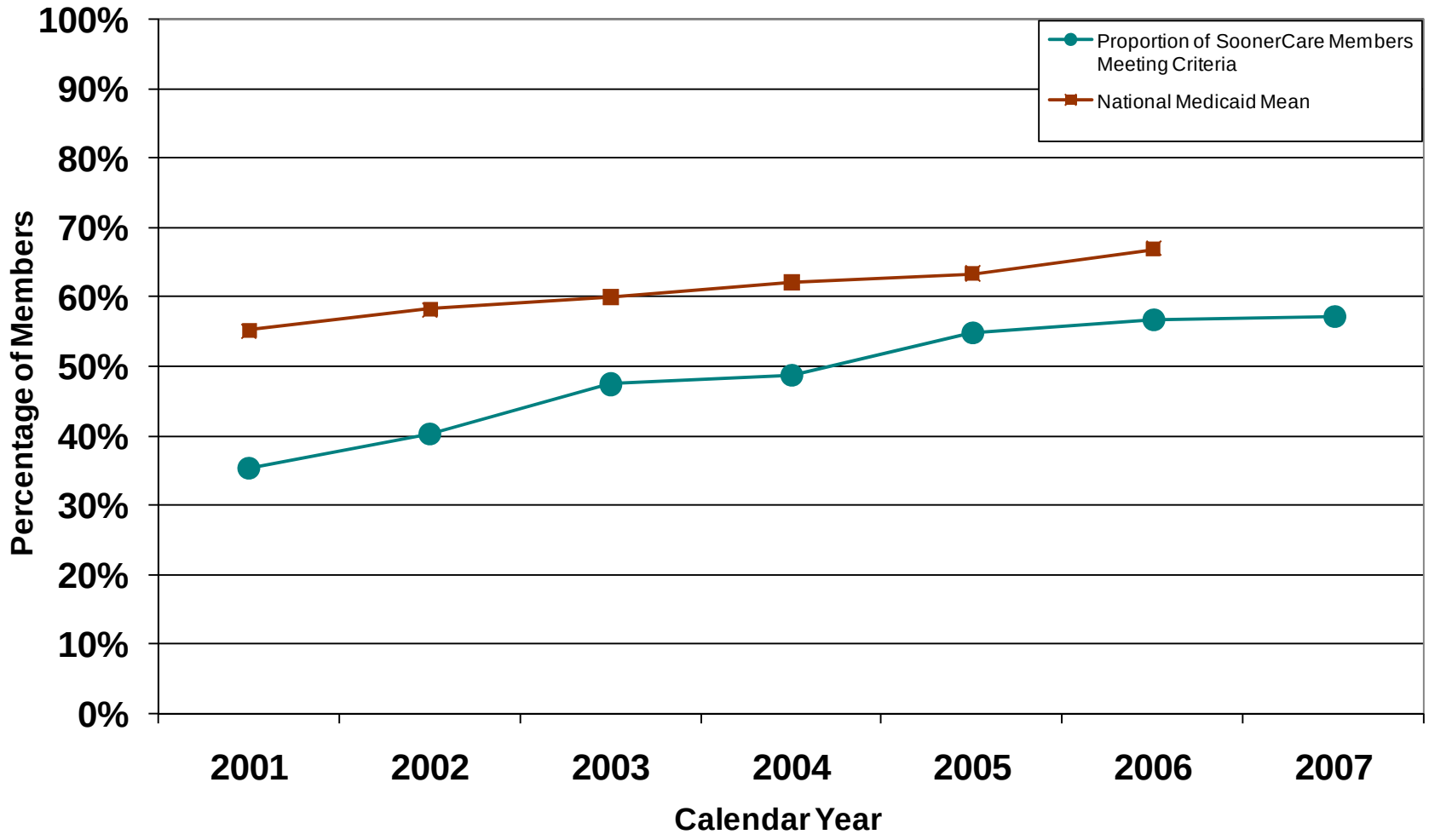
Source: OHCA.

Figure B.4
Annual Child Health Checkup, Ages 0-15 Months



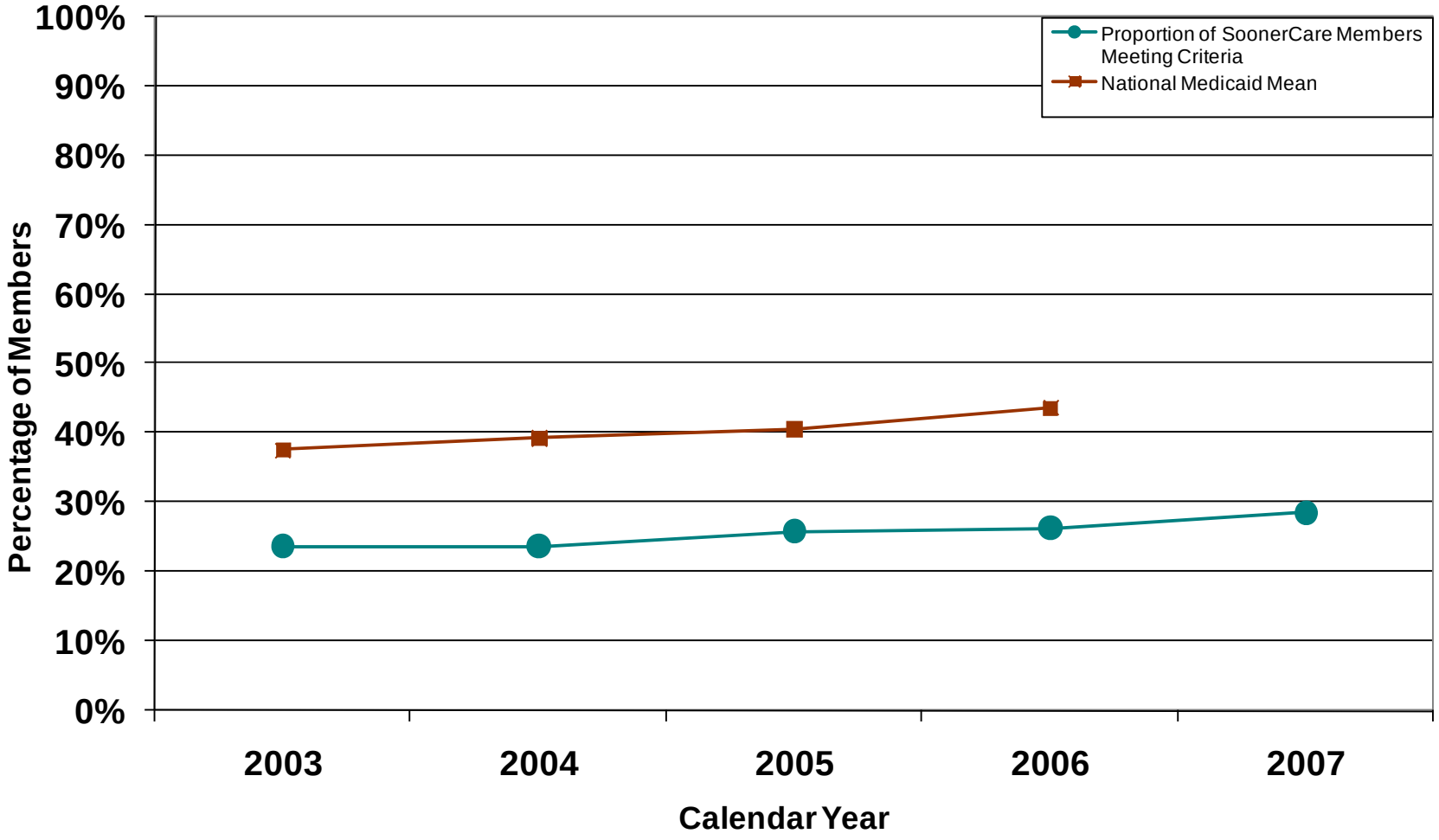
Source: OHCA.

Figure B.5
Annual Child Health Checkup, Ages 3-6 Years



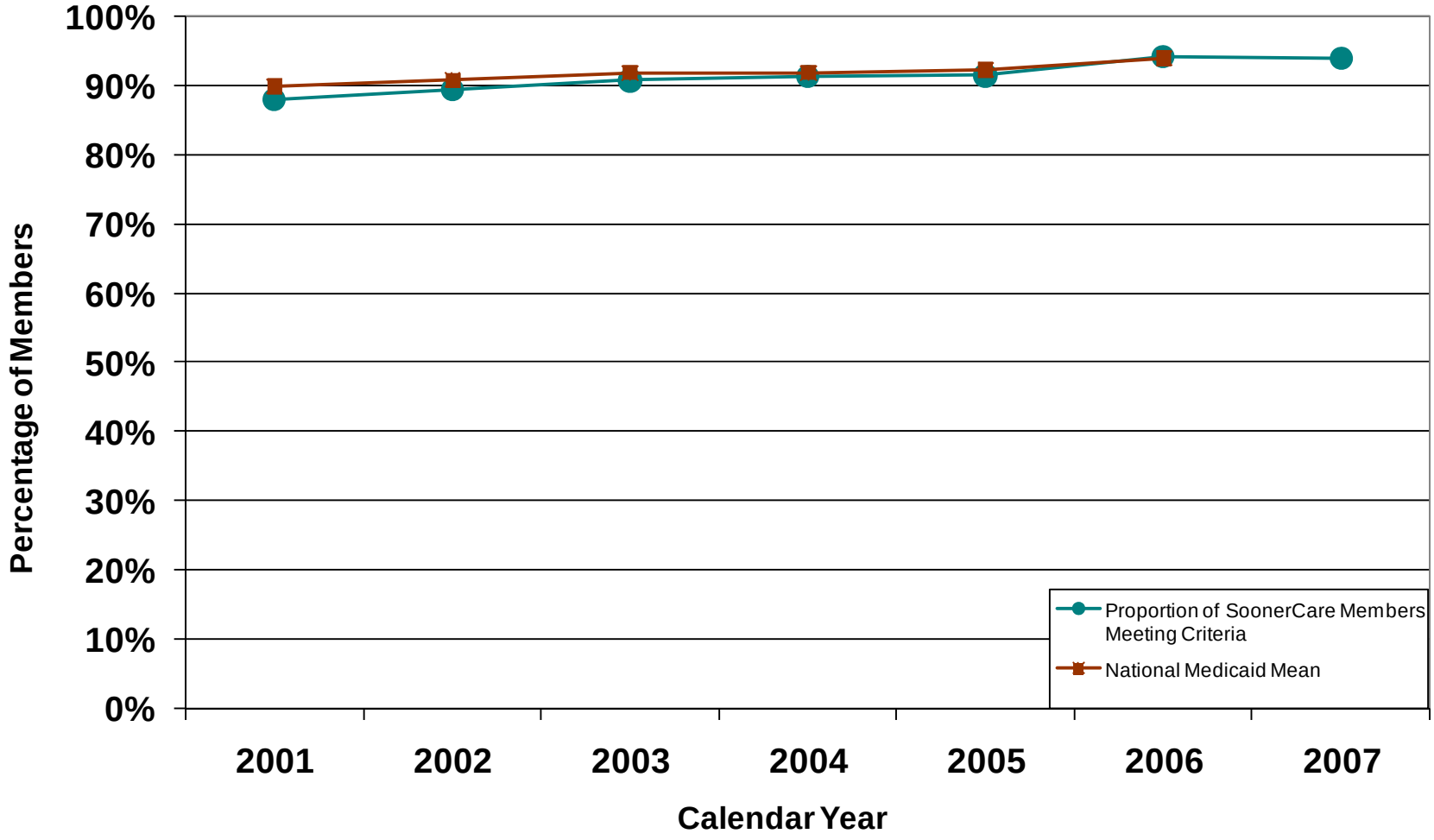
Source: OHCA.

Figure B.6
Annual Child Health Checkup, Adolescents



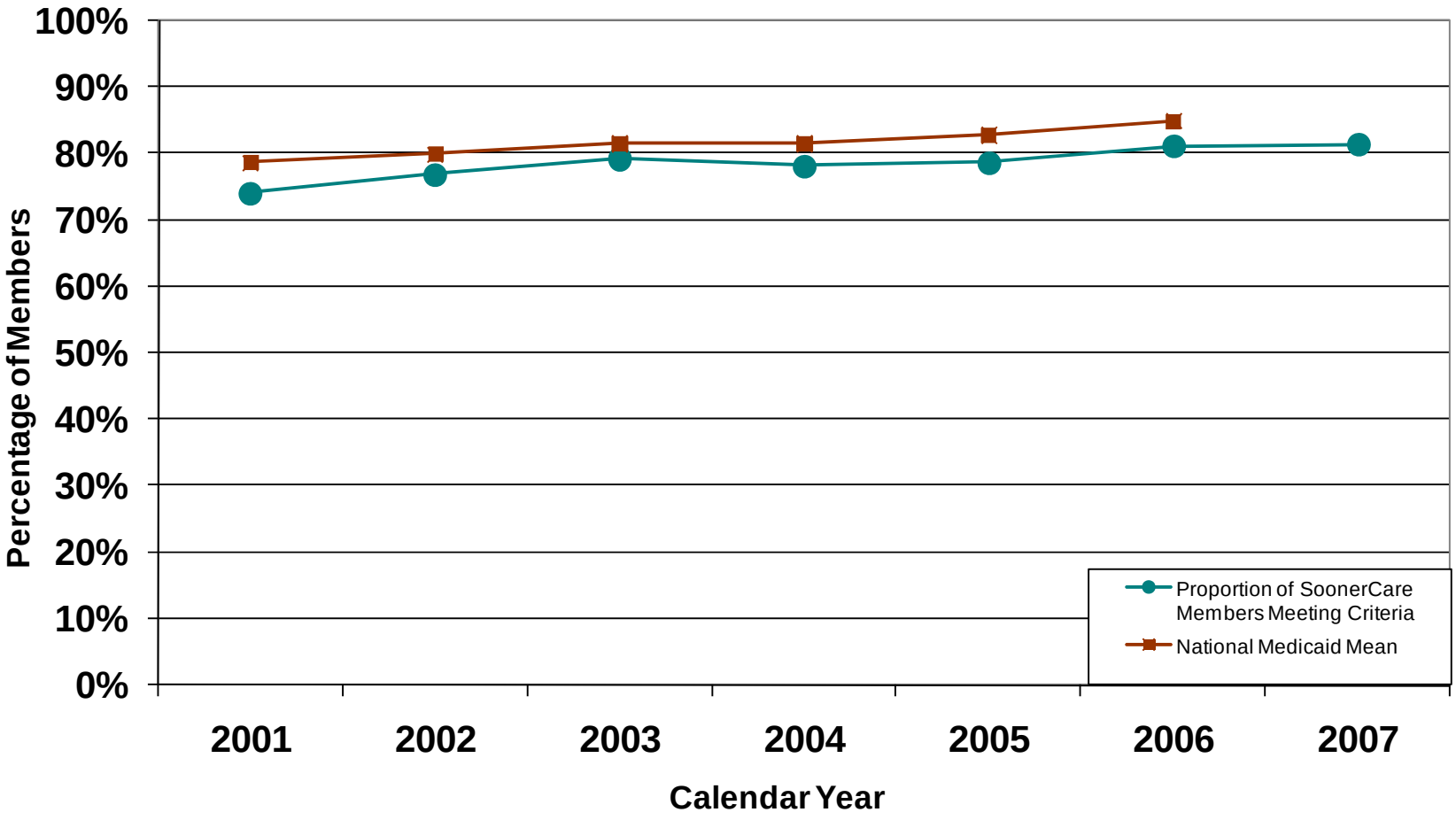
Source: OHCA.

Figure B.7
At Least One PCP Visit, Ages 12-24 Months



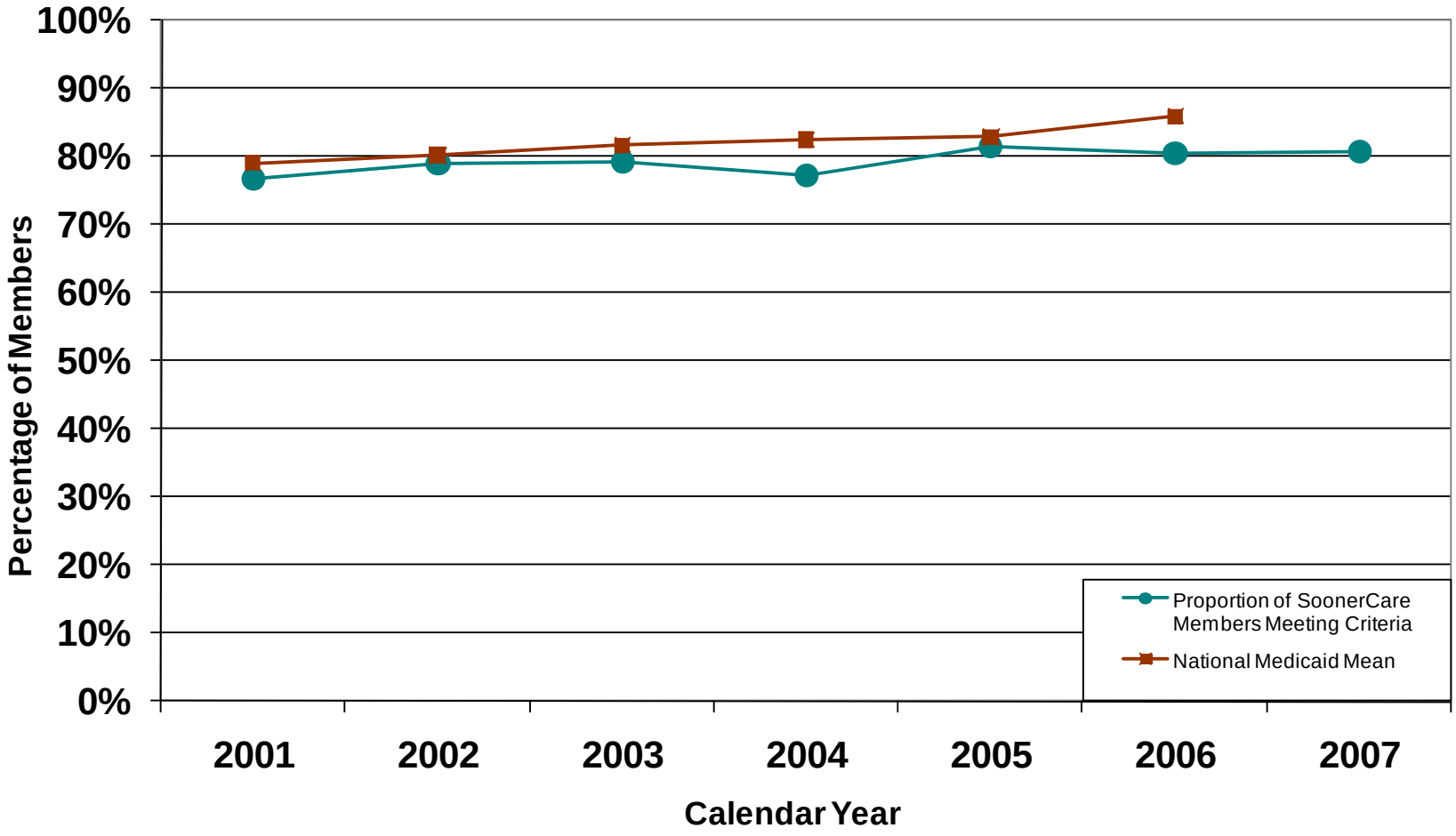
Source: OHCA.

Figure B.8
At Least One PCP Visit, Ages 25 Months-6 Years



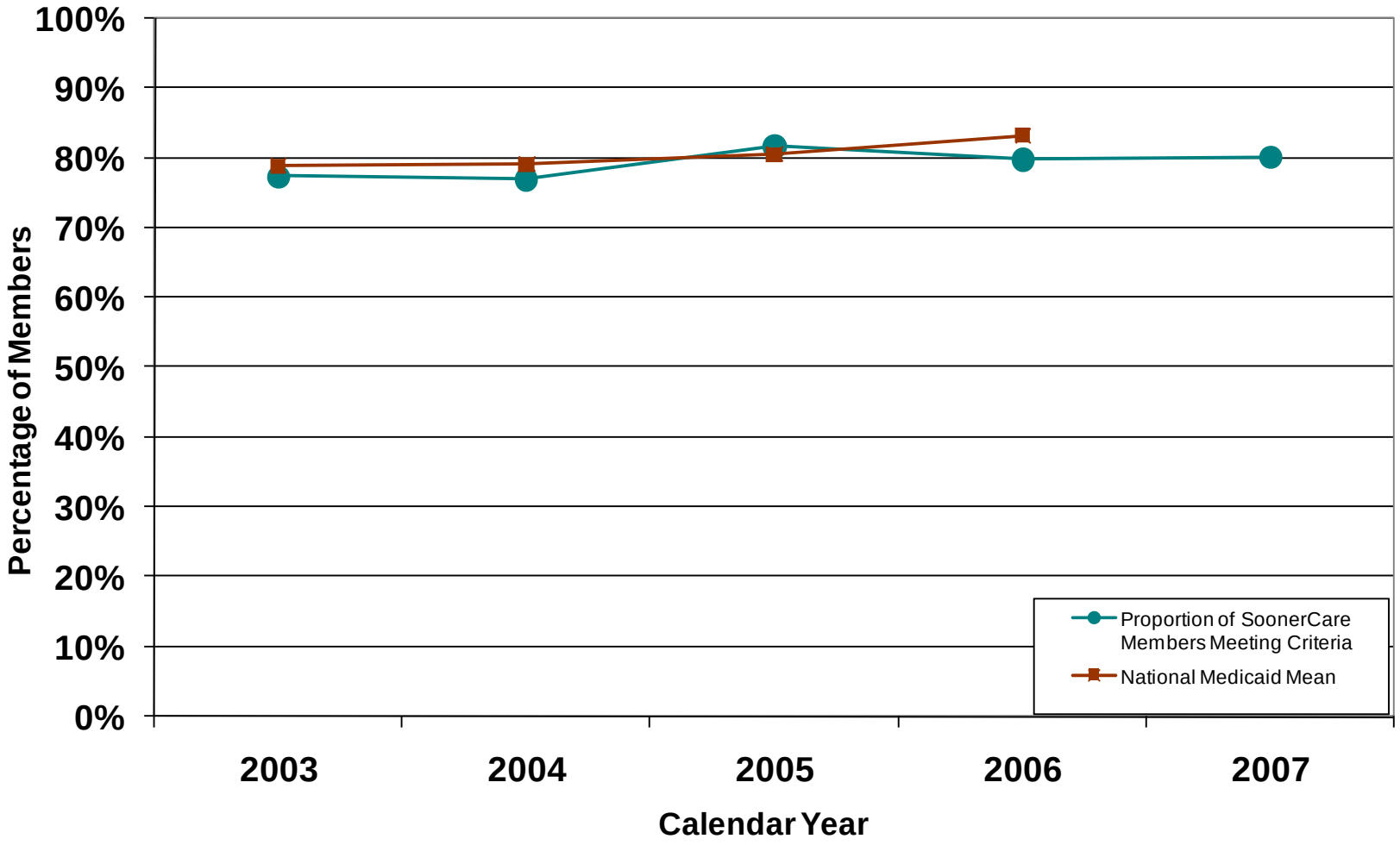
Source: OHCA.

Figure B.9
At Least One PCP Visit, Ages 7-11 Years



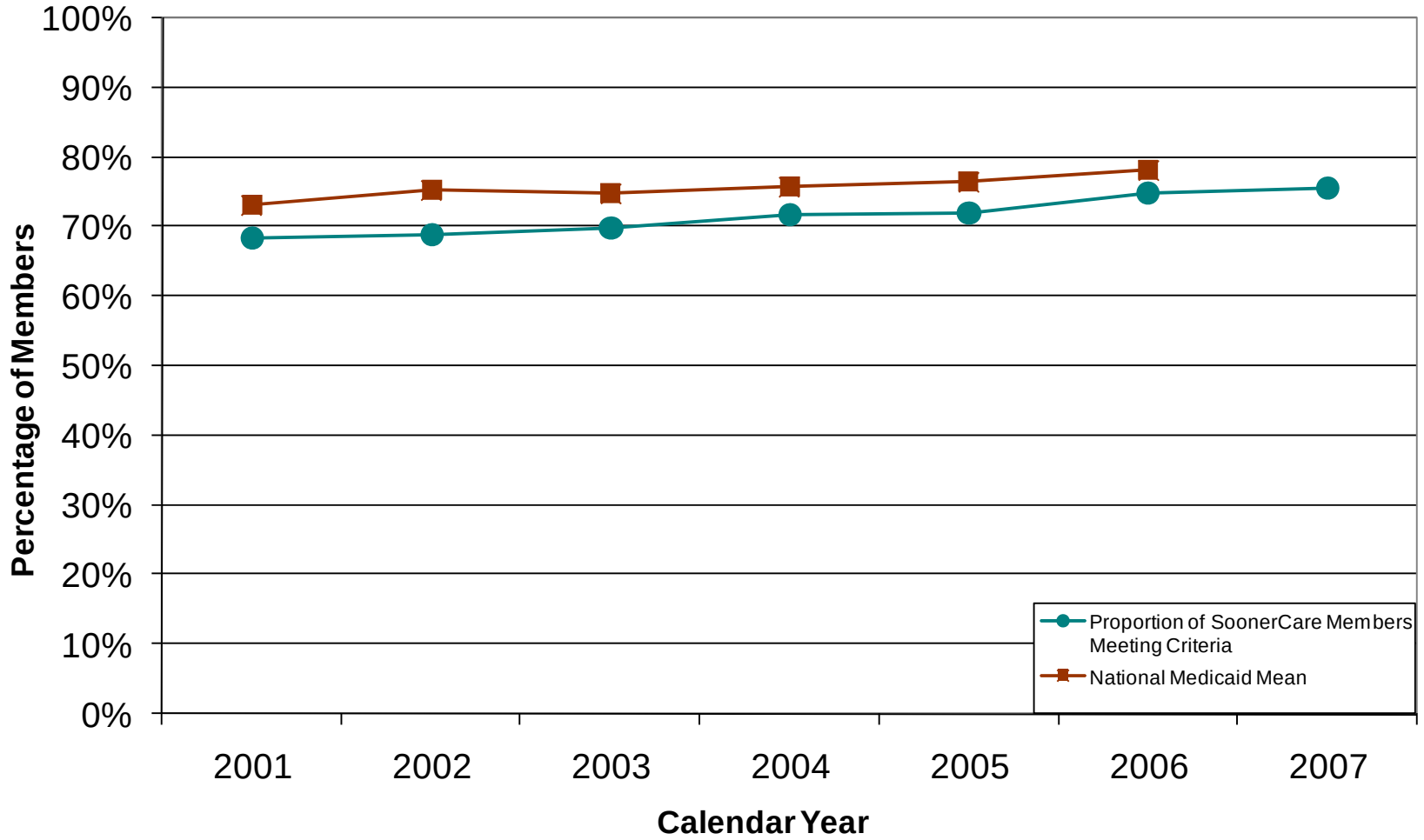
Source: OHCA.

Figure B.10
At Least One PCP Visit, Ages 12-19 Years



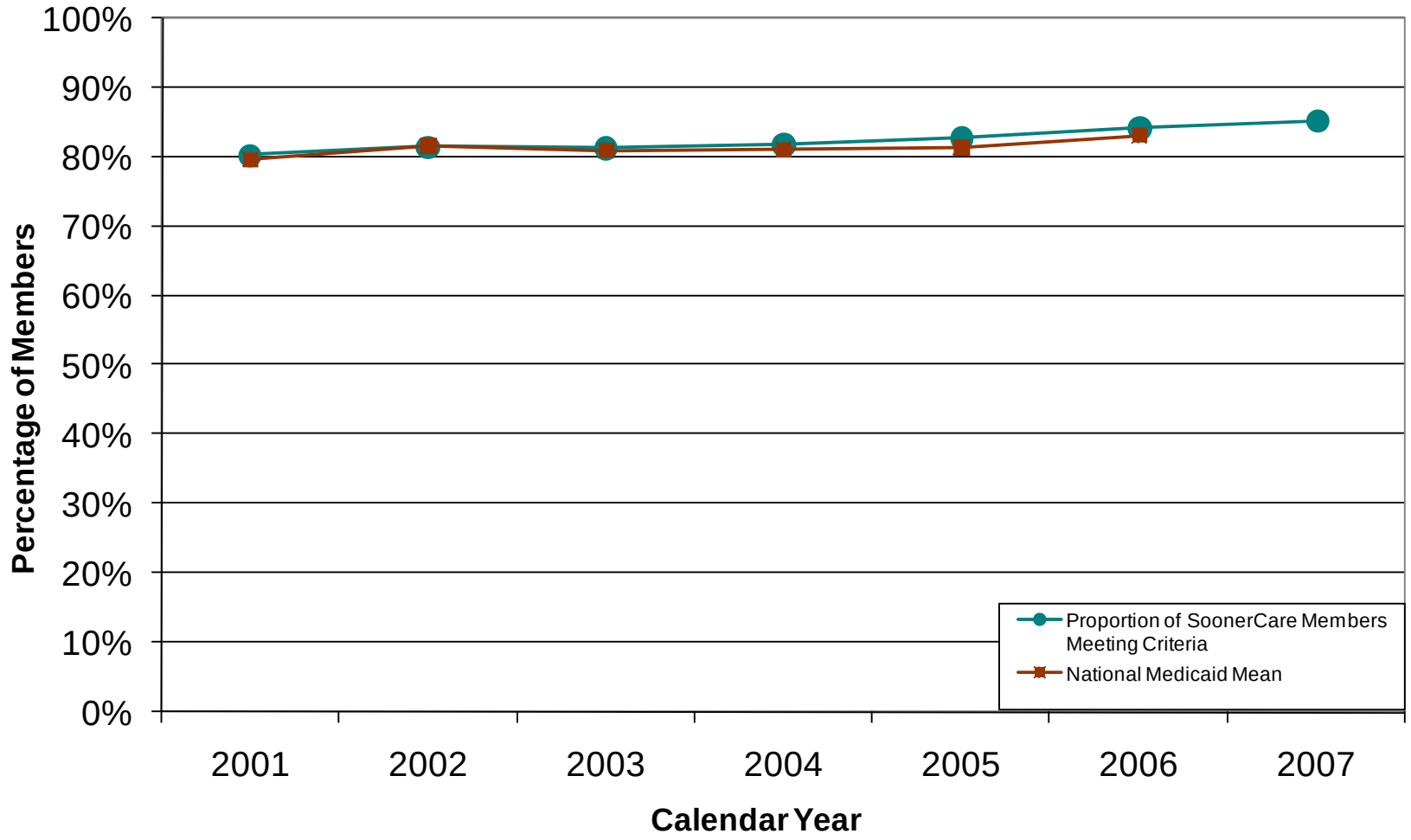
Source: OHCA.

