MANAGED CARE AND FEE-FOR-SERVICE

Comparative Analysis of Quality of Care and Access to Services in MO HealthNet Managed Care and MO HealthNet Fee-For-Service

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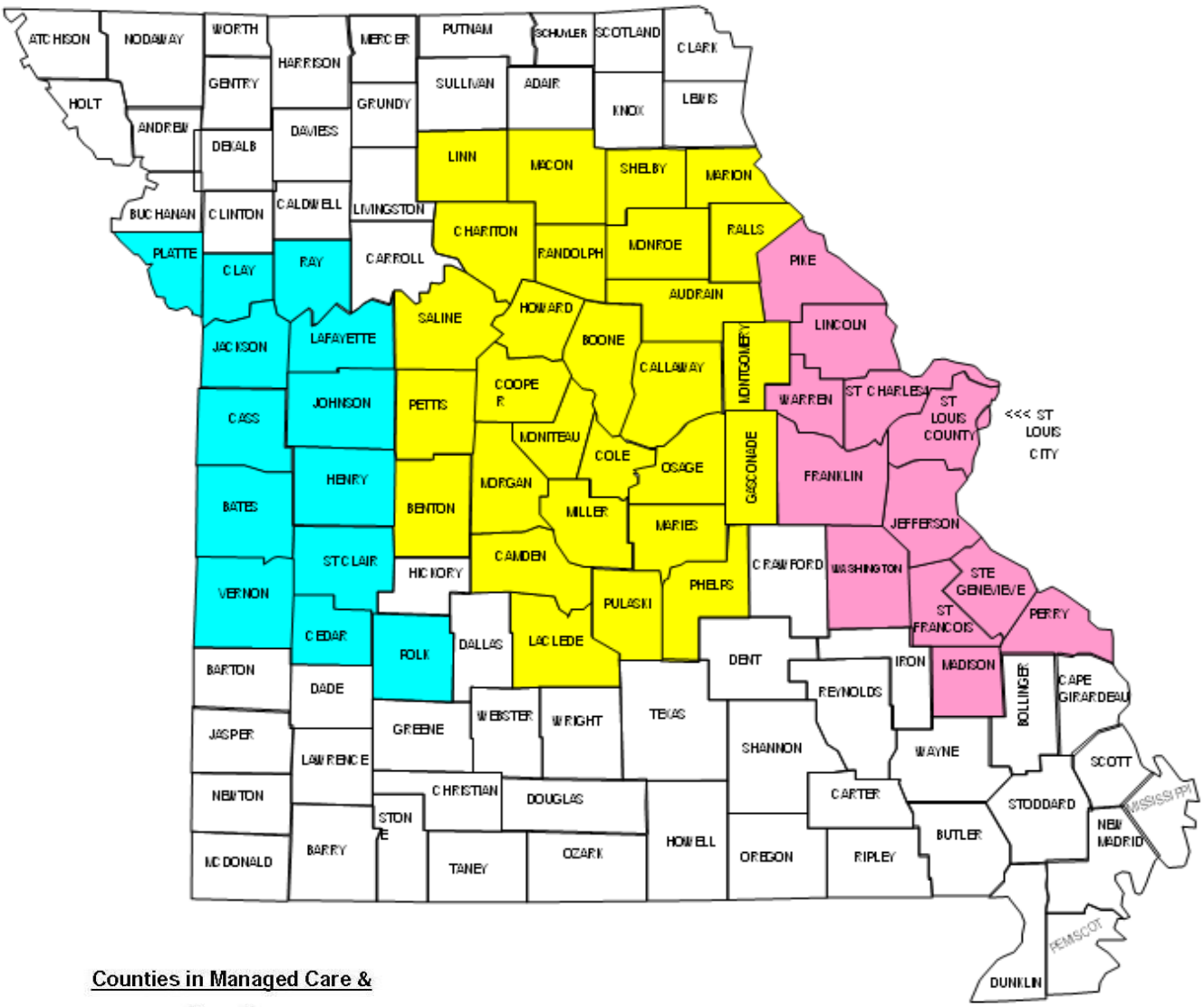
Missouri Managed Care Regions and Fee-for-Service Areas



Counties in Managed Care & Counties In Fee-For-Service

- Central Region (28)
- Eastern Region (13)
- Western Region (13)
- Fee-For Service

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I. Overview

This study was commissioned by the Missouri Department of Social Services, MO HealthNet Division and was jointly sponsored by the Missouri Association of Health Plans. The purpose of the study is to compare the success of the MO HealthNet Managed Care organizations (MCOs) and the MO HealthNet Fee-for-Service (FFS) Program in meeting goals established for measures on access to care and quality of care consistent with the MO HealthNet Division's guiding principles:

- All participants must have a medical home;
- Attention to the wellness of the individual (i.e. education);
- Chronic care management;
- Appropriate setting at the right cost;
- Emphasis on the individual person;
- Evidence based guidelines for improved quality; and
- Encourage participant responsibility to ensure wellness.

While a cost-effectiveness analysis is not included in this report, it is clear that states like Missouri have entered into managed care because of the potential to contain costs. By limiting the rate of program cost increases, managed care can provide state policy makers with an alternative to cuts in provider reimbursement, covered services and participant eligibility in tough economic times.

II. EXECUTIVE SUMMARY

As part of the introduction to Medicaid and managed care, the report provides background on policies and trends from both a national and a local perspective. We describe the experience in surrounding states as a basis for comparison with Missouri managed care. After briefly describing the history of the managed care program in Missouri, the report discusses key data elements used in the comparison of access and quality in the fee-for-service and managed care delivery systems in Missouri, including:

- HEDIS and HEDIS-like measures;
- Birth Trends and Outcomes;
- Access to care as measured by Provider to Participant ratios; and
- EPSDT Data, including a small area analysis of those counties that recently transitioned from fee-for-service to managed care.

Conclusions and Recommendations

1. We did not observe any significant difference in access to or quality of care between fee-for-service and managed care. Managed care performed better on Birth Outcomes and Provider Access. Fee-for-service did better on Well-Child Screenings and Prenatal Care. However, in all cases the differences were very slight with no clear advantage for either of the delivery systems.

2. MO HealthNet developed several HEDIS-like measures specifically for the comparisons in this report. They should be encouraged to continue to refine a HEDIS-like methodology to measure performance in fee-for-service.

3. We observed a difference in the timing of the entry of pregnant women into prenatal care between managed care and fee-for-service. MO HealthNet should re-evaluate existing policies on eligibility and enrollment to try and facilitate first trimester prenatal care for low-income pregnant women.

4. Immunization rates for children in both fee-for-service and managed care are significantly below the national average. MO HealthNet should consider measures and strategies to improve immunization rates for Medicaid children.

5. We did observe that a slightly lower percentage of children who received an EPSDT screen in managed care were referred on for corrective treatment than was the case in fee-for-service. Additional analysis is warranted to determine the validity of that observed difference.

6. MO HealthNet has a robust provider network in both fee-for-service and managed care. Analysis of the providers in fee-for-service indicated that a large proportion of those enrolled providers restrict their patient panels. Mo HealthNet should conduct a comparable analysis of the level of participation by providers in managed care.

III. DEFINITIONS

- ***Capitation payment*** means a payment a State agency makes periodically to a contractor on behalf of each participant enrolled under a contract for the provision of medical services under the State plan. The State agency makes the payment regardless of whether the particular participant receives services during the period covered by the payment (42CFR438.2). Capitation payments are generally made on a *per member per month* (pmpm) basis.

- ***CMS*** stands for the Centers for Medicare & Medicaid Services, the office within the U.S. Department of Health and Human Services which is responsible for the administration of the Medicare (Title XVIII of the Social Security Act), Medicaid (Title XIX of the Social Security Act), and the Children's Health Insurance Program (CHIP – Title XXI of the Social Security Act). The office within CMS that is responsible for the administration of the Medicaid program is the *Center for Medicaid and State Operations (CMSO).*

- ***Disease Management*** is a system of anticipatory guidance and patient monitoring (either in person or telephonically) which is designed to increase patient compliance with treatment regimens and improve health outcomes for populations with chronic illnesses (hypertension, diabetes, etc.). These programs may be offered to Medicaid participants on a non-risk basis, either as an independent contract under fee-for-service (FFS) or as a subcontract to a managed care organization.

- ***Early and Periodic Screening Diagnosis and Treatment (EPSDT)*** is a required service under the Medicaid State plan to provide early and periodic screening and diagnosis of eligible Medicaid participants under the age of 21 to ascertain physical and mental defects and to provide treatment to correct or ameliorate defects and chronic conditions found (42CFR441.50).

- ***Fee-For-Service (FFS)*** is a method for the administration of the Medicaid program where provider participation is open to all providers who meet state requirements, providers are reimbursed based on the volume of services provided, and decisions about policy, coverage and the rate of reimbursement are made by the staff of the Single State Agency for the administration of the Medicaid program. FFS programs may contract for administrative function such as claims processing or disease management. However, these contracts are typically not on an at-risk basis.

- ***HEDIS*** is the Healthcare Effectiveness Data and Information Set, a series of performance metrics designed by the National Committee on Quality Assurance (NCQA) to measure the quality of healthcare delivery in a managed care environment.

- ***Managed Care*** is a system of healthcare delivery where some portion of the administrative activities associated with the management of the scope of covered benefits is contracted to an entity outside of the Single State agency.

These contracts can take the form of a:

- *Comprehensive at-risk* contract as in the case of a contract with a *managed care organization;*
- *Non-risk,* where the contractor is not at financial risk for changes in utilization or for the costs incurred under the contract. These contract services are typically provided by an Administrative Services Organization (ASO). In Missouri, the best example of this option is the contract for the management for the Chronic Care Improvement Program (CCIP).
- A *Primary Care Case Management program* where a physician, a nurse practitioner, or other primary care provider agrees to provide *Primary Care Case Management (PCCM)* services, which includes the location, coordination, and monitoring of primary health care services for Medicaid participants. *PCCM* providers generally are reimbursed a fixed amount per member per month (pmpm) for the participants who enroll with them. *PCCM* providers generally are not at financial risk, although some states do place a portion of their pmpm fee at-risk.

These definitions are pursuant to Title 42 of the Code of Federal Regulations (CFR), Section 438.2.

- ***Medicaid State Plan*** is the document that describes the covered populations, the covered services, any limitations on those services, and the reimbursement methodology for those services. The *State Plan* in Missouri is maintained by *MO HealthNet*. Amendments to the Plan are submitted to *CMS* for approval. CMS approval is required in order for the state to receive federal reimbursement under the Medicaid plan.

- ***MO HealthNet*** is the division within the Missouri Department of Social Services that runs the Missouri Medicaid program. The Department of Social Services is the Single State Agency for the administration of the Missouri Medicaid program, including both managed care and FFS.

- ***Waivers*** are submitted to *CMS* seeking federal approval to waive one or more of the requirements specified in the Social Security Act for the administration of the Medicaid program. In Medicaid managed care, these waivers most commonly take the form of either:

    - A waiver of the requirements under section *1915(b)* of the Social Security Act regarding client freedom of choice, statewidedness and comparability, or
    - A research and demonstration waiver under section *1115* of the Social Security Act. These waivers can extend beyond comparability and freedom of choice to include eligibility waivers to cover non-categorical populations in the Medicaid program.

IV. INTRODUCTION

A) NATIONAL TRENDS AND POPULATIONS ENROLLED IN MANAGED CARE

Medicaid provided health and long-term care coverage to approximately 47 million low income Americans in 2008. Medicaid serves a variety of groups that represent a unique set of healthcare needs. For example, women and children require primarily reproductive care and preventative healthcare while the aged, blind and disabled (ABD) populations are more likely to need long-term care and treatment for chronic diseases. All states must provide Medicaid coverage to the following eligibility groups:

- AFDC-eligible individuals as of July 16, 1996;
- Poverty-related groups: states are required to provide coverage for pregnant women and children based on family income and resources;
- Social Security Income participants;
- Recipients of foster care and adoption assistance under Title IV-E of the Social Security Act; and,
- Certain Medicare participants.

Traditionally, Medicaid has been provided in a FFS delivery system. Under the traditional FFS delivery system in which provider payments are made for each unit of service delivered, providers could have an economic incentive to provide more services, which may contribute to rising Medicaid costs. Many states began to turn to managed care for their Medicaid program with the goal, then and today, to stabilize costs and gain budget predictability by making payments on a predetermined, per-member-per-month (PMPM) basis and to provide a more accountable, coordinated system of care for participants, with an emphasis on preventive and primary care services.

During the 1990s states expanded managed care coverage considerably. In 1991, less than 10 percent of Medicaid enrollees were covered under managed care plans. This number grew to approximately 70.9 percent by 2008. Managed care may take a variety of forms including:

- Non-risk contracts with an Administrative Service Organization (ASO) or a Health Insuring Organization (HIO) that provides comprehensive health care services;
- At-risk contracts with a Managed Care Organization (MCO) that contracts on a prepaid capitated risk basis to provide a comprehensive set of services.
- Primary Care Case Management (PCCM) where the state contracts directly with primary care providers who agree to be responsible for the provision and/or coordination of medical services to Medicaid participants under their care. Currently, most PCCM programs pay the primary care physician a monthly case management fee in addition to reimbursing services on a FFS basis.

Medicaid program waivers play a significant role in the delivery of services. Waivers allow states to test new approaches to benefit design and service delivery for segments of their Medicaid population. Section 1915(b) “Freedom of Choice” waivers are used by states to waive the requirement that services be available statewide (so that managed

care could be implemented in specific regions versus an entire state) and that

participants have a choice among all Medicaid providers. The waivers are used to create areas of mandatory enrollment in managed care or create a “carve out” delivery system for specialty care (such as behavioral health).

Section 1115 Research and Demonstration Projects provide additional flexibility to test benefit package and service delivery innovations. This authority has been used to implement managed care demonstrations.

By 1998 nearly all states had at least one such waiver for some population subgroups or regions. Thirty-one states and DC currently use a 1915(b) waiver to implement mandatory managed care in part of the state or for certain categories or participants and nineteen states have active Section 1115 waivers[i].

Managed care programs are continually evolving in scope and complexity. Based on a survey of states conducted by the National Academy for State Health Policy, states are most likely to serve families and children in managed care and mandate enrollment of these populations. Recently, as costs continue to increase for care provided to the ABD population, states have begun enrolling more ABD populations into managed care. According to a 2009 Kaiser Family Foundation Medicaid program overview, children, parents, and pregnant women make up three-quarters of the Medicaid population but account for just 30 percent of Medicaid spending on services. The ABD population makes up one-quarter of the Medicaid population but account for about 70% percent[ii] of program spending.

The challenge of controlling costs and delivering comprehensive services to high-needs populations has deterred some states from mandatory enrollment for these populations in risk-based plans. The Balanced Budget Act of 1997 (BBA) added both client protections and increased Medicaid options to allow states to continue expanding managed care to higher risk populations. One major change was the establishment of specific requirements for state rate-setting that will ensure that all managed care capitation rates are actuarially sound. It eliminated the outdated regulatory ceiling on what states may pay managed care plans which was based on an extrapolation of the payments made to providers in the base FFS program. This is a particularly important provision as more state Medicaid programs include people with chronic illnesses and disabilities in managed care, now there is an assurance that the plans can receive the funding required to pay for the care needed. Previously, Medicaid MCOs could not impose cost-sharing or co-payments on enrollees. Now, under the authority of the BBA, MCOs may apply co-payments and cost-sharing to enrollees in the same manner allowed in FFS. Managed care and FFS delivery of Medicaid require the same service package with the exception of carve-out services which may be covered under FFS in a managed care environment. All Medicaid participants are entitled to the same minimum set of services described in the state plan.

In addition, states are increasingly providing long-term care services in a managed care environment. In addition to providing traditional long-term care services such as home health, personal care and institutional services, states have begun providing non-traditional services via a managed care delivery system.

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[i] Center for Medicare and Medicaid Services. www.cms.hhs.gov

[ii] *Medicaid: A Primer. Key Information on the Nation’s Health Program for Low-Income People.* www.kff.org.

To achieve this, some states utilize 1915(b) and 1915(c) waivers to limit both freedom of choice and provide home and community-based services while others including Arizona, Hawaii and Tennessee have utilized an 1115 waiver to bring managed care to long-term care participants.

B) MEDICAID GOALS AND STANDARDS: MANAGED CARE AND FFS

In many states as in Missouri, managed care refers to the healthcare program delivered via MCOs that contract with the state on a prepaid capitated risk basis to provide a comprehensive set of services. The participant is provided a choice of MCO via an independent enrollment broker and then relies on the MCO to coordinate care and make referrals for treatment with a provider who contracts with the entity.

The term FFS refers to the healthcare program delivered by Medicaid participating providers who are paid directly by the state at a rate set by the state within federal guidelines. The state pays each provider for services provided to a participant. In essence, there is a one-to-one match between payments and the quantity and type of service actually provided.

Under FFS participants can seek services from any Medicaid participating provider. The two approaches for delivering services differ in important ways across several key aspects including:

- Choice of providers for participants;
- How much professional management and coordination of medical care is provided;
- Which entity has direct oversight responsibility for service delivery;
- How the state pays providers for services; and,
- Assuring access to and quality of care.

There are several requirements in federal statute to assure access to and quality of care under both the Medicaid FFS and managed care delivery systems. Examples of such assurances include the following:

- Services must be delivered in a manner consistent with the simplicity of administration and in the best interest of the participants (Section 1902(a)(19));
- States must assure that payments are consistent with efficiency, economy, and quality of care and are sufficient to enlist enough providers so that care is available at least to the same extent that such services are available to the general population in the geographic area (Section 1902(a)(30)(A)); and,
- A medical evaluation and a written plan of care is required for certain people and services (Section 1902(a)(26)).

FFS
Under the FFS delivery system, the Single State Agency deals directly with all Medicaid participating providers statewide, in terms of both medical care policies and payment methods as well as rates specific to different types of providers. The State must abide by the terms and conditions in the Social Security Act Section 1902A.

Managed Care
When enrolled in a Medicaid managed care system, participants choose a primary plan. These plans provide care coordination and management. Comprehensive plans like MCOs make available a broad range of preventative, primary and acute care services.

Under managed care, oversight responsibility is shared among the Single State Agency, the managed care plans and the plan providers. The Single State Agency has direct oversight of its contracted managed care plans and establishes payment rates for these entities as well as the parameters governing the amount duration and scope of benefits covered in these contracts. The MCOs establish standards dictated by the state for medical care and referral policies; and determine payment methods and rates for plan providers. Under managed care, the focus of administrative activities such as client grievances and provider appeals shifts from direct contact with the state to customer service and provider relations divisions within the managed care plan. However, final authority for the program continues to reside with the state.

In managed care the contracted organization or entity is accountable for improving the well-being of the patient. Customer service and care management functions provided by the MCO, should contribute to improved patient involvement and better health outcomes. These functions provide an opportunity to improve the quality of care being furnished. The flip side to the argument is also well known—in managed care, there is the potential for "underservice" and poor quality if plans try to maximize short-term profits by not delivering appropriate contracted care to participants.

Quality
The goal of quality initiatives are to develop mechanisms to measure quality and to hold plans accountable for quality improvement and outcomes. In managed care, there are many ways to achieve these goals. The first approach is to use utilization data or encounter data to address "inputs" into how care is delivered. Most current performance measures are "process measures." Process measures can include clinical interventions (tests, medications, procedures, surgery) and administrative activities which are believed to lead to favorable patient outcomes. While this approach has limitations, encounter data and process measures provide significant insight into the quality of care. States are evaluating the process of readiness reviews for managed care contracts in order to identify potential problems with a plan's ability to meet contracting requirements before approving the contracts.

Increasingly, data systems are designed to facilitate cross-plan comparison of enrollments, disenrollments, appeals processing, complaints, quality and fiscal soundness in order to identify aberrant patterns that warrant investigation. The importance of consistent and conscientious quality monitoring and contract accountability cannot be overemphasized.

The Balanced Budget Act of 1997 required states with at-risk Medicaid managed care programs to contract with an External Quality Review Organization (EQRO) to provide

an external, third party review of medical decisions for Medicaid managed care programs. This mechanism provides an additional measure to ensure that quality care delivery is not compromised in an at-risk contractual arrangement.

Measures to monitor and improve the quality and delivery of healthcare also exist in FFS. For example, MOHealthNet collects and reports EPSDT data on well-child screenings for both the managed care and the FFS populations. States routinely collect peer group data on provider billing as part of their Medicaid Management Information Systems (MMIS) to review utilization and detect potential fraud and abuse. In many states FFS providers participate in pay for performance incentive programs to improve client access and the quality of service delivery, just as they do under managed care.

The main difference between FFS and managed care is the ability to hold accountable an entire network of health care providers where that network has accepted financial risk. The state has the option to define the terms and conditions for that accountability in the contract with the MCOs in terms of access and quality. For example, in Missouri the MCO receives financial incentives for achieving an 80 percent rate for EPSDT screenings, conversely the MCO is penalized financially if they do not meet this contractually required benchmark.

V. MISSOURI'S MANAGED CARE DELIVERY SYSTEM

Missouri has been bringing the managed care option to its citizens since 1995 to targeted participant groups. The program was designed through a collaborative process that included feedback from the providers, consumers and MCO communities, state of Missouri government agencies and CMS. The goal of the MO HealthNet managed care program is to improve the accessibility and quality of health care services for eligible populations, while reducing the costs of providing that care.

Covered Populations

In State Fiscal Year 2007 the average monthly enrollment in Missouri Medicaid included 233,523 families. Those families comprised an average monthly total of 83,706 parents and guardians and 450,853 children[iii] total. The majority of covered adults in families with children are women.

Approximately 420,000 Missourians were enrolled in one of the contracted managed care plans in September 2009[iv]. Effective September 1, 1995, the state of Missouri introduced a new health care delivery program called MC+ Managed Care to serve participants that meet specified eligibility criteria. Now known as the MO HealthNet managed care program, the program is required to provide the same benefits as identified by the state plan for adults and all medically necessary services for children under the age of 21. Other services previously not covered under MO HealthNet may be provided to participants if the MCO determines it is a suitable, appropriate and cost effective approach to providing a covered service. See the Appendix for enrollment totals in Fee-For-Service and Managed Care.

Currently, children and adults in 54 Missouri counties along the I-70 corridor receive Medicaid covered services through the MO HealthNet Managed Care Program. The participants who are eligible for inclusion are divided into three groups:

- Parents/Caretaker, Children, Pregnant Women, and Refugees;
- Other MO HealthNet Children who are in the care and custody of the state of Missouri and Receiving Adoption Subsidy Assistance; and,
- State Children's Insurance Program (SCHIP) children.

Children in the care and custody of Children's Division (the state's child welfare division) are part of a "carve-out" and receive all mental health services on a FFS basis when provided by a MO HealthNet enrolled mental health provider. Physical, occupational and speech therapy services that are provided for children as identified in an Individual Education Plan or Individual Family Support Plan are provided on a FFS basis when provided by a MO HealthNet enrolled provider.

Participation in MO HealthNet managed care is mandatory for certain eligibility groups within the regions in operation.

[iii] *Missouri Medicaid Basics*. Missouri Foundation for Health. www.mffh.org
[iv] *Missouri Medicaid Basics*. Missouri Foundation for Health. www.mffh.org

An exception exists for MO HealthNet populations that have Medicaid eligibility if they:

- Receive SSI disability payments,
- Meet the SSI disability definition defined by Missouri, or
- Receive adoption subsidy benefits.

These eligibles may choose either FFS or managed care.

MO HealthNet managed care eligibles are given 15 calendar days from the time of their eligibility determination to select a MO HealthNet managed care MCO. The authorized representative of children in the care and custody of the State of Missouri have 90 calendar days to choose a MO HealthNet Managed Care MCO. All participants of a family are encouraged to select the same MO HealthNet managed care MCO but it is not mandatory. If a MO HealthNet MCO is not chosen, one is automatically assigned.

Phased Implementation

The Eastern Region was implemented September 1, 1995, and included the following counties: Franklin, Jefferson, St. Charles, St. Louis, and St. Louis City. On December 1, 2000, five new counties were added to the region: Lincoln, St Francois, Ste. Genevieve, Warren, and Washington. On January 1, 2008, the following three counties were added to the MO HealthNet Eastern Managed Care region: Madison, Perry and Pike. The MCOs serving the Eastern Region include: Harmony, Healthcare USA, and Molina Healthcare, Inc.

The Central Region was implemented March 1, 1996, and included the following counties: Chariton, Randolph, Monroe, Saline, Howard, Boone, Audrain, Pettis, Cooper, Moniteau, Cole, Callaway, Montgomery, Morgan, Camden, Miller, Osage and Gasconade. On January 1, 2008, the following ten counties were added to the MO HealthNet Central Managed Care region: Benton, Laclede, Linn, Macon, Maries, Marion, Phelps, Pulaski, Ralls, and Shelby. The MCOs serving the Central Region include: Healthcare USA, Molina Healthcare of Missouri, Inc., and Missouri Care.

Western Region was implemented January 1, 1997, and included the following counties: Jackson, Platte, Clay, Ray, Lafayette, Johnson and Cass. In February 1999, the service area was expanded to include Henry and St. Clair counties. On January 1, 2008, the following four counties were added to the MO HealthNet Western Managed Care region: Bates, Cedar, Polk and Vernon. The MCOs serving the Western Region include: Blue Advantage Plus, Children's Mercy, Family Health Partners, and Molina Healthcare, Inc. Blue-Advantage Plus does not provide services in Bates, Cedar, Polk, or Vernon counties.

On November 8, 2007 Molina Healthcare of Missouri acquired Mercy Care Plus. Effective October 1, 2008, Mercy Care Plus's name changed to Molina Healthcare of Missouri.

Contract Standards

Each MCO that contracts with the state is bound by contract to perform certain functions in addition to meeting the healthcare needs of participants according to both federal and state standards. In addition to services covered under the Missouri State Plan as described in section VI, each MCO has the flexibility to offer additional benefits to its participants that contribute to the health and well-being of those who

participate in these sometimes innovative programs.

The MCOs report to the state on these programs throughout the year to allow the state to monitor the health trends of participants and gather information about participant needs in coming years.

In addition to services covered under the State Plan, current plans offer:

- Circumcisions (non-medically necessary);
- Childbirth and breastfeeding classes;
- Smoking cessation classes;
- Cell phone program for high risk participants;
- Adult physical therapy if medically indicated;
- Guest pass and waived joining fee at YMCA;
- Incentives for attending OB care appointments;
- Home monitoring equipment to check blood pressure, weight, and blood sugar; and,
- Comprehensive obesity management programs.

MCOs have the additional flexibility to contract for services on a one-time basis with non-participating providers for special services as medically necessary. This is an advantage that standard fee-for-service cannot provide. In fee-for-service, providers must enroll in Medicaid, even on a limited basis, in order for the state to claim federal financial participation (FFP) for the cost of the services provided.

The following access standards for managed care are covered in the MCOs contract with the state:

- A requirement that the MCO notify the state when any of their network providers near capacity for accepting new participants;
- Limits on the number of days a participant must wait to get an appointment with certain providers;
- Provisions that ensure each participant has a medical home;
- A requirement that participants may reach the MCO for assistance 24-hours per day; and,
- Compliance with standards adopted by the State Department of Insurance, Financial Institutions, and Professional Registration for the operation of commercial Health Maintenance Organizations (HMOs) in Missouri (See Appendix) as it relates to the proximity of available providers to the participant.

Disease Management

Disease Management contributes to increased awareness and preventative care for participants with complex, debilitating and often expensive health conditions. Managed care plans in Missouri are required by contract to offer disease management programs that include education, preventative care and special coordination for participants with a diagnosis of major depression and asthma. MCOs are required by contract to select an additional disease state from the following: obesity, diabetes, hypertension, ADHD. Requiring Disease Management programs in managed care contracts allows the state to ensure that its most vulnerable citizens are receiving the coordination and care they need through monitoring and management.

Customer Service

MCOs in Missouri must operate all functions of the plan with customer service in mind. Plans are responsible for surveying their customers to ensure they are receiving services and providing coordination that meets contract standards and meets the needs of the participant.

Missouri law requires all MCOs operating in the state to provide information regarding quality of care, availability of care, member satisfaction, and member health status annually to the Department of Health and Senior Services. In the 2007 Consumer Guide to MC+ Managed Care in Missouri, 77.59 percent of all Medicaid managed care participants rated their managed care plan highly, and 77.38 percent [v] indicated that they did not have problems getting necessary care in a reasonable time.

The MCOs operate call centers that provide assistance to participants 24-hours a day and can connect them to a nurse advice line as needed. MCOs are also required to have a grievance and appeal system.

Quality and Performance Improvement Projects

Managed care plans in Missouri are required to report on HEDIS measures. This facilitates comparison of plan performance measures and permits the State to hold plans accountable for the quality of the care they provide. HEDIS measures have eight components including: effectiveness of care; access/availability of care; satisfaction with the experience of care; MCO stability; use of services; cost of care; informed health care choices; and, MCO descriptive information.

In addition, MCOs must conduct performance improvement projects that are designed to achieve, through ongoing measurements and intervention, significant improvement, sustained over time, in clinical care and non-clinical care areas that are expected to have a favorable effect on health outcomes and member satisfaction. The MCOs report on the status and results of each performance improvement project to the State. The present statewide performance improvement project is Adolescent Well-Care Visits (AWC).

The standard methodology for performance improvement projects involves the following:

1) Measurement of performance using objective quality indicators.
2) Implementation of system interventions to achieve improvement in quality.
3) Evaluation of the effectiveness of the interventions.
4) Planning and initiation of activities for increasing or sustaining improvement over time.
5) Completion of the performance improvement project in a reasonable time period so as to generally allow information on the success of performance improvement projects in the aggregate to produce new information on quality of care every year.
6) Performance measures and topics for performance improvement projects specified by CMS in consultation with the state agency and other stakeholders.

[v] Consumer Guide to MC + Managed Care 2007

Coordination of Care

The coordination of care by the primary care provider is one of the most critical functions performed by an MCO in the managed care environment. The contract with the State requires the following:

(i) *The MCO shall have written policies and procedures for all its primary care provider activities required herein. At a minimum, these policies and procedures must provide for: the linking of every member to a primary care provider; the monitoring of primary care providers to ensure they are performing the duties described below and are operating in compliance with MCO policies and procedures, the use of specialists as primary care provider; and notification of primary care providers of their assigned member(s) prior to the member's effective date with the primary care provider.*

a) *The primary care provider shall serve as the member's initial and most important contact. As such, primary care provider responsibilities must include at a minimum:*

b) *Maintaining continuity of each member's health care;*

c) *Making referrals for specialty care and other medically necessary services to both in-network and out-of-network providers;*

d) *Working with MCO case managers in developing plans of care for participants receiving case management services;*

e) *Conducting a behavioral health screen to determine whether the member needs behavioral health services; and*

f) *Maintaining a comprehensive current medical record for the member, including documentation of all services provided to the member by the primary care provider,*

g) *as well as any specialty or referral services, diagnostic reports, physical and behavioral health screens, etc*[vi]*.*

In addition, the current managed care contracts require comprehensive case management for the following participants:

- Pregnant mothers; and
- Children with elevated blood lead levels

Participants who experience any of the following events must be evaluated for case management:

- Diagnosis of cancer;
- Diagnosis of cardiac disease;
- Diagnosis of chronic pain;
- Diagnosis of hepatitis C;
- Diagnosis of HIV/AIDS;
- Children with Special Healthcare Needs;

[vi] 2009 MO Health Net Managed Care RFP

- Discharge from a hospital stay of more than 2 weeks;
- Discharge from a hospital stay with medications that require prior approval;
- Diagnosis of co-occurring behavioral health and substance abuse;
- Diagnosis of any chronic or debilitating health condition including all required disease management conditions; and,
- Any child in foster care or receiving adoption subsidy

The MCO case management service focuses on enhancing and coordinating a member's care across an episode or continuum of care; obtaining and coordinating services and resources needed by participants and their families with complex issues; ensuring and facilitating the achievement of quality, clinical, and cost outcomes; intervening at key points for individual participants; addressing and resolving patterns of issues that have negative impact; and, creating opportunities and systems to enhance outcomes. The case management requirements include qualifications for case managers, frequency of contact with participants, screening and preventative services and outcome standards.

Utilization Management
Under the terms and conditions of the 1915(b) waiver that allows MO HealthNet to waive participant freedom of choice and requires Medicaid participants to enroll in an MCO, the state also is allowed to waive comparability with the fee-for-service system. This allows the MCOs to offer some expanded benefits, but it also gives them the freedom to go beyond the pre-certification requirements for services that exist in fee-for-service. This sophisticated approach to utilization management for inpatient hospital, surgical, pharmacy, dental, and behavioral health services is a key component of cost control in the risk-based contracts. Decisions that result in an adverse action for the participant must still adhere to the state criteria for medical necessity and participants must have recourse to the State's Fair Hearings procedures as the ultimate arbiter of any disputes about service coverage.

Provider Credentialing
The MO HealthNet MCOs enroll medical providers who meet the participation requirements as established by the state. But in addition, MO HealthNet MCOs do require additional measures to credential providers as part of a quality-based provider network.

National Committee for Quality Assurance (NCQA) Accreditation
Each MCO providing care in Missouri to Medicaid participants is required to pursue and achieve accreditation during the current contract period (2009-2012). Accreditation is an important benchmark to insure quality service delivery according to national standards. Accreditation evaluates not only the core systems and process that make up a MCO, but also the actual results that the MCO achieves on key aspects of care, service and efficiency. A rigorous survey process involves onsite and offsite evaluations conducted by a survey team of physicians and managed care experts. The MCOs' completion of accreditation serves as a further assurance for the State and its participants of the quality of care now available via managed care.

VI. FFS DELIVERY SYSTEM

In Missouri, all individuals eligible under the Medical Assistance - ABD program participate in the FFS system. Additionally, Medicaid participants eligible for MO HealthNet that live in counties other than those designated as managed care counties participate in the FFS system. Missouri uses a claims processing fiscal agent to pay for services based on an established fee schedule.

The MO HealthNet FFS program operates much like the Medicaid FFS programs across the nation that have traditionally been the backbone of the Medicaid program.

State Plan Covered Services
The State of Missouri operates under a Medicaid State Plan that incorporates all 71 requirements as described in section 1902(a) (10) of the Social Security Act. The MO HealthNet Division administers services covered under the State Plan including all of the mandatory Medicaid services covered services.

- Inpatient hospital
- Outpatient hospital
- Lab and x-ray
- Pediatric and family nurse practitioners
- EPSDT
- Family Planning
- Physicians services
- Medical and surgical services provided by a dentist
- Home health services
- Nurse midwife services
- Pregnancy related services
- 60 days postpartum coverage

In addition, Missouri Medicaid provides the following optional State Plan services:

- Podiatry services –limited coverage for adults
- Optometry services
- Psychologist services
- Physical therapy, speech and occupational therapy services provided by a home health agency – limited coverage for adults
- Audiology services
- Dental services – limited coverage for adults
- Prescription drugs
- Prosthetic devices
- Dentures – limited coverage for adults
- Eyeglasses
- Mental health rehabilitation services
- IMD services for participants over the age of 65
- ICF/MR services
- Inpatient psychiatric services for children under age 21
- Personal care services
- Targeted case management

- Primary care case management
- Hospice care
- Program of All-Inclusive Care for the Elderly (PACE)
- Non-emergency medical transportation
- Nursing facility services for participants under the age of 21
- Critical care hospital services[vii]

Legal Framework
The requirements for provider participation and the limits and scope of coverage are described in Title 13, Section 70 of the Code of State Regulations. The regulations identify the standards for providers and the conditions for reimbursement and Medicaid enrollment.

Provider Enrollment
MO HealthNet FFS benefits from a robust network of medical providers who have enrolled according to the state regulatory requirements for Medicaid participation. Many high volume providers (i.e. hospitals) participate in both delivery systems, especially in those counties that lie on or near the current border between FFS and managed care regions.

In fee-for-service, only those providers who complete the full enrollment process are eligible to receive reimbursement from Medicaid. In managed care, the MCOs have the flexibility to enter into single-case agreements with non-participating providers in order to meet an immediate medical need for a participant that cannot be provided for within the contracted provider network.

Medical Management
While it has become commonplace to hear discussions of "unmanaged FFS" in Medicaid as opposed to "managed care", in fact that is false dichotomy. Given the fiscal pressures that the states face today with the operation of their health care programs, Missouri like many other states has attempted to borrow from the management practices in the insurance market to make its FFS program more proactive in the area of medical management. These practices range from the traditional (utilization review and pre-certification), to the non-traditional (Chronic Care improvement Program).

Medical Pre-certification
Medical pre-certification is a function performed by state staff in the Clinical Services Unit at MO HealthNet to review requests from certain medical providers to ensure that the services are provided according to state guidelines.

The following is a partial list of Medicaid covered services which require pre-certification.

- Psychology and Behavioral Health services
- Vision services
- Durable medical equipment
- Imaging such as MRI and Radiology
- Pharmacy

[vii] Medicaid at a Glance, CMS, 2005

Pre-certification is performed in-house by the Clinical Services Unit in MO HealthNet. The clinical unit is composed of 40 full-time staff, including eight medical professionals (one medical doctor, two doctors of pharmacy, two registered pharmacists, two registered nurses, and one licensed practicing nurse).

Exception Process
In addition to these pre-certification reviews, the State of Missouri has adopted regulations that allow the Department to entertain and process requests for other services that either go beyond the limits of coverage or would cover services not included under the Medicaid State Plan (see 13CSR70.2.100). These requests are processed on an individual basis subject to the following conditions:

- Standard Medicaid treatments and limits must have been tried and failed;
- Third party liability must be exhausted;
- There are no pharmacy contra-indications or off-label uses;
- The procedure must be recognized in CPT-4;
- Client must be Medicaid eligible;
- Provider must be enrolled in Medicaid;
- Request must be submitted at least 24 hours in advance;
- Attending physician must approve the request; and,
- The service must maintain life, avoid higher level of care and be cost-effective.

The MO HealthNet Division is supported in this exception review process through a contract with Affiliated Computer Systems (ACS). ACS has implemented a system for *Cyber Access* where providers can make certification requests online and check their status.

Decisions about the disposition of these requests are made by the Division with assistance from:

- the Oregon Health Sciences Center for review of effective medical treatment;
- the ECRI (Emergency Care Research Institute) Evidence Based Practice Center; and,
- The University of Missouri at Kansas City School of Pharmacy (UMKC).

Chronic Care Improvement Program (CCIP)
Just as MO HealthNet has incorporated many of the functions normally associated with ***member services*** and ***case management*** in a managed care context, it also has brought ***disease management*** into the FFS environment. The ***CCIP*** is an enhanced primary care case management program provided by APS Healthcare. The CCIP began enrolling participants in the early part of 2007 and currently serves approximately 150,000 participants.

The goals of the program are to improve health status and decrease the complications of disease for patients with:

- Chronic Obstructive Pulmonary Disease (COPD);
- Diabetes;
- Cardiovascular Disease;
- Gastro Esophageal Reflux Disease (GERD);
- Asthma; and
- Sickle Cell Disease

Providers and patients are supported primarily by telephone. In addition a select group of Federally Qualified Health Centers in major cities house health coaches and nurse managers to serve participants. As is the case for MCO participants, patients have access to medical support 24 hours a day.

Providers are reimbursed when they connect to Cyber Access to monitor and update the plan of care for their patients. Cyber Access also allows providers to prescribe drugs electronically and request prior authorization. Cyber Access also includes a module with recommendations for preferred treatment options for the targeted chronic conditions.

VII. VIEW FROM SURROUNDING STATES

In order to understand the range of managed care options available to the State of Missouri, it is instructive to briefly examine the Medicaid managed care experience in the surrounding states.

The Indiana Medicaid Managed Care Programs

Like Missouri, Indiana is a large Midwestern state with a total population in 2008 of just over 6 million. Demographic characteristics of the Indiana population are similar to those in Missouri in terms of the percentage of the population under the age of eighteen (24.9 percent), the percentage of the non-white population (12 percent), the percentage of the population who are high school graduates (82.1 percent), the percentage living below the poverty level (12.3 percent).

Indiana differs from Missouri in that it has a more urban population with just over 169 persons per square mile[viii].

Indiana historically followed a unique approach to its Medicaid program with very restrictive eligibility but a very generous policy on covered services and provider rates. However, with the federally mandated eligibility expansions in the 1980s, Medicaid spending began to explode. Between 1988 and 2000, the covered population and the total Medicaid budget more than doubled. Policymakers began to seek cost containment measures, including a managed care approach for the family Medicaid groups.

In 1994, Indiana Medicaid began the statewide mandatory enrollment of the AFDC population and poverty related coverage groups for children and pregnant women. The initial 1915(b) waiver design included risk-based managed care contracts with MCOs in the urban areas in the central (Indianapolis), northern, and southern regions. Participants of the target population in the more rural counties around the state were enrolled in Primary Care Case Management (PCCM). In Indiana, PCCM was an alternative system of managed care where the primary care provider, rather than an insurance company, was charged with the medical management of a panel of Medicaid participants from the same target population of Medicaid family coverage groups. The primary care provider was paid a monthly management fee to serve as the facilitator and gatekeeper for medical care, in addition to the reimbursement the provider received for direct services on a FFS basis. Claims processing and the other administrative services (provider relations, third party liability, federal reporting, etc.) remained with the State[ix].

The goals of the Indiana Hoosier Health Wise program were similar to those articulated for the Missouri MO HealthNet managed care program:

- Ensure access to primary and preventive care;
- Improve access to all necessary health care services;
- Encourage quality, continuity and appropriateness of medical care; and,
- Provide medical care in a cost-effective manner.

[viii] U.S. Census Bureau, Quick Facts 2009
[ix] Indiana Medicaid: HoosierHealthwise, August, 2009

Based on the determination by Indiana Medicaid that the MCOs had demonstrated better performance on both access and quality and the desire by the state to use the MCO contracts to connect primary care delivery with school based clinics, by 2006, Indiana Medicaid began planning for a statewide rollout of risk-based managed care. The design was intended to replace PCCM with risk-based managed care in those regions where previously PCCM had been the only option. The new program was designed to improve upon the original managed care design by:

- Making the delivery of services more comprehensive by including behavioral health services in the risk-based contract;
- Requiring electronic data sharing to improve reporting and health incomes;
- Encouraging relationships with school-based providers;
- Implementing a pay-for-performance system of provider reimbursement;
- Expanding the use of physician extenders (nurse practitioners, physician assistants);
- Encouraging patient personal responsibility through health education; and,
- Developing the infrastructure to support an increasing medically indigent population in the future

Risk-based managed care contracts are now in place statewide. There are three MCOs that contract with Indiana Medicaid on a statewide basis: Anthem, MDwise, and Managed Health Services.

The Arkansas PCCM Program

Despite the growing popularity of statewide risk-based managed care contracts both nationally and within the region, that trend is far from universal.

Just across the Ozark Mountains to the south of Missouri lies the State of Arkansas. Compared to Missouri, the population of Arkansas is smaller, more rural, and has a higher percentage of its citizens living below the poverty level[x]. While the managed care infrastructure in Arkansas is less developed than in either Missouri or Indiana, there are five licensed commercial Health Maintenance Organizations in the state, the largest of which (MCO Partners) has over 177,000 participants[xi].

Arkansas Medicaid has a more limited benefit package than either Indiana or Missouri, especially for the adult population. Arkansas Medicaid places limits on services for adults such as physician office visits (12/year), inpatient hospital days (24/year), and prescriptions (3/month). Spending on administration is tightly controlled and costs per participant are low[xii].

Like many Medicaid programs, the Arkansas program offers low rates of reimbursement to private physicians. With the increase in the indigent population, Medicaid participants have crowded into public clinics and emergency rooms as a source of care.

[x] U.S. Census Bureau, State Quick facts 2009
[xi] Kaiser Family Foundation statehealthfacts.org. Data Source: Kaiser Commission on Medicaid and the Uninsured (KCMU)
[xii] Kaiser Family Foundation statehealthfacts.org. Data Source: Kaiser Commission on Medicaid and the Uninsured (KCMU)

In response to this situation, Arkansas Medicaid began the ConnectCare program in 1994 as a Primary Care Case Management to provide better access to a medical home for Medicaid participants receiving TANF (Temporary Assistance to Needy Families), TMA (Temporary Medical Assistance), and SSI. As was the case early on in Indiana, Primary Care Case Management in Arkansas is based on non-risk contracts with primary care providers (PCPs) to provide care coordination and care management. All other administrative functions continue to be provided by the FFS system. With the addition of children covered by the ARKids CHIP Medicaid expansion in 1998, enrollment has grown to over 145,000 participants enrolled with 1,600 PCPs.

A study conducted by the University of Arkansas demonstrated a 50% reduction in non-emergency visits to the emergency room visits and an increase in the average annual number of physician office visits per participant (2.8 to 5.2)[xiii]. The principle goal of providing better access to primary care appears to have been met.

The State is working hard to develop its own E-Prescribing program to better manage all aspects of patient care.

Nevertheless, Arkansas has experienced an increase in the cost per participant. Between 2001 and 2009 the average annual cost per participant increased from $3,460 to $5,061. The total caseload increased from 535,000 to 777,000 over the same period of time,[xiv] 26 percent of the Arkansas population received Medicaid services in 2008, nearly double the rate for Indiana. Arkansas Medicaid paid for 64 percent of the newborn deliveries that year. Without a comprehensive contract covering related services like behavioral health and specialty care, the state has had difficulty in changing practice patterns and redirecting care to the most appropriate and least costly alternative. That being said, the PCCM model may be the only practical managed care alternative for Arkansas given the rural population and the continuing economic pressures on the state.

The Oklahoma SoonerCare Program

Oklahoma presents a very different story of managed care from either Indiana or Arkansas. Arkansas has stayed with its PCCM program as the only managed care model for the Medicaid population. Indiana moved over time from a system that combined both PCCM and risk-based managed care to a statewide risk-based approach. Oklahoma moved from FFS, to a mixed model of PCCM and risk-based managed care. But over time Oklahoma moved back to a system that is fully reliant on PCCM. Nevertheless, Oklahoma is still committed to a managed care as a way to reform the Medicaid program.

In 1993 the state legislature created the Oklahoma Health Care Authority (OHCA) as a strategic departure from the traditional administration of the Medicaid program. The Authority was committed to moving Medicaid into a managed care system in response to significant increases in enrollment and costs over the previous decade.

Beginning in 1996, OHCA offered two options for managed care enrollment. *Soonercare Plus* offered Medicaid families a choice of five fully capitated Managed Care Organizations (MCOs) in the three urban areas of the state (Oklahoma City, Tulsa, and

[xiii] Arkansas Foundation for Medical Care Participant Satisfaction Survey 2007
[xiv] Kaiser Family Foundation statehealthfacts.org. Data Source: Kaiser Commission on Medicaid and the Uninsured (KCMU)

Lawton and the surrounding counties). *Soonercare Choice* provided partially capitated Primary Care Case Management (PCCM) to Medicaid participants in rural areas across the state. Enrollment in both programs grew rapidly, driven by eligibility expansions in the Medicaid program and the inclusion of the ABD population beginning in 1999. By June of 2003, enrollment in Soonercare had grown to over 340,000 individuals with over 50 percent of those participants enrolled in at-risk MCOs. By September of 2003 (the end of the State Fiscal Year), *Soonercare Plus* was the single most expensive line item in the total Medicaid budget ($346 million) and for 21 percent of total Medicaid expenditures[xv].

While indicators of access and quality rose steadily in both *Soonercare Plus* and *Soonercare Choice* throughout this period, there were signs of increasing instability. Between 1996 and 2003, three out of the original five MCOs dropped out of the program.

OHCA struggled to retain contracts with enough MCOs to meet the CMS requirement for a minimum of two plan choices in each region where enrollment in the MCOs was mandatory. The cost pressures associated with the enrollment of large portions of the ABD population and the dispute over what constituted actuarially sound rates for this more expensive population contributed to an economic impasse between OHCA and the MCOs.

In the fall of 2003 the largest of the *Soonercare Plus* plans, Unicare MCO of Oklahoma, notified OHCA that it did not intend to renew its contract at the end of the calendar year. OHCA had offered all of the *Soonercare Plus* plans a rate increase of 13.6 percent. Both of the smaller MCOs agreed to this increase. However, Unicare held out for an 18 percent increase.

Faced with yet another crisis in maintaining an adequate network of MCOs in the *Soonercare Plus* program, in November, 2003 the OHCA Board elected to terminate the remaining MCO contracts and to move the participants enrolled with the MCOs into the PCCM model offered under *Soonercare Choice.* This was a massive communication and enrollment effort impacting thousands of participants and providers. The effort was supported by the transfer of the approximate amount that had been in dispute between OHCA and Unicare ($10 million) from the managed care budget into the personnel Budget at OHCA. This allowed OHCA to authorize the creation of ninety-nine (*99)* new administrative staff positions in the Medicaid division to take on the care coordination and customer service functions previously performed by the staff at the *Soonercare Plus* plans.

It is important to note that even when Oklahoma made the decision not to continue the risk-based contracts, they did not accept a return to the *status quo ante* in FFS. They reinvested administrative dollars to enhance service delivery in the *Soonercare Choice* program.

The primary concern with the transition of 180,000 participants into *Soonercare Choice* was the potential for a decrease in access to providers and the loss of momentum in the health care quality improvement efforts that had been started by the plans in *Soonercare Plus.* To date, the results have been mixed. OHCA was successful in transitioning primary care providers from the *Soonercare Plus* plans into PCCM patient panels with

[xv] Mathematica Policy Research, Inc. "Sooner Care 1115 Waiver Evaluation: Final Report", Verdier, Colby, et.el., 2009

Soonercare Choice. A study produced by Mathematica earlier this year found that between 2004 and 2007, non-emergency visits to the emergency room actually declined slightly in *Soonercare Choice* at a time when emergency room visits were increasing in Medicaid programs across the country. However, preventable hospitalizations increased as the state struggled to take the place of the disease management programs that had been implemented in *Soonercare Plus.* The study concluded that states with in-house managed care programs like Oklahoma could produce results equal to the MCOs, "*if Medicaid agencies have the necessary resources and a commitment to truly manage care."*

VIII. RESEARCH METHODOLOGY

In order to provide the best basis for comparison between health care quality and access in MO HealthNet FFS and MO HealthNet managed care, we worked with the staff at the MO HealthNet Division, to identify those measures which had the greatest relevance to the delivery of care to children and women of child-bearing age. We selected the following measures for comparative analysis:

1. HEDIS and HEDIS-like measures on quality and access for children and women 2006-2007;
2. EPSDT data by county: managed care and FFS 2006-2007-2008;
3. Birth and delivery data: managed care and FFS 2003-2008;
4. Provider/participant ratios: managed care and FFS 2006-2007; and,
5. Managed Care-Specific Data: Community Assessment of Healthcare Providers and Systems (CAHPS)

a) HEDIS and HEDIS-like Measures

HEDIS is a series of measures designed by the NCQA to provide comparable data in healthcare delivery in managed care plans across the country. Originally designed for use by commercial MCOs, HEDIS is widely used by state Medicaid programs as a set of measures to collect data from their contracted MCOs on the delivery of care to the Medicaid population. HEDIS measures are based on data compiled and reported by the MCOs as a summary of both claims data and clinical data extracted from medical records. In Missouri, the Department requires the MCOs to submit data on HEDIS measures on an annual basis.

We decided to focus on the following HEDIS measures:

b) Children

b1. Well-child Visits in the First 15 Months of Life: 6+ Visits
b2. Well-child Visits in the Third Through the Sixth Year of Life
b3. Childhood Immunizations

c) Pregnant Women

c1. Timeliness of Prenatal care
c2. Postpartum Care
c3. Cervical Cancer Screening

For managed care, we selected the HEDIS data submitted by the MCOs and validated by the External Quality Review Organization for calendar years 2006 and 2007. For FFS, we asked the staff at MO HealthNet to emulate the HEDIS methodology in creating comparable measures. The data was drawn from claims and eligibility files for participants who were continuously enrolled in Medicaid during calendar years 2006 and 2007.

For each of these measures, the MO HealthNet contract with the MCOs incorporated performance standards consistent with the guidelines established by CMS, the American Academy of Pediatrics and the American College of Obstetrics and Gynecology.

d) Immunizations

Background
The rates of immunizations for Medicaid children have been highest in universal immunization states, where the state provides the vaccines to physicians for all children free of charge. Medicaid managed care can help with this effort, especially where immunization records from the MCOs are linked to a statewide immunization registry.

In states that do not provide universal immunizations, the performance of Medicaid managed care plans has been mixed. A 2003 article in the *Journal of the American Medical Association*[xvi] found that the rate of immunization for children enrolled in Medicaid managed care plans lagged behind the rate of children in commercial plans. The study failed to take into account the differences in the household income and continuity of enrollment between commercial and Medicaid populations. A 2004 study published in the *Annals of Family Medicine*[xvii] found that the rate of immunizations for children under the age of two actually declined in the State of New Mexico during the period following the implementation of managed care due to issues with reporting and provider compliance.

A more successful example comes from the Hudson Valley region of New York State. In a paper delivered at the Academy Health Research Meeting in 2009[xviii] the authors describe how the Medicaid managed care plans in that region were able to exceed the statewide performance targets with a Pay for Performance model that provided an additional reward of $200 to providers who documented a full immunization series for two year old children. The data tracking system, combined with a lucrative performance bonus to entice provider compliance, were the keys to that success.

MO HealthNet
The MO HealthNet contract with the managed care organizations describes their responsibilities for childhood immunizations at ***section 2.7.1 (m) (4).*** The MCOs are required to work with local health departments and to obtain vaccines through the Missouri Department of Health and Senior Services Vaccines for Children (VFC) Program. The MCOs are required to pay only for the administration of the vaccines.

e) EPSDT Data by County

The Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program was enacted in 1967 as the central amendment to promote children's health under Title XIX. The program sets standards for the states for the criteria and schedule for *periodic* age-specific well-child visits for Medicaid eligible children. It also provides for coverage of *interperoidic* visits, should a child's condition require more frequent monitoring.

[xvi] "Quality of Care for Children in Commercial and Medicaid Managed Care", JAMA, Joseph Thompson, MD, MPH, Kevin Ryan, JD, et. al, vol. 290, pages 1486-1493, 2003
[xvii] "Immunization Coverage and Medicaid Managed Care in New Mexico", Annals of Family Medicine, Schillaci, Waitzin, et. al., vol. 2, pages 13-21
[xviii] "Improving Childhood Immunizations through Pay for Performance in Medicaid Managed Care", Alyna Chien, MD, MS, and Zhonge Li, MS, a paper delivered at the Academy Health Research Meeting, Chicago, June 28, 2009

Most importantly, it requires state Medicaid programs to provide the necessary referrals and follow up for any condition diagnosed as result of such a screen, *even if the service is not otherwise covered under the Medicaid State Plan.* States are required to provide outreach and informing activities to Medicaid participants to make them aware of and to expand access to EPSDT services. No cost-sharing requirements can be imposed on EPSDT preventive services.

The unusually proscriptive requirements about the delivery of EPSDT services in federal regulations and the obligation to provide referral and treatments for all diagnosed conditions have made EPSDT compliance a controversial subject in those states that have pursued mandatory enrollment in capitated managed care for children. Warnings about the potential conflict between capitated arrangements and the delivery of EPSDT services were sounded early on in a 1998 article in *Health Affairs*[xix]. Similar concerns were expressed in a 1997 OIG report on "Medicaid Managed Care and EPSDT"[xx] that found that only 28 percent of the children in their sample had received the full required compliment of EPSDT visits.

Despite the interruptions in eligibility (known as "churning") that are common in many Medicaid programs, states that have moved aggressively with mandatory managed care enrollment have demonstrated significant improvements in EPSDT performance. The establishment of an ongoing relationship with a primary care provider for every child is a key component of this success. In a 2008 study published by the Center for Health Care Strategies titled "EPSDT at 40"[xxi], the authors identified clear contract requirements and monitoring by the state agencies as the basis for a successful screening and referral program.

The MO HealthNet managed care contracts describe EPSDT responsibilities of the managed care organizations in great detail at ***Section 2.7.1.(f),*** including client informing, anticipatory guidance, comprehensive service delivery, and tracking and reporting, in accordance with federal guidance. The contract includes specific provisions to reward or sanction any MCO that either exceeds or fails to achieve the CMS standard of 80 percent by increasing or lowering the capitation rate paid for the measurement period (***See contract Section 2.29.1***)

This kind of Pay for Performance measure has more frequently been applied in a managed care approach where the State is able to use the leverage in the contract with the MCOs to change practice patterns in a manner that benefits the participant. Since most physicians in primary care tend to follow one standard of practice for all their patients, enhancing the delivery of primary care has implications for the improvement of care to all children, not just the children on Medicaid. States have experimented with a similar approach in FFS and PCCM programs, but it is difficult for these programs to achieve the same level of success without a provider contract mechanism that outlines the criteria for success and the data requirements for measurement.

MO HealthNet was able to provide us with files that showed county results on the CMS 416 report for 2006, 2007, and 2008. The 416 report format identifies the screening ratio

[xix] Medicaid Managed Care in Thirteen States", J. Hollahan, S. Zucheman, et. Al, Health Affairs, 17(3), pages 43-63, May/June, 1998
[xx] Office of the Inspector General, OEI-05-93-00290, May, 1997
[xxi] "EPSDT at 40: Modernizing a Pediatric Health Policy to reflect a Changing Health Care System", Sara Rosenbaum, Sara Wilensky, and Kamala Allen, Center for Health Care Strategies, July, 2008

(the percentage of the age appropriate well-child screens that were received), the participation ratio (the percentage of children who received at least one well-child screen), and the number of children who were referred for treatment. We were able to identify and compare the trends for each of the three variables in the FFS and the managed care counties for each of the three years.

Small Area Analysis

We were particularly interested in the effects of the transition that occurred when 17 counties switched from FFS to managed care in January, 2008. We focused on the screening and participation ratios reported for those counties in the two years prior to the transition (2006 and 2007) and the results for 2008. These results will be highlighted at the end of section IX.

f) Birth Trend Reports: 2003-2008

The Medicaid program in Missouri now pays for over 60 percent of the births in the state every year. Given the preponderance of birth and deliveries financed by Medicaid, it is crucial that any policy discussion about the potential expansion of managed care take into account the potential impact of Medicaid managed care on birth outcomes.

A study presented in a paper at the 2002 Health Policy Meeting of the Academy for Health Services Research ("Mandatory Medicaid Managed Care in Missouri: Evaluation of the Effects on Prenatal Care Use and Infant Birth Weight")[xxii] matched Medicaid enrollment and vital statistics data for over 37,000 women who gave birth in Missouri between 1995 and 2000. The focus of the study was a comparison between Medicaid births in FFS and managed care counties. The study found that over the period of the study time there was significant improvement in both outcomes and access to care for all Medicaid eligible women. They found no significant variation between the FFS and managed care populations on birth weight or birth outcomes. They did identify some potential barriers to prenatal care in some, but not all, managed care plans relative to FFS. However, while FFS counties in some cases outperformed managed care counties on the *frequency* of prenatal care, managed care consistently outperformed FFS on the *content* of prenatal care visits as measured by declines in the rate of smoking during pregnancy and successful referrals to the Women, Infants, and Children (WIC) program.

Results from two other studies—one national study and one focused on Ohio—published in 2005[xxiii] seem to also suggest that managed care plays a positive role in improving the content message delivered to Medicaid pregnant women through outreach and case management. In both studies, the rates of smoking during pregnancy declined sharply and the percentage of women who were able to access WIC, food stamps, and other appropriate nutritional services increased. In the Ohio study, the timeliness of the initiation of prenatal care also improved. However, in neither study was there any significant difference between FFS and managed care on birth outcomes as measured by birth weight, infant mortality, or maternal mortality.

[xxii] L. Dubay and G. Kenney, 2002

[xxiii] "Managed Care and Infant Health: and Evaluation of Medicaid in the U.S.", R. Kuestner, L. Dubay, and G. Kenney, *Social Science and Medicine,* 60(8), pages 1815-1833, April, 2005" and "Moving to Mandatory Medicaid Managed Care in Ohio: Impacts on Pregnant Women and Infants"L. Dubay, A. Sommers, and G. Kenney, *Medical Care,* 43(7), pages 683-690, July, 2005

We can hypothesize that the relative resistance of Medicaid birth outcomes in these studies to any discernable treatment effect due to the initiation of mandatory managed care enrollment, as opposed to the measurable impact on the frequency and content of prenatal visits, is largely due to environmental factors that are outside the realm of medical care (poverty, substance abuse, etc.). However, the fact is that we really don't know the answer.

The Department was able to provide us with data compiled from hospital files that were reported to the Department of Insurance. The data cover the period immediately prior to the beginning of mandatory enrollment (1994-95) up through September, 2008. The data reported by the hospitals to the Department of Insurance do not include any cross-references to Medicaid eligibility files to confirm the Medicaid eligibility status of the mothers. All information about Medicaid eligibility and managed care enrollment was self-reported. There is the potential for under-reporting, on both sides. However, this under-reporting of Medicaid eligibility should be in roughly equal proportions for both managed care and FFS and should not preclude the use of the data for comparative analysis.

The appointment availability standards for prenatal care are described at ***Section 2.5.3(c.)*** of the MO HealthNet managed care contract. The MO HealthNet contract describes the requirements for maternity care (including the appointment scheduling requirements for postpartum care) at ***Section 2.7.1. (n).*** The guidelines for cervical cancer screening at described at ***Section 2.7.2.*** are based on the guidelines established by the American Cancer Society.

g) Provider/Participant Ratios

While managed care has faced criticism in different states about the quantity and the quality of care provided under a capitated system, there is general agreement that managed care has been able to leverage broader provider participation through a combination of higher provider reimbursements and the ability to connect to broader commercial networks. The question has been raised whether managed care can replicate this success in more rural areas where providers may be less plentiful. A University of North Carolina study found that managed care can expand access to providers, even in rural areas; especially when commercial managed care is already present in the same areas[xxiv]. The authors attribute that result to increased competition.

The contractual requirements for access to providers in the MCO networks, is another example of the advantages of the managed care approach. Whereas in FFS each client is largely left to their own devices to seek out the appropriate medical provider, the MO HealthNet managed care contracts include numerous quantifiable access measures to which the MCOs can be held to. The contract also articulates sanctions for failure to meet the measures. Certainly there are Medicaid participants who are able to negotiate the medical system on their own successfully without the intervention of an intermediary. But we know that there are many who cannot, and this assistance is particularly critical for children, pregnant women, and the population with special needs, such as persistent mental illness.

[xxiv] "The Experience and Consequences of Medicaid Managed Care for Rural Populations", P. Silberman, P. Slifkin, B. Popkin, and J. Skatrud, North Carolina Rural Health Research and Policy Center, 1997

It is not enough that the MCOs can demonstrate a certain supply of providers, but those providers need to demonstrate on a regular basis that they are available to patients in the plan. The plan has a list of responsibilities to proactively facilitate that relationship between participants and providers, something that is lacking in FFS (see below).

Topic	***Contract Section***
Primary Care Provider (PCP) Responsibilities	2.4.2
PCP Selection and Assignment	2.4.5
Twenty-Four Hour Coverage	2.5.1
Travel Distance	2.4.2
Appointment Standards	2.5.3

To compare access for this study, we worked with the staff at the Department of Social Services to create ratios of provider to participants in FFS comparable to the ratios reported by each of the MCOs.

These ratios include:

- PCP/Participant
- Dentist/Participant
- Behavioral Health Provider/Participant

h) Managed Care Specific Data

Finally, managed care plans submit data that have no equivalent in FFS. Notably, this includes Community Assessment of Healthcare Providers and Systems (CAHPS). The CAHPS survey is a standardized member satisfaction survey that the MCOs contract with an independent vendor to conduct on an annual basis. The Appendix contains the key results of the CAHPS surveys conducted by each of the MCOs in 2005, 2006, and 2007.

IX. RESULTS

Results

I. HEDIS and HEDIS-like Measures

1) Questions about Data

Any attempt to compare HEDIS measures reported by the MCOs to HEDIS-like measures constructed from administrative claims data in FFS comes face-to-face with the shortcomings of administrative data alone as an indicator of health care quality. The current effort by the Obama administration to further the development of Health Information Technology (HIT) and Electronic Health Records (EHR) is one aspect of the movement to address these inconsistencies.

Why do inconsistencies exist between administrative data and HEDIS measures? Take as an example the reporting of Childhood Immunizations, one of our quality measures. Funding for immunizations is provided to the states by the federal government through the Vaccines for Children program (VFC). Providers are prohibited per the terms of their Medicaid provider agreements, to bill Medicaid for services that are provided free of charge to the general public. As a result, Medicaid programs do not pay a separate procedure code for immunizations. In many cases, as in Missouri, states do add a procedure code to their fee schedules for the administration of the immunization, absent any charge for the vaccine itself. These fees are generally very low ($1 to 2) since they are usually paid as an ancillary service to an office visit. The reason why this fee is important has less to do with the additional reimbursement for the provider than it does with creating a means of tracking the administration of the vaccines within the administrative claims system. However, providers may simply not include the fee on their bill to the state, even though they may have administered all of the appropriate immunizations. In some cases, the provider is an employee of a clinic which is paid a fixed fee for all of the services provided in the medical encounter with the patient. In other cases, the small supplemental fee is simply not enough to attract the attention of the billing department. In any event, data on the immunizations are lost to the system.

This phenomenon is not limited to immunizations. Providers may submit a claim for an office visit when in fact they performed an EPSDT well-child screen. That can lead to under-reporting on the 416 report. Conversely, providers could bill for an EPSDT well-child screen without having performed all of the components of an EPSDT exam. In that instance, there would be over-reporting on the same report.

In a study published in the *American Journal of Managed Care*[xxv] the authors described this pattern of inconsistencies between HEDIS scores based on administrative data only and the scores for the same population where the findings based on the administrative data were subject to validation through a valid sample of chart audits of medical records.

[xxv] "Comparison of Administrative-Only versus Administrative Plus Chart review Data for Reporting HEDIS Hybrid Measures", *American Journal of Managed Care*, L. Gregory Pawlson, MD, Sarah Hudson Schoelle, PhD, Anne Powers, PhD, Vol. 13, No. 10, pages 553-558, October, 2007

The authors conclude that this *hybrid* approach is the only true way to resolve the limitations on administrative data. In their study, they found that immunization measures could vary by as much as 20 percent when measured by a hybrid approach as opposed to relying on administrative data alone.

There are valid reasons why Medicaid FFS and managed care programs don't simply validate all of their HEDIS measures. The number one concern is cost. Chart reviews conducted by nurses or other medical personnel are extremely expensive and time-consuming. Medicaid FFS programs generally lack the staff and contract budgets to routinely conduct a robust sample validation of claims data. Private managed care organizations may be somewhat better situated to conduct these reviews since the cost of these quality assurance measures is often built into the proposal that they submit to the state. However even here, costs are a paramount concern and the reviews will not be systematically undertaken unless there is clear direction from the state to pursue them.

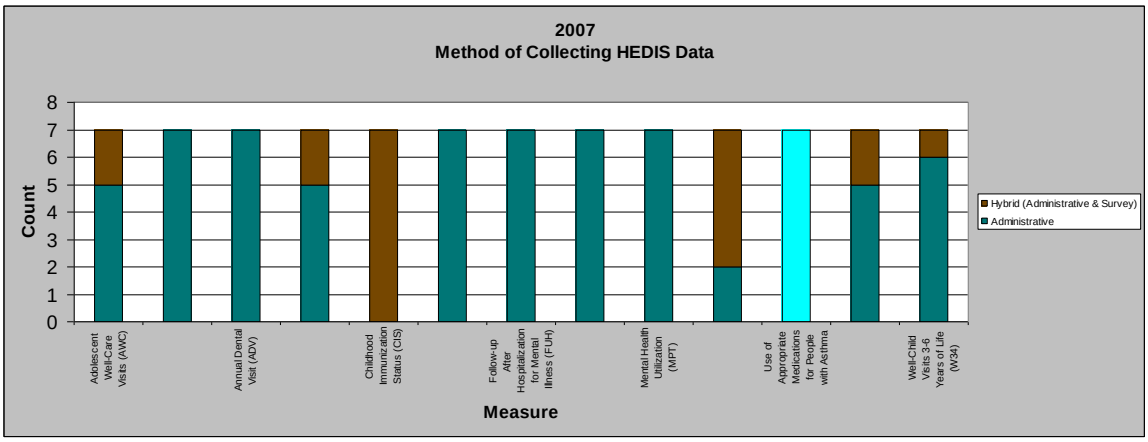
The contract with MO HealthNet does include a section on the responsibilities of the managed care organizations for Quality Assessment and Improvement ***(Section 2.18),*** including a specific requirement to monitor and report on efforts to improve the quality of the EPSDT program (***Section 2.18.4.j.1)***. The MCOs are also required to conduct Performance Improvement Projects (PIPs) which include a hybrid approach to supplement the results of administrative data. Nonetheless, it is up to the state to determine whether these methods are adequate.

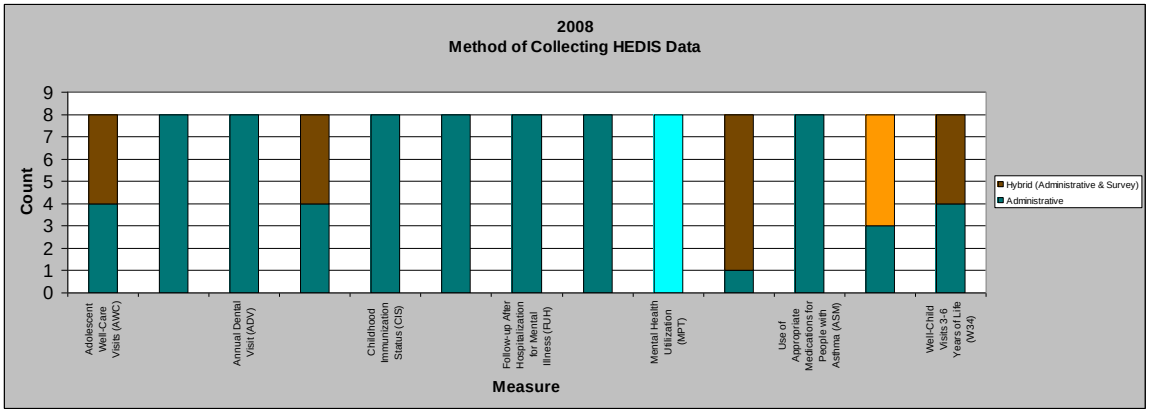
2) HEDIS Reporting: MCO versus FFS

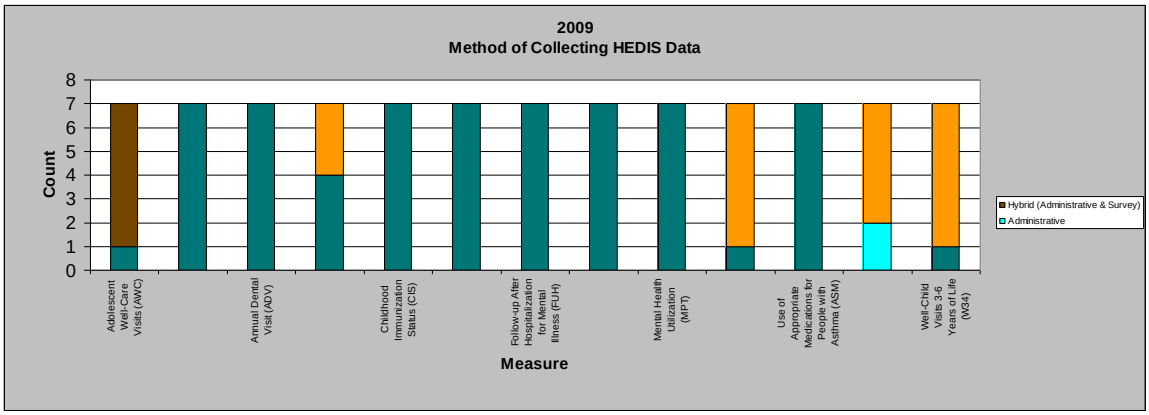
As you can see in the Table, there is great variability between the MCOs in terms of which measures were reported out based on purely administrative claims data and which measures were reported using a hybrid approach that combined administrative data with a sample of chart reviews. Interestingly, ***every*** MCO used some sort of hybrid approach in reporting Childhood Immunizations.

Each "Count" on the attached table represents one instance during a given reporting year when an MCO relied on one method for HEDIS reporting (i.e. administrative, hybrid, or survey). If an MCO reported on more than one managed care region in the State, it would appear as multiple "Counts" in the Table.

Methods of Collecting HEDIS Data 2007-2009







In contrast, FFS has relied exclusively on administrative claims data. Claims processed by the Medicaid Management Information System (MMIS) are subject to multiple validity and policy edits and are acknowledged to have a higher degree of reliability than encounter data reported by the MCOs.

3) HEDIS Results

The FFS results for 2006 are probably artificially depressed by the fact that data was only available from 2005 to the present. Many of these measures (i.e., Well Child Visits and Immunizations) require a look back period of 15 months to two years. For this reason, we have selected 2007 for this analysis as the year with the most complete data, both in FFS and in managed care.

FFS and Managed Care HEDIS-Like Measures
Managed Care HEDIS* Measures

			2006 FFS	2007 FFS	2006 Managed Care	2007 Managed Care	2007 Medicaid HEDIS Avg.
Well Child Visits in the First 15 Months of Life - 0 Visits	HEDIS-Like**	Numerator	107	122	196	209	
		Denominator	5,405	5,503	7,359	8,965	
		Percent	1.98%	2.22%	2.66%	2.33%	
	HEDIS*	Percent			3.06%	3.76%	3.8%
Well Child Visits in the First 15 Months of Life - 1 Visits	HEDIS-Like**	Numerator	193	200	307	339	
		Denominator	5,405	5,503	7,359	8,965	
		Percent	3.57%	3.63%	4.17%	3.78%	
	HEDIS*	Percent			3.63%	3.67%	2.6%
Well Child Visits in the First 15 Months of Life - 2 Visits	HEDIS-Like**	Numerator	304	293	432	466	
		Denominator	5,405	5,503	7,359	8,965	
		Percent	5.62%	5.32%	5.87%	5.20%	
	HEDIS*	Percent			4.26%	5.22%	3.6%
Well Child Visits in the First 15 Months of Life - 3 Visits	HEDIS-Like**	Numerator	394	406	671	841	
		Denominator	5,405	5,503	7,359	8,965	
		Percent	7.29%	7.38%	9.12%	9.38%	
	HEDIS*	Percent			7.02%	7.70%	6.1%
Well Child Visits in the First 15 Months of Life - 4 Visits	HEDIS-Like**	Numerator	517	574	979	1,169	
		Denominator	5,405	5,503	7,359	8,965	
		Percent	9.57%	10.43%	13.30%	13.04%	
	HEDIS*	Percent			12.25%	11.21%	11.0%
Well Child Visits in the First 15 Months of Life - 5 Visits	HEDIS-Like**	Numerator	848	796	1,409	1,758	
		Denominator	5,405	5,503	7,359	8,965	
		Percent	15.69%	14.46%	19.15%	19.61%	
	HEDIS*	Percent			18.04%	17.19%	17.3%
Well Child Visits in the First 15 Months of Life - 6+ Visits	HEDIS-Like**	Numerator	3,042	3,112	3,368	4,183	
		Denominator	5,405	5,503	7,359	8,965	
		Percent	56.28%	56.55%	45.77%	46.66%	
	HEDIS*	Percent			51.74%	51.24%	55.6%
Well Child Visits in the Third, Fourth, Fifth and Sixth Years of Life	HEDIS-Like	Numerator	65,387	53,130	109,951	95,368	
		Denominator	170,890	135,337	263,542	215,132	
		Percent	38.26%	39.26%	41.72%	44.33%	
	HEDIS*	Percent			57.81%	53.69%	66.8%
Prenatal Care	HEDIS-Like	Numerator	1,295	932	1,770	1,674	
		Denominator	13,367	8,293	18,421	12,689	
		Percent	9.69%	11.24%	9.61%	13.19%	
	HEDIS*	Percent			79.88%	77.95%	81.2%
Post-Partum Care	HEDIS-Like	Numerator	5,542	3,438	6,569	4,433	
		Denominator	13,367	8,293	18,421	12,689	
		Percent	41.46%	41.46%	35.66%	34.94%	
	HEDIS*	Percent			61.69%	58.68%	59.1%
Childhood Immunizations (Combo 2)	HEDIS-Like**	Numerator	63	2,123	197	2,162	
		Denominator	7,943	8,501	12,219	12,952	
		Percent	0.79%	24.97%	1.61%	16.69%	
	HEDIS*	Percent			60.01%	55.73%	73.4%
Cervical Cancer Screening	HEDIS-Like	Numerator	6,506	5,219	13,017	12,094	
		Denominator	11,659	8,233	23,626	18,960	
		Percent	55.80%	63.39%	55.10%	63.79%	
	HEDIS*	Percent			65.77%	56.78%	65.7%

*HEDIS measures submitted by MHD managed care health plans.

**Data source only had data available from 2005 to the present. These measures look back 15 months (Well Child Visits) to two years (Childhood Immunizatons, Cervical Cancer Screenings) therefore for data year 2006 we would need 2004 thruogh 2006 data. Only having 2005 and 2006 data will result in lower numbers for data year 2006; 2007 data year will not be affected.

Well-Child Visits in the First 15 Months of Life: 6+ Visits
As displayed in the Table, the percentage of children who received 6 or more well-child visits in the first 15 months of life was higher in FFS in 2007 (56.55 percent) than in managed care. That comparison held true whether the data from the managed care plans was reported from the encounter data (2007-46.66 percent) or as reported as a HEDIS measure with the benefit of some additional supplemental data (2007-51.24 percent). As shown in the Table, the 2007 national average HEDIS score on this measure was 55.6 percent.

Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life
In 2007 managed care scored higher than FFS in terms of the percentage of these older children who received the full complement of well-child visits between the ages of 3 and 6 based on administrative data (MC-44.33 percent vs. FFS-39.26 percent). That advantage was significantly increased in the HEDIS score reported by the MCOs using the hybrid approach (53.69 percent). The 2007 national average HEDIS score on this measure was 66.8 percent.

Childhood Immunizations
Here we can see the full extent of the reporting problems described in the introduction to this section. The percentage of children reported to have received a complete series of immunization in 2007 is so low in FFS and in managed care that it simply is not believable: 24.97 percent (FFS), and 16.69 percent (MC). When viewed as the HEDIS measures by the MCOs in 2007, the number does look more normative: 55.73 percent. The 2007 national average HEDIS score on this measure was 73.4 percent.

Prenatal Care
In 2007 both FFS and managed care reported very unsatisfactory results on this measure (based only on administrative data): FFS-11.24 percent, MC-13.19 percent. The low scores probably reflect billing anomalies due to the widespread use of the global obstetrical care procedure code by obstetricians. This practice can cause individual claims for both prenatal and postpartum care to be lost to the administrative data system in both fee-for-service and managed care. As a hybrid, validated HEDIS measure, the MCOs were able to report that 77.95 percent of pregnant women received the full complement of prenatal care in 2007. The 2007 national average HEDIS score on this measure was 81.2 percent.

Post-Partum Care
FFS actually recorded a higher score on the delivery of post-partum care as reported from claims data in 2007: FFS-41.46 percent vs. MC-34.94 percent. Once again the MCOs reported a significantly higher 2007 HEDIS score of 58.68 percent once the administrative data was supplemented by a hybrid approach. The 2007 national average HEDIS score on this measure was 59.1 percent.

Cervical Cancer Screening
This was the one instance where both FFS and managed care reported consistent values based on claims data for the percentage of women who received age-appropriate cervical cancer screenings in 2007: FFS-63.39 percent vs. MC-63.79 percent. Surprisingly, when the MCOs factored in their own hybrid approach to reporting the data as a HEDIS measure the score went down to 56.78 percent. The 2007 national average HEDIS score on this measure was 65.7 percent.

4) Conclusions

1. MO HealthNet should encourage the collection of additional supplemental data for all HEDIS scores reported by the MCOs.
2. We applaud the work that MO HealthNet performed in calculating HEDIS-like measures for FFS for this study. In the future MOHealthNet should consider additional supplemental measures for FFS HEDIS-like scores.
3. There does appear to be a meaningful differential in favor of managed care in terms of its performance on the *majority* of these measures. The Missouri MCO HEDIS scores are close to the national average for 2007 in every area except immunizations, where they are considerably lower. The capacity of the managed care system to report on HEDIS scores with supplemental data is a clear advantage for policy makers who need accurate data in order to evaluate and direct health care delivery.
4. MO HealthNet should pursue additional steps to increase immunization rates, both in fee-for-service and in managed care.

II. Birth Trends and Outcomes

1) Potential Barriers to Prenatal Care

In a 2005 Missouri-specific study published in the *American Journal of Managed Care*[xvi] the authors suggested a potential barrier to the entry into prenatal care for pregnant women enrolled in managed care. Proof of pregnancy is a condition for the establishment of Medicaid eligibility both in FFS and in managed care. However, in managed care there is the additional step of enrollment into a managed care plan following the establishment of eligibility. In many cases, MCOs may have trouble reaching new participants due to inaccurate home addresses on the Medicaid eligibility file—the authors speculate that this may impact up to 20 percent of the target enrollees. This phenomenon is not unique to Missouri. The majority of post-Welfare Reform adult Medicaid participants are now working and do not receive cash assistance. Lack of timely compliance with the updating of home addresses by mobile non-cash, Medicaid population is an ongoing problem for the Single State Agency. Further compounding the situation in Missouri is the relatively low economic threshold for TANF. That policy may contribute to making many low-income women ineligible for Medicaid at the point when they become pregnant. Delays in enrollment lead to delays in the welcome call with Member Services that is crucial for the early initiation of primary care for managed care participants.

The data in the following table is drawn from an excel workbook titled ”Trends in Missouri MOHealthNet Quality Indicators 1994-2008”. The workbook was compiled by the Missouri Department of Health and Senior Services based on data provided by the hospitals in the State of Missouri. For a complete set of the data for both fee for service and managed care please see the Appendix.

[xvi] “Implementation of Mandatory Medicaid Managed Care in Missouri: Impacts for Pregnant Women, American Journal of Managed Care, A. Sommers, PhD, G. Kenney, PhD, and Lisa Dubay, ScM, Vol. 11, No. 7, pages 433-442

2) FFS vs. Managed Care

	Percent Change Low Birth Weight 1993-2008	Percent Change Inadequate Prenatal Care 2003-2008	Percent Change Low Birth Weight < 2500 grams 2003-2008	Percent Change Pre-Term Births <32 weeks 2003-2008
Managed Care	-32.0%	+ 12.7%	-9.3%	-23.6%
Fee-For-Service	-27.2%	+5.3%	-2.5%	-14.9%

The most positive result evident in the data is that overall the percentage of women with inadequate prenatal care declined sharply between 1994 and 2003 in both the FFS and managed care regions: -27.2 percent vs. -32 percent. However, in both regions there has been an increase in the percentage of women with inadequate prenatal care since 2003. That increase is more than twice as great in the managed care region as it was in FFS: 12.7 percent vs. 5.3 percent.

As displayed in the Table, other indicators seem to suggest that managed care may have had a positive impact on birth outcomes. Between 2003 and 2008, a number of negative indicators declined more rapidly in managed care than in fee-for- service including Low Birth Weight births (<2500 grams); MC -9.3 percent, FFS -2.5 percent , and Pre-Term Births (<32 weeks); MC – 23.6 percent, FFS -14.9 percent.

3) Conclusions

1. Missouri has demonstrated an overall improvement in birth outcomes over the past 15 years.

2. The managed care regions do appear to demonstrate an improvement in birth outcomes versus the regions where participants continue to receive services through FFS.

3. However, the ability of managed care to ensure the timely entry of pregnant women into prenatal care is in question, despite a relatively high score on HEDIS. The state should consider new policies to grant Medicaid eligibility to low-income women earlier during pregnancy and, where applicable, to enroll those women into managed care as soon as possible.

III. Access and Provider to Participant Ratios

1) Introduction

Maintaining an adequate network of providers is fundamental to any medical program. Medicaid has struggled to provide adequate access to providers in most states due to the low rates of reimbursement relative to commercial rates.

States have historically used provider to participant ratios as one way to measure access. Although there is variability as to what constitutes an adequate provider network, there is some consensus about the proper ratio of Primary Care Providers (PCPs) to participants as perhaps the most elemental measure of client access to care.

Ratios in the states with managed care programs tend to cluster in the range of 1 PCP per 1,200 patients. There is no real consensus as to what the proper ratio of specialists to participants is since the use of secondary specialists is highly dependent on the morbidity of the population. As examples of the variation, ratios for dentists to participants range from as low 1/789 in Connecticut, to a more typical ratio of 1/1,200 in Maryland, Oklahoma, New York, and Rhode Island. The American Association of MCOs cites ratios for psychiatrists and other mental health providers in Medicaid contracts from a ratio as low as 1/1,200 in Hawaii to 1/30,000 in New Jersey.

It should be noted that these measures can serve as only a proxy for what true client access is like without the benefit of a periodic audit of the provider network. Depending on the terms of the Provider Agreement, providers are supposed to be available to participants within a proscribed amount if time. Providers are also expected to inform the MCO if they decide to close their practice to new patients.

However, given the economic pressures on medical practices to maximize revenues from commercial payers, these requirements are at times ignored. The result is that the provider panels can be overstated. In Connecticut, a 2006 "secret shopper" survey conducted by Medicaid staff posing as participants enrolled in the HUSKY MCOs found that only about a quarter of the calls requesting an initial visit with a PCP resulted in an appointment within the contractual time limits. Many of the providers that were contacted reported that they were not accepting new patients at all[xvii].

In Missouri, a recent report compiled by MOHealthNet staff illustrated the local dimensions of this problem. The Table below compares the total number of Doctors, Advanced Practice Registered Nurses (APRNs), Dentists and Psychologists who were enrolled in FFS as of 1/01/09 to the number of these same providers who had a minimum of 50 paid claims in State Fiscal Year 2009. Approximately one half of the providers enrolled in these specialties had very low levels of claims activity, including almost 5,000 of the enrolled physicians and more than half of the dentists.

FFS Provider Claim Information | 09/24/2009

Provider Type	Number of unique FFS providers that had more than 50 paid claims in SFY 2009	Number of unique FFS providers as of 01/01/2009 (per ad-hoc)
Doctors	7,855	12,848
APRNs	619	1,153
Dentist	292	612
Psych & Counselors	1,146	3,276

We did not have access to data on the level of participation among the providers enrolled with the MCOs. MO HealthNet should consider conducting a similar analysis with the MCO networks. There may not be the same discrepancy between "active" and

[xvii] William M. Mercer, Inc. , Connecticut HUSKY Secret Shopper Report, November, 2006

"inactive" providers in managed care because of the ability of managed care to contract for services with highly selective providers on a non-participating basis. In any case, ratios or other measures of participant access are only as useful as periodic surveys and verifications prove them to be.

2) Primary Care Providers to Enrollees

In general, MO HealthNet is doing very well with the participation of Primary Care providers, whether in FFS or managed care. As displayed in the Table below, the overall ratio in FFS is one PCP for every 67 MO HealthNet participants. This is true even though many of those counties included in the FFS region are rural.

2008 Managed Care PCP to Enrollee Ratios

EAST	PCPs	Enrollees	PCP/Enrollee Ratio
Harmony	611	10,294	1 / 17
Healthcare USA	931	117,951	1 / 127
Molina Healthcare of Missouri	921	64,277	1 / 70
			1/71

CENTRAL	PCPs	Enrollees	PCP/Enrollee Ratio
Healthcare USA	506	26,061	1 / 52
Molina Healthcare of Missouri	451	5,764	1 / 13
Missouri Care	789	40,413	1 / 51
			1/39

WEST	PCPs	Enrollees	PCP/Enrollee Ratio
Blue Advantage Plus	455	27,557	1 / 61
Childrens Mercy Family Health Partners	585	48,284	1 / 83
Healthcare USA	760	37,280	1 / 49
Molina Healthcare of Missouri	605	7,675	1 / 13
			1/51
Total/Average	**6,614**	**385,556**	**1/54**

2008 Fee for Service PCP to Enrollee Ratios

PCPs	Enrollees	PCP/Enrollee Ratio
7,066	**471,583**	**1/67**

3) Dentists to Enrollees

The ratio of one dentist to every 841 participants in FFS would be considered to be outstanding in many states where dental access for Medicaid participants has historically been problematic. However, the ratios in managed care are even better, ranging from a "low" of one dentist for 596 participants in Healthcare USA in the Eastern Region to a "high" of one dentist to every 54 participants in Mercy CarePlus in the West, for an overall managed care ratio of one dentist for every 367 participants.

2008 Managed Care Enrollees -DENTISTS to Enrollees

EAST	Dentists	Enrollees	Dentist/Enrollee Ratio
Harmony	148	10,294	1 / 70
Healthcare USA	198	117,951	1 / 596
Molina Healthcare of Missouri	204	64,277	1 / 315
			1/327

CENTRAL	Dentists	Enrollees	Dentist/Enrollee Ratio
Healthcare USA	36	26,061	1 / 724
Molina Healthcare of Missouri	30	5,764	1 / 192
Missouri Care	55	40,413	1 / 735
			1/550

WEST	Dentists	Enrollees	Dentist/Enrollee Ratio
Blue Advantage Plus	116	27,557	1 / 238
Childrens Mercy Family Health Partners	196	48,284	1 / 246
Healthcare USA	101	37,280	1 / 369
Molina Healthcare of Missouri	141	7,675	1 / 54
			1/226
Total/Average	**1225**	**385,556**	**1/367**

2008 FFS Enrollees -DENTISTS to Enrollees

Dentists	Enrollees	Dentist/Enrollee Ratio
561	**471,583**	**1 /841**

While both programs deserve to be commended for their performance on this measure, there does appear to be a significant advantage for managed care in expanding the dental provider network.

Despite the favorable ratios, problems with access to oral health persist because dentists choose to limit their patient panels, both in fee-for-service and in managed care. The reason most frequently cited for this in Missouri and in other states is the low level of Medicaid reimbursement relative to commercial rates.

4) Behavioral Health Providers to Enrollees

As was the case with Primary Care and Dental services, the Provider to Enrollee ratio for Behavioral Health in FFS is extremely favorable (1/129). However, as shown in the table the ratio for managed care for every MCO, in every Region is even better, with the exception of Mercy CarePlus in the Eastern Region (1/344). The overall managed care ratio (1/98) compares very favorably to FFS.

2008 Managed Care Enrollees - MH PROVIDERS

EAST	MH Providers	Enrollees	MH Provider/ Enrollee ratio
Harmony	264	10,294	1 / 39
Healthcare USA	1,081	117,951	1 / 109
Molina Healthcare of Missouri	187	64,277	1 / 344
			1/164

CENTRAL	MH Providers	Enrollees	MH Provider/ Enrollee ratio
Healthcare USA	202	26,061	1 / 129
Molina Healthcare of Missouri	334	5,764	1 / 17
Missouri Care	415	40,413	1 / 97
			1/81

WEST	MH Providers	Enrollees	MH Provider/ Enrollee ratio
Blue Advantage Plus	2,567	27,557	1 / 11
Childrens Mercy Family Health Partners	858	48,284	1 / 56
Healthcare USA	308	37,280	1 / 121
Molina Healthcare of Missouri	575	7,675	1 / 13
			1/50
Total/Average	**6,791**	**385,556**	**1/98**

2008 FFS Enrollees - MH PROVIDERS

MH Providers	Enrollees	MH Provider/ Enrollee ratio
3,648	**471,583**	**1 /129**

EPSDT

1) Screening and Participation Ratios

Federal reporting on EPSDT performance is highlighted by two measures.

Screening Ratio – The percentage of the age-appropriate well-child screens that were expected per the periodicity schedule for the age of the child that were actually recorded in claims data. In this case, the state is reporting on the percentage of the expected number of *screens.*

Participation Ratio – The percentage of children who received at least one well-child screen during the reporting period. In this case the state is reporting on the percentage of participating *children*.

The EPSDT results for both the screening and the participation ratios for fee-for-service and for managed care were both encouraging. For both measures, managed care and FFS reported overall scores of 100 percent or greater.

The reasons why scores on these measures based on claims data could exceed 100 percent is related to the CMS methodology in compiling the reports. CMS has designed the methodology to report the data on the CMS 416 EPSDT report. The number of eligible children that forms the denominator in the participation ratio and is used to calculate the number of expected screens in the denominator of the screening ratio is reduced by a formula that takes into account the actual number of member months of eligibility during the federal fiscal year. This adjustment is necessary to reflect the fact that many participants either gain or lose Medicaid eligibility during the course of the year.

However, the numerator in both ratios (the number of screens received and the number of children who receive at least one screen) is not comparably adjusted to account for the fact that many children are not enrolled for a full year, and the screens that they are expected to receive would be comparably fewer. That is why Missouri can report county or statewide scores of 100 percent or higher. Nevertheless, the consistently high numbers on both the screening and the participation ratios are indicative of the successful collaboration between MO HealthNet and its providers to ensure timely access to well-child services.

2) Small Area Analysis

In order to better understand what is really going on with EPSDT screening and participation, we decided to focus on certain counties that have only recently transitioned from FFS to managed care.

In January, 2008 17 previously FFS counties were added to the managed care regions. They were as follows:

Western Region - Bates, Cedar, Polk, and Vernon counties
Central Region – Benton, Laclede, Linn, Macon, Maries, Marion, Phelps, Pulaski, Ralls, and Shelby counties
Eastern region – Madison, Perry, and Pike counties

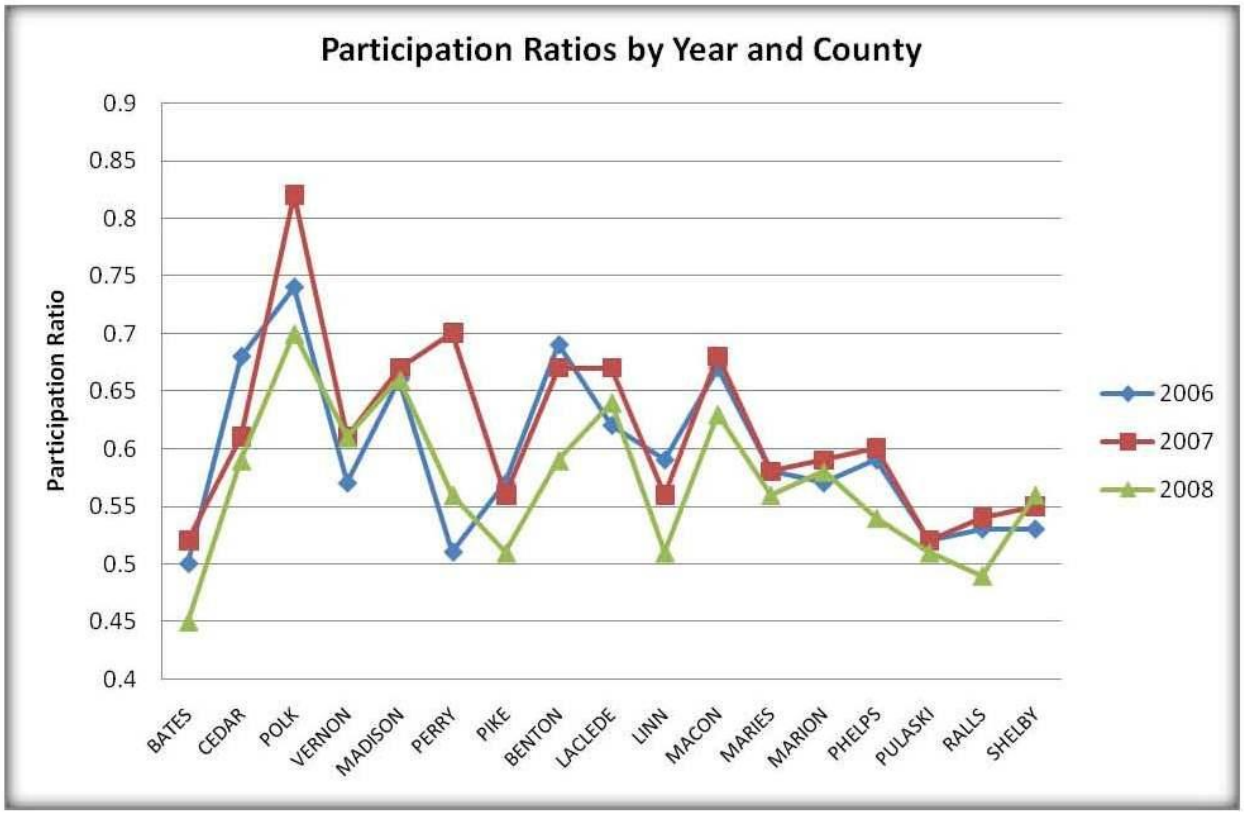
a) Participation Ratios

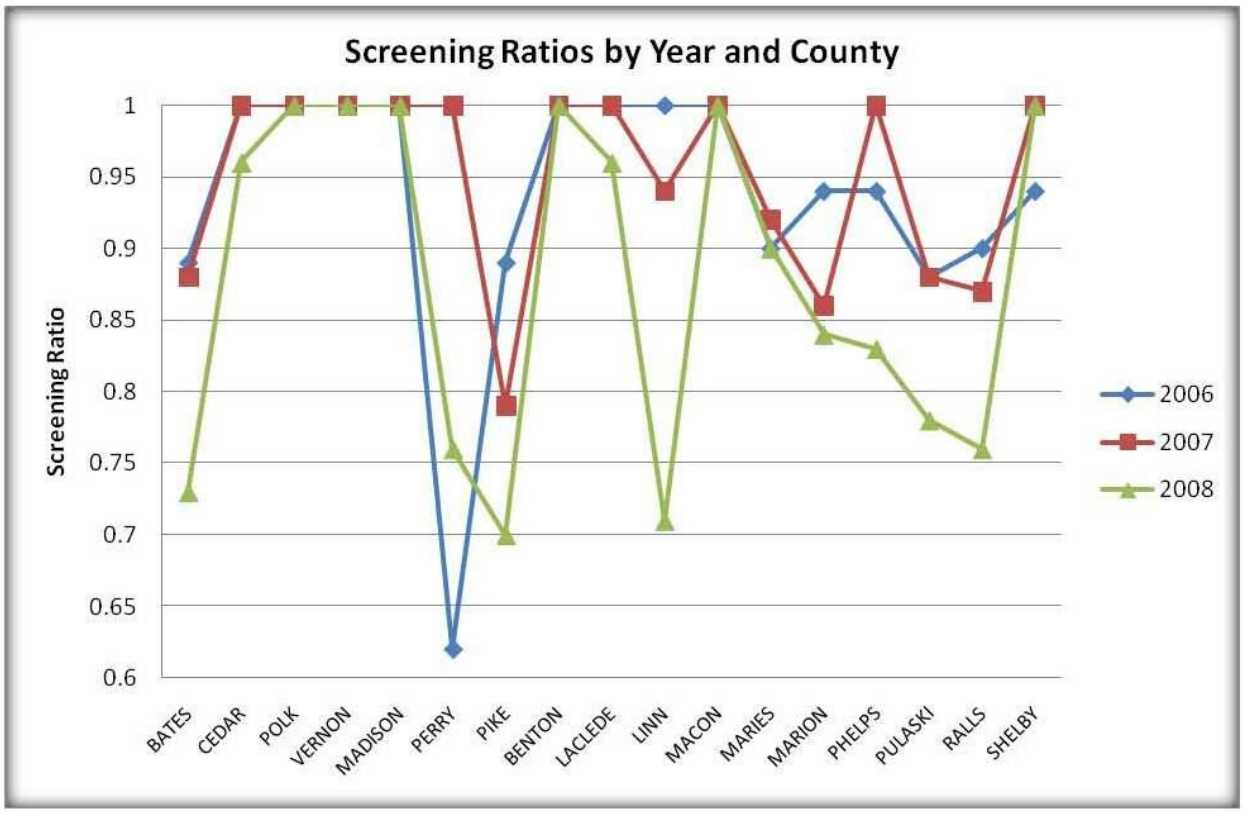
There was a general improvement in the participation ratios for these counties between 2006 and 2007 (see below). Polk County demonstrated the greatest rate of increase in that time period and was the only county to exceed an 80% participation ratio.

However, in 2008, all but two counties (Madison and Shelby) reported a decrease in the participation ratio (i.e. the percentage of eligible children who received at least on well-child screen). While this decrease in participation occurred during the time period when these counties switched from FFS to managed care, we cannot determine whether that transition actually caused the decline. It is possible that the administrative process associated with the enrollment of these children into the managed care organizations may have contributed to a short-term decline in participation. We would recommend that MO HealthNet continue to monitor the situation in these counties to see if this effect continues in subsequent years.

b) Screening Ratios

As was the case with the participation ratios, the screening ratios reported for these counties improved between 2006 and 2007. With the switch to managed care in 2008, the screening ratios (i.e. the percentage of expected age-appropriate screens that actually took place) went down, in some cases dramatically (i.e. Perry County). Once again, we cannot say that the transition caused the decline, but it possible that changes in coding and data collection may have contributed to the lower score.


Participation Ratios by Year and County
Participation Ratio
0.9
0.85
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
BATES
CEDAR
POLK
VERNON
MADISON
PERRY
PIKE
BENTON
LACLEDE
LINN
MACON
MARIES
MARION
PHELPS
PULASKI
RALLS
SHELBY
2006
2007
2008


Screening Ratios by Year and County
Screening Ratio
1
0.95
0.9
0.85
0.8
0.75
0.7
0.65
0.6
BATES
CEDAR
POLK
VERNON
MADISON
PERRY
PIKE
BENTON
LACLEDE
LINN
MACON
MARIES
MARION
PHELPS
PULASKI
RALLS
SHELBY
2006
2007
2008

3) Referral to Treatment

All the well-child screening in the world is not going to benefit Medicaid children very much if the primary care providers are unable to refer children who are diagnosed with a treatable condition for follow-up care. The CMS 416 report does capture data on the number of children screened who were referred and treated for conditions diagnosed as part of a well-child screen.

Ratio of Eligibles that Were Referred for Corrective Treatment and Received at Least One Screening Service

	FFS			Managed Care		
	Total Eligibles Referred for Corrective Treatment	Total Eligibles Receiving at least One Initial or Periodic Screening Service	Ratio	Total Eligibles Referred for Corrective Treatment	Total Eligibles Receiving at least One Initial or Periodic Screening Service	Ratio
2006	69755	107961	0.65	97531	167140	0.58
2007	69666	107990	0.65	95883	167628	0.57
2008	60376	92279	0.65	111313	186343	0.60

	EASTERN			CENTRAL			WESTERN		
	Total Eligibles Referred for Corrective Treatment	Total Eligibles Receiving at least One Initial or Periodic Screening Service	Ratio	Total Eligibles Referred for Corrective Treatment	Total Eligibles Receiving at least One Initial or Periodic Screening Service	Ratio	Total Eligibles Referred for Corrective Treatment	Total Eligibles Receiving at least One Initial or Periodic Screening Service	Ratio
2006	31886	56516	0.56	32017	57751	0.55	33628	52873	0.64
2007	31107	57465	0.54	30498	56716	0.54	34278	53447	0.64
2008	34866	60289	0.58	38875	66855	0.58	37572	59199	0.63

At the outset, we do need to acknowledge that variations in the frequency and the patterns of referrals for treatment are subject to variation in terms of the incidence of disease and local standards of practice. We did not have data to compare the relative risk factors associated with the FFS and the managed care populations. Any conclusions about the relative efficacy of FFS versus managed care in providing for follow-up care are highly speculative.

Nevertheless, we did observe that a higher percentage of children who received at least one well-child exam were referred on for treatment in FFS than in managed care. Only in the Western Managed Care Region did the percentage of children who were referred on for corrective treatment approach the percentage reported for FFS.

What would explain this disparity? Since we are looking at mature managed care systems in each of the three regions it is unlikely that this is a result of the enrollment process. It is an important issue for policy makers to consider, not only because this involves children and untreated conditions in childhood can lead to lifelong physical, developmental, and behavioral deficits that in many cases cannot be overcome. It is important because it goes to the very heart of what managed care is supposed to do in terms of providing enhanced preventive and restorative care as an investment against the cost of long term illness.

Managed care may simply be doing a better job of determining the medical necessity for follow up care. In that case, the lower rates of referrals translate into dollar savings to the MCOs, and presumably the state, by keeping treatment within the medical home of the primary care provider and avoiding potentially expensive specialty care. Alternatively, there may be evidence of under-treatment in managed care if, in fact, it turns out that some children failed to receive appropriate follow-up care.

We cannot answer that larger question based on the data that we were presented with for this report. As a follow-up study, we would suggest that MO HealthNet examine the appeals filed by plan participants to determine whether there is any systematic pattern of the denial of referrals for treatment.

X. APPENDICIES

PROVIDER/SERVICE TYPE DISTANCE STANDARDS

Provider/Service Type	Distance Standards		
	Urban County	Basic County	Rural County
Physicians			
PCPs	10	20	30
Obstetrics/Gynecology	15	30	60
Neurology	25	50	100
Dermatology	25	50	100
Physical Medicine/Rehab	25	50	100
Podiatry	25	50	100
Vision Care/Primary Eye Care	15	30	60
Allergy	25	50	100
Cardiology	25	50	100
Endocrinology	25	50	100
Gastroenterology	25	50	100
Hematology/Oncology	25	50	100
Infectious Disease	25	50	100
Nephrology	25	50	100
Ophthalmology	25	50	100
Orthopedics	25	50	100
Otolaryngology	25	50	100
Pediatric	25	50	100
Pulmonary Disease	25	50	100
Rheumatology	25	50	100
Urology	25	50	100
General surgery	15	30	60
Psychiatrist-Adult/General	15	40	80
Psychiatrist-Child/Adolescent	22	45	90
Psychologists/Other Therapists	10	20	40
Chiropractor	15	30	60
Hospitals			
Basic Hospital	30	30	30
Secondary Hospital	50	50	50
Tertiary Services			
Level I or Level II trauma unit	100	100	100
Neonatal intensive care unit	100	100	100
Perinatology services	100	100	100
Comprehensive cancer services	100	100	100
Comprehensive cardiac services	100	100	100
Pediatric subspecialty care	100	100	100
Mental Health Facilities			
Inpatient mental health treatment facility	25	40	75
Ambulatory mental health treatment providers	15	25	45
Residential mental health treatment providers	20	30	50
Ancillary Services			
Physical Therapy	30	30	30
Occupational Therapy	30	30	30
Speech Therapy	50	50	50
Audiology	50	50	50
Pharmacy			
Pharmacy	10	20	30

MO HealthNet Managed Care
Enrollment
September 2009

	MO HealthNet For Adults	MO HealthNet for Pregnant Women	MO HealthNet for Kids	CHIP Kids	Total*
Eastern Region	27,990	7,479	150,465	19,500	**205,434**
Western Region	16,493	5,427	98,333	13,759	**134,012**
Central Region	9,671	3,595	58,323	9,883	**81,472**
Total	**54,154**	**16,501**	**307,121**	**43,142**	**420,918**

*Total is a unique count of members who were enrolled during September 2009 no matter how long enrolle

NOTES:

MO HealthNet for Adults, MO HealthNet for Pregnant Women and MO HealthNet for Kids fall under Title XIX (377,776 members)

CHIP Kids fall under Title XXI (43,142 members).

Participants that went between FFS and Managed Care during the reporting month will appear on both the FFS report and the Managed Care report.

MO HealthNet Fee-For-Service
Enrollment
September 2009

	MO HealthNet For Adults	MO HealthNet for Pregnant Women	MO HealthNet for Kids	CHIP Kids	Total*
FFS	25,677	10,291	153,720	27,890	**217,578**

*Total is a unique count of members who were enrolled FFS during September 2009 no matter how long enrolled.

NOTES:

MO HealthNet for Adults, MO HealthNet for Pregnant Women and MO HealthNet for Kids fall under Title XIX (189,688 members)

CHIP Kids fall under Title XXI (27,890 members).

Participants that went between FFS and Managed Care during the reporting month will appear on both the FFS report and the Managed Care report.

2006 Show Me Consumer's Guide:
Medicaid (MC+) Managed Care
Member Satisfaction*
(8/8/06) (2005 data year)

		Getting Needed Care			Customer Service			Rating of Plan		
XNAICID	Plan Name	% Not Prob	Z-stat	Z-test	% Not Prob	Z-stat	Z-test	% 8,9,10	Z-stat	Z-test
4717131	Blue-Advantage Plus of Kansas City, Inc.	81%	0.81	AV	77%	0.46	AV	81%	0.75	AV
9563631	Children's Mercy Family Health Partners	82%	1.40	AV	80%	0.06	AV	82%	1.29	AV
9560931	Community Care Plus	80%	-0.04	AV	72%	0.43	AV	79%	-0.33	AV
9536431	FirstGuard Health Plans	80%	0.22	AV	79%	0.16	AV	79%	-0.65	AV
9531832	Healthcare USA of Missouri-Central	79%	-0.85	AV	71%	0.13	AV	79%	-0.41	AV
9531831	Healthcare USA of Missouri-Eastern	80%	0.01	AV	77%	0.30	AV	86%	3.96	HI
9531833	Healthcare USA of Missouri-western	79%	-0.63	AV	71%	0.23	AV	77%	-1.71	AV
9530931	Mercy MC+	80%	-0.21	AV	75%	0.97	AV	83%	2.08	AV
9571531	Missouri Care Health Plan	79%	-0.47	AV	71%	0.28	AV	73%	-3.17	LO
999999	Statewide 2005	80%			75%			80%		

** Numerators and denominators are not shown since all measures (except Overall Ratings) are composites of multiple questions with varying numerators and denominators.*

2007 Show Me Consumer's Guide:
Medicaid (MC+) Managed Care
Member Satisfaction*
(2/6/08) (2006 Data Year)

		Getting Needed Care			Customer Service			Rating of Plan		
XNAICID	Plan Name	% Not Prob	Z-stat	Z-test	% Not Prob	Z-stat	Z-test	% 8,9,10	Z-stat	Z-test
4717131	Blue-Advantage Plus of Kansas City, Inc.	80%	0.00	AV	64%	0.01	LO	82%	1.20	AV
9563631	Children's Mercy Family Health Partners	83%	1.73	AV	86%	0.00	HI	83%	1.65	AV
9560931	Community Care Plus	81%	0.75	AV	73%	0.80	AV	78%	-1.15	AV
9531832	Healthcare USA of Missouri-Central	82%	1.12	AV	70%	0.21	AV	81%	0.43	AV
9531831	Healthcare USA of Missouri-Eastern	79%	-0.95	AV	76%	0.43	AV	82%	1.01	AV
9531833	Healthcare USA of Missouri-western	73%	-3.99	LO	67%	0.05	AV	79%	-0.77	AV
9530931	Mercy MC+	81%	0.75	AV	73%	0.80	AV	78%	-1.15	AV
9571531	Missouri Care Health Plan	81%	0.97	AV	79%	0.04	AV	78%	-1.28	AV
999999	Statewide 2006	80%			73%			80%		

** Numerators and denominators are not shown since all measures (except Overall Ratings) are composites of multiple questions with varying numerators and denominators.*

2008 Show Me Consumer's Guide:
Medicaid (MC+) Managed Care
Member Satisfaction*
(9/26/08) (2007 Data Year)

		Getting Needed Care			Customer Service			Rating of Plan		
XNAICID	Plan Name	% Not Prob	Z-stat	Z-test	% Not Prob	Z-stat	Z-test	% 8,9,10	Z-stat	Z-test
9591631	Blue-Advantage Plus of Kansas City, Inc	0.8161059	2.55957	AV	0.736869	0.572247	AV	0.796253	1.053215	AV
9563631	Children Mercy Family Health Partners	0.8014879	1.422233	AV	0.740403	0.474648	AV	0.845481	3.591749	HI
1122931	Harmony Health Plan	0.6746648	-3.222584	LO	0.611361	0.060128	AV	0.71223	-1.816891	AV
9531832	HealthCare USA of MO - Central	0.8081817	2.463576	AV	0.808764	0.000757	HI	0.836268	3.69701	HI
9531831	HealthCare USA of MO - Eastern	0.8156316	2.423503	AV	0.77592	0.034237	AV	0.835118	3.372079	HI
9531833	HealthCare USA of MO - Western	0.8041891	1.605812	AV	0.739409	0.481857	AV	0.788969	0.663899	AV
9560931	Mercy Care Plus - Eastern	0.7969775	1.309181	AV	0.754612	0.240125	AV	0.78481	0.441067	AV
9560933	Mercy Care Plus - Western	0.6461339	-3.497668	LO	0.598291	0.021734	AV	0.628866	-3.327883	LO
1291331	Missouri Care Health Plan	0.8008736	1.692825	AV	0.694593	0.499685	AV	0.754717	-1.032632	AV
999999	Statewide 2008	0.7738051			0.717802			0.775857		

** Numerators and denominators are not shown since all measures (except Overall Ratings) are composites of multiple questions with varying numerators and denominators.*

Trends in Missouri MO HealthNet Quality Indicators:
Non-MO HealthNet Managed Care Regions 1994-2008

	Before Managed Care				*After Managed Care*												*1994-03*	*2003-08*
	Calendar Year 1994		*Calendar Year 1995*		*Calendar Year 2003*		*Calendar Year 2004*		*Calendar Year 2005*		*Calendar Year 2006*		*Calendar Year 2007*		*Jan-Sept 2008*		*% Chge*	*% Chge*
Trimester Prenatal Care Began	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*		
First	29538	92.7%	29,813	93.1%	30,512	94.8%	29,547	94.6%	28,832	94.6%	29,500	93.7%	29,327	93.4%	23,673	92.7%	2.2	-2.1
Second	1764	5.5%	1,691	5.3%	1,276	4.0%	1,250	4.0%	1,243	4.1%	1,573	5.0%	1,564	5.0%	1,425	5.6%	-28.4	40.8
Third	254	0.8%	279	0.9%	222	0.7%	226	0.7%	199	0.7%	219	0.7%	267	0.9%	242	0.9%	-13.5	37.5
None	292	0.9%	240	0.7%	187	0.6%	197	0.6%	202	0.7%	198	0.6%	225	0.7%	189	0.7%	-36.7	27.5
Total	31848		32,023		32,197		31,220		30,476		31,490		31,383		25,529			
Inadequate Prenatal Care	1844	5.8%	1,830	5.8%	1,471	4.7%	1,392	4.5%	1,300	4.4%	1,514	4.9%	1,751	5.7%	1,489	6.0%	-19.9	27.6
Birth Weight (grams)																		
<1500	375	1.2%	374	1.2%	484	1.5%	483	1.5%	431	1.4%	464	1.4%	480	1.5%	360	1.4%	26.8	-6.0
1500-2499	1665	5.2%	1,732	5.3%	1,800	5.5%	1,957	6.2%	1,718	5.5%	1,930	6.0%	1,820	5.7%	1,566	6.0%	6.2	10.0
2500+	30231	93.7%	30,345	93.5%	30,547	93.0%	29,351	92.3%	28,884	93.0%	29,877	92.5%	29,748	92.8%	23,980	92.3%	-0.7	-0.8
Total	32280		32,460		32,845		31,799		31,042		32,284		32,049		25,986			
Low Birth Weight(<2500 grams)	2,040	6.3%	2,106	6.5%	2,284	7.0%	2,440	7.7%	2,149	6.9%	2,394	7.4%	2,300	7.2%	1,926	7.4%	10.0	6.6
Gestational Age																		
<32 weeks	712	2.2%	706	2.2%	741	2.3%	803	2.5%	693	2.2%	786	2.4%	786	2.5%	616	2.4%	2.3	5.1
32-36 weeks	2640	8.2%	2,698	8.3%	3,278	10.0%	3,182	10.0%	3,173	10.2%	3,229	10.0%	3,139	9.8%	2457	9.5%	22.0	-5.3
Method of Delivery																		
C-Section	7180	22.2%	7,203	22.2%	9,713	29.6%	10,176	32.0%	10,110	32.6%	10,837	33.6%	11,025	34.4%	10,932	42.1%	33.0	42.3
VBAC	1230	31.0%	1,260	32.1%	464	11.0%	389	9.3%	347	8.1%	330	7.2%	326	7.0%	356	7.4%	-64.7	-32.6
Pre-pregnancy weight > 30 BMI (obese)	3942	12.7%	4,215	13.5%	6,193	19.6%	6,105	20.0%	5,999	20.2%	6,162	20.1%	6,194	20.3%	6,419	20.8%	54.5	6.5
Smoking During Pregnancy	4130	12.8%	3,813	11.7%	2,519	7.7%	2,414	7.6%	2,199	7.1%	2,260	7.0%	2,185	6.8%	1,751	6.7%	-40.1	-12.1
Spacing <18 mos. since last birth	1478	8.1%	1,429	7.8%	1,457	8.0%	1,401	8.0%	1,480	8.5%	1,459	8.2%	1,531	8.8%	1,251	8.9%	-1.4	11.4
Births to mothers <18 years of age	783	2.4%	701	2.2%	475	1.4%	457	1.4%	370	1.2%	503	1.6%	497	1.6%	389	1.5%	-40.4	3.5
Births to mothers aged 35 or more	4435	13.7%	4,789	14.8%	5,492	16.7%	5,556	17.5%	5,354	17.2%	5,540	17.2%	5,295	16.5%	4,192	16.1%	21.7	-3.5
Repeat teen births	203	0.6%	203	0.6%	136	0.4%	135	0.4%	126	0.4%	159	0.5%	164	0.5%	131	0.5%	-34.2	21.7
Percent of prenatals on WIC	2902	9.0%	2,962	9.1%	3,186	9.7%	3,140	9.9%	3,178	10.2%	3,542	11.0%	3,593	11.2%	3,091	11.9%	7.9	22.6

Trends in Missouri MO HealthNet Quality Indicators:
MO HealthNet Fee-for Service Regions 1994-2008

	Before Managed Care				*After Managed Care*													
Trimester Prenatal Care Began	*Calendar Year 1994*		*Calendar Year 1995*		*Calendar Year 2003*		*Calendar Year 2004*		*Calendar Year 2005*		*Calendar Year 2006*		*Calendar Year 2007*		*Provisional Jan-Sept 2008*		*1994-03 % Chge*	*2003-08 % Chge*
	Births	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*	*Births*	*Percent*		
First	8297	74.7%	8,803	77.6%	11,011	81.8%	11,693	83.1%	11,987	82.3%	12,227	82.8%	12,172	81.8%	7,423	81.4%	9.5	-0.5
Second	2368	21.3%	2,141	18.9%	2,066	15.4%	1,977	14.1%	2,179	15.0%	2,132	14.4%	2,296	15.4%	1,432	15.7%	-28.0	2.3
Third	364	3.3%	325	2.9%	320	2.4%	334	2.4%	335	2.3%	364	2.5%	345	2.3%	229	2.5%	-27.5	5.6
None	72	0.6%	69	0.6%	59	0.4%	65	0.5%	62	0.4%	47	0.3%	62	0.4%	33	0.4%	-32.4	-17.4
Total	11101		11,338		13,456		14,069		14,563		14,770		14,875		9,117			
Inadequate Prenatal Care	2266	20.5%	2,017	17.8%	1,992	14.9%	1,936	13.9%	2,047	14.1%	2,093	14.3%	2,217	15.1%	1,395	15.7%	-27.2	5.3
Birth Weight (grams)																		
<500	140	1.2%	132	1.1%	236	1.7%	204	1.4%	212	1.4%	203	1.4%	202	1.3%	131	1.4%	39.3	-20.7
500-1499	831	7.4%	820	7.1%	989	7.3%	1,049	7.3%	1,058	7.2%	1,092	7.3%	1,029	6.7%	705	7.4%	-1.6	1.9
2500+	10228	91.3%	10,523	91.6%	12,326	91.0%	13,047	91.2%	13,457	91.4%	13,717	91.3%	14,032	91.9%	8,647	91.2%	-0.4	0.3
Total	11202		11,482		13,552		14,301		14,731		15,016		15,265		9,483			
Low Birth Weight(<2500 grams)	971	8.7%	952	8.3%	1,225	9.0%	1,253	8.8%	1,270	8.6%	1,295	8.6%	1,231	8.1%	836	8.8%	4.3	-2.5
Gestational Age																		
<32 weeks	313	2.8%	290	2.5%	420	3.1%	382	2.7%	429	2.9%	415	2.8%	427	2.8%	250	2.6%	10.9	-14.9
32-36 weeks	1081	9.7%	1,117	9.7%	1,524	11.2%	1,562	10.9%	1,707	11.6%	1,612	10.7%	1,645	10.8%	1,045	11.0%	16.5	-2.0
Method of Delivery																		
C-Section	2516	22.5%	2,461	21.4%	3,664	27.0%	4,076	28.5%	4,241	28.8%	4,455	29.7%	4,516	29.6%	2,759	29.1%	20.4	7.6
VBAC	302	24.7%	306	25.0%	154	9.1%	164	8.8%	97	5.0%	115	5.5%	118	5.3%	87	6.5%	-63.0	-28.6
Pre-pregnancy weight > 30 BMI (obese)	1886	17.0%	2,075	18.3%	3,073	23.3%	3,412	24.6%	3,411	23.9%	3,613	25.0%	3,624	24.9%	2,305	25.6%	37.0	9.8
Smoking During Pregnancy	3947	35.2%	3,932	34.2%	4,793	35.4%	4,870	34.1%	5,185	35.2%	5,298	35.3%	5,294	34.7%	3,198	33.7%	0.4	-4.6
Spacing <18 mos. since last birth	1086	18.1%	1,030	16.5%	1,211	15.7%	1,308	15.9%	1,355	15.8%	1,448	16.9%	1,480	16.8%	959	17.2%	-13.1	9.6
Births to mothers <18 years of age	1137	10.1%	1,112	9.7%	839	6.2%	902	6.3%	859	5.8%	938	6.2%	872	5.7%	554	5.8%	-39.0	-5.6
Births to mothers aged 35 or more	406	3.6%	436	3.8%	554	4.1%	563	3.9%	645	4.4%	606	4.0%	622	4.1%	454	4.8%	12.8	17.1
Repeat teen births	680	6.1%	669	5.8%	551	4.1%	591	4.1%	617	4.2%	648	4.3%	641	4.2%	468	4.9%	-33.0	21.4
Percent of prenatals on WIC	9484	84.7%	9,809	85.4%	11,125	82.1%	11,728	82.0%	11,873	80.6%	12,054	80.3%	12,342	80.9%	7,707	81.3%	-3.0	-1.0

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