

## Managed Care Effectiveness

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### Overview

Managed care issues were volatile during the last 5 years and the related publications mirror that controversy. An important trait of the articles published on managed care was how quickly they outdated. Much of the literature published in 1999 focused on the source of the managed care backlash or was in response to proposed patients' bill of rights legislation; for example, the October 1999 issue of the *Journal of Health Politics, Policy and Law* was devoted to backlash discussion. Interestingly, none of the articles from that issue were selected for this bibliography because the issue of backlash became a historical one as managed care changed its form in response to the market. Articles included here do cover the consumer and political response to managed care (eg, Draper et al [2002], Feldman [2000], Felt-Lisk et al [2002], and others), but in a manner that views it as a lesson learned and as part of the health care industry's evolution.

This focus on the health care industry's evolution appears to have led researchers to focus on documenting the structural forms taken by managed care and the interaction between managed care organizations, consumers, employers, and policymakers. Much of the recently published literature has not so much asked about the effectiveness of managed care, but rather accepted its presence and instead focused on how care management is structured. As a result, the articles here tend to detail how managed care operates in specific circumstances. The consequences of such operations—such as health status or medical outcomes, health care expenditure control, or health care access—often become secondary issues in the research.

Three general themes were common in the managed care literature—cost, quality, and access (Schield et al [2001]). These common themes, however, were not always laid upon common definitions.

#### Cost.—

Cost was at times defined simply as financial cost (eg, Hurley et al [2002]; Lindrooth et al, [2002]; Zwanziger [2002]) and at other times as social welfare in microeconomic terms (eg, Feldman [2000]; Frank et al [2000]; Rosenthal and Newhouse [2002]). Although cost is perhaps the simplest question to investigate, researchers paid relatively little attention to such issues given their importance in the development and adoption of managed care. One possible explanation for this lack of attention is that the general premise of managed care's ability to reduce health care costs is widely accepted and thus no longer questioned. Cost-focused articles tended to report on how structural elements related to subsequent cost or on intergroup negotiations and incentives impacted cost (for example, through such mechanisms as adverse selection).

### Quality.—

Quality definitions varied from customer satisfaction (eg, Kemper et al [2002]), to medical outcomes (eg, Felt-Lisk and Mays [2002]; Zema and Rogers [2001]), to complex indices that combined these measures (eg, Roohan et al [2002]), and more. Studies that investigated plans' responsiveness to creating value in their products for consumers reported that plans who were responsive tended to broaden provider networks and created more cooperative relationships with providers (eg, by loosening utilization controls). Plans correspondingly increased cost sharing or premiums or sought other cost concessions from purchasers. Studies that compared managed care plans with fee-for-service plans found little difference overall in quality of care. This statement is somewhat misleading, however, because quality varied greatly among providers, plans and geographic areas. A common finding among quality studies was that managed care did not address the needs of individuals with chronic conditions as well as fee-for-service; although there was some mention of innovative chronic disease management initiatives. These studies also found that managed care organizations did lower use of expensive medical services such as hospital stays (see Miller and Luft [1997 and 2002]).

### Access.—

Access, perhaps the most controversial theme for policymakers and yet the least discussed in the literature, was disparately defined as consumer access to medical procedures or providers (eg, Frank et al [2000]; Kemper et al [2002]; Ma and McGuire [2002]; Wolff and Schlesinger [2002]) and as population access to health care as exhibited by the uninsured rates or safety-net access to care by the uninsured (eg, Waitzkin et al [2002]). Those studies that investigated consumer access to services or providers focused on various aspects of that relationship—physician incentives and behavior, plan structure, adverse selection.

Several specific items merit mention here. First is the National Committee for Quality Assurance's annual report, *The State of Health Care Quality, 2002: Industry Trends and Analysis*. This report provides a broad overview of the industry and the means of comparison among health plans. The Health Plan Employer Data and Information Set (HEDIS), upon which this report is based, has also become an industry data standard for quality assessment. Second, the Miller and Luft (1997 and 2002) articles are important as meta-analyses of the managed care quality literature and are often cited in discussions on managed care effectiveness. Third, it is notable that much of the recent research into managed care effectiveness is based in behavioral health managed care and/or government-sponsored (eg, Medicaid) managed care initiatives. This corresponds to the behavioral health managed care implementation movement experienced during the same period and governments' relatively recent shift toward managed care structures for public programs as they attempt to control costs. Lastly, although there was much discussion on managed care in the literature, surprisingly few of these articles went beyond a simple description or partisan critique of the approach. As mentioned above, it appears that US has accepted the need for managed care or that we have fatalistically resigned ourselves to its presence and no longer question it. It was rare that articles or studies undertook the multi-theme approaches described by

Schild (2001) in ways that supported public policy interests with useful information; those that did are included here along with narrower studies and discussions that could expand our understanding of managed care effectiveness.

## **Summaries—**

**Bierman AS, Haffer SC, Hwang YT. Health disparities among older women enrolled in Medicare managed care. *Health Care Financing Review*. 2001; Summer: 187-198.**

Keywords: Quality

Purpose: Provide information about the health and functional status of women who are Medicare beneficiaries enrolled in Medicare managed care organizations

Data: Medicare Health Outcomes Survey

Methods: Summary statistics

Results: The authors summarize findings from the Medicare Health Outcomes Survey regarding health disparities among women served by Medicare. The Medicare Health Outcomes Survey investigates health status (mental and physical), activities of daily living, chronic conditions, demographic information, and clinical case mix adjustment variables. The survey found that women with less education and lower incomes had poorer health status than those with more education or higher incomes; such women were more likely to report fair or poor health, and had higher chronic disease and depression rates.

Uses: Provides an overview of the health conditions experienced by individuals

Limitations: None as presented

**Draper DA, Hurley RE, Lesser CS, Strunk BC. The changing face of managed care. *Health Affairs*. 2002; 21(1): 11-23.**

Keywords: Access, quality

Purpose: Examine how managed care plans are responding to marketplace pressures

Data: Community Tracking Study (1996-1997, 1998-1999, 2000-2001) from the Center for Studying Health System Change

Methods: Study primarily based on the site visit interviews performed for the Community Tracking Survey

Results: The authors found that managed care plans have altered their business strategies in three important ways. Managed care plans offered new products in response to purchasers' and consumers' demands for more flexible and less restrictive products. Plans sought more cooperative relationships with health care service providers in order to create broader, and more stable networks for subscribers. These strategy changes impact plans' power to control costs. Plans responded to their weakened power over cost control with behaviors to protect their profitability, such as increased premiums and consumer cost sharing, and reduced rate guarantees and premium caps for purchasers.

Uses: Provides an overview of managed care plans' behavioral responses to policy and marketplace pressures. Would be of interest to policymakers, health care service providers, health plan purchasers, and others involved in decisions related to the health care industry

Limitations: Study is descriptive in nature, no limitations as presented

**Feldman R. The ability of managed care to control health care costs: how much is enough? *Journal of Health Care Finance*. 2000; 26(3): 15-25.**

Keywords: Cost

Purpose: Provide a theoretical discussion on what level of cost control is desirable

Data and Methods: Commentary, not applicable

Results: The author argues that managed care has gone too far in controlling costs. He cites economic theory, which argues that even controlling health costs is not optimal unless the resources diverted from health care toward other uses are worth more in those uses—that they create more value in nonhealth-related uses. The proposal is made that managed care did compensate for the moral hazard that contributed to the health care market failure, but that employers overemphasized cost control to managed care organizations without considering the

consequences to the value of their compensation packages to employees. The author proposes that providing consumers—employees—with a choice among health plans and the information necessary to intelligently select their preferred option among these choices will provide an optimal outcome.

Uses: This discussion provides the theoretic basis for potential experiments in public policy and employer benefits packages.

Limitations: This theory-based discussion does not investigate whether the approach is in use somewhere.

**Felt-Lisk S, Mays GP. Back to the drawing board: new directions in health plans' care management strategies. *Health Affairs*. 2002; 21(5): 210-217.**

Keywords: Access, cost, quality

Purpose: Determine how health plans' care management practices changed from 1998 to 2000 and, if there were changes, identify how they impacted plans' capacities to control costs and quality

Data: Community Tracking Study

Methods: Analysis of interview data from administrators of 48 plans

Results: Interviews with health plans and others in 12 health care markets found significant changes in health plans' practices during the study years. Forty-four percent of plans made major changes to their utilization management practices. Plans tended to loosen some utilization controls, such as review of physician decisions in advance of treatment (eg, hospital admission, outpatient testing, specialist referral), but strengthened others (eg, physician profiling, retrospective review of outpatient surgery, home health care). Concurrent review practices were emphasized by some plans, who placed utilization review staff on-site at hospitals. Disease management programs for common chronic diseases (eg, diabetes) were found to be more prevalent, although the authors suggest that such programs need expansion to meet the needs of aging populations. The authors found reluctance among plans to be seen as leaders in disease management due to concerns about increased adverse selection. The presence of national plans in a market was found to increase use of disease management programs and reduce use of tighter utilization management controls.

Uses: Provides understanding of how market mix affects health plan behavior and how health plan behavior has changed in response to political and market pressures. Useful to policymakers, plan executives and purchasers.

Limitations: Study is based in specific markets; generalization of study findings to other markets should be done with caution. Additionally, political and market conditions change rapidly and make application of findings to any future scenario difficult.

**Frank RG, Glazer J, McGuire TG. Measuring adverse selection in managed health care. *Journal of Health Economics*. 2000; 19(6): 829-854.**

Keywords: Access, cost

Purpose: Theorize on how risk adjustment affects plans' incentives to balance service quality against the risk the plan carries for a population

Data: Michigan Medicaid health claims and enrollment data (1991-1993)

Methods: Econometric analysis

Results: The authors start with the assumption that health plans maximize profit. Economic theory then infers that health plans paid by capitation would prefer to offer service quality that attracts profitable and deters unprofitable enrollees. Plans' rationing of services and quality is characterized as a shadow price on access to various areas of care. The profit maximizing shadow price is theorized to be dependent on dispersion in health costs, individuals' predictions of their personal health costs, the correlation between use in different illness categories, and the risk adjustment system used for payment. An empirically implementable index is created based on these deductions that could be used to predict the services most distorted by selection incentives.

Uses: Policymakers would like to know the most efficient ways to monitor quality in health plans. If this model proves widely applicable, it would be useful in identifying what service areas would be the most likely candidates for quality rationing by plans.

Limitations: The model held for the dataset used, but needs further testing. Additionally, the model might not hold for health plans that do not work to maximize profit, although the dataset used was from a public program.

**Haile PA, Stein RM. Managed care incentives and inpatient complications. *Journal of Economics and Management Strategy*. 2002; 11(1): 37-79.**

Keywords: Quality

Purpose: Determine the effect of managed care incentives on the quality of patient care

Data: California hospital discharge data from the Sacramento and San Diego MSAs for 1995 and 1996

Methods: Odds ratio comparisons, various regression methods

Results: The study investigates how managed care incentives—operationalized as the doctor's benefit from providing additional procedures ("returns to treatment"), doctor's cost of effort, and the doctor's costs when the patient experiences complications—vary with the number of procedures performed and the rate of in-hospital complications. The general measure of health care episode outcome is intended to extend the present understanding of this relationship from previous research based on single, specific, diagnoses. The authors find differences between the complication rates among managed care and fee-for-service patients. They determine that these differences are based in variations in care across hospitals that tend to treat patients with different insurance types and that the differences are not based in differential treatment of patients within hospitals. They propose that these differences could arise in insurers' choices among hospitals with which to contract, the types of doctors serving the two patient groups, or hospitals' responses to the patient-insurance mix served.

Uses: This study proposes a measure of health outcomes, in-hospital complications, that warrants further investigation. It also offers an alternative explanation from previous outcomes-based studies that leaves unanswered questions—how does managed care's choice of contracted providers affect providers' quality or does it affect quality outcomes? Which came first, low cost/quality or the managed care contracts?

Limitations: The study is based on a limited sample of hospitals in a limited geographic area.

**Hurley R, Grossman J, Lake T, Casalino L. A longitudinal perspective on health plan-provider risk contracting. *Health Affairs*. 2002; 21(4): 144-153.**

Keywords: Cost

Purpose: Characterize risk-based provider/plan arrangements between 1996 and 2000

Data: Community Tracking Study

Methods: Analysis of interview data from Community Tracking Study (1996-2000)

Results: This study was interested in risk-contracting arrangements used between health plans and physicians, physician groups, and hospital-based integrated delivery systems. It found that risk contracting, with substantial financial risk and care management responsibility transfers, had decreased. Two patterns emerged from the 12 markets in this study: 1) large rate increases, and 2) retrenchment of risk contracting. Rate increases were due to the underwriting cycle and to needed adjustments in contracts. Retrenchment involved both a reduction in scope of services for which providers take on risk and a reduction in the number of plan members covered under risk arrangements. The reduction in members covered by risk was due to provider reluctance to enter into risk contracts. The study also found that physician organizations and plans were comfortable with the division of responsibility and physician autonomy in areas where risk contracting was well entrenched.

Uses: This study provides insight into the results of the initial wave of widespread risk contracting. It would be useful for anyone involved in negotiating such contracts, those interested in the dynamics of the managed care market, health care providers, and policymakers.

Limitations: The Community Tracking Study is based in specific markets; generalization of study findings to other markets should be done with caution, particularly given the large variation in managed care among geographic regions.

**Kemper P, Tu HT, Reschovsky JD, Schaefer E. Insurance product design and its effects: trade-offs along the managed care continuum. *Inquiry*. 2002; 39(2): 101-117.**

Keywords: Access, quality

Purpose: Determine the effects of insurance product design on medical service use, access, and consumer perceptions of care

Data: Community Tracking Study (1996-1997) Household and Insurance Followback Survey

Methods: Multivariate regression analysis

Results: This study analyzes the effects of different insurance product designs, specifically defined as use of networks, gatekeeping, capitation, and group/staff model delivery systems, on service use, access and consumer perception of care. The authors found no differences in unmet need or delayed care or use of hospitals, surgery, or emergency care across product types. There were differences across product types that posed a trade-off between out-of-pocket costs and administrative barriers to care. Consumer perception differed across the managed care continuum, with progressively poorer satisfaction with choice of physicians and low trust in physicians as the scale moves toward more heavily managed products. Analysis found that categorizing managed care products based on payment method and organization model (group or staff) better differentiated among managed care products than did in- or out-of-network service coverage categories. The authors suggest that the presence of a trade-off barrier means that certain policy options (eg, regulations that limit or prohibit use of certain care management tools) could reduce consumer options. An economic social welfare approach would conclude that removing heavily managed options as a result of the consumer backlash against managed care could leave some consumers, who would choose such options based on low cost, worse off. This is particularly important if a renewed emphasis on cost containment arises among purchasers and consumers.

Uses: This study provides important information to policymakers seeking to intervene in the managed care market, health plan purchasers, and plan designers.

Limitations: The nature of some of the managed care features studied make their effects difficult to separate in analysis. The Community Tracking Study Household and Insurance Followback Survey has a sophisticated design, but is limited in that it starts with self-reported data that is matched back to insurance records, when possible (for private insurance, 55%; with an additional 20% estimated; 25% were ultimately excluded from the followback).

**Lindrooth RC, Norton EC, Dickey B. Provider selection, bargaining, and utilization management in managed care. *Economic Inquiry*. 2002; 40(3): 348-365.**

Keywords: Cost

Purpose: Determine the relative contribution of managed care tools (provider selection, bargaining, and utilization management) to changes in aggregate expenditures

Data: Massachusetts Medicaid behavioral health carve out administrative data (1991-1995) and Massachusetts data from the Health Care Cost and Utilization Project Nationwide Inpatient Sample (control group)

Methods: Econometric statistical analysis

Results: The authors were interested in how managed care controlled cost through provider selection, bargaining, and utilization management. It is expected that: 1) provider selection reduces expenditures if patients are directed to efficient providers; 2) bargaining reduces expenditures by producing lower rates; and 3) utilization management reduces expenditures if providers respond with reduced treatment intensity. This study estimated that about 30% of the reduction in overall expenditures was due to provider selection, 5% was due to bargaining, and 65% was due to utilization management. The authors suggest that more efficient providers were selected by

managed care organizations because it is more costly to create efficient providers than to find them. Analysis supported the hypothesis that there were no quality differences between hospitals with managed care contracts and those without, but that the selected hospitals were more likely to have shorter inpatient length-of-stays prior to winning the contract. They suggest that both the provider selection and utilization management effects were likely to be welfare improving and that the effect of bargaining was small and in an ambiguous direction.

Uses: This study examines general categories of actions taken by managed care organizations to control costs. Some policy proposals could change the options available within these actions; thus understanding how each contributes to cost control helps policymakers predict the outcome of policy proposals. Additionally, such knowledge is helpful to plans' understanding of where resources yield greatest results.

Limitations: This study was limited to behavioral health coverage within Medicaid in a specific state and which limits our ability to generalize beyond this setting.

**Ma CA, McGuire TG. Network incentives in managed health care. *Journal of Economics and Management Strategy*. 2002; 11(1): 1-35.**

Keywords: Access

Purpose: Develop a model describing providers' incentives in a network and a theory describing how such networks function

Data: Claims data pre- and post-managed mental health care for Massachusetts state employees

Methods: Microeconomic theory; multivariate regression analysis

Results: The authors hypothesize that provider participation in a plan network plays a role in reducing the quantity of services used per episode of care. They propose a theory to describe the relationship of network incentives in managed health care. Overall, participation in the plan's network confers an economic benefit on providers; in exchange, the plan expects compliance with its protocols. Networks set targets for outpatient visits per episode of care and may penalize providers who fail to meet targets by directing patients to other network providers. The authors test the theory by observing providers' behavior pre- and post-managed mental health care in the Massachusetts state employee benefit program. Changes introduced by managed mental health care included price reductions, utilization review, and network creation, but not capitation. The study found that quantity of visits per episode of care fell sharply post-managed care. This finding is interpreted as the providers' response to the need to maintain good standing with the health plan. It is attributed to interaction dynamics—competition in a sense—among physicians and between the physicians and the health plan. The authors conclude that more work is needed to better understand interaction between network incentives and physician behavior.

Uses: This study serves as a reminder that each group of players involved in managed care—consumers, physicians, plans, purchasers, policymakers, and others—may not be acting as one and that there may be intragroup dynamics that need consideration.

Limitations: This study used data based on behavioral health providers in a single state and there are no assurances that their reactions to managed care implementation are similar to that of other providers.

**Miller RH, Luft HS. Does managed care lead to better or worse quality of care? *Health Affairs*. 1997; 16(5): 7-25.**

Keywords: Quality

Purpose: Determine if managed care increases or decreases health care quality

Data and Methods: Literature review of studies published between late 1993 and early 1997

Results: Thirty-seven studies from peer-reviewed publications were reviewed. Fifteen studies found quality of care to be significantly better or significantly worse in equal numbers under managed care organizations compared with non-managed care organizations. Several studies found quality of care to be worse for Medicare managed care members with chronic diseases. There was no consistent evidence that managed care organizations as a whole provide poorer or superior quality of care compared to non-managed care organizations based on these studies.



Uses: A widely cited article, this literature analysis provides a summary of research findings that circumvents partisan claims.

Limitations: Only that such reviews become quickly outdated and require updating (see Miller and Luft, 2002)

**Miller RH, Luft HS. HMO plan performance update: an analysis of the literature, 1997-2001. *Health Affairs*. 2002; 21(4): 63-86.**

Keywords: Quality

Purpose: Determine if managed care increases or decreases health care quality

Data and Methods: Literature review of studies published between 1997 and mid-2001

Results: Seventy-nine studies from peer-reviewed publications were reviewed. Quality-of-care findings for managed care organizations were comparable to those in non-managed care organizations. These findings indicated, however, that quality varies substantially among providers, plans, and geographic area. Managed care organizations did lower use of expensive resources such as hospitals. There was no difference found in ambulatory care use between managed care organizations and non-managed care organizations. The review found that managed care organizations offered/promoted preventive services more than non-managed care organizations. Access-to-care measures and enrollee satisfaction were lower for managed care organizations than for non-managed care organizations.

Uses: A follow-up to their widely cited 1997 article, this literature analysis provides a summary of research findings that circumvents partisan claims.

Limitations: Only that such reviews become quickly outdated and require updating

**National Committee for Quality Assurance. *The State of Health Care Quality, 2002: Industry Trends and Analysis*. Washington, DC: National Committee for Quality Assurance. 2002.**

(<http://www.ncqa.org/Communications/State%20Of%20Managed%20Care/SOHCREPORT2002.pdf>, November 30, 2002)

Keywords: Quality

Purpose: Report on the managed care industry's performance and its impact on national health

Data: Health Plan Employer Data and Information Set (HEDIS®)

Methods: Descriptive statistics

Results: This annual report from the National Committee for Quality Assurance (NCQA) reports general quality improvements for commercial managed care plans, with some managed care organizations meeting or exceeding Healthy People 2010 benchmarks on some indicators. More plans have effective and accurate systems for tracking care and are partnering with and providing quality incentives to physicians. However, there is large variation in quality between geographic area; for example childhood immunization rates are 80.3 percent in New England, but only 56.4 percent in South Central United States. Some effectiveness indicators have made little progress; such indicators include antidepressant medication management and chlamydia screening. Accredited organizations do appear to perform better on effectiveness indicators. The report lists the top 15 accredited organizations in HEDIS effectiveness of care measures and showcases five of them.

Uses: Provides an overview of HEDIS data to those interested in assessing the quality of managed care organizations and the means for comparison among managed care organizations.

Limitations: None as presented, however, because only managed care organizations are required to report quality data, HEDIS only includes data from approximately 25 percent of insured Americans.

**Robinson JC, Casalino LP. Reevaluation of capitation contracting in New York and California. *Health Affairs*. 2002; Web Exclusives 2001: W11-W19.**

Keywords: Cost

Purpose: Determine trends in capitation and delegation used in plan-provider relationships

Data: Aetna U.S. Healthcare administrative and claims data for New York and California from 1998-2000 and key informant interviews from physician practices

Methods: Case study

Results: This study found that plans in both California and New York have moved to reduce prepayment and that both plans and providers were rethinking and restructuring their contractual relationships. In California the basic structure of capitation and delegation remained, but the scope of capitated services was reduced and utilization management has increased. In New York plans were reconsidering the value of contracting with physician organizations at all. The overall conclusion is that the anticipated move toward capitation as a standard and the delegation of responsibility to providers by plans has not occurred and that a reversal of this trend appears to have begun.

Uses: This study examines the trends in plan-provider relationship in two states with very different managed care environments. It assists those watching the health care industry in understanding predicting future trends in capitation and delegation of services between health plans and service providers.

Limitations: None as presented

**Roohan PJ, Gesten F, Pasley B, Schettine AM. The quality performance matrix: New York state's model for targeting quality improvement in managed care plans. *Quality Management in Health Care*. 2002; 10(2): 39-46.**

Keywords: Quality

Purpose: Report on the New York State Department of Health's health plan quality improvement matrix

Data and Methods: Not applicable

Results: The authors report on the New York State Department of Health's method for analyzing health plan performance. The model is based on a matrix focused on two performance benchmarks: comparison to peers and comparison to the plan's historic results. The matrix results are used to identify target areas for quality improvement. The process includes developing a partnership with the health plans to work on the target areas by identifying barriers to improvement, setting performance goals, and developing action plans.

Uses: Process could be replicated by other organizations interested in fostering quality improvement in similar situations

Limitations: None as presented

**Rosenthal MB, Newhouse JP. Managed care and efficient rationing. *Journal of Health Care Finance*. 2002; 28(4): 1-10.**

Keywords: Cost, quality

Purpose: Discuss service rationing in the current health care financing models and determine what would constitute efficient rationing

Data and Methods: Commentary, not applicable

Results: The authors propose that the service rationing used by managed care thus far has eliminated services with little regard to consumer preference. They question whether this supply-side control of moral hazard is consistent with the efficient rationing principles of welfare economics. They criticize the focus on quality of care measures (eg, mortality, readmissions) instead of utility measures (eg, patient satisfaction, quality adjusted life years; although the authors are also dissatisfied with these measures). They suggest that a more appropriate focus would be on perceived benefit rather than solely focusing on clinical effectiveness. They conclude that although consumer choice is not the only factor to consider when determining efficient rationing, demand for services should not be entirely removed from the equation.

Uses: This discussion provides an interesting counterpoint to the other articles included here. Few other articles made the argument for inclusion of consumer choice so pointedly or based the argument in theory. These authors propose a shift in focus—from that of the supplier to that of the consumer. Such a discussion might aid decision makers—purchasers and policymakers—in their efforts to find a balance between rising health care costs and adequate health care insurance coverage.

Limitations: None as presented.

**Scanlon DP, Darby C, Rolph E, Doty HE. Use of performance information for quality improvement: the role of performance measures for improving quality in managed care organizations. *Health Sciences Research*. 2001; 36(3): 619-641.**

Keywords: Quality

Purpose: Determine how managed care plans use performance measures for quality improvement

Data: Interviews with key informants from 24 health plans in four states

Methods: Qualitative

Results: Although all 24 managed care organizations used performance measures for quality improvement, the extent and manner used varied. Plans used measures to inform external constituents, identify target improvement areas, evaluate plan performance, establish quality improvement goals, and identify the problem sources. The study findings suggest that plans are better at using quality performance data for identifying targets than for actual improvement. Most improvement areas involved preventive care, chronic disease management, and customer service or member satisfaction. The authors found that the most useful quality indicators were standardized, actionable, timely, stable, capable of trending, measured at the appropriate unit of analysis, affordable and cost effective to collect, and relevant to the plans. They identify some problem areas with HEDIS and CHAPS data utility to plans' quality improvement activities.

Uses: Our society collects so much information, but we rarely question the usefulness of that data. By examining how plans use the collected data, we get an idea of the realized value of the data collection efforts. Additionally, by asking users how the data collected can better benefit them, we provide avenues for increasing that data's value.

Limitations: This is a preliminary study based on interview data from executives. There is potential for bias due to sensitivity of quality issues in health care. This study is also based on a relatively small sample in only 4 states and was selected by purposive rather than random sampling.

**Schild J, Murphy JJ, Bolnick HJ. Evaluating managed care effectiveness: a societal perspective. *North American Actuarial Journal*. 2001; 5(4): 95-110.**

Keywords: Access, cost, quality

Purpose: Develop an explanatory qualitative model to evaluate managed care system performance

Data and Methods: Theoretically based discussion with general application of proposed model to describe overall trends in managed care in the Boston, Massachusetts, market.

Results: This paper provides an overall stakeholder analysis of the managed care market, models their objectives and relationships, and makes conclusions based on the model. It overviews the functional components of the managed care system, discusses the market forces underlying health care financing and delivery, and describes the role of market forces in the health care industry. Several assumptions underlie the analysis: 1) that the agreed-upon goals of the health care system and managed care are cost control, optimal quality and reasonable access for all; 2) the health care system will be effective if all interactions with the system are similarly effective; 3) effectiveness can be measured; and 4) that there are five forces countering the effectiveness of managed care (most of these are forces that primarily break the underlying assumption that the managed care market is a perfectly competitive market). The proposed qualitative model is applied, generally, to the Boston managed care market.

Uses: The model proposed in this paper provides a broad base on which to overlay quality discussions and a possible means to develop a general quality index for benchmark assessments or interorganization comparisons. By taking such an approach, it provides a good entry point to the

managed care effectiveness literature. It also could serve as a guide for all stakeholders in the health care market and the associated public policy process that should help prevent a narrow focus on single objectives (eg, cost, quality, or access).

Limitations: None as presented

**Thompson JW, Bost J, Ahmed F, Ingalls CE, Sennett C. The NCQA's Quality Compass: evaluating managed care in the United States. *Health Affairs*. 1998; 17(1): 152-158.**

Keywords: Quality

Purpose: Report on the release of the National Committee for Quality Assurance's quality comparison data set—Health Plan Employer Data and Information Set

Data and Methods: Health Plan Employer Data and Information Set (HEDIS)

Results: This paper reports on HEDIS 3.0 and covers background on collection and verification methods and limitations of the data. These data included standardized specifications for 71 measures of clinical performance, service utilization, patient experience, and patient satisfaction. The authors report 1997 results on 13 of these measures related to managed care quality.

Uses: The HEDIS is the primary information source on managed care quality and is cited widely. All users and consumers of health data or information based on this data should be aware of the nature and quality of the underlying data. Additionally, awareness of the available data allows for informed decisions about what types of questions we are able to answer with available data.

Limitations: None as reported

**van Amerongen D. Physician credentialing in a consumer-centric world. *Health Affairs*. 2002; 21(5): 152-156.**

Keywords: Quality

Purpose: Determine the origin and current use of physician and hospital credentialing by managed care organizations and whether this is the best use of resources

Data and Methods: Commentary and historical report and analysis, not applicable

Results: This paper focuses on physician credentialing and how the information gathered by this process might be made more meaningful to and valuable for consumers. In the interest of increasing the value returned from administrative expenses, the author claims that physician credentialing consumes much in resources but provides minimal return to consumers for their expenditure. This is particularly true in the current markets where most physicians in a local market (eg, 95%) are included in plans' networks. Additionally, hospitals are required by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) to credential physicians who practice at their facilities, so an additional credentialing of these physicians is redundant. The author provides several suggestions for action to meet identified consumer needs related to physician selection, such as cost data, physician-provided services, physicians' outcomes, patient satisfaction, and physicians' professional backgrounds.

Uses: This discussion would be of interest to managed care plans, hospitals, policymakers and consumer advocacy and health-plan purchasing groups.

Limitations: None as presented

**Waitzkin H, Williams RL, Bock JA, McCloskey J, Willging C, Wagner W. Safety-net institutions buffer the impact of Medicaid managed care: a multi-method assessment in a rural state. *American Journal of Public Health*. 2002; 92(4): 598-610.**

Keywords: Access, cost

Purpose: Study the impact of the implementation of Medicaid managed care on safety-net providers in New Mexico

Data and Methods: Case study; surveys and interviews conducted with individuals and providers

**Results:** This study found that Medicaid managed care implementation heavily impacted safety-net institutions, but only slightly impacted individuals, particularly the uninsured. Safety-net institutions, particularly rural institutions, found marked increases in workload and financial difficulties. Safety-net providers tended to buffer the impact of implementation on their patients. The study found that access to medical care for uninsured adults was worsened one year after implementation of Medicaid managed care. Uninsured adults reported less access and use and worse barriers to care than adults in other insurance categories. Compared with children in other insurance categories, children covered by Medicaid had greater access, use, and communication with providers. However, uninsured children encountered greater barriers to care post-implementation. Outcome variables showed no change between pre- and post-implementation of managed care.

**Uses:** Changes in public policy—particularly cutbacks in public services—are often made with the assumption that the voluntary (safety-net) sector will pick up what the government drops. There is little empirical research that investigates such assumptions. This study provides some insight—that safety-net providers may absorb the increased load, but that it may be at the cost of their existence. This study also provides a model for other researchers to follow in such implementation studies.

**Limitations:** Only that this is a case study and that this thus limits our ability to generalize its findings to other situations.

**Walsh EG, Osber DS, Nason CA, Porell MA, Ascitutto AJ. Quality improvement in a primary care case management program. *Health Care Financing Review*. 2002; 23(4): 71-100.**

**Keywords:** Quality

**Purpose:** Report on the use of physician profiling of primary care physicians for quality improvement in the Massachusetts Medicaid program and determine how this profiling affects physician behavior

**Data and Methods:** Interviews and administrative data

**Results:** MassHealth uses claims to analyze and report service delivery rates at the practice level. It uses these analyses to work on quality improvement initiatives with individual medical practices. No apparent changes in physician behavior were found in this study. Possible reasons for the lack of behavior change included lag time for data reporting, changes in measures that prohibit cross-year comparisons, short beneficiary eligibility, and use of claims-based performance measures.

**Uses:** This study provides interesting input on the types of data and indicators to select for quality and outcomes assessment.

**Limitations:** Data used requires patient follow-up, which is difficult when working with a Medicaid population and results in information gaps in data. This, however, is a reality for these types of programs and not necessarily a limitation of this specific study.

**Wolff N, Schlesinger M. Clinicians as advocates: an exploratory study of responses to managed care by mental health professionals. *The Journal of Behavioral Health Services and Research*. 2002; 29(3): 274-287.**

**Keywords:** Access, quality

**Purpose:** Determine whether provider characteristics or experiences with managed care practices predict providers' advocacy behaviors on behalf of their patients

**Data and Methods:** Survey of mental health providers via random sampling of National Alliance for the Mentally Ill members and linking to these individuals' clinicians

**Results:** This study found that norms of professionalism and experiences of harmful utilization review were significant predictors of advocacy behavior. Providers' definitions of their professional roles determined whether they adopted an advocate role on behalf of their patients and what form the role would take; some professionals aligned with patients and became advocates, others aligned with the plans and did not. Providers concerned with disaffiliation were more likely to act as indirect advocates by altering their description of the case (eg, inflating symptoms or disease states) and less likely to directly challenge review decisions. Physicians, in contrast to other

providers, were most likely to use direct and indirect formal advocacy approaches; master's-trained mental health providers were more likely to use informal advocacy methods. The authors conclude that utilization review has not weakened professional norms, but that there was much variation among providers in advocacy-related professional norms. They note that plans' substitution of less-educated providers in behavioral health care may impact patient advocacy because physicians were the most active advocates, and that fear of network deselection may result in providers "gaming" the managed care system.

Uses: The different facets of service providers' responses to managed care are important as policymakers and plan administrators determine the future of managed care.

Limitations: This study focuses on mental health care providers, the dynamics of behavioral health care may be different from those of medical care.

**Zema CL, Rogers L. Evidence of innovative uses of performance measures among purchasers. *Health Care Financing Review*. 2001; 22(3): 35-47.**

Keywords: Quality

Purpose: Determine the performance measurement methods used by health plan purchasers and how they use such measures

Data and Methods: Sixteen case studies of health plan purchasers located in California, Michigan, New York, Pennsylvania, Washington, and Washington, DC.

Results: California purchasers were relatively active in performance measurement and use of data in decision making. Michigan (Detroit area) purchasers were active in performance measurement and automobile manufacturers and the United Auto Workers were strong forces for performance measurement in the region with the creation of the Reporting System (CARS) project. New York illustrated a different approach, with employers, rather than coalitions or outside organizations, which have advanced performance measurement initiatives. Pennsylvania purchasers were primarily involved as coalitions in performance measurement processes; one employer used an outside consultant. Overall, Pennsylvania purchasers felt that the risk-adjusted information currently collected in most cases still did not meet their needs for evaluating managed care organization performance or for holding these organizations accountable but were working toward better measures. Washington purchasers tended to work independently of each other and are thus using performance measurement data in various ways. Among the Washington, DC, purchasers, the US Office of Personnel Management includes performance management on all service providers and provides this information to employees via the Internet. The authors report on barriers to performance measurement identified by purchasers.

Uses: Provides examples of performance management initiatives for purchasers of health plans and critiques of data utility for policymakers

Limitations: None of the study as presented. However, the article is organized in a manner that impairs readers' ability to summarize results of performance measurement activities in use.

**Zwanziger J. Physician fees and managed care plans. *Inquiry*. 2002; 39(2): 184-193.**

Keywords: Cost

Purpose: Determine the factors that influence the fees negotiated between managed care organizations and physician service providers

Data: Surveys of physician-negotiated fees; Resource-Based Relative Value Scale; US Census; annual survey of health maintenance organizations and preferred-provider organizations by the SMG Marketing Group, Inc.; indemnity fee data from Medical Data Research

Methods: Regression analysis

Results: This study investigates the relationship of various factors to physician fees negotiated by managed care organizations from 1990 to 1992. The only market structure measure significantly related to fees was managed care penetration. The greater the managed care penetration in an area, the lower the physician fees in that area. The supply of physicians, measured as physicians per capita, was also significantly related to fees. Physician supply was strongly negatively

associated with negotiated physician fees; the more physicians per capita in an area, the lower the fees. The author concludes that negotiated fees were the result of both historical fee patterns and the relative costs for the area and that competitiveness among physicians may be a force for reducing fees.

Uses: This study provides empirical support for the theory that increased physician competition resulting from managed care organizations' network creation and care management processes decrease physician fees and, thus, health care costs.

Limitations: This study was based on a small sample and thus may not be representative of the overall population of managed care organizations. Additionally, the study is based on data now more than 10 years old and the dynamics that created these findings may have changed.