Figure B.11
Adults Ages 20-44 Years Accessing Preventive/Ambulatory Services



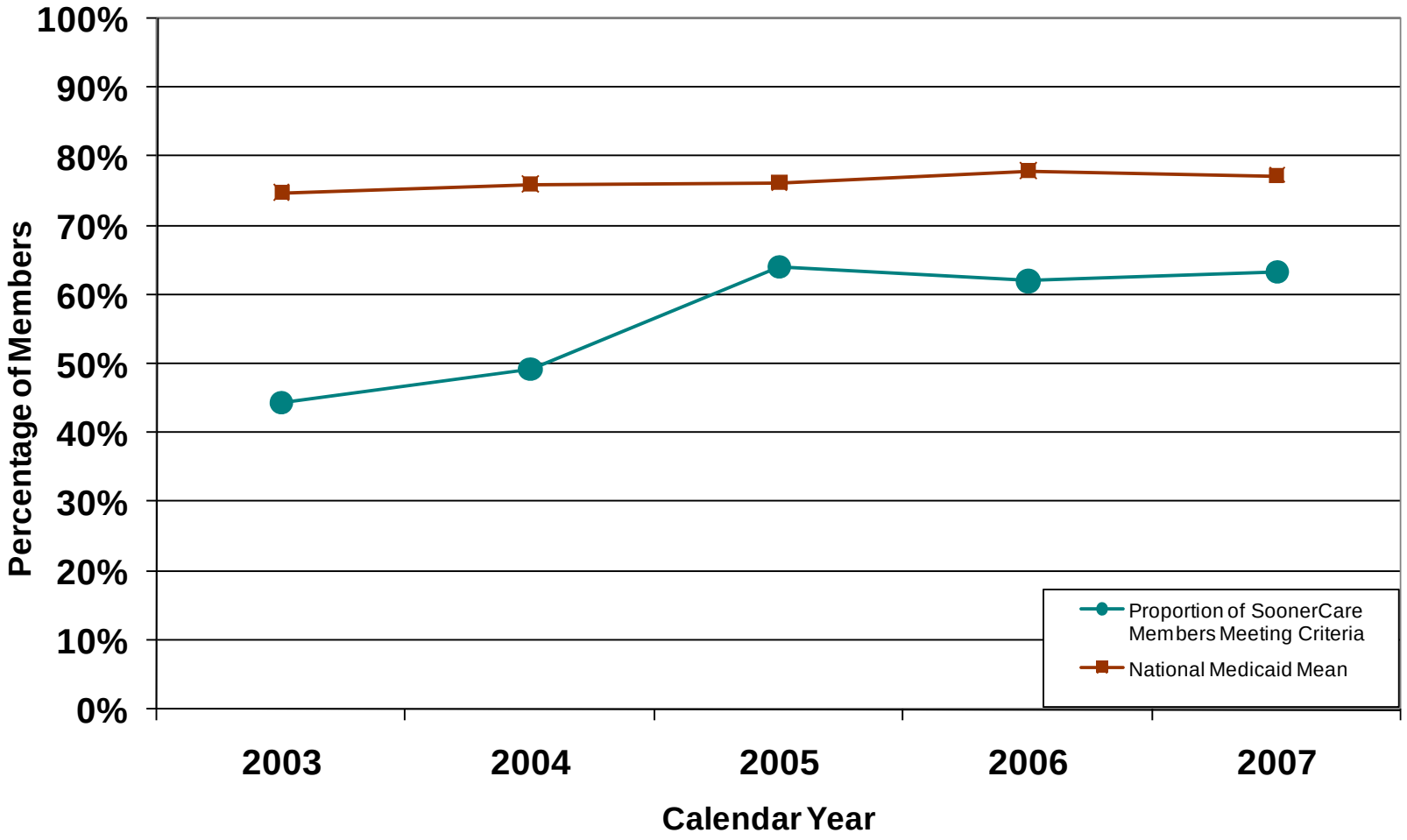
Source: OHCA.

Figure B.12
Adults Ages 45-64 Years Accessing Preventive/Ambulatory Services



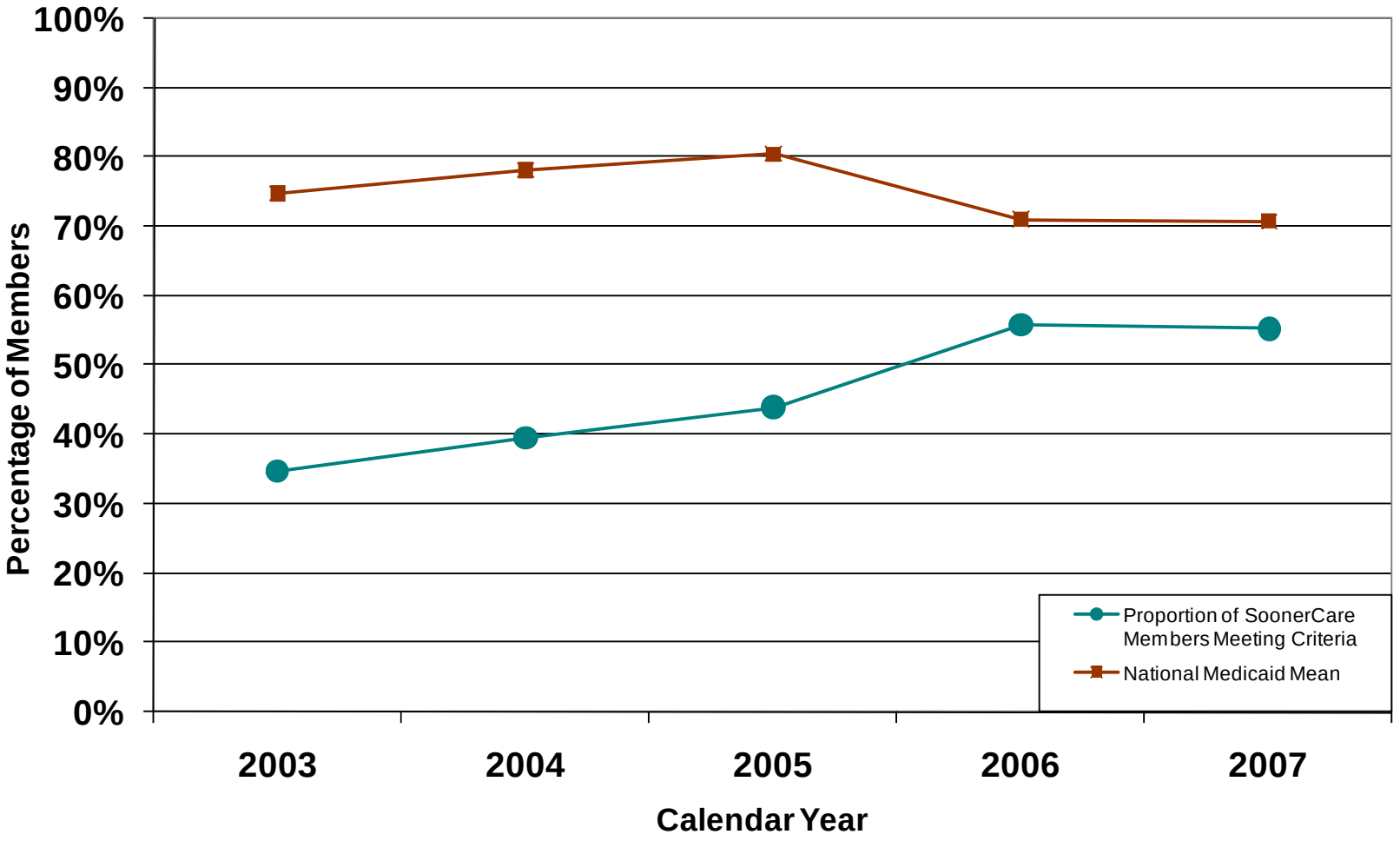
Source: OHCA.

Figure B.13
Comprehensive Diabetes Care: HbA1C



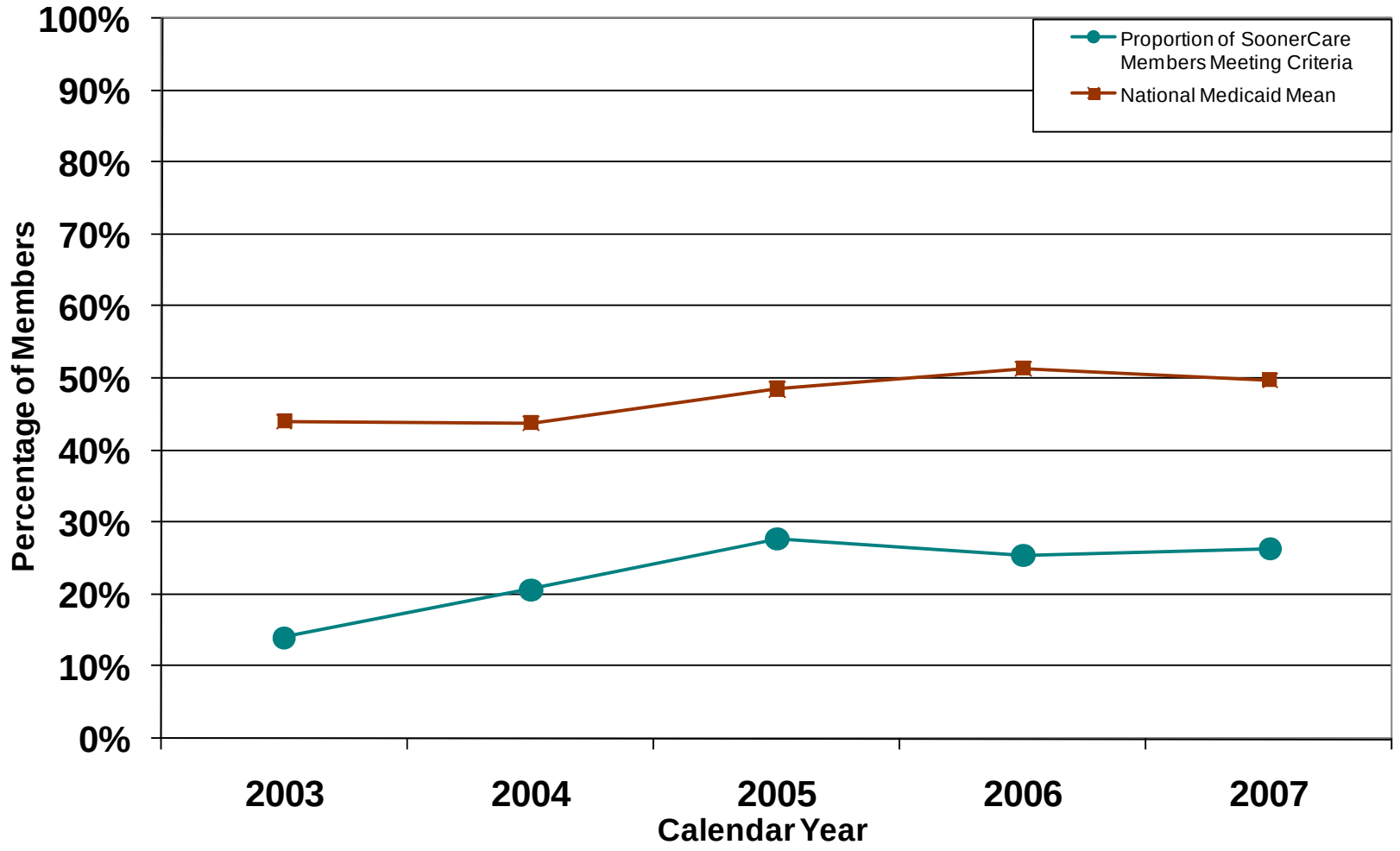
Source: OHCA.

Figure B.14
Comprehensive Diabetes Care: LDL-C



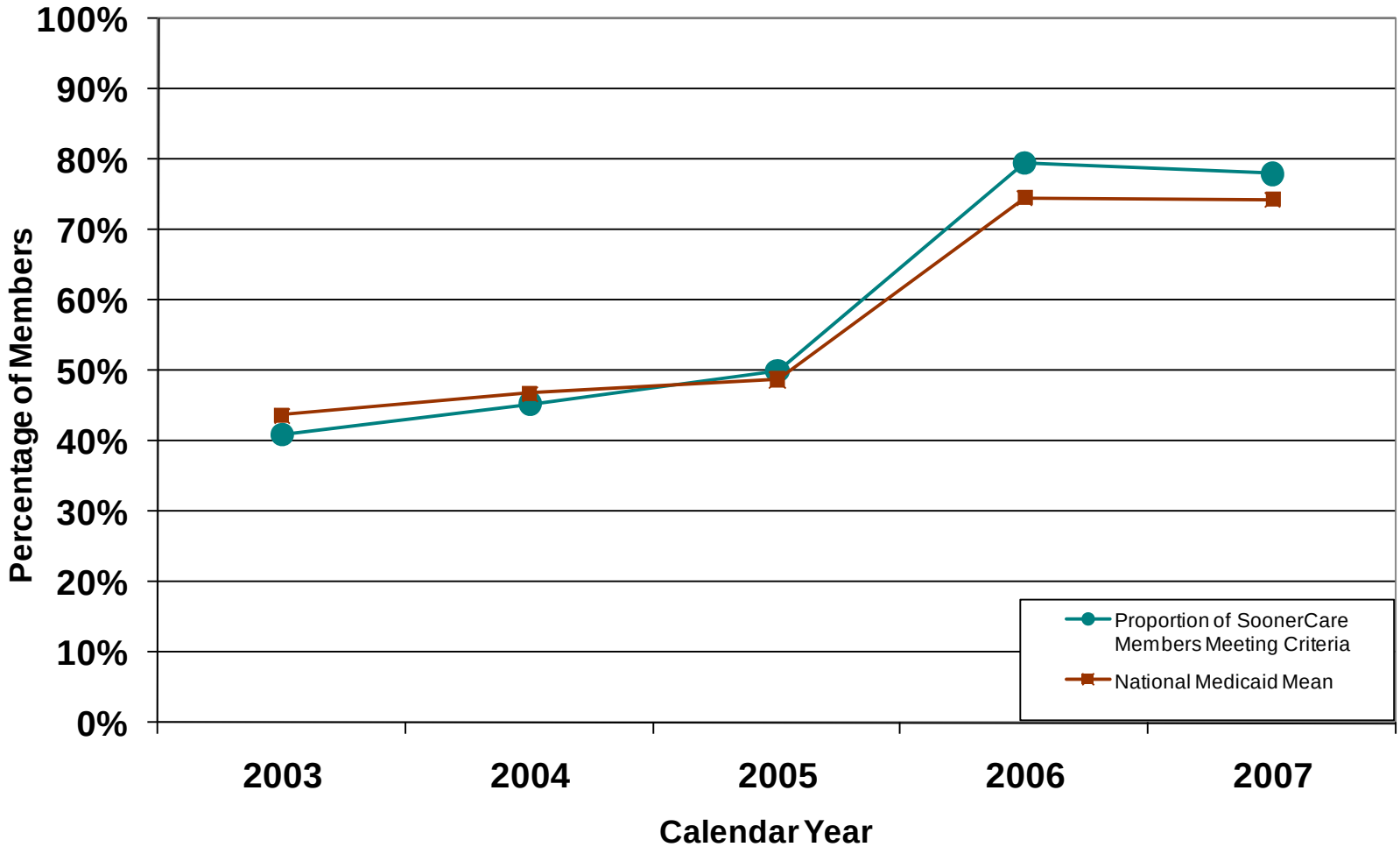
Source: OHCA.

Figure B.15
Comprehensive Diabetes Care: Eye Exam



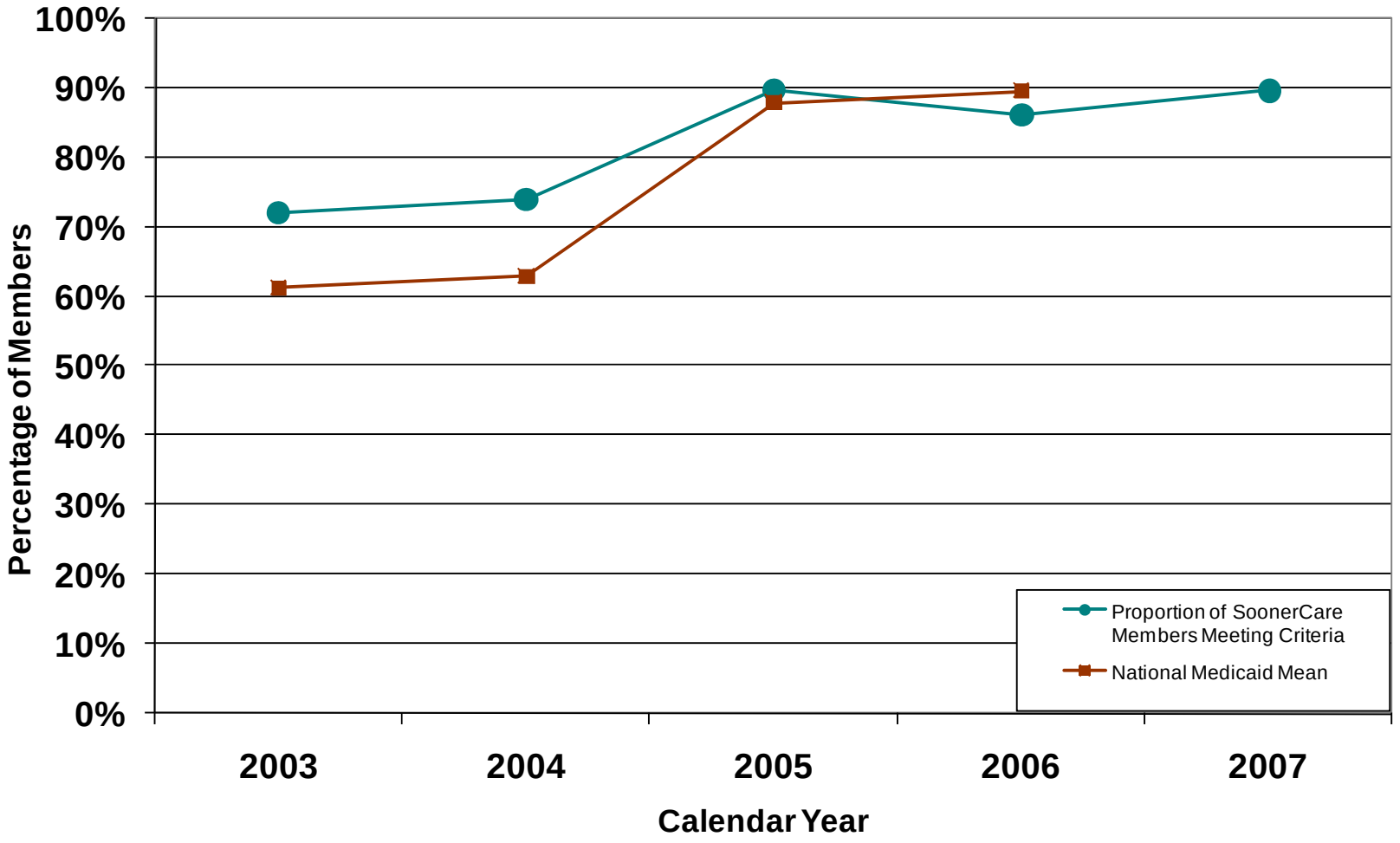
Source: OHCA.

Figure B.16
Comprehensive Diabetes Care: Nephropathy Screening



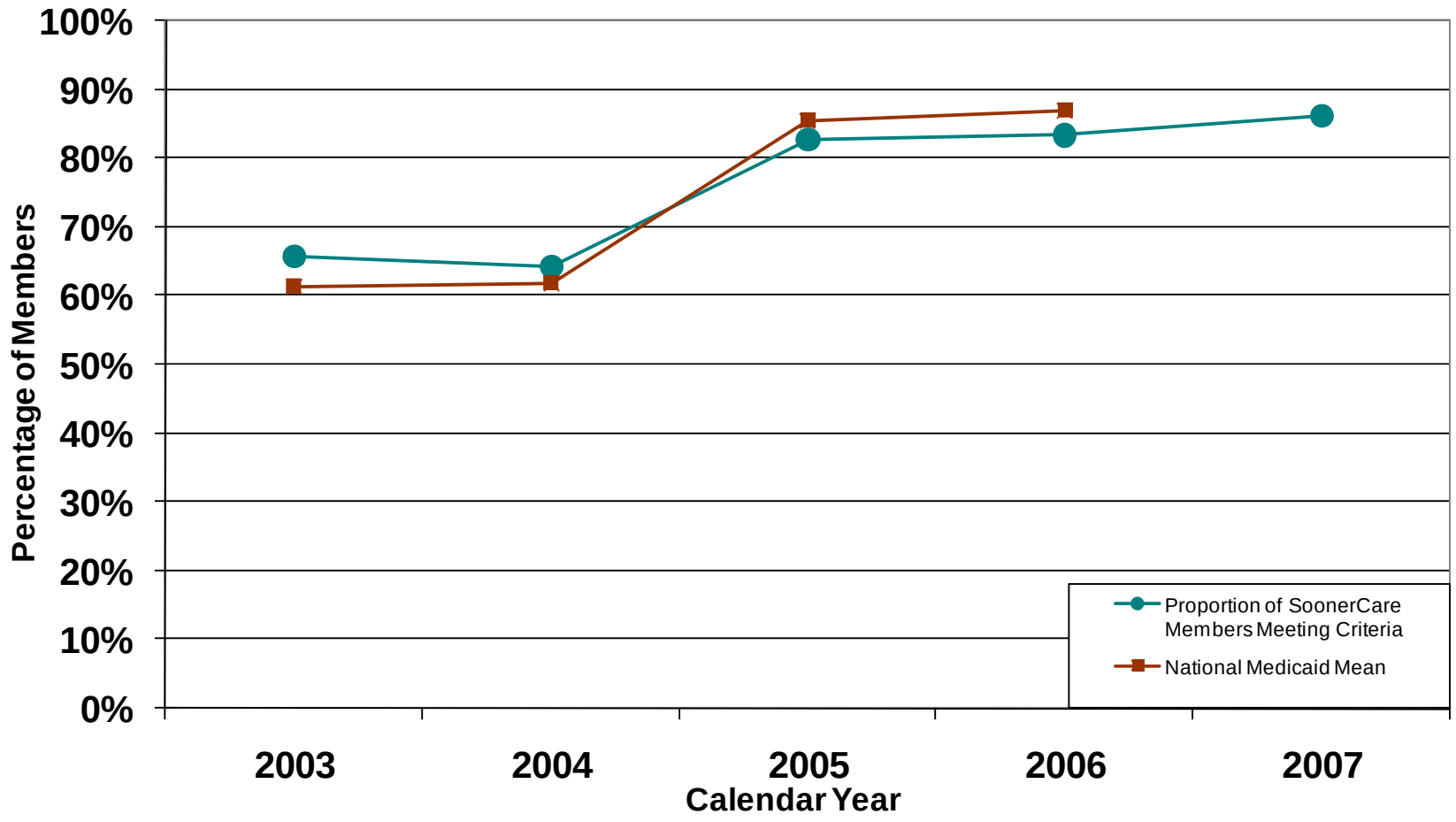
Source: OHCA.

Figure B.17
Appropriate Asthma Medication: Ages 5-9 Years



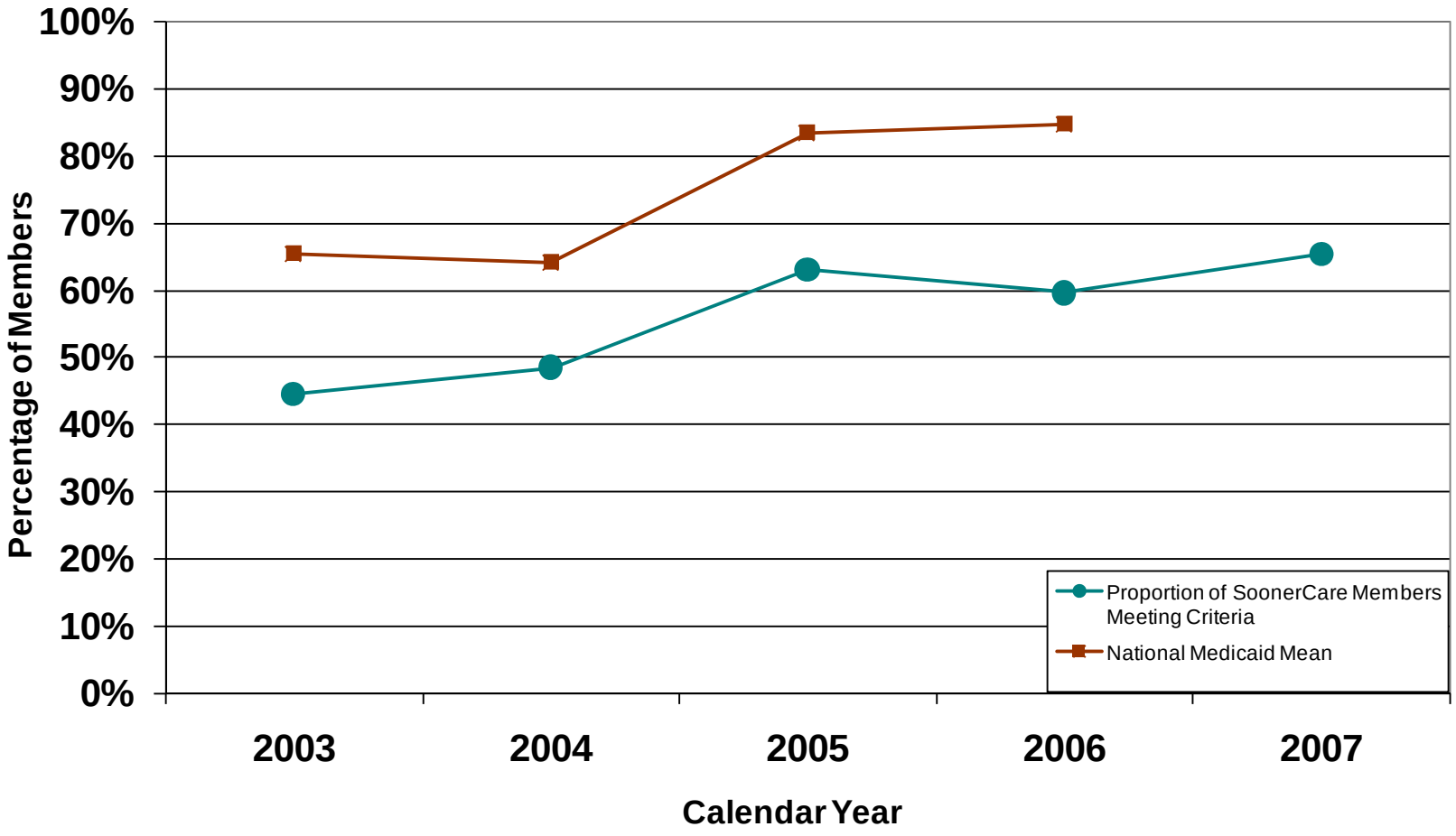
Source: OHCA.

Figure B.18
Appropriate Asthma Medication: Ages 10-17 Years



Source: OHCA.

Figure B.19
Appropriate Asthma Medication: Ages 18-56 Years



Source: OHCA.

BRFSS TABLES

Table B.3 Change in Access to Primary Providers and Receipt of Preventative Care Among Low-Income Oklahomans, BRFSS 2001-2007

		Region			Race/Ethnicity			Employment		Education		
	All	Tulsa	Central	Remainder	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian	Employed	Not Employed	No High School Degree	High School Degree Only	Some College Education
Percentage with a Personal Healthcare Provider												
Households without Children												
2001	72%	--	68%	72%	73% [f]	--	85% [d]	69%	76%	73%	67%	75%
2007	69%	69%	61%	70%	72% [e]	56% [d,f]	77% [e]	57% [h]	76% [g]	61%	68%	74%
Change	-4%	--	-10%	-3%	-1%	--	-9%	-17% *	0%	-16%	1%	-1%
Households with Children												
2001	70%	--	63%	74%	76%	--	77%	66%	75%	61%	71%	77%
2007	56%	57%	49%	56%	59% [f]	51% [f]	75% [d,e]	50% [h]	61% [g]	47% [m]	56%	62% [j]
Change	-20% *	--	-22%	-24% *	-22% *	--	-3%	-24% *	-19% *	-23%	-21% *	-19% *
Percentage Who Received a Flu Shot Within the Past 12 Months												
Households without Children												
2001	28%	--	21%	31%	29% [f]	--	49% [d]	22% [h]	36% [g]	33%	25%	28%
2007	39%	25% [b,c]	41% [a]	42% [a]	36% [e]	23% [d,f]	52% [e]	31% [h]	45% [g]	34%	39%	43%
Change	39% *	--	95% *	35% *	24%	--	6%	41%	25%	3%	56% *	54% *
Households with Children												
2001	17%	--	13%	20%	18%	--	12%	17%	16%	10% [k]	22% [j]	16%
2007	27%	33%	27%	25%	23% [f]	28%	39% [d]	29%	25%	26%	26%	28%
Change	59% *	--	108%	25%	28%	--	225% *	71% *	56%	160% *	18%	75% *

Note: Central region includes Oklahoma City and surrounding counties.

*Statistically significant change over time, p<0.05.

[a] Significantly different than Tulsa, p<0.05.

[b] Significantly different than Central, p<0.05.

[c] Significantly different than Remainder, p<0.05.

[d] Significantly different than Non-Hispanic White, p<0.05.

[e] Significantly different than Non-Hispanic Black, p<0.05.

[f] Significantly different than Non-Hispanic American Indian, p<0.05.

[g] Significantly different than employed, p<0.05.

[h] Significantly different than unemployed, p<0.05.

[j] Significantly different than no high school degree, p<0.05.

[k] Significantly different than high school degree only, p<0.05.

[m] Significantly different than some college, p<0.05.

Table B.4. Change in Health Status Among Low-Income Oklahomans, BRFSS 2001-2007

		Region			Race/Ethnicity			Employment		Education		
	All	Tulsa	Central	Remainder	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian	Employed	Not Employed	No High School Degree	High School Degree Only	Some College Education
Percentage Reporting Excellent, Very Good, or Good Health Status												
Households without Children												
2001	70%	--	68%	71%	71% [f]	--	52% [d]	85% [h]	52% [g]	48% [k,m]	70% [j]	79% [j]
2007	62%	57% [b]	73% [a,c]	57% [b]	59% [e]	73% [d]	57%	77% [h]	52% [g]	50% [k,m]	64% [j]	67% [j]
Change	-11% *	--	7%	-20% *	-17% *	--	10%	-9%	0%	4%	-9%	-15% *
Households with Children												
2001	75%	--	71%	73%	73%	--	69%	83% [h]	63% [g]	74%	78%	72%
2007	74%	84% [c]	75%	71% [a]	73%	79% [f]	60% [e]	85% [h]	63% [g]	65% [k]	82% [j,m]	71% [k]
Change	-1%	--	6%	-3%	0%	--	-13%	2%	0%	-12%	5%	-1%
Percentage who Reported Zero Poor Physical Days												
Households without Children												
2001	54%	--	59%	50%	52%	--	52%	64% [h]	41% [g]	44%	55%	57%
2007	46%	47%	46%	45%	40% [e]	67% [d]	46%	57% [h]	38% [g]	49%	45%	45%
Change	-15% *	--	-22%	-10%	-23% *	--	-12%	-11%	-7%	11%	-18%	-21% *
Households with Children												
2001	61%	--	65%	56%	57%	--	58%	68% [h]	51% [g]	70% [m]	63%	50% [j]
2007	54%	62% [c]	60% [c]	48% [a,b]	51%	56%	42%	66% [h]	43% [g]	59%	56%	48%
Change	-11%	--	-8%	-14%	-11%	--	-28%	-3%	-16%	-16%	-11%	-4%
Percentage who Reported Zero Poor Mental Days												
Households without Children												
2001	61%	--	62%	61%	58%	--	59%	67% [h]	54% [g]	57%	63%	61%
2007	53%	49%	49%	53%	50%	54%	63%	60% [h]	48% [g]	56%	49%	54%
Change	-13% *	--	-21%	-13%	-14%	--	7%	-10%	-11%	-2%	-22% *	-11%
Households with Children												
2001	64%	--	71%	58%	58%	--	59%	69%	57%	77% [k,m]	63% [j]	51% [j]
2007	48%	53%	54% [c]	41% [b]	45%	46%	37%	51%	45%	55% [m]	48%	42% [j]
Change	-25% *	--	-24%	-29% *	-22% *	--	-37% *	-26% *	-21% *	-29% *	-24% *	-18%

Note: Central region includes Oklahoma City and surrounding counties.

*Statistically significant change over time, p<0.05.

[a] Significantly different than Tulsa, p<0.05.

[b] Significantly different than Central, p<0.05.

[c] Significantly different than Remainder, p<0.05.

[d] Significantly different than Non-Hispanic White, p<0.05.

[e] Significantly different than Non-Hispanic Black, p<0.05.

[f] Significantly different than Non-Hispanic American Indian, p<0.05.

[g] Significantly different than employed, p<0.05.

[h] Significantly different than unemployed, p<0.05.

[j] Significantly different than no high school degree, p<0.05.

[k] Significantly different than high school degree only, p<0.05.

[m] Significantly different than some college, p<0.05.

Table B.5. Access and Health Care Utilization Among Low-Income Oklahomans, BRFSS 2007

		Region			Race/Ethnicity			Employment		Education		
	All	Tulsa	Central	Remainder	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian	Employed	Not Employed	No High School Degree	High School Degree Only	Some College Education
Percentage who Did Not See a Doctor Because of Costs												
Households without Children	35%	29%	37%	37%	37%	30%	36%	33%	37%	42% [m]	37%	28% [j]
Households with Children	47%	43%	47%	49%	50% [f]	43%	33% [d]	48%	45%	48%	43%	51%
Percentage who Had a Checkup Within the Past Year												
Households without Children	48%	47%	45%	49%	46%	48%	47%	39% [h]	54% [g]	39%	51%	49%
Households with Children	44%	49%	44%	39%	37% [e,f]	55% [d]	60% [d]	37% [h]	50% [g]	37%	45%	46%
Percentage who Had a Checkup within the Past Two Years												
Households without Children	65%	65%	65%	65%	60% [e]	77% [d]	72%	55% [h]	71% [g]	54% [m]	66%	70% [j]
Households with Children	58%	69% [b,c]	55% [a]	55% [a]	50% [e,f]	75% [d]	77% [d]	52% [h]	64% [g]	50% [k]	63% [j]	59%

Note: Central region includes Oklahoma City and surrounding counties.

[a] Significantly different than Tulsa, p<0.05.

[b] Significantly different than Central, p<0.05.

[c] Significantly different than Remainder, p<0.05.

[d] Significantly different than Non-Hispanic White, p<0.05.

[e] Significantly different than Non-Hispanic Black, p<0.05.

[f] Significantly different than Non-Hispanic American Indian, p<0.05.

[g] Significantly different than employed, p<0.05.

[h] Significantly different than unemployed, p<0.05.

[j] Significantly different than no high school degree, p<0.05.

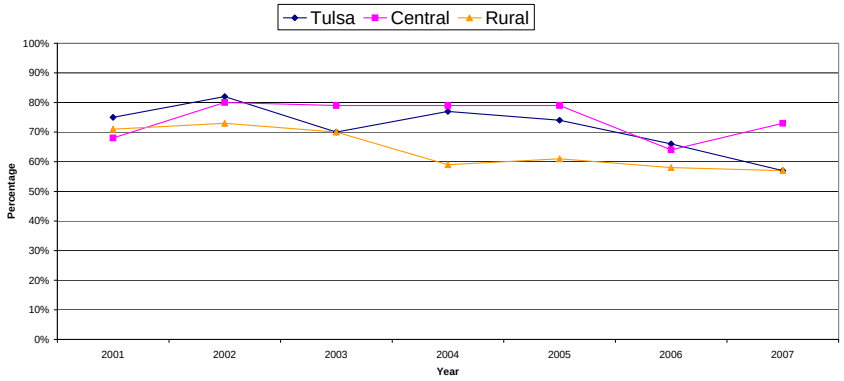
[k] Significantly different than high school degree only, p<0.05.

[m] Significantly different than some college, p<0.05.

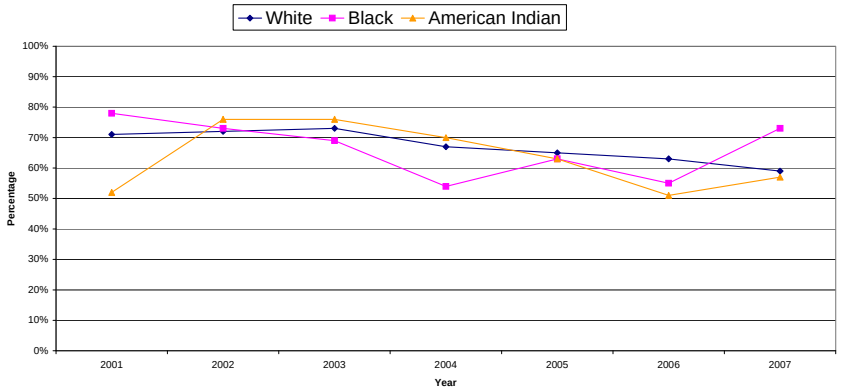
BRFSS FIGURES

Figure B.20
Percentage of Low-Income Adults Residing in Households without Children Who Report Their Health Status as Excellent, Very Good, or Good, BRFSS 2001-2007

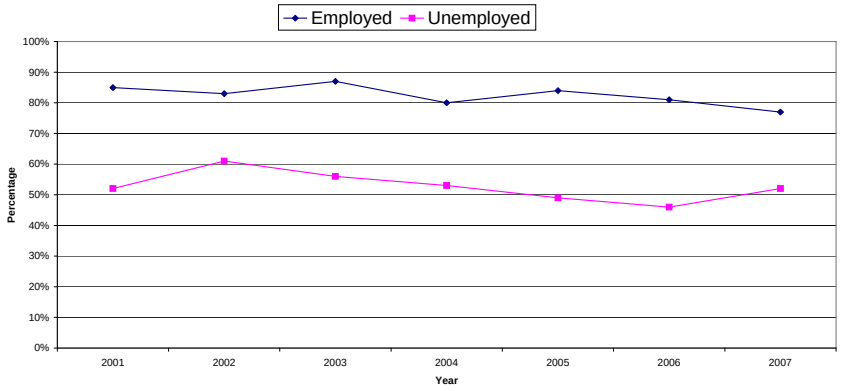
By Region



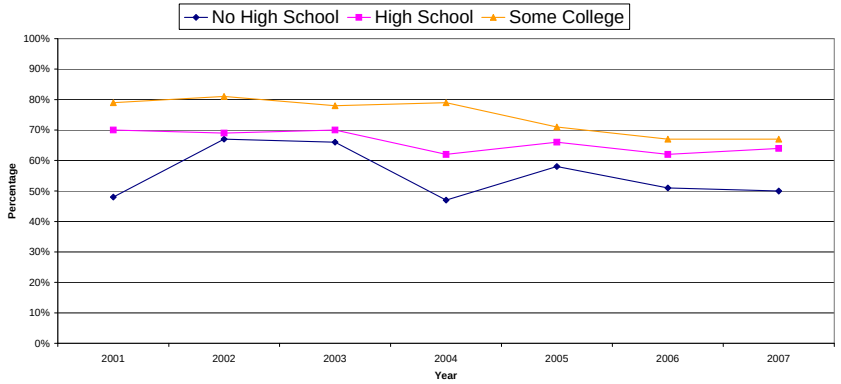
By Race



By Employment Status



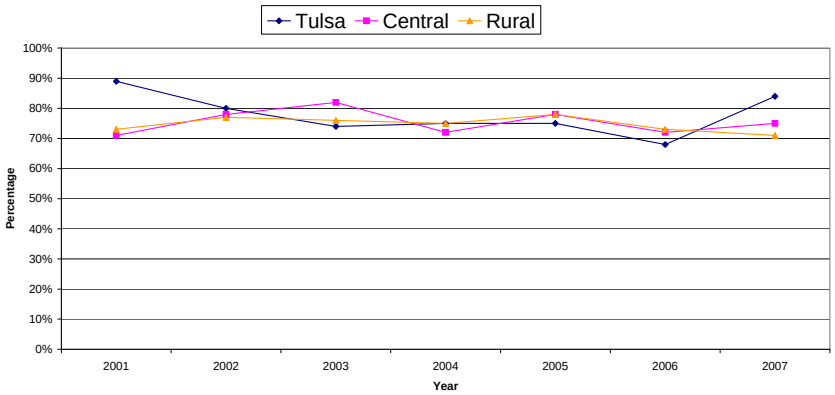
By Education Level



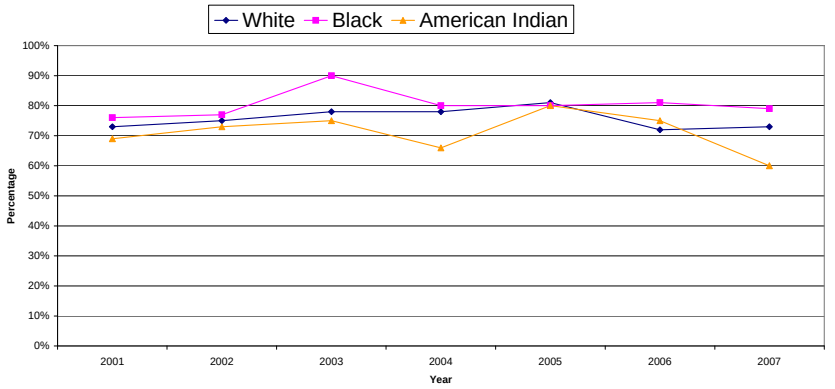
Note: Central region includes Oklahoma City and surrounding counties.

Figure B. 21
Percentage of Low-Income Adults Residing in Households with Children Who Report Their Health Status as Excellent, Very Good, or Good, BRFSS 2001-2007

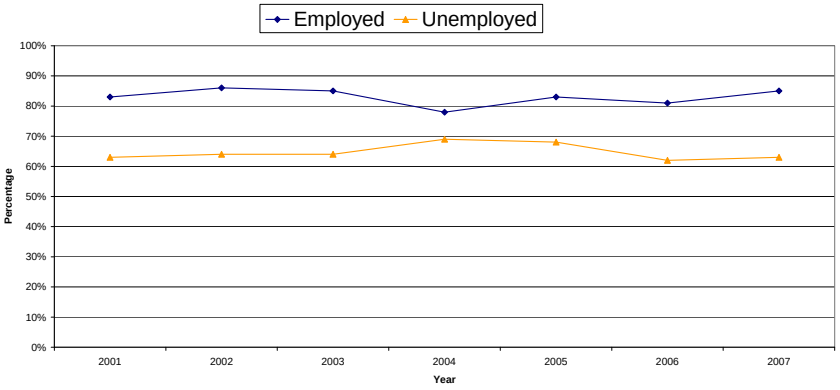
By Region



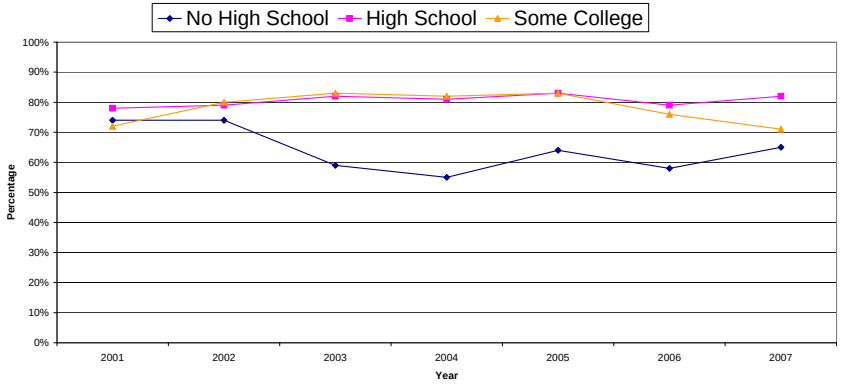
By Race/Ethnicity



By Employment Status



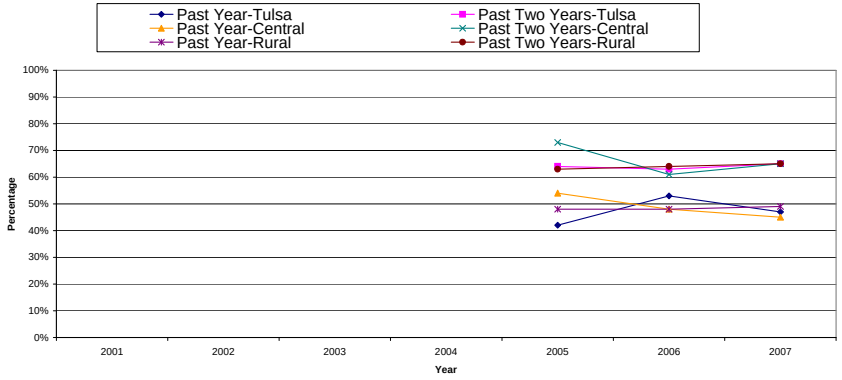
By Education Level



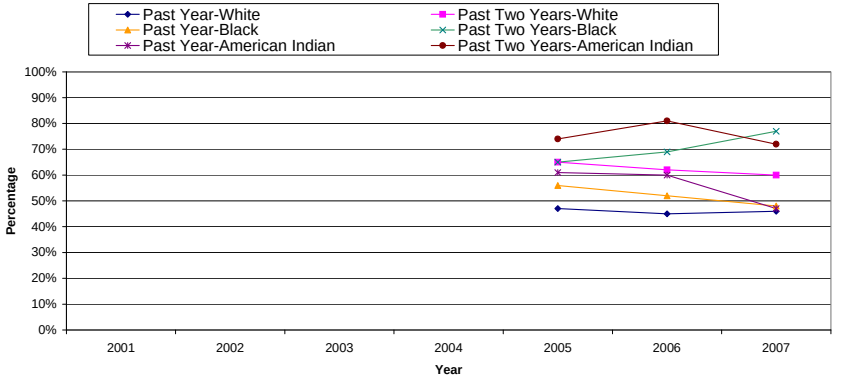
Note: Central region includes Oklahoma City and surrounding counties.

Figure B.22
Percentage of Low-Income Adults Residing in Households without Children Who Have Received a Checkup within the Past Year and within the Past Two Years, BRFSS 2005-2007

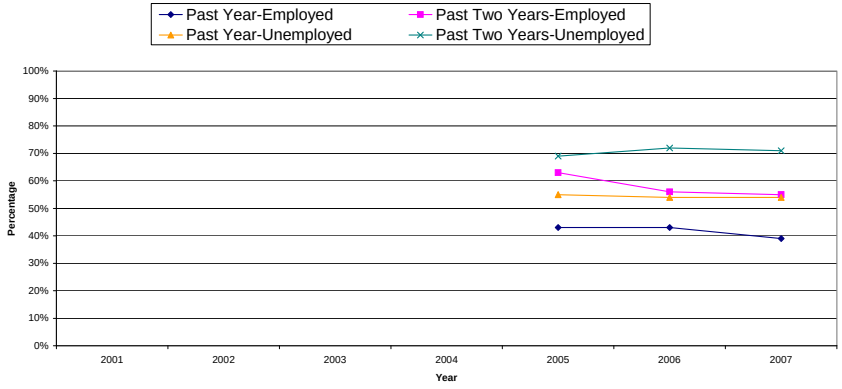
By Region



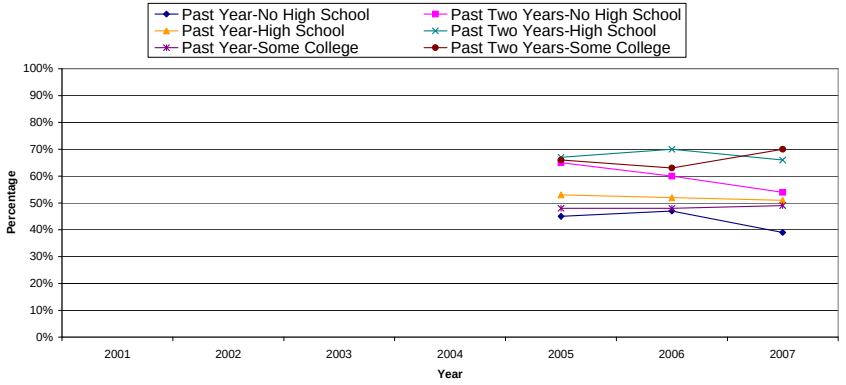
By Race/Ethnicity



By Employment Status



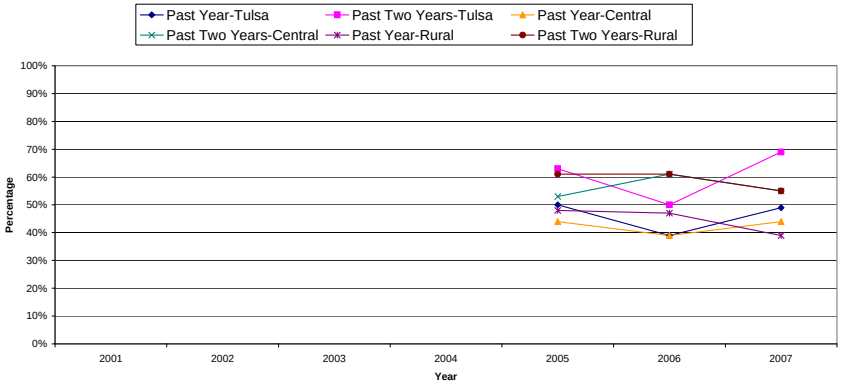
By Education Level



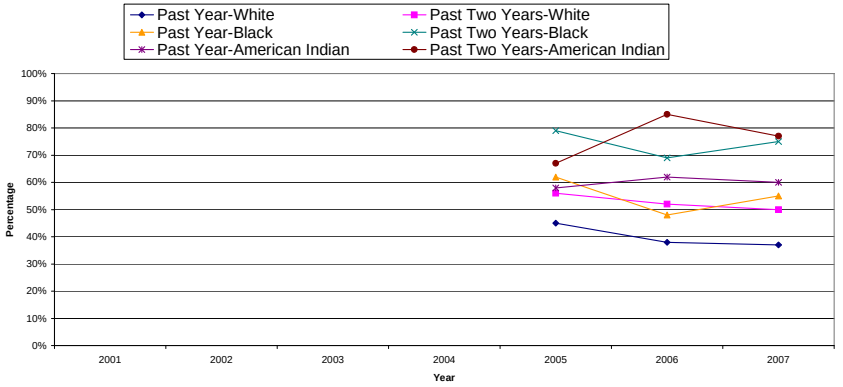
Note: Central region includes Oklahoma City and surrounding counties.

Figure B. 23
Percentage of Low-Income Adults Residing in Households with Children Who Have Received a Checkup within the Past Year and within the Past Two Years, BRFSS 2005-2007

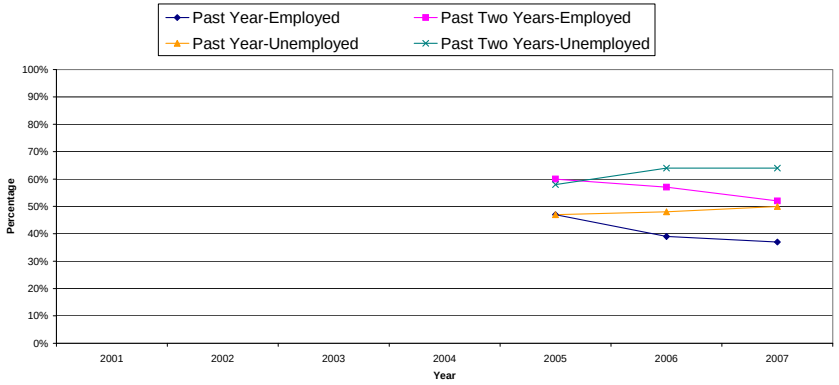
By Region



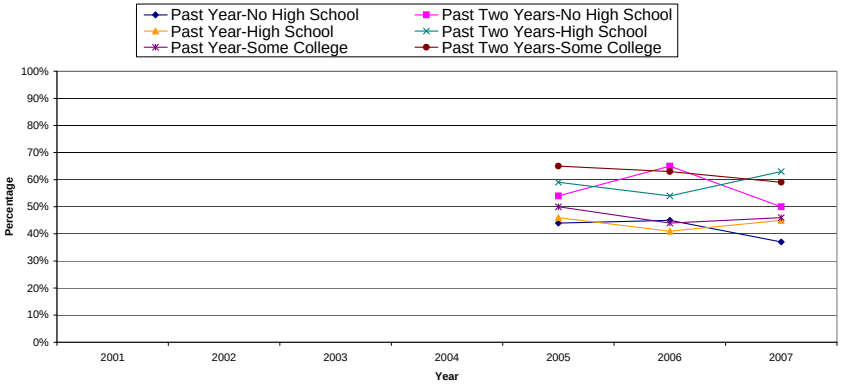
By Race/Ethnicity



By Employment Status

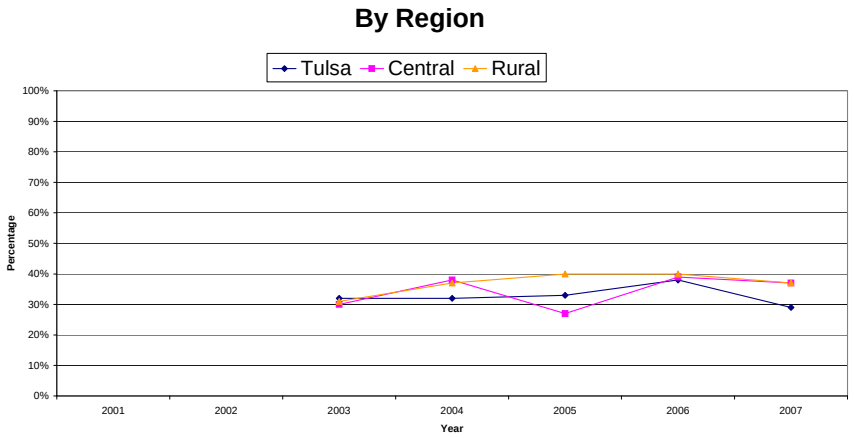


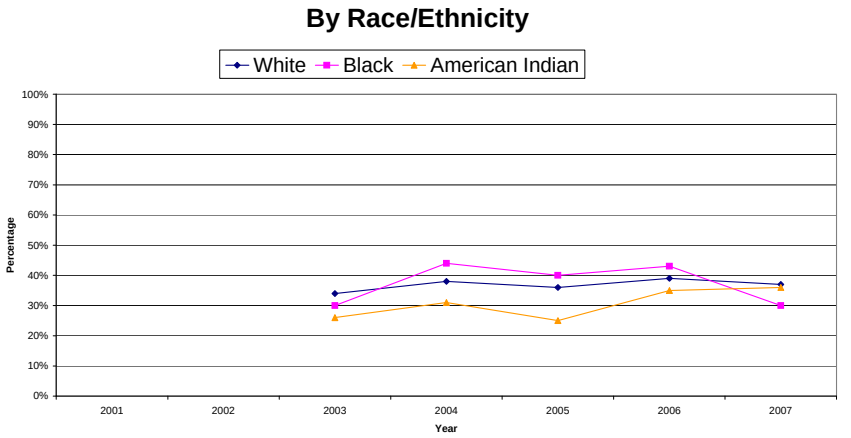
By Education Level

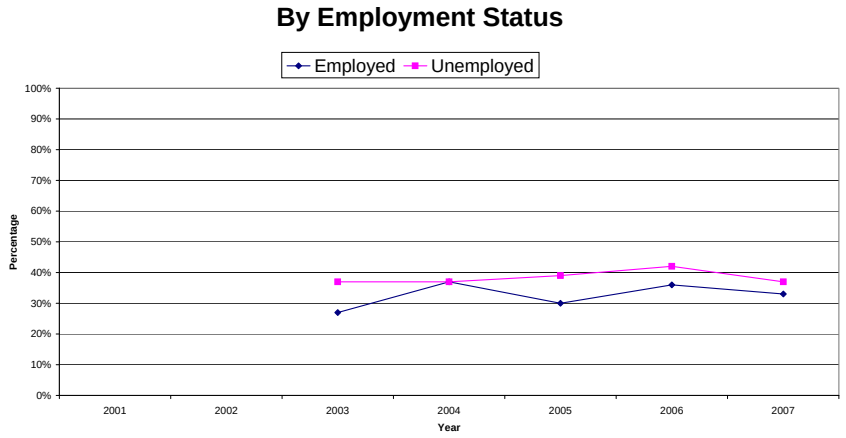


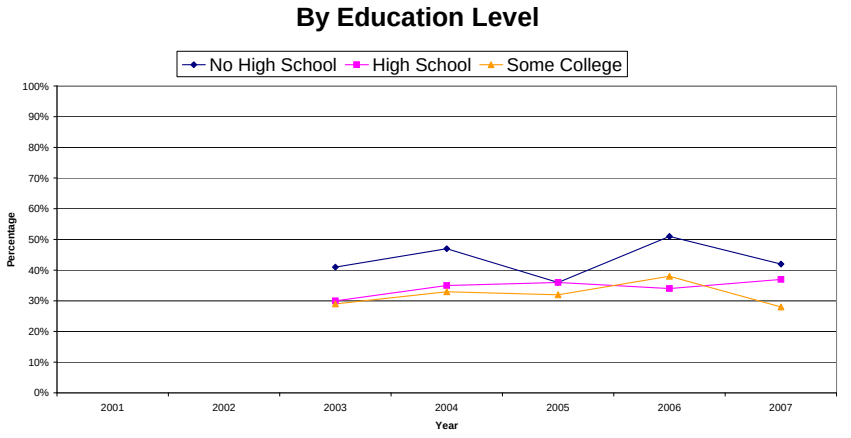
Note: Central region includes Oklahoma City and surrounding counties.

Figure B.24
Percentage of Low-Income Adults Residing in Households without Children Who Did Not See a Doctor Because of Cost, BRFSS 2003-2007





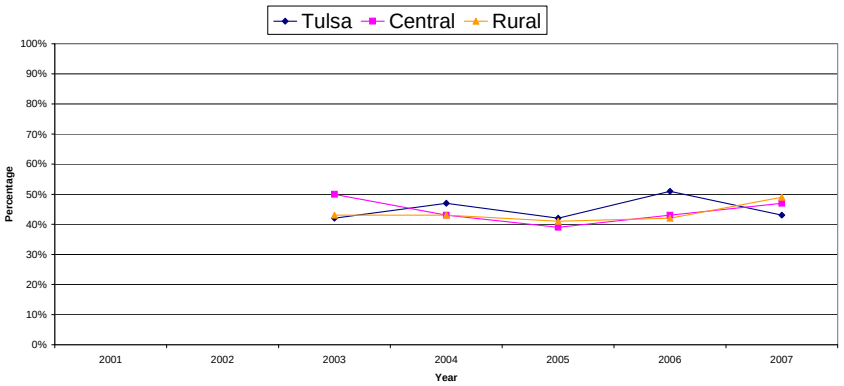




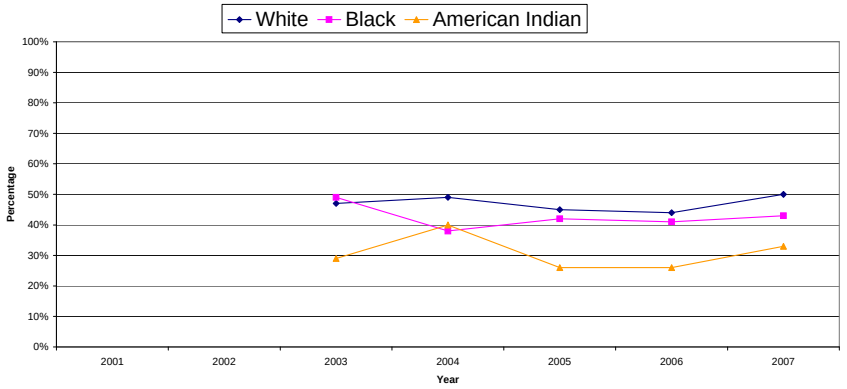
Note: Central region includes Oklahoma City and surrounding counties.

Figure B.25
Percentage of Low-Income Adults Residing in Households with Children Who Did Not See a Doctor Because of Cost, BRFSS 2003-2007

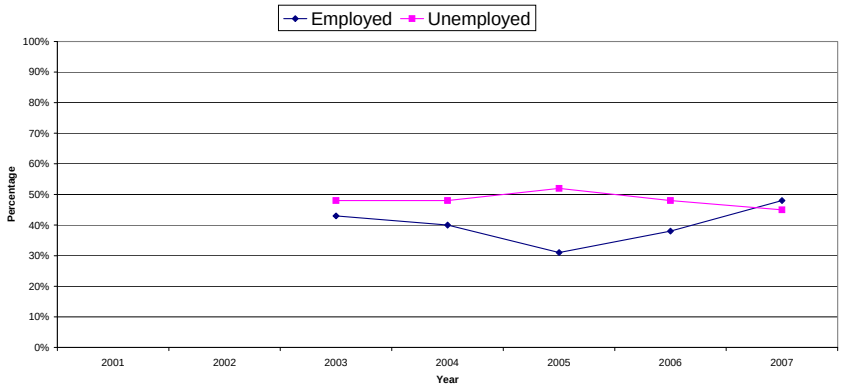
By Region



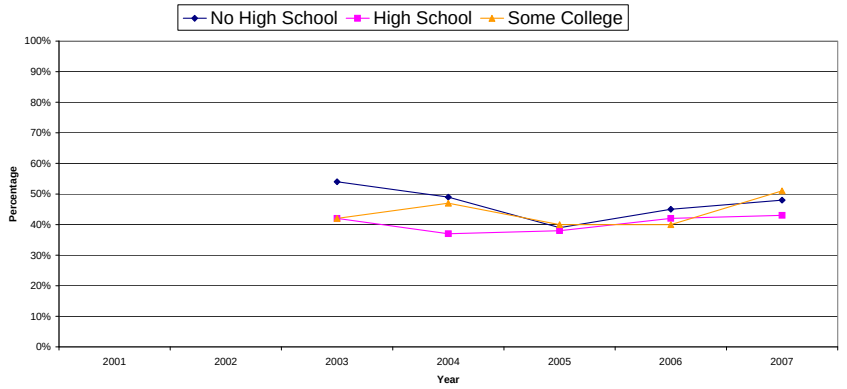
By Race/Ethnicity



By Employment Status



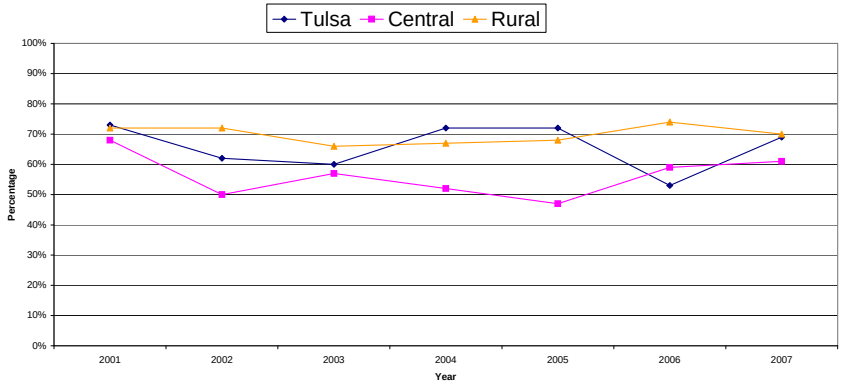
By Education Level



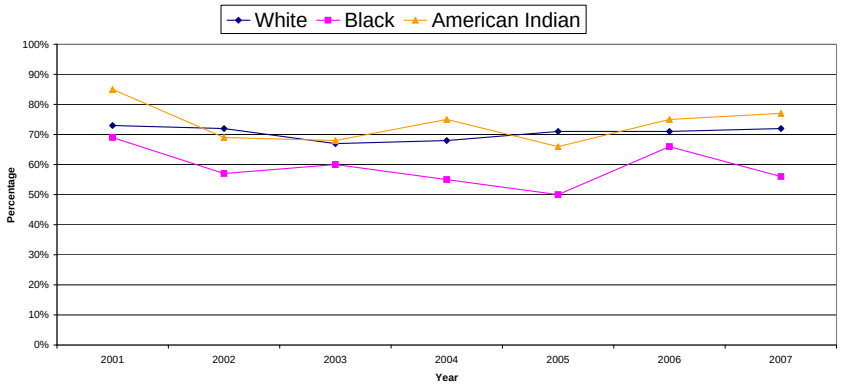
Note: Central region includes Oklahoma City and surrounding counties.

Figure B.26
Percentage of Low-Income Adults Residing in Households without Children Who Have a Personal Healthcare Provider, BRFSS 2001-2007

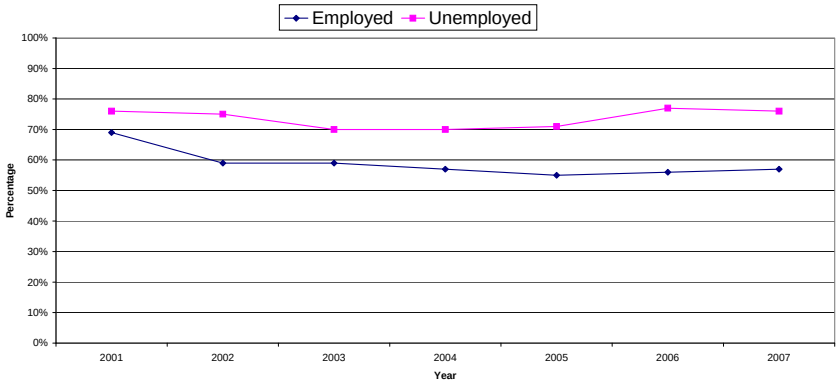
By Region



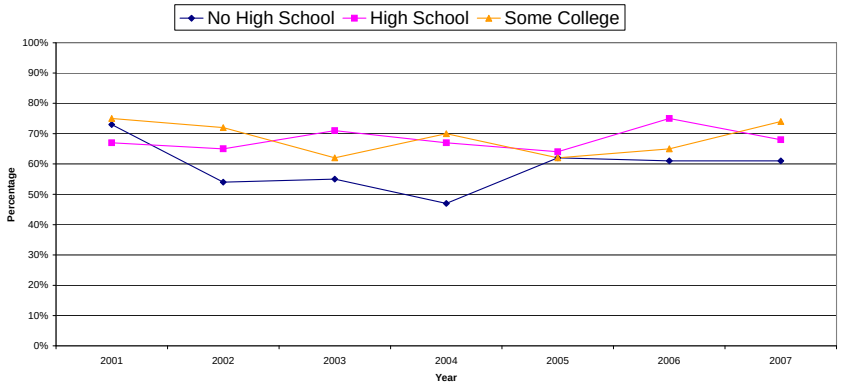
By Race/Ethnicity



By Employment Status



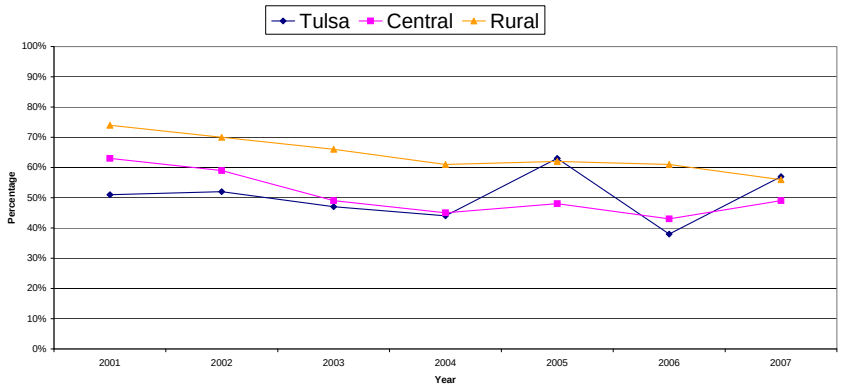
By Education Level



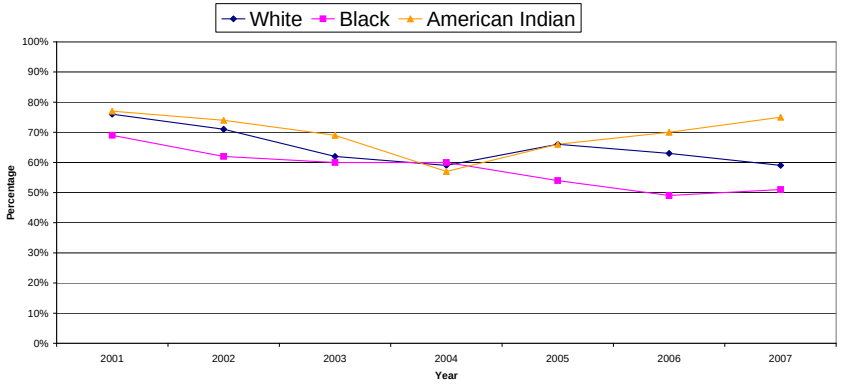
Note: Central region includes Oklahoma City and surrounding counties.

Figure B. 27
Percentage of Low-Income Adults Residing in Households with Children Who Have a Personal Healthcare Provider, BRFSS 2001-2007

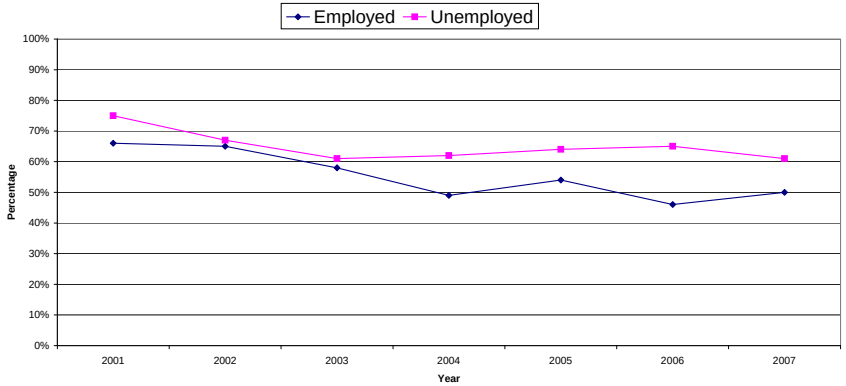
By Region



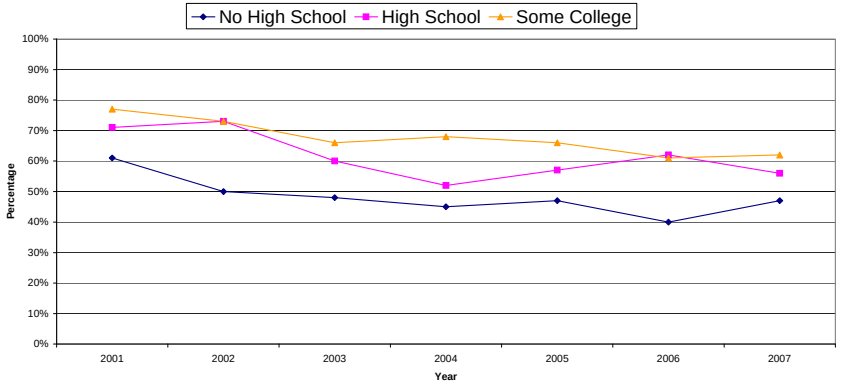
By Race/Ethnicity



By Employment Status



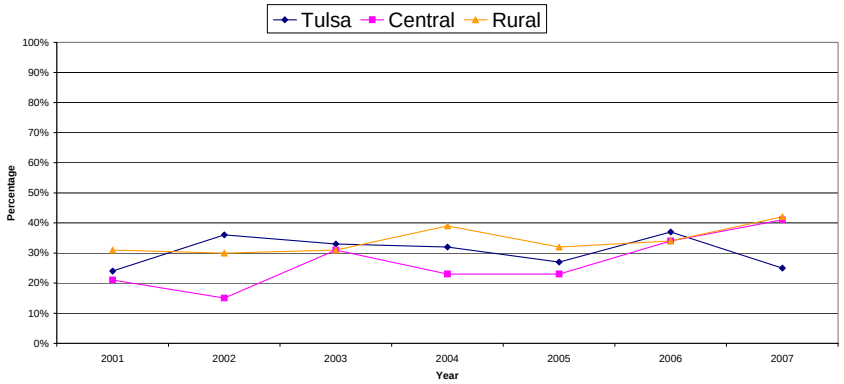
By Education Level



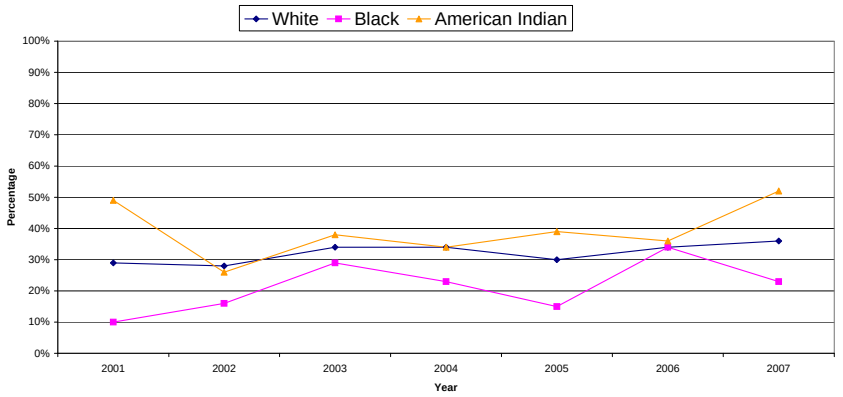
Note: Central region includes Oklahoma City and surrounding counties.

Figure B.28
Percentage of Low-Income Adults Residing in Households without Children Who Received a Flu Shot within the Past 12 Months, BRFSS 2001-2007

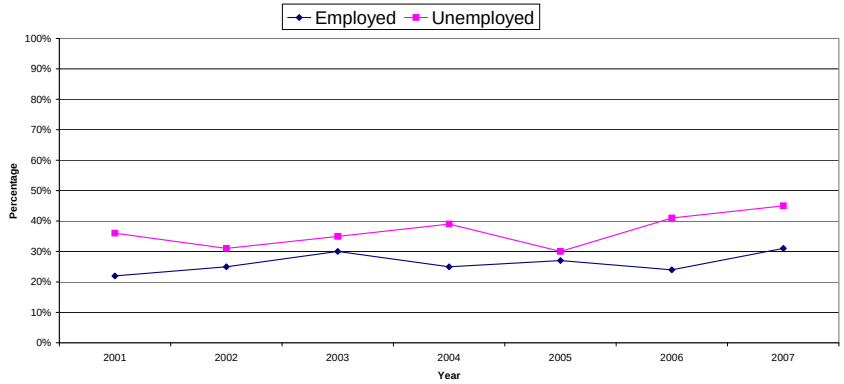
By Region



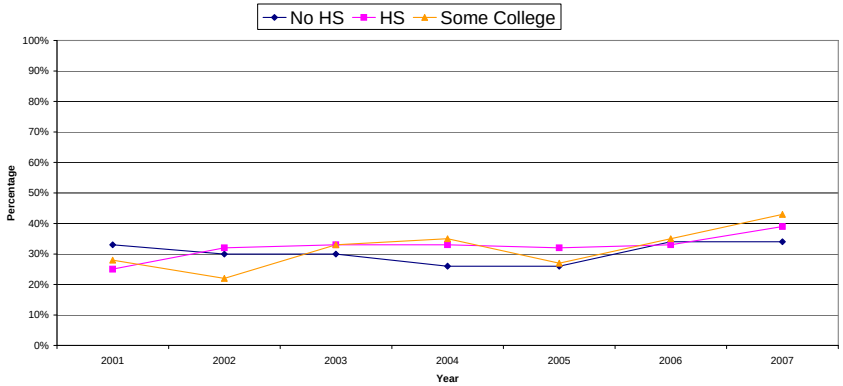
By Race/Ethnicity



By Employment Status

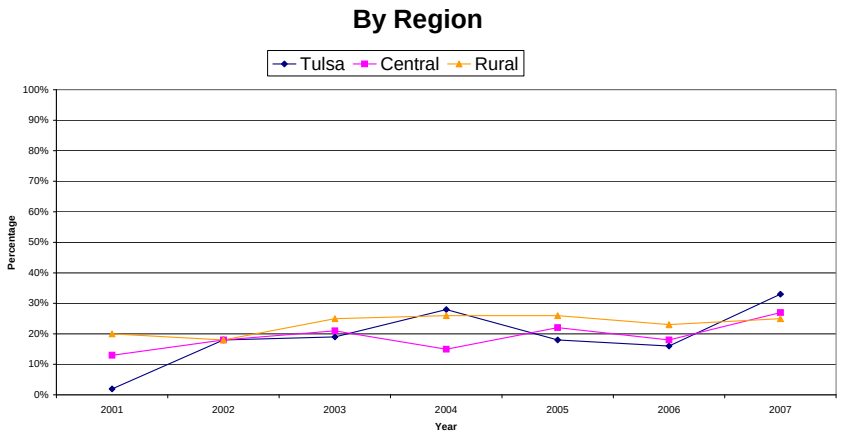


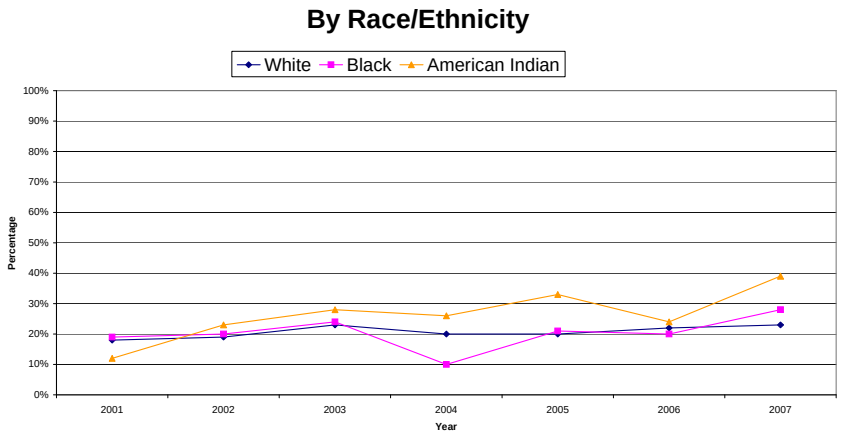
By Education Level

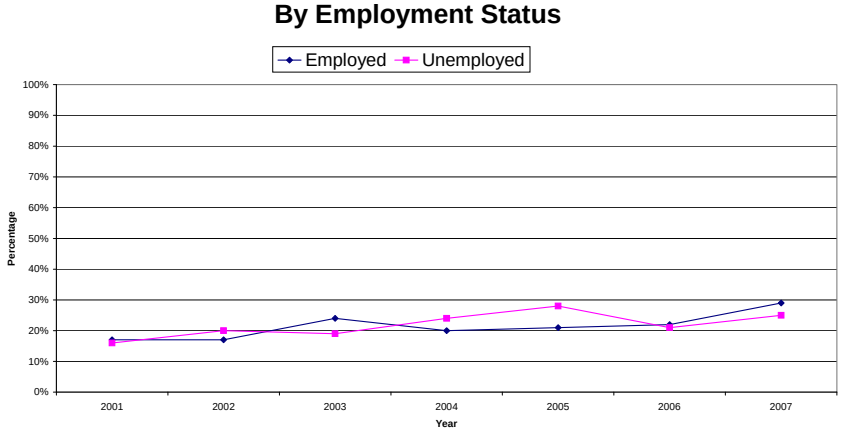


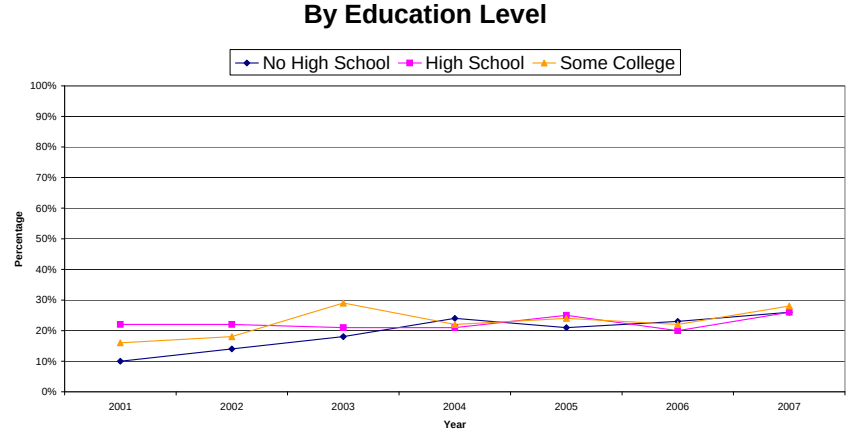
Note: Central region includes Oklahoma City and surrounding counties.

Figure B. 29
Percentage of Low-Income Adults Residing in Households with Children Who Received a Flu Shot within the Past 12 Months, BRFSS 2001-2007



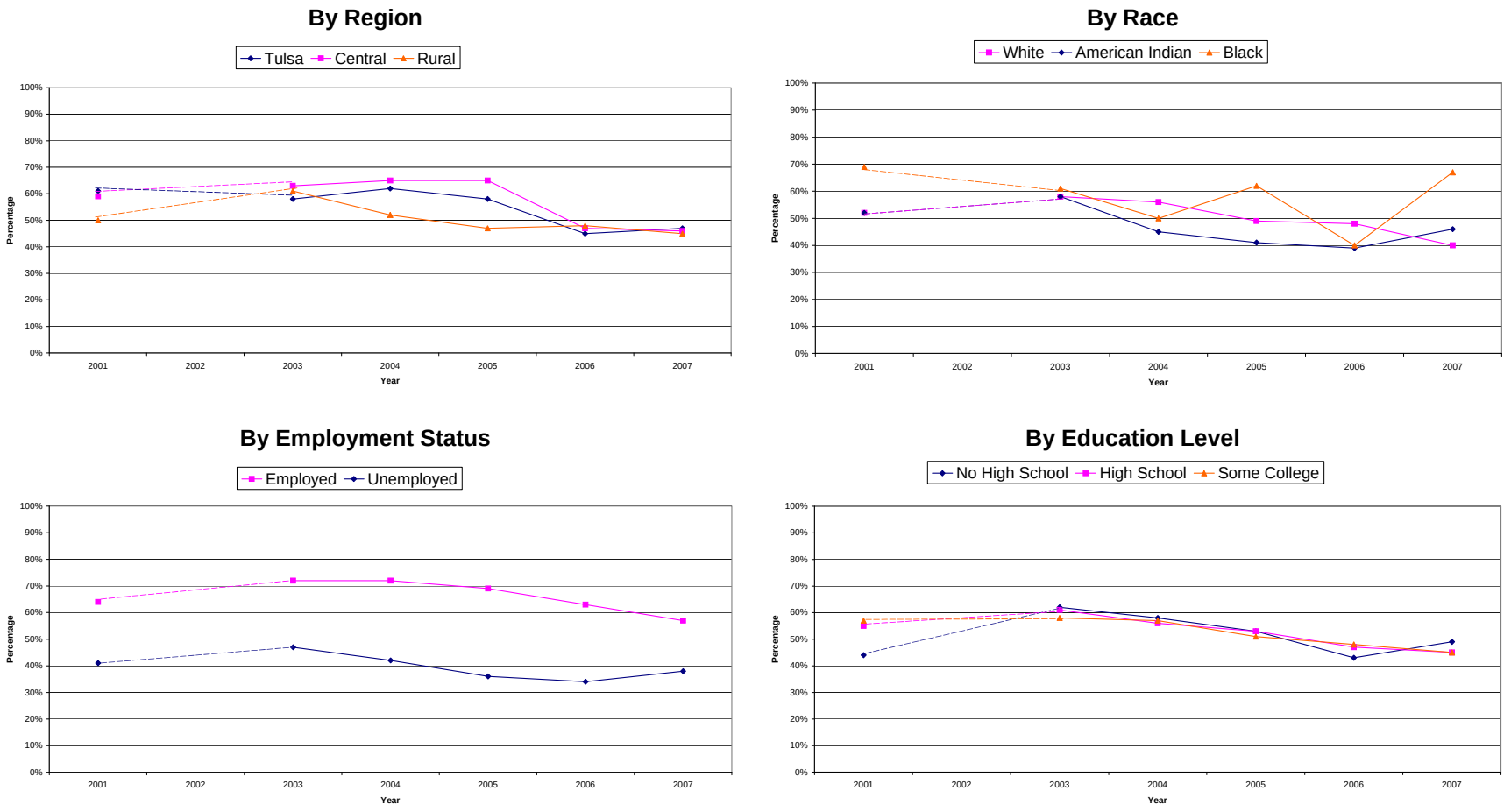






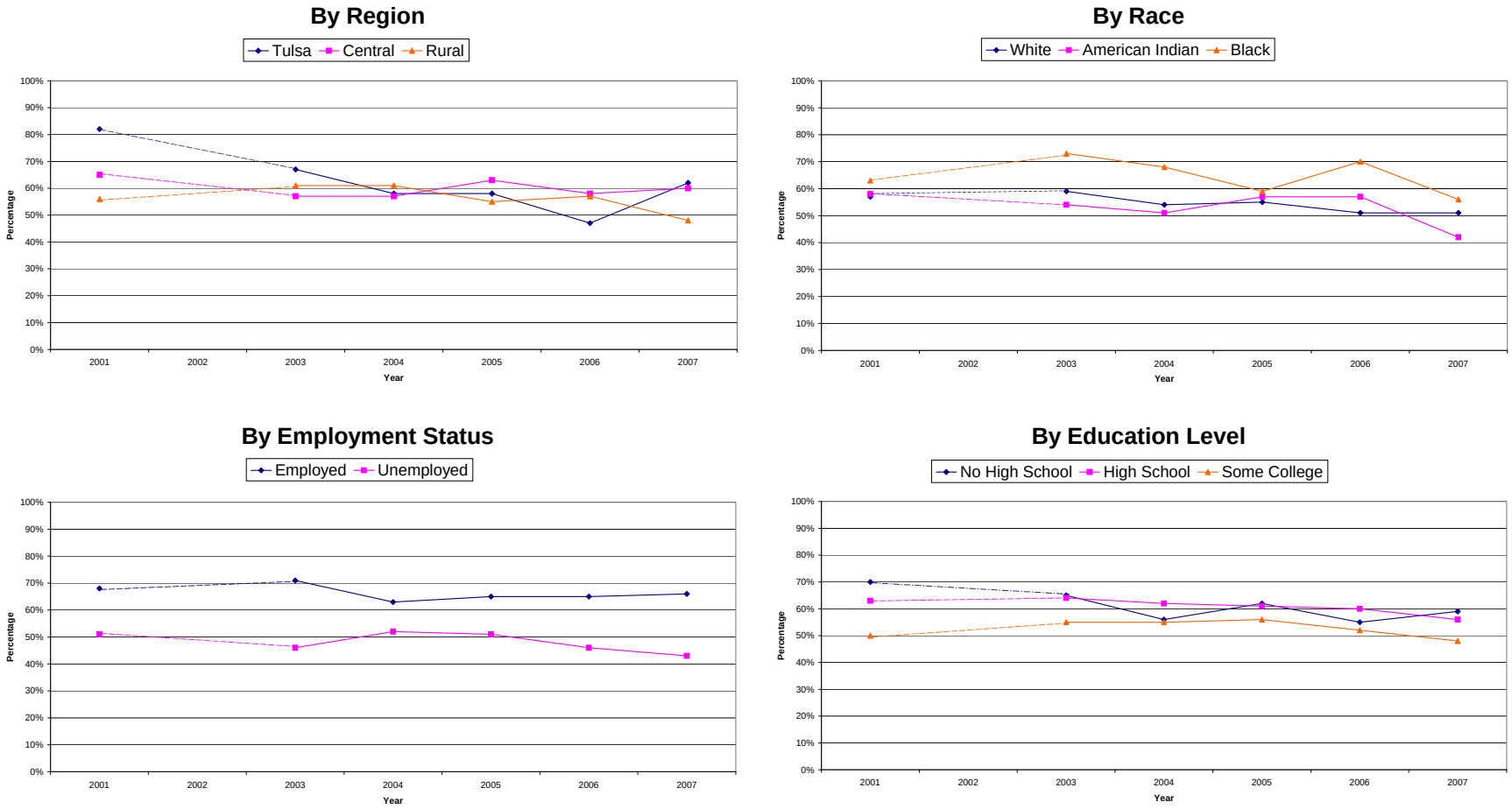
Note: Central region includes Oklahoma City and surrounding counties.

Figure B.30
Percent of Low-Income Adults Residing in Households without Children Reporting Zero Poor Physical Health Days, BRFSS 2001-2007



Note: Central region includes Oklahoma City and surrounding counties.

Figure B.31
Percent of Low-Income Adults Residing in Households with Children Reporting Zero Poor Physical Health Days, BRFSS 2001-2007

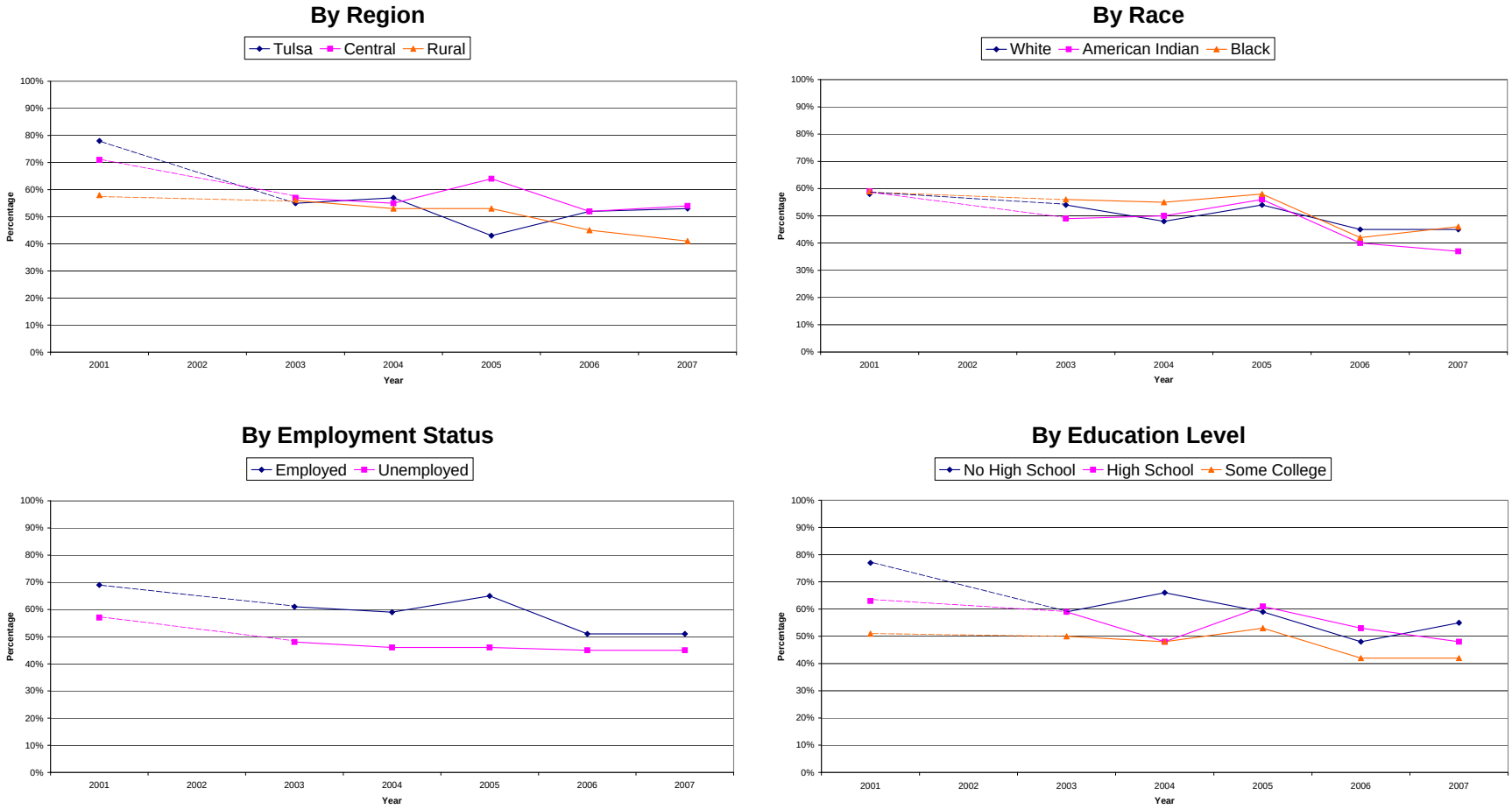


Note: Central region includes Oklahoma City and surrounding counties.

Figure B.32
Percent of Low-Income Adults Residing in Households without Children Reporting Zero Poor Mental Health Days, BRFSS 2001-2007

Note: Central region includes Oklahoma City and surrounding counties.

Figure B.33
Percent of Low-Income Adults Residing in Households with Children Reporting Zero Poor Mental Health Days, BRFSS 2001-2007



Note: Central region includes Oklahoma City and surrounding counties.