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PARITY FOR MENTAL HEALTH
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UNDER MANAGED CARE

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ABSTRACT

Background: Parity in insurance coverage for mental health and substance abuse has been a key goal of mental health and substance abuse care advocates in the United States during most of the past 20 years. The push for parity began during the era of indemnity insurance and fee for service payment when benefit design was the main rationing device in health care. The central economic argument for enacting legislation aimed at regulating the insurance benefit was to address market failure stemming from adverse selection. The case against parity was based on inefficiency related to moral hazard. Empirical analyses provided evidence that ambulatory mental health services were considerably more responsive to the terms of insurance than were ambulatory medical services.

Aims: Our goal in this research is to reexamine the economics of parity in the light of recent changes in the delivery of health care in the United States. Specifically managed care has fundamentally altered the way in which health services are rationed. Benefit design is now only one mechanism among many that are used to allocate health care resources and control costs. We examine the implication of these changes for policies aimed at achieving parity in insurance coverage.

Method: We develop a theoretical approach to characterizing rationing under managed care. We then analyze the traditional efficiency concerns in insurance, adverse selection and moral hazard in the context of policy aimed at regulating health and mental health benefits under private insurance.

Results: We show that since managed care controls costs and utilization in new ways Parity in benefit design no longer implies equal access to and quality of mental health and substance abuse care. Because costs are controlled by management under managed care and not primarily by out of pocket prices paid by consumers, demand response recedes as an efficiency argument against parity. At the same time parity in benefit design may accomplish less with respect to providing a remedy to problems related to adverse selection.

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I. Introduction

This paper discusses how managed care has altered the economics of “parity” for mental health and substance abuse (MHSA) care in private health insurance. Parity has referred to equal benefit coverage. If general health care is subject to only a \$5 copay without limit in a managed care plan, then coverage at parity implies that MHSA should be subject to the same, and not a higher copay/lower limit. Advocates for mental health services have gained ground in attaining parity for MHSA as a result of recent state and federal legislation, and are hoping for broad federal legislation to establish parity as national policy once and for all (National Advisory Mental Health Council, 1997). But when care is “managed” equal coverage does not imply equal access (Frank, Koyanagi, and McGuire, 1997). We argue in this paper that parity as “equal benefit coverage” is an inadequate definition when costs and utilization are subject to managed care. We propose a new definition of parity applicable to managed care, and consider the case for attaining “parity” in a managed care environment.

The most evident impact of managed care is to reduce the cost of any given level of insurance coverage, and therefore to make parity “more affordable.” Sturm (1997) has recently used data from private insurance to show that under managed care, the tail of a distribution of annual use of MHSA is quite small, only 0.66% of users per year incurring costs above \$10,000 in his data. The effect of parity on many plans would be to remove annual limits such as a \$500 per year maximum for psychotherapy spending or 30 inpatient days per year. With a small upper tail on spending under managed care such as that found by Sturm, eliminating limits can be done at little cost. Sturm estimates that eliminating \$25,000 annual spending limit would increase insurance costs by only \$1 per year per enrollee.

Table 1 illustrates this point on a different data set, a large private insurer which introduced a carve-out managed care plan for mental health and substance abuse in 1993, described in more detail in Ma and McGuire (1998). Comparing the distribution of total annual spending (covered and uncovered) in the year prior to and post managed care, we see the distribution shifts to the left. Eliminating a cap on annual coverage will be much cheaper with managed care than without. Based on some simple assumptions about use within the categories shown (use at midpoints for ranges, and average use of \$20,000 for the open category), without managed care, costs above \$10,000 are \$3.1 million for this population, accounting for 25% of total costs. Costs above \$10,000 are only \$1.6 million after managed care. Overall costs fall by about one third between these two years, but costs and use in the expensive tail of the spending distribution falls more.

Over the years, many writers on mental health policy have put forward the argument that since MHSA is a small part of the overall benefit cost, it should be covered at parity. Based on such logic, if managed care makes mental health even a smaller share of the total, the case for parity should be strengthened. However, this argument misses the point of why mental health was not covered at parity initially. Many expensive benefit areas are covered at parity and many areas of modest spending are not. It was never the *level* of costs that drove the case against parity for MHSA, it was the fact that these costs were *more responsive* to insurance coverage (an argument we will review and reconsider shortly). Thus, the fact that MHSA spending is smaller under managed care does not, by itself, make parity more desirable than previously. That spending is low was never a good argument for parity, and that spending is lower is not a better one. The level of costs matter in that they affect how much it costs to provide parity, but not to

whether the extra costs created by expanding coverage are worthwhile from the standpoint of an efficient health care system.

How then does managed care affect the case for parity for MHSA? First, managed care, because it controls utilization in a new way, means that “parity” in benefit design no longer implies equal access to and quality of mental health and substance abuse care. Managed care forces us to change our definition of “parity.” Second, because costs are controlled by management under managed care, and not primarily by the out-of-pocket prices paid by enrollees, the efficiency arguments for and against parity shape up differently. As we will argue below, demand response recedes as a source of an efficiency argument against parity. Third, research on and regulation of private insurance must be redirected to recognize the new methods of care management introduced in managed care. This paper will cover these issues by briefly restating the old, pre-managed care analysis of parity, and then by showing how these arguments are altered by managed care.

II. Parity under Indemnity Insurance

Under indemnity insurance, utilization is regarded as being determined by the position of the consumer's demand curve and by the out-of-pocket prices the consumer faces as set by the insurer. This model of utilization determination under indemnity insurance has been discounted for being overly simplistic, ignoring the role of the provider in determining use and implying the consumer is more rational than he or she really is (Rice, 1992). Notwithstanding the strong assumptions behind the model, this analysis is the foundation of the empirical and policy analysis of demand before, including, and since the RAND Health Insurance Experiment (HIE) conducted in the 1970s (Newhouse et al., 1993). Moreover, one need not ascribe to all the

assumptions behind conventional demand analysis to be concerned that “parity” in insurance for mental health may generate disproportionate and inefficient cost increases for similar insurance benefits.

We present here, in graphic terms, the model of utilization determination underlying this analysis, and why this, along with empirical findings about demand response, implied that parity for mental health was inefficient. Figure 1a and 1b show demand curves for general health and mental health care respectively. On the vertical axis is the cost of each service, normalized at \$1, and on the horizontal axis is the level of spending on each service. At an initial coinsurance rate of c , set at the same for each service, spending on general health care would be $\$g$ and on mental health care, $\$m$. The notable thing about the two demand curves is that, as drawn, the demand for mental health care is more responsive to price reductions than the demand for general healthcare. In other words, when the amount the consumer pays is reduced, the quantity demanded in mental health goes up by more than for general health care. This demand response is referred to as “moral hazard” in the health insurance literature. Virtually all areas of healthcare are subject to moral hazard to some degree. Extensive empirical investigation has clearly established that under indemnity insurance plans, demand for outpatient mental health care is more responsive to insurance than demand for general health care (McGuire, 1989; Newhouse et al., 1993).

If both services were subject to the same coinsurance rate, there would be parity. Consider now the effect of reducing the coinsurance from c to c' for both services. General health spending goes from g to g' and mental health spending from m to m' . What are the efficiency implications of these changes? Reducing coinsurance from c to c' increases protection against financial risk for the consumer. The coinsurance reduction must of course be financed by

a premium increase, but the consumer, if risk averse, prefers to pay a premium independent of illness to paying out-of-pocket expenses when sick. Setting aside the scale of spending on general health and mental health (or, thinking in “per dollar” terms), the risk reduction benefits of a change from c to c' are the same for general and mental health.

The greater demand response of mental health care to the cost sharing reduction, however, implies that the efficiency cost of the change to c' is greater for mental health. Because the consumer is not facing the full cost of medical care ($\$1$), he or she is consuming beyond the efficient point. By increasing consumption even more in response to the coinsurance rate reduction, this problem is exacerbated in mental health. Assuming that the demand curve summarizes benefits of different levels of spending on care, the value to the consumer of consumption between g and g' is the area under the demand curve between these two spending levels. The social cost is the area under the $\$1$ line (since $\$1$ of spending costs society $\$1$). The efficiency loss is the excess of social cost over consumer benefits. Therefore, the net efficiency loss from increased consumption between g and g' is indicated by the shaded area in Figure 1a. This can be compared to the shaded area in Figure 1b. Because the demand response for mental health is greater, more “lower-value” services are added to consumption after the coinsurance rate reduction, and there is a larger welfare cost attributable to the coinsurance change. This too is borne by the consumer in the form of higher premiums that must be paid to finance the extra consumption.

The upshot of this analysis is that the welfare costs created by moral hazard are smaller for general health care, and are more likely to be offset by the benefits of risk reduction. For mental health, the risk reduction benefits are the same, but the welfare cost is higher due to greater demand response. In deciding what is the best level of coinsurance for mental health

care, a policy maker maximizing consumer welfare would not choose parity. The efficient level of coinsurance for mental health would be higher than for general health care.

Under indemnity insurance, there is thus a “good” reason, from the standpoint of efficiency, for there to be greater cost sharing for ambulatory MHSA care. To round out the analysis of insurance under old-fashioned indemnity care, we must add, however, consideration of another economic force influencing benefit design in insurance markets: adverse selection. If insurers set the terms of coverage to maximize profits, they will be interested in offering coverage that is best for consumers, as just noted, but they will also be interested in offering coverage that attracts consumers that are relatively low risk. It has long been argued that good mental health benefits would attract costly users, and that insurers had an incentive to provide poor benefits to avoid these customers. These selection-driven influences on benefit design would lead to poor coverage for mental health care, that are unrelated to economic efficiency. Even if the demand response for mental health was the same as for other illnesses, if insurers believed they would attract unfavorable risks by providing good mental health coverage, the market in private indemnity insurance could lead to less coverage for mental health than for other conditions. Potentially offsetting the moral hazard analysis around Figures 1a and 1b, adverse selection is thus a “bad” reason for there to be less insurance for MHSA care.

A possible manifestation of this “bad” reason can be seen in the imposition of certain limits on mental health care. For example, it is common to find outpatient mental health care carrying 50% copayment rates and having limits of 25 visits per year. Examination of empirical distributions of outpatient spending and simulation models of demand response (Frank, