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ABSTRACT

DEV J. NAIR

State Medicaid Agencies Approaches to Quality Improvement: Implications for Policy, Practice and Health Outcomes

(Under the direction of Russ Toal, Faculty Member)

Medicaid provides coverage to approximately 60 million individuals and is the largest single payer of healthcare for children. Given this scope of the program and the concentration of low-income and minority recipients, improvements to the quality of care delivered to Medicaid members represents a significant opportunity to reduce health care disparities and improve the overall delivery and quality of healthcare within the U.S. The current study sought to evaluate the various approaches that state Medicaid agencies are taking to assess and improve the quality of care to their managed care enrollees and the degree to which they have implemented recommendations of various policy experts.

A survey was distributed to the Medicaid Directors of all 50 states. A total of 23 states with risk based managed care programs responded, representing 62% of the states that have managed care programs. The results indicated that nearly all states are utilizing standard performance measures as one method to assess quality, with virtually all relying on HEDIS measures for this purpose. Additional strategies that are being used include public reporting of quality data and the use of pay-for-performance incentives; few states are currently focusing on health information technology. Recommendations are made for steps that the Medicaid program could take at both the state and federal level to further develop quality improvement programs.

Index Words: Medicaid, Managed Care, Quality Improvement, Performance Measurement, Pay for Performance, HEDIS.

STATE MEDICAID AGENCIES APPROACHES TO QUALITY IMPROVEMENT:

IMPLICATIONS FOR POLICY, PRACTICE AND HEALTH OUTCOMES

by

DEV NAIR

PH.D., DEPAUL UNIVERSITY

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I. INTRODUCTION

Medicaid was enacted in 1965 as Title XIX of the Social Security Act to provide medical assistance to low income families, and aged and disabled individuals receiving welfare benefits. Medicaid was designed as a federal and state partnership, with the federal government establishing broad guidelines related to eligibility requirements and minimum covered services. In return states receive matching funds of 50 to 76 percent of their Medicaid expenditures (Kaiser Family Foundation, 2008 and 2009).

In 1967 Medicaid was expanded from a program that merely provided assistance for diagnosed medical conditions to one that focused on the promotion of the healthy growth and development of children. The Early Periodic Screening, Diagnostic, and Treatment (EPSDT) program established requirements for assuring that children covered by Medicaid received comprehensive preventive health, screening, and follow-up (Rosenbaum, Mauery, Shin, & Hidalgo, 2005).

With eligibility requirements initially linked to the receipt of welfare payments, Medicaid enrollments began to decline as states restricted requirements for Aid to Families with Dependent Children (AFDC) in the 1970s and 80s. These reductions in Medicaid coverage, along with reports of rising infant mortality rates, led to congressional action to broaden access and coverage provisions for children and pregnant women, and to tie eligibility requirements to family income, as opposed to the receipt of welfare benefits (Mann, Rowland, & Garfield, 2003).

In an effort to contain escalating health care costs, to attain greater accountability for access to care, and to improve the quality of health care services, state Medicaid agencies began to contract with managed care organizations to provide services to recipients. Such contracts began in the 1980's, with enrollment into managed care plans further expanding in 1997 with the passage of the Balanced Budget Act (BBA) that allowed the mandatory enrollment of certain population groups without obtaining a waiver through the Centers for Medicare and Medicaid Services (CMS) ("Balanced Budget Act of 1997,"; Kaiser Family Foundation, 2008; Mann et al., 2003).

Despite efforts to expand access to quality health care for low income individuals, significant disparities in access to care and health care outcomes continue to persist (Agency for Healthcare Research and Quality, 2008). These disparities exist across racial, ethnic, and socio-economic dimensions (Agency for Healthcare Research and Quality, 2008), as well as across states and geographic regions (Shea, Davis, & Schor, 2008), and between individuals that have commercial health care coverage as opposed to Medicaid coverage (Landon et al., 2007).

Medicaid provides coverage to approximately 60 million individuals (Smith, Ellis, Edwards, & Rudowitz, 2009), of whom about 44 million are low income children and their parents (Kaiser Family Foundation, 2009). Medicaid is the largest single payer of healthcare for children, covering nearly 25% (Kaiser Commission on Medicaid and the Uninsured, 2006; Kaiser Family Foundation, 2009). Additionally, Medicaid is responsible for nearly 20% of all health care expenditures, covering over one of every 3 births, and over 40% of long-term care expenses (Kaiser Family Foundation, 2009). Given this scope of the program and the concentration of low-income and minority

recipients, improvements to the quality of care delivered to Medicaid members represents a significant opportunity to reduce health care disparities and improve the overall delivery and quality of healthcare within the United States.

The number of Medicaid enrollees covered by some type of managed care plan has been steadily increasing, with over 65% covered by managed care as of June 2006 (Finance Systems and Budget Group, 2006). Contracting with managed health care organizations (MCOs) provides opportunities to hold these organizations accountable for achieving specific goals related to access and quality. This contractual accountability is one of the key tools that can be used to drive improvements in quality, and an advantage when compared with trying to improve quality through a traditional system in which the state directly reimburses providers for their services (Highsmith & Somers, 2000).

However, the literature on the impact of managed care on improved quality for Medicaid recipients has been mixed. Some studies have found improvements in quality such as increased use of controller medication and attendance at routine physician office visits by asthmatics (Bollinger, Smith, LoCasale, & Blaisdell, 2007); and reductions in hospitalizations for ambulatory sensitive conditions such as asthma and diabetes (Landon & Epstein, 1999). Conversely, other studies have found decreases in the quality of care subsequent to the implementation of managed care including increases in the number of mental health readmissions (Fontanella, Zuravin, & Burry, 2006); and decreases in the initiation of early prenatal care along with corresponding increases in the rate of premature births, low-birth weight infants, and neonatal mortality (Aizer, Currie, & Moretti, 2007).

The ability of states to hold MCOs accountable for improvements in quality is dependent in part on having performance based contracts and developing effective mechanisms of oversight (Fossett et al., 2000). In surveying state Medicaid agencies regarding their oversight of managed health care plans, Landon, Tobias, and Epstein (1998) found that few states were collecting systematic performance data on satisfaction, access, or quality measures, or reporting significant improvements in quality. Likewise, they also found few states that were reporting comparative data to either their health plans or their enrollees. They suggest that while there are many challenges that states face in improving quality health care for Medicaid enrollees, there also are significant resources that states can leverage. These include the ability to compel changes through regulation, as well as the ability to require (through contracting) the collection of performance data and cooperation between health plans.

Corrigan, Eden, and Smith (2002) reviewed a number of strategies that they believed were crucial for government agencies to maintain better oversight over quality. Among their recommendations were:

- Purchasing strategies that encourage adoption of best practices through the public release of comparative data and rewards for performance;
- Establishing standardized measurement and reporting practices across various government programs;
- Making comparative quality data available in a variety of formats to meet the needs of different users (researchers, recipients, accreditors, purchasers, advocates, etc.);

- Establishing core sets of standard performance measures; and
- Greater standardization across state Medicaid and SCHIP programs with respect to quality measures and reporting.

While there has been much growth and maturation of Medicaid managed care programs over the past five to ten years, there is little systematic data on the approaches used to measure and improve the quality of care, or on the impact that these approaches have had in actual improvements in clinical processes or outcomes. This study examines and updates the prior research that has evaluated approaches that states have used for monitoring and improving the quality of care delivered through managed care organizations. Specifically it investigates the degree to which prior recommendations have been implemented, and whether there is an association between implementation of these practices and improvements in quality. Finally, this paper concludes with recommendations for future steps that CMS and state Medicaid agencies can take to continue to improve of the quality of health care delivered to their recipients.

II. REVIEW OF LITERATURE

Health Care Quality

Over the years quality researchers have come up with a variety of definitions and concepts for measuring health care quality. Donabedian (1967) was one of the first to focus on the concept of quality specific to health care, describing it in terms of structure, process, and outcome.

Structure refers to the setting in which health care occurs and includes things such as the type and qualifications of the practitioner providing the care; the configuration of the organization providing the care; specific medical policies governing the provision of care; as well as various mechanisms to monitor and/or reward specific processes or outcomes.

Process refers to the implementation of specific practices that are known (or believed) to lead to specific health outcomes. A number of organizations publish evidence based practices (EBP); practices that are supported by the weight of research evidence to be effective in treating a specific condition. Thus quality assessment may focus on the extent to which these processes are consistently implemented.

While structure and process focus on whether certain elements thought to lead to good health care are present, they do not automatically result in good outcomes. Thus measurement of actual results, such as the number of patients that survive a heart attack, or the rate of infant mortality, is important as well.

Brook, McGlynn, & Cleary (1996) have suggested that for structure and process variables to be credible, one must show that changes in either the structure or the process result in differences in outcome. For example, research showing that the use of beta blockers after a heart attack results in lower mortality lends credibility to a measure of whether or not beta blockers are administered as an indicator of quality. Thus one method of assessing quality is evaluating certain process of care against an ideal criterion, such as that specified in a practice guideline.

Another method for assessing quality described by Brook et al (1996) is to compare actual clinical outcomes of a specific provider, organization, or health plan with the outcomes that would be expected under excellent, average, or poor care. For example, research may have found that in a population of type II diabetics receiving excellent care, one can expect that 95% will have normal glycosylated hemoglobin, while with average care only 75% will have normal levels. The actual outcomes can then be compared with these criteria to determine the level of quality of care delivered by a specific provider.

Brook et al (1996) suggest that in many circumstances measures of process criteria may be more accurate than measures that look solely at outcome. They note that patients can have good outcomes even when they do not receive the standard of care. In addition, the outcomes for some conditions, such as diabetic retinopathy, may not become evident for many years. They argue that the areas where outcome measures will be most appropriate are those in which there is strong evidence that the processes that can be controlled by the physician lead to different outcomes; where these processes may be difficult to measure (such as complex surgical procedures); and where there is a short

interval between the process and the outcome. They suggest that risk adjusted mortality rates following coronary artery bypass surgery is one example of appropriate use of outcome measures.

The Institute of Medicine (IOM) defined quality of care as “...the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (Institute of Medicine, 1990). The IOM has further concluded that the quality of health care can be defined with a level of accuracy equal to many measures of clinical medicine. However, while health care can be superb, in many instances it falls short of this, resulting in loss of life, reduced functioning, and inefficient use of resources. These problems stem from the overuse, underuse, and misuse of medical care (Institute of Medicine, 1998). They argue for an approach that combines elements of regulation, quality improvement, and marketplace strategies to improve the quality of health care.

Medicaid Quality

Studies evaluating the quality of care and service received by Medicaid recipients has suggested that the overall quality is low and that it lags behind the quality of care received by individuals covered by commercial insurance (Landon et al., 2007; Thompson, Ryan, Pinidiya, & Bost, 2003). In a recent study, Landon et al (2007) evaluated performance on a number of Healthcare Effectiveness Data Information Set (HEDIS) measures to determine if there were differences in quality between commercial managed care plans, managed care plans that served both commercial and Medicaid members, and managed care plans that served only Medicaid members. They found that members covered under commercial insurance had much higher quality scores than

members covered by Medicaid. The quality scores for Medicaid recipients did not differ between those served by Medicaid only plans, as opposed to those that served both Medicaid and commercial populations. Thus, the authors suggest that the characteristics of the health plan itself are less important than characteristics of the population, the specific provider networks that are providing care, the patterns of seeking care, and the degree to which individuals follow treatment recommendations. They note that the differences in quality between members in commercial versus Medicaid plans were both statistically and clinically significant, and that raising the performance in Medicaid plans to that of commercial plans could result in several thousand fewer deaths annually.

Variations Across States

Shea, Davis, and Schor (2008) found that there are significant variations in the quality and access to health care for children across the country. According to their analysis there are leading states that consistently perform better on multiple indicators of child health; these states typically have lower rates of uninsured children. The authors suggest that from this standpoint Medicaid and the State Children's Health Insurance Program (SCHIP) play a significant role in providing increased access to health care services for low income children, noting that with the enactment of SCHIP, the number of states with more than 16% of their children uninsured has decreased from 12 to five. They conclude that having better access to care and higher rates of insurance are associated with better quality, noting that states with the lowest rates of un-insured have higher rates of preventive care and better performance on other child health indicators. However, having health care by itself does not guarantee quality, and there are also significant variations among states within their Medicaid population.

Along with differences in the quality of care received by Medicaid members in general, studies have also found that there is significant variation in quality between Medicaid recipients in different states. Ramírez de Arellano and Wolfe (2007) evaluated state Medicaid programs in terms of their eligibility requirements, the scope of services covered, quality of care, and reimbursement for providers. They concluded that overall, state Medicaid programs have significant opportunities for improvement, with the highest scoring state rating 645.9 points on a scale of 1000. They found significant discrepancies between state Medicaid programs, with the lowest scoring state achieving half the points of the highest scoring state. The discrepancies related to quality were even more striking, with a seventeen fold difference between the highest and lowest scoring states.

Ramírez de Arellano and Wolfe (2007) conclude that there are no standard quality measures that are used across all states, thus comparisons between states is difficult. Their study evaluated areas such as whether the state had mandatory requirements for reporting quality information, such as medical errors; measures of nursing home care, including the percentage of facilities with deficiencies related to quality of care; data on children receiving recommended immunizations, and children with emotional problems that received mental health care. Due to the lack of standard Medicaid measures of quality, some of the data they evaluated (such as immunization rates) was state-wide, regardless of insurance coverage and thus represent a proxy for the quality of care delivered under Medicaid. The authors conclude that their findings argue for the need to redefine “quality control” as it pertains to Medicaid programs, noting that The Centers for Medicare and Medicaid Services (CMS) currently require the monitoring of only eligibility determinations, which relate to fiscal rather than quality of care outcomes.

While CMS does not have significant requirements related to quality monitoring of services provided under traditional Medicaid programs, they do have a number of requirements for programs that contract with risk based managed care organizations. Some of these requirements will be discussed further in the sections that follow.

Managed Medicaid and Impact on Quality

The number of Medicaid recipients in managed care programs has continued to increase, from approximately 14% in 1991 (Highsmith & Somers, 2000) to 65% in 2006 (Office of the Inspector General, 2008). In 2008 over 30% of states increased the use of managed care, either through the inclusion of persons with disabilities, expanding into new geographic service areas, or requiring enrollment in managed care plans where it had previously been voluntary (Smith et al., 2008). As noted earlier, state Medicaid programs began to shift toward contracting with managed care organizations as a means of both controlling escalating health care costs and improving access to care and the quality of care. The impact of managed care on improving overall quality has been mixed, with some studies finding that the greater accountability has led to improvements in quality, while others have found that shifts in the traditional patterns of care and disruptions in the structure of traditional safety net providers may have led to disruptions in care that has had a negative impact on quality.

Bollinger et al. (2007) evaluating the impact of shifting from a traditional fee-for-service model to a managed care model, reported that this shift was associated with an improvement in the utilization of services by children with asthma. Specifically they found that over a four year period there was an increase in routine office visits, decreases in emergency room and hospital admissions for asthma care, and corresponding increases

in the use of inhaled corticosteroids, reflecting better use of controller (as opposed to rescue) medications. This study used as its baseline, the first year of managed care, and tracked improvement over the four year period from 1997 to 2000. Thus while the study documented improvements in care over time following implementation of a managed care program, there were no direct comparisons to the utilization of services prior to the implementation of managed care. The authors conclude that some of the factors that may have led to these improvements included more effective asthma case management, better access to and use of preventive care visits, improved specialty care access, and increased use of peak flow meters. However, their study design did not allow conclusions as to whether these factors were related to improvement, or what role the managed care organization, or state Medicaid agency may have played.

Cotter et al (2000) examined the impact of different types of managed care arrangements on the rates of immunizations in Medicaid covered children. Specifically the looked at differences between recipients that were enrolled in a primary care case management program (PCCM), a voluntary managed care program, and a mandatory managed care program. Recipients in a PCCM program are covered through the traditional fee-for-service Medicaid program, however, they are assigned to a primary care physician who is responsible for providing a medical home and coordinating their medical care services. The study found that immunization rates were highest for individuals enrolled in the PCCM program and lowest in the mandatory managed care program. However, while the study findings suggested that type of managed care program impacted the rate of immunization, they could not rule out other subject factors since the different programs served different geographic regions of the state, with the

PCCM program being active in both rural and urban areas and the two managed care programs serving two different urban areas. The authors concluded that regardless of the type of plan, all immunization rates were below the Healthy People 2010 goals and that continued quality improvement efforts are essential. They noted that improved outcomes will require monitoring by the state Medicaid agency to assure performance by managed care programs.

Another study on the impact of implementing managed care for the Maryland Medicaid program found that the rate of re-hospitalization for mental illness increased in the year following managed care, when compared with the previous year (Fontanella et al., 2006). The researchers examined changes in the rate of mental health readmissions for adolescents that were hospitalized during the year before implementation of a managed care program, and those hospitalized in the year following implementation. They found that while the overall rate of readmission was not significantly greater in the year following implementation of managed care, the proportion of adolescents with multiple readmissions increased, with the proportion of those having three or more readmissions more than doubling. The authors suggest that this increase in multiple readmissions may reflect shorter hospital lengths of stay, with patients being discharged before they were stable, along with diminished community resources to provide ongoing outpatient care. They note that a number of safety net providers experienced significant financial and administrative challenges following the impact of managed care which may have adversely affected their ability to provide care. However, like many studies evaluating the impact of managed care in Medicaid, this study only evaluated the initial year of managed care implementation. Thus it is not possible to assess the degree to

which maturation of the program, along with continued and perhaps more rigorous oversight by the state Medicaid agency may lead to improvements in quality.

Aizer, Currie, and Moretti (2007) found that the implementation of mandatory managed care for California Medicaid recipients was associated with decreases in the initiation of timely prenatal care, and increases in the rate of neonatal mortality, low birth weight and premature birth. They hypothesized that the emphasis of managed care companies on reducing costs and utilization, led to a decrease in access to physicians, as well as shifts towards hospitals with lower costs but poorer outcomes. They note that under the program design, most of the managed care plans were not responsible for paying for the subsequent health care costs of infants that required intensive care, or other costly medical services. Thus, they suggest that the program design (and the services an MCO is responsible for) can have a significant impact on the resultant quality and outcomes.

State Oversight of Managed Medicaid Plans

Authors have suggested a number of ways that Medicaid agencies can utilize arrangements with managed care organizations to improve the quality of health care. Among the tools available to agencies are contractual requirements to meet specific quality or access goals; requirements for conducting performance improvement projects, the use of performance measurement in conjunction with specific financial or non-financial incentives and/or the public reporting of such data. There has been much attention recently to the use of “pay for performance” incentives, or value based purchasing as techniques for improving health care quality, although to date there have been mixed results as to its effectiveness.

Verdier and Hurley (2004) note that performance measurement of managed health plans is a fundamental requirement for state Medicaid agencies exerting oversight over the provision of health care services. While the nature and use of this data may vary with the maturity of the program and the context within which it operates, they identify several recommendations for Medicaid agencies to use in oversight of health plans.

Public Reporting

The authors suggest that ongoing evaluation and reporting is essential both to drive improvements in quality and to demonstrate accountability and credibility with external stakeholders. Among their conclusions, Verdier and Hurley (2004) suggest that public reporting of data can be an important tool, provided that the data is credible and that it is tailored to meet the different needs and understanding of different audiences. For example, they suggest that health plan staff are more familiar with, and will make better use of complex health data, than will legislators, recipients, or the media. They report that the states that they surveyed used a variety of performance measures, including encounter data, member complaints and grievances, provider participation, HEDIS and Consumer Assessment of Healthcare Providers and Systems (CAHPS) data, External Quality Review Organization (EQRO) reports, and MCO financial reports. Their data suggested a greater comfort and acceptance with the public reporting of standardized data such as HEDIS and CAHPS measures, as opposed to financial measures. They also note that there is variation among states as to whether plan specific data is reported publicly, but suggest that such specific reporting may be more effective in improving performance when health plans feel that there is a need to compete with each other to achieve higher enrollments.

In a review of empirical literature, Fung, Lim, Mattke, Damberg, and Shekelle (2008) found mixed evidence supporting a link between public reporting of data and improvements in quality, or selection of a health plan. Their review identified two randomized controlled trials both of which found no impact on the public reporting of patient satisfaction data from the CAHPS and the selection of a health plan. However, they cite other studies that found consumers reported being willing to accept health plans with less generous coverage if those plans had higher satisfaction ratings, and that consumers were more likely to switch from plans with lower reported quality. They found no studies that linked reporting of health plan performance data and quality improvement activity. They cited one study that found health plans voluntarily reporting performance data (HEDIS and CAHPS measures) outperformed plans that did not report this data. However, such findings could likely result from plans with better performance being more likely to choose to report their data.

Similar to the conclusions of Verdier and Hurley (2004) Fung et al. (2008) suggest that for public reporting to be successful in improving quality, it is important that the reporting system be designed to achieve a specific purpose. Thus if the goal of a reporting system is to assist consumers in choosing a health plan, then information must be presented in ways that are comprehensible and relevant to their selection.

Contractual Requirements

One of the ways that states are theoretically able to achieve improvements in quality through the use of managed care arrangements is by holding MCOs contractually accountable for achieving certain performance goals. These may include requirements related to accessibility of providers, as well as achieving specific levels of improvement

in quality of care. Fossett et al. (2000) suggest that states must do three things in order to be “prudent” purchasers of health care: 1) they must be able to specify their requirements for performance in a measurable form; 2) they need to have a mechanism to identify whether or not plans are complying with these requirements; and 3) there must be consequences for the failure of plans to achieve these requirements.

In a survey of the practices at five states that had managed care contracts, the authors found that most states were not effectively utilizing these tools to achieve improvements in performance (Fossett et al., 2000). They found that states had few specific performance requirements for quality, and where specific standards did exist, there was often no penalty for failure to achieve the goal. The authors suggest that becoming a prudent purchaser of health care is a complex task requiring significant investment in data quality and systems for oversight. Additionally, while most states have requirements for performance data, this has not consistently been analyzed or used to improve quality.

Performance Measurement

The use of specific strategies to drive quality improvement has been evolving over time, as state Medicaid managed care programs have become more mature. Studies have found that while few states had any quality management activities in place in 1995, by 2001, most were collecting some performance data related to satisfaction, access, or quality (Landon, Schneider, Tobias, & Epstein, 2004). In a survey of state Medicaid agencies, Landon et al. (2004) found that oversight of managed care plans has been increasing, but that opportunities for further improvement exist. Similar to the findings of Fossett et al. (2000), they found that while more states were collecting performance

data, few states were specifying specific minimum standards for quality measures (immunization rates were the exception). They also found that while there was an increase in the reporting of comparative performance data, this was generally reported directly to health plans, rather than to recipients or to the public. In addition, Landon et al (2004) found that there had been little increase in the number of states that had specifically targeted areas for improvement, although they did find that the number of states reporting that improvement had occurred had increased from four in 1995, to 10 in 1998, and 17 in 2001. Finally, they found that while approximately one-third of states had some sort of incentive or penalty system in place in 2001, in practice it was rarely utilized. They conclude that while the monitoring of managed care plans by states was steadily increasing from 1995 to 2001, to be effective in improving quality, data will need to be tied to specific incentives and penalties (both financial and non-financial) for achieving specific quality goals.

Performance Improvement Projects and Quality Collaboratives

One of the tools for improving the quality of care is through a performance improvement project (PIP). CMS describes the purpose of a PIP as "...to assess and improve processes, and thereby outcomes, of care." (Centers for Medicare & Medicaid Services, 2002a). According to CMS a PIP should focus on topics that are likely to impact a significant portion of enrollees and are likely to have a substantial impact on health, functional status, or satisfaction. PIPs should address a specific study question, through the collection of valid data on a representative sample of the population in question. Analysis of this data is used to generate hypotheses about current barriers to improvement and potential interventions. These interventions are implemented with

subsequent measurement to determine whether improvement has occurred and if so, ongoing actions must assure the sustainability of these changes.

Performance improvement projects represent a methodical approach to evaluating the current status of a health care process or outcome and implementing interventions focused on improving this process or outcome. Under the BBA, PIPs are required by managed care organizations serving Medicaid enrollees, and they must be validated by an external quality review organization (EQRO). Thus the use of PIPs represent another strategy that state Medicaid agencies can utilize to effect improvement in quality of care and service.

Performance Improvement Projects can be done individually by each managed care organization in a state, conducted collaboratively with other MCOs and stakeholders within the state, or across different states. Gold, Krissik, and Mittler (2006) describe a series of quality collaborative work groups that were sponsored by Center for Health Care Strategies (CHCS) and focused specifically on improvements in Medicaid managed care enrollees. Gold et al. (2006) note that these collaboratives provide an opportunity for health plans to share ideas with other Medicaid plans and to increase the rigor and overall approach to quality improvement activities. The shared and collaborative focus allows plans to learn from each other, while also providing external accountability for maintaining focus that might otherwise be absent when the activity remains internal to the plan itself.

While specific outcome data was not reported, the authors indicated that over 74% of the plans participating in an ongoing collaborative workgroup reported making sustained changes to their programs, compared with only 53% of those that participated

in single session groups. The authors suggest that a critical area for improvement lies in the ability of plans to measure performance and in the development of standard measures and goals to allow better tracking of progress. One of the benefits of the collaboration was that several managed care plans used the workgroups as impetus to work with their states Medicaid agencies on barriers to improvement that were external to the health plan itself.

While there have been few detailed studies in this area, other authors have suggested that addressing and improving health care across a state is too large a task for a single state agency or individual MCO to have significant impact. They argue for the importance of collaboratives that involve multiple stakeholders from the state Medicaid agency, MCOs, providers, and others (Krissik, Ireys, Markus, & Rosenbaum, 2008).

Value Based Purchasing

In recent years there has been increasing interest and activity directed at aligning provider compensation with the quality of care provided. In 2001, the Institute of Medicine, in its report *Crossing the Quality Chasm* focused attention on serious problems with the quality of medical care, and the need to align payment policies with quality improvement (Institute of Medicine, 2001). CMS has also endorsed value based purchasing, noting that current systems are based on rewarding the quantity, rather than the quality of care. To achieve a vision of providing “the right care for every person, every time”, CMS is shifting to a payment strategy for Medicare services that links the amount of payment to the quality of care provided (CMS Hospital Pay for Performance Work Group, 2007). Similarly, more state Medicaid agencies are employing pay for performance strategies, as incentives for MCOs, or for health care providers.

In an evaluation of pay for performance programs in five Medicaid health plans, Felt-Lisk, Gimm, and Peterson (2007) found that while pay for performance was effective in improving the timeliness of well baby care, that the effectiveness varied by health plan. Based on their analysis of these programs they concluded that the more successful health plans had more effective financial incentives, both in terms of amount of the incentive, as well as providing incremental incentives for modest improvements. They suggested that good communication between health plans and providers was important, along with the provision of technical support to providers (such as providing lists of children due for well-baby visits).

While the importance of Medicaid agencies basing MCO payments on improvements in quality has been emphasized (Fossett et al., 2000), there have not been any systematic evaluations as to the effectiveness of pay-for-performance at this level.

External Quality Review Organizations (EQRO)

Based on requirements outlined in the Balanced Budget Act (BBA), ("Balanced Budget Act of 1997,") CMS began requiring states that contract with managed care organizations develop a written strategy to monitor and assess the quality of care provided to Medicaid recipients. CMS requires that the states specify the specific goals and objectives that will be measured and the overall strategy for how these objectives will be achieved. The state also must require that each MCO have an ongoing quality assessment and performance improvement program that conducts performance improvement projects; measures performance data; has mechanisms to detect over and under utilization of services; and has mechanisms to assess the quality and appropriateness of the care furnished to those with special health care needs (Centers for

Medicare & Medicaid Services, 2002b). Additionally, under these requirements state Medicaid agencies must contract with an External Quality Review Organization (EQRO) to validate performance measures, performance improvement activities, and assess MCO compliance with state contracts and federal regulations (Centers for Medicare & Medicaid Services, 2003). In addition, Medicaid agencies can utilize EQROs to conduct “optional activities” such as focused studies, providing technical assistance related to improvement in a specific area, and producing annual reports on their evaluations. To qualify as an EQRO, an organization must at minimum meet the following requirements:

- Competence: The EQRO must have staff with experience and knowledge of Medicaid recipients, policies, processes; managed care delivery systems; quality assessment and improvement methods; research design; the physical, technical and financial resources to conduct EQR activities, and competence to oversee the work of subcontractors.
- Independence: The EQRO must be independent from the State Medicaid Agency and the MCOs that they are reviewing. They cannot exert control, or have any contractual relationships with the MCOs, nor can they deliver any health care services to Medicaid recipients.

A recent study suggested that many states are not aware of or are not fully utilizing EQROs to assist in the evaluation and improvement of the delivery of developmental services to children (Ireys, Krissik, Verdier, & Melissa, 2005). Although a majority of members enrolled in Medicaid managed care plans are children, the authors found that in any given year, few states utilized their contracted EQRO to evaluate the quality of preventive or developmental services for children. When studies were done,

they generally calculated the rate or occurrence of EPSDT or well child visits, rather than the content of these visits and whether or not preventive services or anticipatory guidance are offered.

Among their recommendations, Ireys et al. (2005) suggest that it is important for states to include standards for preventive and developmental services in their quality strategy and managed care contracts and to incorporate requirements for improvement in preventive or developmental services into mandatory performance improvement projects. In addition, they suggest that it will be difficult for a single state agency to make progress on improving the state wide provision of preventive or developmental services. Therefore they recommend that states develop models and contractual requirements for collaboration of multiple stakeholders, including the MCO and EQRO participants (Ireys et al., 2005; Krissik et al., 2008). To be effective, such collaborative arrangements should include other stakeholders, such as providers, members, public health departments, and others involved in the provision of these services.

Noting studies that have found associations between the use of electronic medical records (EMR) and improved quality of care, the authors suggest that a further avenue to pursue is encouraging the adoption of EMR. This can assist in both documenting the provision of developmental services, as well as providing cues or reminders for providers as to the services that are due for a particular patient (Krissik et al., 2008).

Accreditation

An area not often discussed in the policy literature is establishing requirements for accreditation to allow managed care organizations to participate in state Medicaid programs. Accreditation by private organizations can provide independent attestation of

a health plan's adherence to specific quality standards. In addition, to avoid duplication of activities federal regulations allow states to use information obtained from reviews by a Medicare or private accrediting organizations to demonstrate compliance with requirements for quality oversight of managed care plans (Centers for Medicare & Medicaid Services, 2003). States must specify in their quality strategy those specific standards for which they will use the results of the private accreditation review to assess compliance, and why these standards are duplicative with the federal and state standards.

The National Committee for Quality Assurance (NCQA) has developed a crosswalk between its standards and federal Medicaid managed care requirements which can be used by states as a guide to determining which review activities can be streamlined by deeming them as equivalent to NCQA standards. According to the NCQA, 25 states currently use NCQA accreditation, either as a requirement to participate in their Medicaid program, or to assist in their external quality review by deeming NCQA standards as equivalent to specific federal and state standards (Thurston Toppe & Love, 2009).

Summary of Recommendations for State Oversight

Policy experts have suggested a number of steps that Medicaid agencies can take to bolster their efforts to improve access and quality of care for Medicaid recipients receiving services through managed health care organizations. These recommendations have focused on leveraging requirements from the BBA and the use of EQROs to utilizing standard performance measures such as HEDIS and CAHPS and tying these to value based purchasing strategies. Additional recommendations have focused on

beginning to build in plans to use EMR as part of quality improvement strategies and to utilize health collaboratives to address statewide improvements.

While some studies have looked at the evolution of Medicaid quality programs over time (Landon & Epstein, 1999; Landon et al., 2004; Landon et al., 1998), there have not been any recent studies that have evaluated the extent to which Medicaid agencies have implemented a number of these different strategies and whether or not it is possible to correlate these strategies with the ability to assess quality outcomes.

III. METHODS AND PROCEDURES

The present study utilized a standardized survey to query state Medicaid agencies regarding their quality strategies, and the requirements related to quality improvement that they have established for their managed care organizations. It assessed the degree to which Medicaid agencies have adopted recommendations geared toward improving quality by evaluating the extent to which state programs have:

1. Established performance measures based on national or standardized measures;
2. Implemented a process to report measures and other quality data publicly;
3. Targeted the reporting of public information toward different stakeholder groups:
 - a. Members;
 - b. Providers;
 - c. Legislators and other regulators;
 - d. Advocates;
4. Encouraged, required or utilized computerized health data;
5. Established value-based purchasing utilizing some form of reward for high performing providers or health plans;
6. Established a regular process to coordinate multi-stakeholder collaboration regarding quality improvement initiatives;
7. Established a process to evaluate the content and not just the rate of developmental services; and

8. Incorporated requirements for improvement in developmental and preventive services into either their quality strategy, state plan, or MCO contracts

The study also considered whether there were specific measures being utilized by a majority of Medicaid agencies which would allow national reporting of comparative quality data.

Survey Instrument

A seventy-six item tool was developed to survey Medicaid agency staff on various quality measures and strategies that they have adopted as part of their managed care programs (Appendix A). In an effort to increase response rates, the survey was designed to allow for quick and efficient input by the respondent. To increase the standardization of the responses, the majority of questions were designed to require structured input, such as endorsing the specific quality improvement tools that were used by the agency. The survey was designed as a web-based tool that required user to follow a link from an e-mail and select their responses by clicking their mouse. The tool utilized skip logic such that a “No” response preceding a block of questions (such as “Does your state require reporting of HEDIS measures?”) would skip all subsequent questions related to that response. The purpose was to focus respondents’ time and attention on only those areas relevant to their state and to minimize the response time to complete the survey. Pre-testing of the tool using staff members from the Georgia Department of Community Health indicated a time of approximately 15 minutes to answer all of the questions.

The survey instrument was administered through PsychDataTM (www.psychdata.com), an internet based survey tool that has been developed specifically for social sciences research. PsychDataTM was chosen because it is specifically designed

for academic research and has a number of safeguards to ensure the security and confidentiality of data, including encrypted data transmission, password protected data, and a secure survey environment which does not store any session data on the user's computer. In addition, PsychDataTM allows direct export of data into SPSS, which streamlined the process of creating the data file for analysis.

The survey instrument was divided into sections that asked respondents questions on:

- Their managed care program and populations that were covered;
- Oversight of EPSDT services;
- Requirements for Performance Improvement Projects;
- The types of Performance Measures required, and ways that they were used to assess quality; and
- Initiatives focused on Public Reporting, Value Based Purchasing, and Electronic Health Data.

The investigators considered asking more detailed questions regarding the dates that specific quality initiatives were started and stopped, along with trended performance data or HEDIS data. While this would have potentially allowed for an assessment of which specific quality initiative were associated with specific improvements in quality, this information was not requested as part of this study. It was felt that the level of detail required to respond would have discouraged Medicaid staff from participating. Further, it was unlikely that an adequate sample size would have been generated to have sufficient statistical power to draw definitive conclusions. Although quantitative data on

improvement was not collected, a subjective assessment was taken by asking respondents to indicate whether or not any improvement had occurred on specific performance measures over the past three years.

Survey Distribution

A list of the Medicaid Directors for all 50 states was compiled from a membership listing of the National Association of State Medicaid Directors (NASMD). A cover letter describing the purpose of the study and requesting participation was sent by e-mail to the Medicaid Directors of all 50 states by the Quality Director of the Georgia Department of Community Health (Appendix B). The e-mailed letter contained a direct link to the survey instrument. Directors were asked to have the staff member most familiar with the managed care quality program complete the survey. We received five automated responses that the original e-mail was not received, either because of an invalid address, or because the Medicaid Director for that state had retired. In each of these cases, the correct contact address was identified, either through a search of the agency website or by a phone call to the agency, and the e-mailed letter was successfully delivered.

States that did not respond within two weeks were sent a reminder message by the study investigator requesting that they complete the survey within the next week. A third reminder was sent to states that had still not responded after the end of the third week.

A few states requested that a hard copy of the survey questions be sent to them so that they could distribute the questions to different content experts, compile the responses, and then submit their answers to the on-line survey tool. A print copy of the survey questions was e-mailed to those states that requested it.

Data Analysis

Survey data was downloaded into SPSS for analysis. Data was analyzed for only those Medicaid agencies that reported that they had risk-based managed care programs. The analysis included descriptive data as to the number and percentage of state Medicaid agencies utilizing each of the different measures and strategies described above.

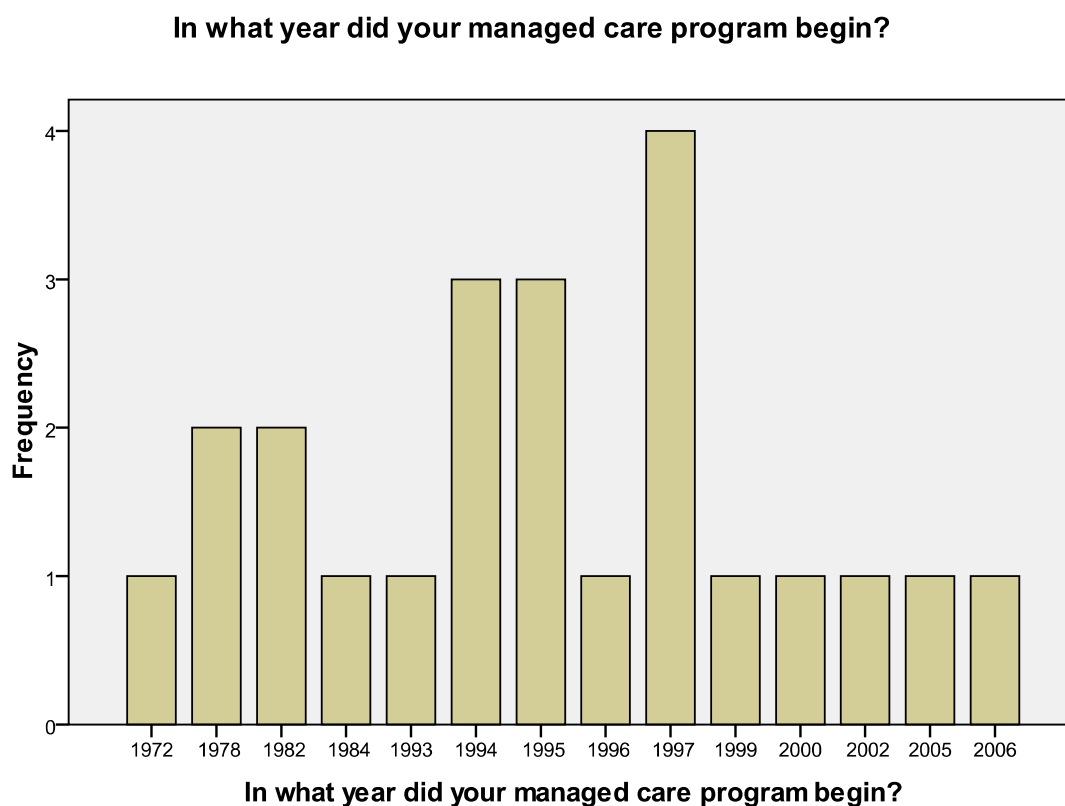
A number of the survey questions allowed respondents to select multiple responses. For example, the question “*Which populations are included in your risk based managed care program?*” allowed respondents to as few or as many of the listed populations that applied. For these questions a multiple response analysis was used which calculated the percentage of all possible responses for each question. In a single response question which allows respondents to select only one answer, the number of responses will not exceed the number of respondents. Thus, 50 states responding to a question with four possible choices would yield up to 50 responses. In a multiple response question, 50 states responding to a question with four possible choices could yield up to 200 responses (each of 50 states selecting all four choices). The multiple response analysis used in this study produced two statistics, *Percent* and *Percent of Cases*. *Percent* reflects the percentage a response is selected relative to the total number of responses; the cumulative *Percent* should not exceed 100. The *Percent of Cases* reflects the percentage of respondents (States) that selected a particular response; the cumulative *Percent of Cases* can exceed 100 since each state can select more than one response. In this study *Percent of Cases* was the statistic of interest as the study objective was to assess the percentage of states that are using specific quality tools and measures. Therefore the *Percent* of responses is not displayed in the results tables.

In addition to descriptive data, a crosstabs analysis was conducted to assess the relationship between the use of pay for performance incentives, performance improvement projects and self-reported improvements in quality. The survey asked states that used HEDIS measures as performance measures to indicate 1) which of 35 HEDIS measures were reported to the state, and of these, which ones 2) were the focus of a P4P incentive, 3) were the focus of a PIP, and 4) demonstrated improvement over the past three years. There were 21 states that responded to this section of the survey, and 35 HEDIS measures. This resulted in a potential of 735 observations for each of the four variables listed above. Because a state would only be able to know if improvement had occurred if the specific measure was reported, the analysis only included HEDIS measures that the state indicated were being reported to them. This resulted in a total of 329 observations for the variables 1) Focus of P4P incentive; 2) Focus of PIP; and 3) was improvement demonstrated. To determine whether either P4P incentives or PIPs were associated with improvements in quality, a crosstab analysis was computed between each variable and the variable Improvement demonstrated.

IV. RESULTS

A total of 31 states responded to the survey; of these, 24 (77%) reported that they currently had contracts with risk-based managed care programs for their Medicaid recipients; 7 (23%) indicated that they had no risk-based managed care contracts. Of the 24 states reporting that they had managed care programs, one did not respond to any additional questions, thus there were 23 valid responses from state Medicaid agencies with risk based managed care programs. A 2008 report on managed care in Medicaid by the Office of the Inspector General (Office of the Inspector General, 2008) identified 37 states with risk based managed care programs. Thus the responses for this study reflect 62% of the states with risk based managed care programs.

The states responding indicated that they had managed care programs in place for an average of 16.30 years, with a range of 3 years to 37 years. Eighty-two percent (82%) reported that their managed care programs had been in effect for 10 or more years.

Table 1 – Implementation of Managed Care Program

Using a multiple-response format (meaning that respondents could endorse a single or multiple selections), states were asked to report on which populations were enrolled in managed care programs. All of the states indicated that their programs included low income children and pregnant women. In addition, 78% reported that they included their SSI populations and 61% reported that they included their medically needy populations and members that were in foster care. Less than 40% reported including members covered because they were eligible for both Medicaid and Medicare, or because they had breast or cervical cancer.

Table 2 – Managed Care Populations

		N	Percent of Cases
Managed Care Populations	Low income children	23	100.0%
	Pregnant women	23	100.0%
	Medically needy	14	60.9%
	SSI	18	78.3%
	Dual eligible	9	39.1%
	Breast and Cervical Cancer	9	39.1%
	Foster Care	14	60.9%
	Other (Please specify)	5	21.7%

Although public health providers have traditionally served as safety net providers for low-income, uninsured, and Medicaid patients, 32% of the states reported that public health providers were not covered by their MCOs. The states were approximately evenly divided on their report as to whether their quality programs has oversight over only their managed care programs (48%), or over both their managed care and their fee-for-service programs (52%).

Performance Improvement Projects

Performance Improvement Projects (PIPs) are required by the BBA and are one of the methods policy experts recommend that states use to emphasize improvements in quality. While Medicaid agencies may allow each of their contracted MCOs to choose PIPs that they believe are relevant for their membership, one of the ways that states can direct efforts to improve quality is to specify specific areas that PIPs should address.

The number of reported PIPs required by states varied from one to eight, with an average of 2.32 per state. Eighty-one percent of the states require three or fewer PIPs,

and there was only one state that required more than four. A total of 19 of 22 states (86%) stated that they specify specific areas that their MCOs must address with their PIPs. As shown in Table 3, the most frequently addressed area was childhood immunizations (58%), followed by well child visits (47%), and child chronic conditions (32%). Few states required PIPs to focus on dental services (21%), or access to care (21%). Two states (9%) required PIPs focused on childhood obesity, and only one reported requirements to address prenatal care.

Some researchers have suggested that utilizing collaborative improvement projects, in which various payers, providers, etc. coordinate together to improve care, can be more effective than having each MCO embark on their own improvement project. Sixteen of 23 states (70%) reported that they require that their MCO conduct one or more PIPs in collaboration with other organizations. Well-child visits were most often the focus of a collaborative PIP, required by five states (31%). This was followed by child immunizations (25%), adult chronic conditions (25%), and child chronic conditions (19%) (see Table 4). In most cases the oversight and coordination of the collaborative PIP has been conducted by state Medicaid agency staff (87% of states) (see Table 5).

Table 3 – Required Performance Improvement Projects

		N	Percent of Cases
Required PIP Areas	Well Child Visits	9	47.4%
	Immunizations	11	57.9%
	Dental services	4	21.1%
	Child chronic conditions	6	31.6%
	Adult chronic conditions	2	10.5%
	Access to care	4	21.1%
	Member or provider satisfaction	3	15.8%
	Other (Please specify)	13	68.4%

Table 4 - Focus of Collaborative PIP**Focus of Collaborative PIP – Multiple Response Frequencies**

		N	Percent of Cases
Collaborative PIPs	Well Child Visits	5	31.3%
	Immunizations	4	25.0%
	Dental services	2	12.5%
	Child chronic conditions	3	18.8%
	Adult chronic conditions	4	25.0%
	Access to care	2	12.5%
	Member or provider satisfaction	1	6.3%
	Other (Please specify)	8	50.0%

Table 5 - Coordination of Collaborative PIP

		N	Percent of Cases
Who Coordinates Collaborative PIP	Medicaid staff	14	87.5%
	EQRO vendor	5	31.3%
	Academic Institution	1	6.3%
	Other (Please specify)	5	31.3%

Incentives and Penalties

One method for states to encourage achieving specific quality goals is to align financial incentives such that MCOs or provider are either rewarded for reaching these goals, or penalized for failing to meet established goals. These may be monetary, in the form of additional or higher payments, or may take some other form that is beneficial for the MCO or provider. Only 14 states (61%) reported that they currently provide any incentives or penalties that are specifically tied to quality goals; 13 of these states specified the types of incentives they provided. The most common incentive provided was a direct financial incentive to an MCO (85%), followed by public recognition for the MCO (54%) and preferential auto-assignment of new members to an MCO (46%). State reported that they were less likely to assess penalties or sanctions for failure to meet quality goals, with 12 states (55%) reporting that they did so. Similar to incentives, the most common penalty was monetary (67%), followed by loss of assignment of new members (50%).

Of the 13 states that reported specific quality incentives, only two states (15%) reported making direct incentive payments to providers. These two states, plus two additional, reported that they required their MCOs to provide quality incentives to

providers, while a total of 15 states (68%) reported that their MCOs were voluntarily providing some form of quality incentives directly to providers. The type of provider most likely to receive some form of incentive payment was a small primary care practice (71% of states), followed by large outpatient groups (57%), and public health clinics (36%).

Table 6 - Provider Incentives

		N	Percent of Cases
Provider Incentives	If yes, what provider groups are eligible to participate in the pay for performance program?: Hospitals	3	21.4%
	Large outpatient groups (IPAs, PHOs, etc)	8	57.1%
	Small or individual primary care practices	10	71.4%
	Public health clinics	5	35.7%
	Other (Please specify)	3	21.4%

Performance Measures

All of the states responding reported that they relied on the use of some type of standardized performance measures to evaluate the quality of care and service delivered to their members. Of these, 96% reported that they utilized HEDIS measures; the one state that was not using HEDIS measures indicated that they were using “HEDIS-like” measures. In addition to HEDIS measures a few states also reported using measures that have been developed by CMS (17%) and the Agency for Healthcare Research and Quality (AHRQ) (13%); two states reported the use of local, state-developed performance measures (see Table 7).

Table 7 – Use of Standardized Performance Measures

Standard Performance Measures - Multiple Response Frequencies		N	Percent of Cases
Standard Performance Measures ^a	HEDIS	22	95.7%
	CMS	4	17.4%
	AHRQ	3	13.0%
	Other (Please specify)	9	39.1%

All but two states (91%) reported that they relied on non-standardized performance measures to assess the quality of their programs. They indicated that these measures were used most frequently to measure access to care (78%), followed by utilization of services (70%) and provider networks (52%) (Table 8).

Table 8 – Use of Non-standard Performance Measures

		N	Percent of Cases
Non Standard Performance Measures	Provider networks	12	52.2%
	Access to care	18	78.3%
	Processes of care	9	39.1%
	Health outcomes	9	39.1%
	Utilization of service	16	69.6%
	Do not use any non-standard performance measures	2	8.7%
	Other (Please specify)	6	26.1%

HEDIS Measures

One of the most consistently reported means of evaluating quality by the different states was the use of HEDIS measures, with 96% reporting their use. States were asked

to indicate which of 35 HEDIS measures were 1) reported to the state; 2) the focus of a pay-for-performance incentive; 3) the focus of a performance improvement project; and 4) whether any improvement had been demonstrated on this measure over the past three years.

The measures most frequently utilized by states for assessing quality are presented in Table 9. Given that all states responding reported including low income children in their managed care populations, it is not surprising that the most frequently used measures pertained to services delivered to, or relating to the health of children. These included well visits for children and for adolescents, prenatal and postpartum care, and childhood immunization status. Other frequently used measures that may relate to children or adults included measures of appropriate medications for people with asthma, comprehensive diabetes care, and member satisfaction. Although there has been much recent concern related to the provision of dental services for Medicaid children (Centers for Medicare & Medicaid Services, 2009), only 50% of the states reported using the HEDIS measure Annual Dental Visit. A recent policy brief suggested that when compared with privately insured children, children covered by Medicaid are more likely to have untreated tooth decay and to be in need of urgent dental care. It also noted that parents of publicly insured children identified dental care as the greatest unmet medical need (Paradise, 2009).

Measures reflecting the quality of mental health services were not generally reported, with only 30% of states indicating they report on a measure of follow-up after a mental health hospitalization, and only 10% stating that they measure the follow-up care for children prescribed ADHD medications.

Table 9 – HEDIS Measures Reported to the State

	N	Percent of Cases
Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life	20	100.0%
Well-Child Visits in the First 15 Months of Life	20	100.0%
Use of Appropriate Medications for People With Asthma	19	95.0%
Adolescent Well-Care Visits	18	90.0%
CAHPS Health Plan Survey 4.0H, Adult Version	18	90.0%
Prenatal and Postpartum Care	17	85.0%
Childhood Immunization Status	16	80.0%
Comprehensive Diabetes Care	16	80.0%
CAHPS Health Plan Survey 3.0H, Child Version	16	80.0%
Cervical Cancer Screening	13	65.0%
Breast Cancer Screening	13	65.0%
Children's and Adolescents' Access to Primary Care Practitioners	12	60.0%
Adults' Access to Preventive/Ambulatory Health Services	11	55.0%
Frequency of Ongoing Prenatal Care	10	50.0%
Annual Dental Visit	10	50.0%
Lead Screening in Children	9	45.0%
Controlling High Blood Pressure	8	40.0%
Cholesterol Management for Patients With Cardiovascular Conditions	8	40.0%
Chlamydia Screening in Women	8	40.0%
Appropriate Testing for Children With Pharyngitis	8	40.0%
Appropriate Treatment for Children With Upper Respiratory Infection	8	40.0%
Children With Chronic Conditions	8	40.0%
Follow-Up After Hospitalization for Mental Illness	6	30.0%
Medical Assistance With Smoking Cessation	6	30.0%
Antidepressant Medication Management	5	25.0%

	N	Percent of Cases
Annual Monitoring for Patients on Persistent Medications	4	20.0%
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	4	20.0%
Beta-Blocker Treatment After a Heart Attack	4	20.0%
Persistence of Beta-Blocker Treatment After a Heart Attack	3	15.0%
Use of Imaging Studies for Low Back Pain	3	15.0%
Disease Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis	2	10.0%
Follow-Up Care for Children Prescribed ADHD Medication	2	10.0%
Use of Spirometry Testing in the Assessment and Diagnosis of COPD	2	10.0%
Pharmacotherapy of COPD Exacerbation	1	5.0%
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	1	0

With regard to efforts to improve quality as reflected by these measures, Childhood Immunization Status was the measure that was most frequently the focus of a pay for performance incentive (82%), and most frequently reported to be included in a performance improvement project (60%), as well as the measure most frequently cited as having shown improvement (92%). Of 21 states that reported that they utilized HEDIS measures to assess quality of care, 20 states (95%) reported that they had HEDIS measures reported to them by their MCOs, 15 (71%) indicated that they were the focus of a PIP, and only 11 (52%) reported that they were utilizing them as part of a pay for performance incentive. Thirteen states (62%) reported that they had observed some improvement on these measures over the past three years (Table 11).

Table 10 – Use of HEDIS Measures for Quality Improvement

Report HEDIS			
		Frequency	Valid Percent
HEDIS Measure Reported to State	Valid	Yes	20
			95.2
		No	1
			4.8
	Total	21	100.0
Missing	System	2	
Total		23	

HEDIS PIP			
		Frequency	Valid Percent
Focus of PIP	Valid	Yes	15
			71.4
		No	6
			28.6
	Total	21	100.0
Missing	System	2	
Total		23	

HEDIS P4P			
		Frequency	Valid Percent
Focus of P4P	Valid	Yes	11
			52.4
		No	10
			47.6
	Total	21	100.0
Missing	System	2	
Total		23	

HEDIS Improvement			
		Frequency	Valid Percent
Reported Improvement	Valid	Yes	13
			61.9
		No	8
			38.1
	Total	21	100.0
Missing	System	2	
Total		23	

Table 11 – HEDIS Measures – Strategies for Improvement

	P4P		PIP		Improvement	
	N	Percent of Cases	N	Percent of Cases	N	Percent of Cases
Childhood Immunization Status	9	81.8%	9	60.0%	12	92.3%
Adolescent Well-Care Visits	7	63.6%	6	40.0%	9	69.2%
Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life	6	54.5%	4	26.7%	10	76.9%
Use of Appropriate Medications for People With Asthma	6	54.5%	6	40.0%	9	69.2%
Prenatal and Postpartum Care	6	54.5%	2	13.3%	9	69.2%
Comprehensive Diabetes Care	6	54.5%	4	26.7%	8	61.5%
Cervical Cancer Screening	6	54.5%	1	6.7%	5	38.5%
Lead Screening in Children	6	54.5%	3	20.0%	7	53.8%
Well-Child Visits in the First 15 Months of Life	5	45.5%	3	20.0%	11	84.6%
Frequency of Ongoing Prenatal Care	4	36.4%	1	6.7%	5	38.5%
Controlling High Blood Pressure	4	36.4%			2	15.4%
CAHPS Health Plan Survey 4.0H, Adult Version	3	27.3%	1	6.7%	4	30.8%
Breast Cancer Screening	3	27.3%	1	6.7%	4	30.8%
Children's and Adolescents' Access to Primary Care Practitioners	3	27.3%	2	13.3%	7	53.8%
Annual Dental Visit	3	27.3%	3	20.0%	5	38.5%
Cholesterol Management for Patients With Cardiovascular Conditions	3	27.3%			3	23.1%
CAHPS Health Plan Survey 3.0H, Child Version	2	18.2%	1	6.7%	4	30.8%
Adults' Access to Preventive/Ambulatory Health Services	2	18.2%	1	6.7%	4	30.8%
Chlamydia Screening in Women	2	18.2%			2	15.4%
Follow-Up After Hospitalization for Mental Illness	2	18.2%			1	7.7%
Appropriate Testing for Children With Pharyngitis	1	9.1%			3	23.1%
Appropriate Treatment for Children With Upper Respiratory Infection	1	9.1%	1	6.7%	4	30.8%
Children With Chronic Conditions	1	9.1%	1	6.7%	3	23.1%

	P4P		PIP		Improvement	
	N	Percent of Cases	N	Percent of Cases	N	Percent of Cases
Medical Assistance With Smoking Cessation	1	9.1%			1	7.7%
Antidepressant Medication Management	1	9.1%				
Annual Monitoring for Patients on Persistent Medications	1	9.1%			1	7.7%
Persistence of Beta-Blocker Treatment After a Heart Attack	1	9.1%				
Use of Imaging Studies for Low Back Pain	1	9.1%			1	7.7%
Disease Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis	1	9.1%			1	7.7%
Follow-Up Care for Children Prescribed ADHD Medication	1	9.1%	1	6.7%	1	7.7%
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis						
Beta-Blocker Treatment After a Heart Attack						
Use of Spirometry Testing in the Assessment and Diagnosis of COPD			1	6.7%	1	7.7%
Pharmacotherapy of COPD Exacerbation						
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment					1	0
Totals	98		52		138	

Table 12 – Number of HEDIS Measures Reported to Medicaid Agencies

No. of HEDIS Measures					
	Number of Measures Reported	Number of States Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	1	4.3	4.8	4.8
	7.00	1	4.3	4.8	9.5
	9.00	1	4.3	4.8	14.3
	11.00	2	8.7	9.5	23.8
	12.00	1	4.3	4.8	28.6
	13.00	2	8.7	9.5	38.1
	14.00	2	8.7	9.5	47.6
	15.00	1	4.3	4.8	52.4
	16.00	2	8.7	9.5	61.9
	18.00	1	4.3	4.8	66.7
	19.00	1	4.3	4.8	71.4
	20.00	2	8.7	9.5	81.0
	21.00	2	8.7	9.5	90.5
	29.00	1	4.3	4.8	95.2
	30.00	1	4.3	4.8	100.0
	Total	21	91.3	100.0	
Missing	System	2	8.7		
Total		23	100.0		

Table 13 – Number of Pay for Performance Incentives

Number of P4P Incentives					
	Number of P4P Incentives	Number of States Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	10	43.5	47.6	47.6
	1.00	1	4.3	4.8	52.4
	3.00	1	4.3	4.8	57.1
	4.00	2	8.7	9.5	66.7
	5.00	1	4.3	4.8	71.4
	6.00	1	4.3	4.8	76.2
	8.00	1	4.3	4.8	81.0
	11.00	1	4.3	4.8	85.7
	15.00	1	4.3	4.8	90.5
	17.00	1	4.3	4.8	95.2
	24.00	1	4.3	4.8	100.0
	Total	21	91.3	100.0	
Missing	System	2	8.7		
Total		23	100.0		

Table 14 – Number of Performance Improvement Projects

Number of PIPs					
	Number of PIPs	Number of States Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	6	23.1	28.6	28.6
	1.00	4	17.4	19.0	47.6
	2.00	1	4.3	4.8	52.4
	3.00	3	13.0	14.3	66.7
	4.00	2	8.7	9.5	76.2
	5.00	3	13.0	14.3	90.5
	6.00	1	4.3	4.8	95.2
	8.00	1	4.3	4.8	100.0
	Total	21	91.3	100.0	
Missing	System	2	8.7		
Total		23	100.0		

To assess the degree to which PIPs or P4P incentives may be related to reported improvement in HEDIS measures, a crosstabs analysis was computed combining data from all 21 states that responded to this set of questions and all 35 HEDIS measures. This resulted in 735 potential observations for each of the three variables: whether a PIP was conducted; whether a P4P incentive was in place; and whether any improvement was reported by the state Medicaid agency. Eliminating observations for HEDIS measures that were not reported to the state resulted in a total of 329 observations. When no P4P incentive was in place, improvement was demonstrated in only 31.4% of the cases, as opposed to 68.8% of the cases when a P4P incentive was in place. Thus, having a PIP in place was significantly associated with a reported improvement in performance $X^2=38.4$, $p<.001$ (see Table 15).

Table 15 - Crosstabs: P4P & Improvement

P4P Incentive *Improvement Demonstrated Crosstabulation					
			Improvement Demonstrated		Total
			Improvement Demonstrated - Unchecked	Improvement Demonstrated - Checked	
P4P Incentive	P4P Incentive - Unchecked	Count	162	74	236
		% P4P Incentive	68.6%	31.4%	100.0%
	P4P Incentive - Checked	Count	29	64	93
		% P4P Incentive	31.2%	68.8%	100.0%
Total		Count	191	138	329

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	38.445 ^a	1	.000		
Continuity Correction ^b	36.922	1	.000		
Likelihood Ratio	38.546	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	38.328	1	.000		
N of Valid Cases	329				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 39.01.

b. Computed only for a 2x2 table

Similarly a having a PIP was also associated with improved performance. When there was no PIP associated with a HEDIS measure, improved occurred in 37.8% of the cases, as opposed to 64.7% of the cases with a PIP. This association was also significant, $X^2=12.8$, $P<.001$ (see Table 16).

Table 16 - Crosstabs: PIP & Improvement

Focus of PIP * Improvement Demonstrated Crosstabulation

			Improvement Demonstrated		Total
			Improvement Demonstrated - Unchecked	Improvement Demonstrated - Checked	
Focus of PIP	Focus of PIP - Unchecked	Count	173	105	278
		% within PIP	62.2%	37.8%	100.0%
	Focus of PIP - Checked	Count	18	33	51
		% within PIP	35.3%	64.7%	100.0%
Total		Count	191	138	329

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	12.840 ^a	1	.000		
Continuity Correction ^b	11.758	1	.001		
Likelihood Ratio	12.705	1	.000		
Fisher's Exact Test				.001	.000
Linear-by-Linear Association	12.801	1	.000		
N of Valid Cases	329				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 21.39.

b. Computed only for a 2x2 table

Public Reporting

As noted by Verdier & Hurley (2004), public reporting of quality data can be important in providing a level of transparency regarding efforts to improve quality, engaging stakeholders by providing data and feedback on the results of quality initiatives, and encouraging competition between MCOs and providers to improve performance on quality measures. Most states (87%) indicated that they do report at least some of their quality data publicly. The most common method of reporting is this information was through an annual report posted on a web-site (85%). Slightly less than half the states reported posting information on a health transparency website (45%) or producing a hard copy report (40%).

Table 17 - Methods of Public Reporting of Data

		N	Percent of Cases
Public Reporting of Data	Annual Report (web based)	17	85.0%
	Annual Report (paper or hard copy)	8	40.0%
	Transparency or health information website	9	45.0%
	Other	2	10.0%

Although it has been recommended that Medicaid agencies tailor the reporting of public data to the specific target audience, only 5 states (25%) indicated that they did this.

Electronic Health Records

A significant proportion of states (68%) reported having some initiative to increase the use of electronic health records. Some of these projects were reported to be funded through CMS Medicaid transformation grants and others through state grants. Initiatives were focused across of range of provider types, including inpatient and outpatient. Some focused specifically on assisting providers in adopting electronic health records, while others described initiatives to link providers electronically to a central database that tracked the provision of services from claim or prescription data. Only four states reported using any electronic health data to capture quality measures, those that did, described obtaining data from immunization registries, or electronically transmitting claim data to calculate HEDIS measures.

Preventive/Developmental Services (EPSDT)

With all of the states responding indicating that low-income children were included in their managed care programs, assessment of the quality of developmental services should be a significant component. States were asked a variety of questions as to how they evaluated the quality of developmental services (or services provided under EPSDT regulations). A majority of states (82%) reported that they did have specific provisions regarding the evaluation of developmental services. Of these, the majority indicated that these provisions were specified directly in their managed care contracts (89.5%), followed by the state quality strategy (42%), the state plan (32%), and EQRO contracts (26%).

Table 18 – Provisions for Evaluation of Developmental Services

	N	Percent of Cases
Defined Provisions for EPSDT		
State Plan	6	31.6%
State Quality Strategy	8	42.1%
MCO Contracts	17	89.5%
EQRO Contracts	5	26.3%
Other (Please specify)	3	15.8%

States reported that the quality of developmental services is primarily assessed through an evaluation of performance measures (84%), while about half also utilize medical record reviews (52%) and four states indicated that they assessed services either through member surveys or focus groups (21%). None of the states reported using surveys designed specifically for assessing developmental services, such as the

Promotion of Healthy Development Survey (PHDS), or the Young Adult Health Care Survey (YAHCS).

Table 19 – Methods Used to Assess Developmental Services

	N	Percent of Cases
Assess Developmental Services Performance Data	16	84.2%
Medical Record Review	10	52.6%
Focus groups or surveys of members	4	21.1%
Other (Please specify)	7	36.8%

States generally reported relying on Medicaid (74%) or MCO (74%) staff to conduct the evaluation of developmental services. Fewer states reported that they relied on their EQRO vendor (42%) to conduct these assessments. While use of MCO staff to evaluate the provision of developmental services generally was coupled with the use of Medicaid or EQRO staff reviews, in one state the only method consisted of MCO medical record reviews.

V. DISCUSSION AND CONCLUSION

This study sought to evaluate the approaches that state Medicaid agencies are taking to monitor and improve the quality of care delivered to recipients covered under their managed care programs. The results of this study indicate that state Medicaid agencies have adopted a number of the recommendations that have been made by policy researchers and that there has been greater adoption of standard performance measures across states. Public reporting of quality data appears to be increasing, but it does not appear that most states specifically target the type of information reported to a specific audience.

A number of policy experts (Corrigan et al., 2002; Ramirez de Arellano & Wolfe, 2007) have stressed the need for state Medicaid agencies to use standardized measures to assess quality, and to allow comparative assessments of quality across states to occur. The findings of this study suggest that this is happening, with all but one of the states with managed care programs stating that they utilize HEDIS measures as one of their methods to assess quality (the one state reporting that they did not use HEDIS indicated that they use HEDIS like measures and are planning to move to standard HEDIS measures in the future). While none of the states reported using all available HEDIS measures, there are a number of common measures that are currently being utilized by a majority of states. The measures that were used most consistently were those for evaluating the utilization of well visits for both children and adolescents; the use of appropriate medications for people with asthma; the timeliness of prenatal and

postpartum care; childhood immunization status; comprehensive diabetes care; and member satisfaction surveys of both children and adults. These measures were used by 80% or more of the states responding to this survey and are relevant to the population of low income children and pregnant women who are included in every state's managed care program. Over 95% of the Medicaid agencies reported that they would find it moderately or extremely useful to have a central site for reporting Medicaid quality measures. The common use of these measures across states would make it relatively easy to introduce them as a core set of measures that all state Medicaid agencies would report, allowing for the possibility of comparative analysis of different Medicaid programs. Additional measures that are relevant (such as use of dental services, or mental health measures) could be added to the core set over time. Other measures that may be relevant for specific populations, such as pharmacotherapy for COPD patients, could be established as optional measures to be utilized by states targeting those conditions.

Most Medicaid agencies report using their contracting authority to emphasize areas for quality improvement, with 86% indicating that they delineate specific areas that must be addressed by PIPs. The findings from this study suggest that implementing PIPs are associated with improvements in performance measures, with improvement noted on 64.7% of HEDIS measures that were associated with PIPs, as opposed to 37.8% of those measures not associated with a PIP. Additionally, a majority of states (70%) have adopted practices that are in line with recommendations that PIPs be done collaboratively (Gold et al., 2006; Ireys et al., 2005; Krissik et al., 2008). Ireys et al (2005) voiced concerns that state agencies alone would find it difficult to drive major improvements in quality, and that true improvement would require collaborative efforts

by a number of stakeholders, including MCOs, providers, members, and community organizations. Although many states do require collaborative improvement projects, a majority are also relying on their own staff to coordinate these activities. With tightening state budgets, a concern is that agency staff may be pulled in multiple directions and find that they are not able to devote the resources necessary to keep a collaborative improvement project moving. Ireys et al (2005) suggest that utilizing EQRO contracts to oversee collaborative projects may be a more viable alternative, though one that not many states appear to be using at the present time.

Public reporting, value based purchasing, and adoption of health information technology have all been receiving much attention as promising strategies to further improve the quality of health care. The data from this study indicate that state Medicaid agencies are moving toward utilizing these strategies, though they have not yet adopted them as fully as reporting of performance measures and implementation of performance improvement projects. At this point, of the three areas, public reporting of data has been most consistently adopted, with 87% of the states responding indicating that they report their quality data publicly in some form. The data suggests that for most states, public reporting has taken the form of an annual report that is posted to a web site (in many cases this appears to be the EQRO evaluation). Few states have adopted recommendations to report comparative data targeted to the interests and understanding of different stakeholders. While the level of detail in most evaluative reports is helpful to health care professionals, it may not address the specific questions that legislators may have related to questions such as the cost-effectiveness of programs, or help members make determinations as to which health plan they would like to select. The use of reports

and information that is targeted toward specific stakeholders will be more likely to continually drive quality performance toward further improvements, however, it also requires more resources to determine the information that different stakeholders want and then formatting information differently for their use.

Value based purchasing (using either incentives or sanctions) has been utilized less than public reporting. Although the Institute of Medicine (2001) has stressed the need to align payment strategies with desired improvements in quality, only 61% currently report having taken this step. The strategies of public reporting and pay for performance both require the development of valid and reliable performance measures. In addition, pay for performance programs may also require the procurement of additional funds (which may be difficult for many state agencies). In fact, a recent survey of state Medicaid directors indicated that the current economic conditions were leading to cutbacks in Medicaid programs, including P4P incentives (Smith et al., 2009)

The findings of this study suggest that P4P incentives, as well as PIPs are associated with improvements in performance. States reported improvement on 68.8% of HEDIS measures when P4P incentives were utilized, as compared with 31.4% when they were not. While the self-report nature of this study design limits the strength of this conclusion, other studies have also suggested positive impact with P4P incentives. Felt-Lisk et al (2007) suggest that it is important for incentives to be sufficiently large to be perceived as a reward by the target of the incentive (health plans, providers). They also must be carefully designed to assure that they are rewarding the desired behavior and minimizing potential unintended consequences, such as having providers or health plans avoid sicker patients. A possible strategy to address this would be to broadening pay for

performance incentives from paying to meet a specific performance goal to also providing incentives for adopting practices that have been shown to improve general health outcomes, such as becoming a patient's medical home (i.e., rewarding improvements in both process and outcomes).

In addition to providing incentives, 55% of the states reported that they also assess penalties for MCOs that fail to meet quality goals. There is little empirical literature examining the differential effect of incentives versus penalties on performance. Conrad and Perry (2009) in a review of the literature, found only two studies that included both incentives and rewards in their evaluation. The first study, evaluating a CMS P4P program with hospitals was not yet completed. A second study that found significant improvement in diabetes care processes based on a program combining incentives and withholds was not designed to differentiate the effects of incentives versus penalties. They suggest that both rewards and penalties have their place in value based purchasing, and theorize that penalties may have a greater effect, based on economic theory of risk aversion that postulates that individuals assign greater weight to potential losses than potential gains (Conrad & Perry, 2009; Weimer & Vining, 2005). This will be an area for further research to evaluate.

Widespread use of electronic health records (EHR) will allow standard performance measures to move beyond data based largely on claim data reflecting the occurrence of a service or procedure. Electronic records will allow for more efficient capturing of data that reflects both the treatments that are being used and the clinical response to these treatments, allowing a truer picture of whether outcomes are improving as a result of quality improvements efforts. Additionally, the use of EHR also can

facilitate actual improvements in quality by providing additional tools for providers (in terms of reminders of patient care that is due, alerts related to potential drug interactions, and sharing of pertinent medical information between providers to improve care coordination), as well as creating more opportunities to engage patients in their own care through patient portals.

Several states are beginning to support providers in adopting electronic health records, both through CMS Medicaid transformation grants, as well as state grants. This support will likely accelerate over the next few years with further incentives that are provided through the recent American Recovery and Reinvestment Act of 2009 (ARRA) ("American Recovery and Reinvestment Act of 2009,"). The ARRA provides \$17.2 billion in incentives through Medicaid and Medicare payments, to assist providers in adopting EHRs. This includes incentive payments, beginning in 2011, for providers that are able to demonstrate "meaningful use" of certified EHR technology. While "meaningful use" has not been fully defined yet, the provisions describe a meaningful user as one who, uses the technology for such clinical tasks as electronic prescribing; demonstrates the electronic exchange of information in such a way as to promote care coordination; and submits data on clinical quality measures (Healthcare Information and Management Society, 2009). Given the degree to which the population of Medicaid beneficiaries lags behind commercially insured patients in many preventive and care management measures, it will be important the Medicaid officials advocate for a definition of meaningful user that addresses these deficits. This may include using the EHR to facilitate the tracking and delivery of preventive services for individual patients, as well as allowing and encouraging physicians to track the delivery of these services for

their population of patients (such as the percentage of their patients that are up to date with their immunizations, or the percentage of asthmatic children maintained on appropriate medication). These elements of a “meaningful user” if realized, should support improvements in both the delivery and measurement of quality care.

Although all states include children in their managed care populations, it appears that only a few states have implemented many of the recommendations made by Ireys et al (2005) regarding the provision of developmental services. While most states indicated that they have included provisions for improving the quality of developmental services in their MCO contracts, state plan, quality strategy, or EQRO contracts, few reported actually evaluating the content of developmental screening visits as suggested by Ireys et al (2005). It is likely that one of the major limitations for most states in this regard are the resources required to either conduct medical record reviews, or surveys of patients regarding the specific services that they have received.

Of concern is the fact that only 68% of the states indicated that public health providers were covered by their managed care organizations. In addition, of states that had P4P incentives, only 36% made them available to public health providers, as opposed to 71% that included primary care providers. Given that public health providers have served as a traditional safety net for individuals with low-incomes or no insurance, the inability to utilize these providers under Medicaid managed care programs could result in disruptions in the continuity of care. Indeed, several studies have suggested the public health providers have fared poorly under a shift to managed care (Boehm, 2005; Louise, 2005; Willging, Waitzkin, & Nicdao, 2008). However, a recent survey suggested that despite initial difficulties safety net providers encountered with managed care, many had

managed to adapt to these changes (Lewin & Baxter, 2007). This survey suggests that further study is required as to how public health providers fare under managed care arrangements, as well as changes that may be necessary for them to compete with private providers while continuing to serve those patients that are most vulnerable and lack other resources to access care. Additionally it will be important to determine the impact that public health providers have on access, continuity of care, and quality.

Limitations

The current study utilized a structured internet based survey to collect data on state Medicaid agencies approaches to quality improvement. While this had the advantage of standardizing the data across all states, it did not allow for the richness of data that would have been possible through direct interviews with Medicaid agency staff. Additionally the number of questions asked was limited to keep the time required to respond low with the goal of increasing the response rate. The goal was to provide a broad view of the approaches that state Medicaid agencies are taking to improve quality. However, more detailed nuances as to how different Medicaid agencies implemented these strategies, such as collaborative PIPs, or P4P programs, cannot be described. For example, while the data indicated that 70% of state Medicaid agencies require one or more collaborative PIPs, this data does not tell us more about the extent or the success of the collaboration. It could be instructive to know who participated in collaborative activity (e.g., other MCOs, other state agencies, public health organizations, community organizations, providers, etc), what strategies were successful in recruiting and sustaining the engagement of other stakeholders as well as the activity itself, sources of

funding activities, and which strategies were associated with improvements in care and outcomes.

This study was prone to several limitations that are common to the use of self-report survey data. It is possible that a positive response bias existed, with respondents endorsing items that would present their agency in the most positive light. Although most of the questions relied on terminology that is common to the Medicaid program, it is possible that the interpretation of some questions may have varied with each respondent, thus a collaborative PIP may have meant different things to different states. The survey instructions also requested that responses come from the person “*most knowledgeable about your Medicaid quality program.*” However, it is possible that this person may not have been the content expert for all of the areas evaluated in this study. In fact, some states requested a hard copy of the survey questions so that they could be reviewed and answered by several people, each knowledgeable of different areas. Finally, evaluation as to the degree to which different strategies or interventions were actually implemented in any of the states was beyond the scope of this study. However, the range and extent to which P4P incentives or performance improvement activities are implemented surely varies from one state to another and this variance will impact their effectiveness in improving quality.

Detailed questions regarding performance measures focused primarily on HEDIS measures as this is one of the most common measure sets used within managed care settings. However, there are a number of other standard performance measures, such as those developed by the National Quality Foundation (NQF), and others, which may be utilized by state Medicaid agencies but were not assessed as part of this study.

Although respondents were asked about areas where improvements in quality had occurred, it was beyond the scope of this study to evaluate whether any of the specific strategies described were more effective than others in leading to improvement. To be able to conduct this level of analysis would have required measuring the specific dates that different strategies were implemented, and the collection of specific performance measures over time. This would be a separate study, but one that will be important to conduct. As Medicaid agencies cope with shrinking budgets and fewer resources one of the crucial questions will be which strategies will be most cost effective in achieving improvements in health care quality.

The study included responses from 23 of 37 states with risk based managed care programs. While the sample included many larger states and many of those with longstanding programs, and thus seems representative of the current state of quality oversight in Medicaid managed care, a larger sample would have been preferred. Due to a number of factors, the survey was distributed in January, a time when most states are beginning their legislative sessions and placing much demand on state agencies. Thus the timing of the survey distribution may have limited the number of responses that were received.

Suggestions for Future Research

The current study provides a broad overview of the types of activities that state Medicaid agencies are doing to assess and improve quality, as well as suggests that some of these activities are associated with improvements in care. It expands on the findings of previous research and indicates that state Medicaid agencies are continuing to mature and further develop their capacity to evaluate and improve the quality of care received by

beneficiaries in their managed care programs. However, similar to other studies on quality improvement activities; this study does not evaluate the comparative effectiveness of various strategies and their impact in different environments and across different populations. While a number of articles have stressed the importance of strategies such as pay for performance, public reporting, and performance improvement collaboratives, it would be useful to evaluate the comparative effectiveness of each of these strategies. With continuing pressure on Medicaid agencies to contain, or reduce expenditures, it becomes increasingly important to be able to demonstrate the return on investments in quality improvement. Without such data it may be difficult to obtain additional funding from state legislatures for initiatives such as P4P programs, even with documentation that they can improve quality.

To date, research on the role of Medicaid agencies in improving the quality of care has largely relied on surveys and interviews of Medicaid or MCO staff regarding the various initiatives that have been utilized. With the exception of studies that have evaluated the use of P4P incentives, there have been few studies that have empirically evaluated the impact of different quality improvement strategies. While the current study found an association between P4P incentives and public reporting of data, and reported improvement in performance measures, future research should more carefully assess the specific components of these interventions that are associated with improvement in healthy behaviors and health outcomes of Medicaid recipients.

Managed Medicaid programs typically have included low-income women and children in their population, while leaving many with more significant medical needs, such as the elderly, disabled, and medically needy populations in traditional fee-for-

service programs. Findings from this study and previous studies have documented that more states are including more of those with significant medical needs in their managed care populations. With this shift, it will be important to evaluate the degree to which managed care programs can effectively meet the needs of these populations, as well as to assess whether different quality improvement strategies are more effective with these different populations. One may find, for example, that while less intensive interventions, such as public reporting, may be sufficient to improve care in low-income populations, more intensive and more costly interventions (such as state-wide collaborative and P4P incentives) may be necessary to improve care in a disabled population.

Finally, research on quality improvement at a health plan or Medicaid agency level has typically focused on populations that are enrolled in managed care programs. However, the findings from this study indicate that the quality programs of slightly over half (52%) of the states responding had oversight over both their managed care and their fee-for-service programs. Quality improvement activities in a non-managed care program can be more difficult without external organizations that are contracted and accountable for providing care. It would be interesting for future research to look at what strategies states are using to evaluate and improve the quality in their non-managed care programs, how these efforts are integrated with their managed care programs, and how their effectiveness compares with those strategies used in a managed care environment.

Recommendations

Although CMS has established certain requirements for all states to meet regarding implementation of a quality strategy for their managed care programs, these requirements have not been structured in such a way that they allow meaningful

comparisons between state Medicaid programs, or easily allow states to learn from each others successes and failures. With virtually all states that have managed care programs utilizing some HEDIS measures, CMS easily could begin to develop comparative measures by establishing a core set of performance measures that all states would capture and report. States could elect to report on additional standardized measures (from a finite set) based upon their populations in managed care, and the areas that they have identified as important for their state. A central Medicaid quality website could be established that would report state data on these core measures in the same way that NCQA and many states now report such data from individual health plans. This would allow states to benchmark their performance against other states, set improvement goals, and measure their performance over time. Such a site also would allow Medicaid agencies to share tools and better practices, as well as to enhance collaboration with each other.

Along with improving the collection and reporting of standard performance measures, it also will be important for states to improve their assessment of the quality of preventive and developmental services delivered to children. While children make up a significant proportion of Medicaid beneficiaries, particularly within managed care programs, and Early Periodic Screening, Diagnostic, and Treatment services (EPSDT) are federally mandated, Ireys et al (2005) found that few states did much more than assess the number of children receiving services and counting the number of visits received. This is consistent with the findings of the current study which the most commonly reported performance measures assessing the number of children receiving a well child visit. However, about half (48%) of the states surveyed reported that they also used some other means to assess the quality of developmental services, such as medical

record reviews, focus groups, or member surveys. While this is encouraging, the development of standard measures and methods of assessment that specifically focus on the provision of preventive and developmental services would assist state agencies in collecting this information, and doing so in way that would allow comparative evaluation, as well as aggregation of information across states.

Finally, although the focus of the study was on beneficiaries in managed care plans, it is noteworthy that while 52% of the responding states indicated that their quality programs had oversight over both managed care and fee-for-service programs, 48% of the states' quality programs only reviewed their managed care programs. While the Code of Federal Regulations requires that states with managed care programs develop and implement a quality strategy, there is no such requirement for traditional (fee-for-service Medicaid). While not directly assessed by this study, the findings suggest that in many states an organized program focused on improving quality does not exist for members in traditional Medicaid. With approximately 35% of Medicaid beneficiaries continuing to receive care through non-managed care programs (including many of the populations with the greatest medical need), it will be important to broaden the scope of the quality strategy to include all Medicaid recipients. This will ensure that state efforts toward quality improvement are directed and prioritized across their entire population and that resources for quality efforts are appropriately targeted based on an overall strategy, rather than one focused solely on managed care.

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APPENDIX A. – SURVEY TOOL



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Quality Oversight of Medicaid Managed Care

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Dear Medicaid Agency Official:

We are inviting you to participate in a survey of state Medicaid agencies that is evaluating the various approaches that states are taking to assure and improve the quality of care that their recipients receive through managed health care organizations. Specifically we are interested in the use of different strategies such as performance measures, performance improvement activities, and pay for performance programs as a means of measuring and improving quality. A primary objective of this project is to determine the approaches that are being used to improve quality, and the degree to which these approaches can be used to assess quality outcomes.

We are asking you to complete a web based survey that asks a variety of questions about aspects of your quality program specific to its oversight of Medicaid managed care organizations. The survey consists primarily of check-box responses and should take no more than 10 to 15 minutes of your time. Your participation in this survey is voluntary and individual responses will be kept confidential. If you would like to receive a report of the results of this survey you can submit your contact information and we will send you a summary of our findings.

We are requesting that one person, from each state Medicaid program respond to this survey by 1/30/2009. Ideally this will be the person most knowledgeable about your Medicaid quality program. Please respond to questions based on what you **currently** do, as opposed to what your are planning in the future.

Thank you in advance for taking the time to complete this survey. Your participation is greatly appreciated. If you have any questions about this survey please contact Dev Nair at dnair@vaqio.sdps.org.

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1) Please select your state.

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*2) Do you currently contract with risk based managed care organizations for your state Medicaid program?

☐ Yes ☐ No

Logic

If [Yes] is selected, then skip to question [No logic applied]

If [No] is selected, then skip to question ["Matrix Instructions" (appears after Question #76)]

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3) In what year did your managed care program begin?

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4) What populations are included in your risk based managed care program? (please check all that apply)

☐ Low income adults

☐ Low income children

☐ Pregnant women

☐ Medically needy

☐ SSI

☐ Dual eligible

☐ Breast and Cervical Cancer

☐ Foster Care

☐ Other (Please specify) _____

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5) Are your state's public health providers covered under your managed care organizations?

☐ Yes ☐ No

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6) If yes, are there any different quality standards, reporting requirements, or involvement in quality initiatives that is specific to public health providers?

☐ Yes ☐ No

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7) If yes, please describe:



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*8) Over what areas does your Medicaid quality program have oversight?

☐ Managed care

☐ Fee-for-service

☐ Both

☐ Neither (Do not have a quality program)

Logic

If [Managed care] is selected, then skip to question [No logic applied]

If [Fee-for-service] is selected, then skip to question [No logic applied]

If [Both] is selected, then skip to question [No logic applied]

If [Neither (Do not have a qu...)] is selected, then skip to question ["Matrix

Instructions" (appears after Question #76)]

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Child Developmental Services (EPSDT)

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- *9)** Do you have any specific provisions for evaluating and improving the quality of child developmental services that are covered under EPSDT?

☐ Yes ☐ No

Logic

If [Yes] is selected, then skip to question [No logic applied]

If [No] is selected, then skip to question [#13]

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- 10)** If yes, please indicate where these provisions are defined:

- ☐ State Plan
☐ State Quality Strategy
☐ MCO Contracts
☐ EQRO Contracts
☐ Other (Please specify)

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- 11)** What methods or tools are used to assess the quality of child developmental services

- ☐ Performance data (HEDIS or other)
☐ Evaluation of content of office visits through medical record review
☐ Evaluation of content through electronic health record (or other computerized source)
☐ Focus groups or surveys of members
☐ Promotion of Healthy Development Survey (PHDS)
☐ Young Adult Health Care Survey (YAHCS)
☐ Other (Please specify)

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- 12)** Who is responsible for conducting the assessment of the quality of child developmental services?

- ☐ Medicaid agency staff
☐ EQRO vendor
☐ MCO staff
☐ Academic institution
☐ Other (Please specify)

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Performance Improvement Projects

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13) How many Performance Improvement Projects (PIPs) are your MCOs required to complete each year?

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14) Does the state specify specific areas that must be addressed by PIPs?

☐ Yes ☐ No

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15) If yes, which areas are required?

☐ Well child visits

☐ Immunizations

☐ Dental services

☐ Child chronic conditions

☐ Adult chronic conditions

☐ Access to care

☐ Member or provider satisfaction

☐ Other (Please specify)

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16) How many PIPs are validated by your EQRO vendor? (If no EQRO vendor enter 0)

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***17)** Does your state require one or more PIPs that require collaboration between MCOs and other stakeholders?

☐ Yes ☐ No

Logic

If [Yes] is selected, then skip to question [No logic applied]

If [No] is selected, then skip to question ["Descriptive Text" (appears after Question #19)]

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18) If yes, which PIPs have been done collaboratively?

☐ Well child visits

☐ Immunizations

☐ Dental services

☐ Child chronic conditions

☐ Adult chronic conditions

☐ Access to care

☐ Member or provider satisfaction

☐ Other (Please specify) _____

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19) Who coordinates the activity?

☐ State Medicaid agency staff

☐ EQRO vendor

☐ Academic Institution

☐ Other (Please specify) _____

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Performance Measures

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20) Please indicate the source of any standard performance measures you use to assess quality of care.

☐ HEDIS

☐ CMS

☐ AHRQ

☐ CAHMI

☐ Do not use any standardized performance measures

☐ Other (Please specify) _____

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21) Please indicate which areas you assess through non-standard reporting measures.

☐ Provider networks

- ☐ Access to care
☐ Processes of care
☐ Health outcomes
☐ Utilization of service
☐ Do not use any non-standard performance measures
☐ Other (Please specify)

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*22) Do you use HEDIS measures to assess quality of care?

☐ Yes
 ☐ No

Logic

If [Yes] is selected, then skip to question [No logic applied]

If [No] is selected, then skip to question ["Descriptive Text" (appears after Question #57)]

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HEDIS Measures

Please indicate which of the following HEDIS measures are reported to your state. For each measure that is reported, please indicate if:

- 1) Your Medicaid agency offers any **pay for performance incentives**;
- 2) The measure is the **focus of a PIP or other quality activity**, and;
- 3) Whether you have seen **any improvement** in the measure over the **past 3 years**.

Effectiveness of Care

	<input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Move"/>	Reported to State	P4P Incentive	Focus of PIP or other Quality Activity	Improvement Demonstrated
23)	Childhood Immunization Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24)	Lead Screening in Children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25)	Breast Cancer Screening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26)	Cervical Cancer Screening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27)	Chlamydia Screening in Women	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28)	Appropriate Testing for Children With Pharyngitis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29)	Appropriate Treatment for Children With Upper Respiratory Infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Avoidance of Antibiotic				

30)	Treatment in Adults With Acute Bronchitis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31)	Use of Spirometry Testing in the Assessment and Diagnosis of COPD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32)	Pharmacotherapy of COPD Exacerbation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33)	Use of Appropriate Medications for People With Asthma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Edit Delete Move	Reported to State	P4P Incentive	Focus of PIP or other Quality Activity	Improvement Demonstrated
34)	Cholesterol Management for Patients With Cardiovascular Conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35)	Controlling High Blood Pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36)	Beta-Blocker Treatment After a Heart Attack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37)	Persistence of Beta-Blocker Treatment After a Heart Attack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38)	Comprehensive Diabetes Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39)	Disease Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40)	Use of Imaging Studies for Low Back Pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41)	Antidepressant Medication Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42)	Follow-Up Care for Children Prescribed ADHD Medication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43)	Follow-Up After Hospitalization for Mental Illness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44)	Annual Monitoring for Patients on Persistent Medications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45)	Medical Assistance With Smoking Cessation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Access/Availability of Care

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	Edit Delete Move	Reported to State	P4P Incentive	Focus of PIP or other Quality Activity	Improvement Demonstrated
46)	Adults' Access to Preventive/Ambulatory Health Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47)	Children's and Adolescents' Access to Primary Care Practitioners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48)	Annual Dental Visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49)	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50)	Prenatal and Postpartum Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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<i>Satisfaction with the Experience of Care</i>

	Edit Delete Move	Reported to State	P4P Incentive	Focus of PIP or other Quality Activity	Improvement Demonstrated
51)	CAHPS Health Plan Survey 4.0H, Adult Version	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52)	CAHPS Health Plan Survey 3.0H, Child Version	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53)	Children With Chronic Conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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<i>Use of Services</i>

	Edit Delete Move	Reported to State	P4P Incentive	Focus of PIP or other Quality Activity	Improvement Demonstrated
54)	Frequency of Ongoing Prenatal Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55)	Well-Child Visits in the First 15 Months of Life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Well-Child Visits in the				

56)	Third, Fourth, Fifth and Sixth Years of Life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57)	Adolescent Well-Care Visits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Public Reporting, Value Based Purchasing, & Electronic Health Data

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*58) Do you report any of your quality data publicly?

☐ Yes ☐ No

Logic

If [Yes] is selected, then skip to question [No logic applied]

If [No] is selected, then skip to question [#65]

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59)	How is data reported?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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*60) Do you report data differently to different constituent groups (e.g., members, providers, legislators, advocates)?

☐ Yes ☐ No

Logic

If [Yes] is selected, then skip to question ["Matrix Instructions" (appears after Question #60)]

If [No] is selected, then skip to question [#65]

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How is the data reported to the following constituent groups?

	<input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Move"/>	Annual Report (web based)	Annual Report (paper or hard copy)	Transparency or health information website	Other
61)	Members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

62)	Providers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63)	Legislators or other regulators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64)	Researchers, Advocates, etc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add Question or Formatting

[\[top\]](#)

*65) Do you provide any incentives (financial or other) for MCOs or providers, based upon achieving specific quality goals?

☐ Yes ☐ No

Logic

If [Yes] is selected, then skip to question [No logic applied]

If [No] is selected, then skip to question [#67]

Add Question or Formatting

[\[top\]](#)

66) If yes, what type of incentives are provided?

- ☐ Financial incentive to MCO
- ☐ Preferential assignment of members to MCO
- ☐ Public recognition for MCO
- ☐ Financial incentive to provider
- ☐ Public recognition for provider
- ☐ Other (Please specify)

Add Question or Formatting

[\[top\]](#)

*67) Do you have any penalties or sanctions for MCO's failing to meet specific quality goals?

☐ Yes ☐ No

Logic

If [Yes] is selected, then skip to question [No logic applied]

If [No] is selected, then skip to question [#69]

Add Question or Formatting

[\[top\]](#)

68) If yes, what type of penalties or sanctions are imposed?

- ☐ Financial (liquidated damages, payment withhold, fines, etc.)
- ☐ Loss of auto-assignment of new members
- ☐ Freeze on enrollment of new members
- ☐ Other (Please specify)

Add Question or Formatting

[\[top\]](#)

69) Do you have any requirements that MCOs provide quality incentives to providers?

☐ Yes ☐ No

[Add Question or Formatting](#) [\[top\]](#)

[Edit](#) [Delete](#) [Move](#) [Add Logic](#)

70) Are any of your MCOs currently providing quality incentives to providers?

☐ Yes ☐ No

[Add Question or Formatting](#) [\[top\]](#)

[Edit](#) [Delete](#) [Move](#)

71) If yes, what provider groups are eligible to participate in the pay for performance program?

☐ Hospitals

☐ Large outpatient groups (IPAs, PHOs, etc)

☐ Small or individual primary care practices

☐ Public health clinics

☐ Behavioral health providers

☐ Other (Please specify)

[Add Question or Formatting](#) [\[top\]](#)

[Edit](#) [Delete](#) [Move](#) [Add Logic](#)

***72)** Does your state currently have any initiatives focused on increasing the use of electronic health records?

☐ Yes ☐ No

[Add Question or Formatting](#) [\[top\]](#)

[Edit](#) [Delete](#) [Move](#)

73) If yes, please describe the initiative

(1000 characters remaining)

[Add Question or Formatting](#) [\[top\]](#)

[Edit](#) [Delete](#) [Move](#) [Add Logic](#)

74) Do you currently utilize any electronic health data in capturing any specific quality measures?

☐ Yes ☐ No

[Add Question or Formatting](#) [\[top\]](#)

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75) If yes, please describe

(1000 characters remaining)

[Add Question or Formatting](#) [\[top\]](#)

[Edit](#) [Delete](#) [Move](#) [Add Logic](#)

***76)** To what degree would you find it useful to your work to have a central site for reporting state Medicaid quality measures and better practices?

☐ Extremely useful

☐ Moderately useful

- ☐ Neutral
- ☐ Of minimal use
- ☐ Not at all useful

Add Question or Formatting

[\[top\]](#)

Edit Delete

Thank you for taking the time to complete this survey. If you would like to receive a summary of the survey results, please include your contact information below.

Edit Delete Move

77) Contact Information:

Name:

Organization:

Street 1:

Street 2:

City:

State:

Zip:

e-mail:

phone:

Rapidly Add New Questions to End of Survey

APPENDIX B. – COVER LETTER TO MEDICAID DIRECTORS

We are requesting your participation in a survey that is being conducted by Georgia State University and the Georgia Department of Medical Assistance Plans. We are evaluating the various approaches that state Medicaid agencies are taking to assure and improve the quality of care that their recipients receive through managed health care organizations. A primary objective of this project is to determine the approaches that are being used to improve quality, and the degree to which these approaches can be used to assess quality outcomes.

We are asking you to complete a web based survey that asks a variety of questions about your quality program and oversight of Medicaid managed care organizations. The survey consists primarily of checkbox responses and should take no more than 10 to 15 minutes of your time. Your participation in this survey is voluntary and individual responses will be kept confidential. If you would like to receive a report of the results you can submit your contact information at the end of the survey and we will send you a summary of our findings.

We are asking that one person from each state Medicaid program respond to this survey by 1/30/2009. Ideally this will be the person *most knowledgeable about your Medicaid quality program*. The survey can be accessed at <https://www.psychdata.com/s.asp?SID=126601>

If you have any questions about this study please contact Dev Nair, PhD at dnair3@student.gsu.edu.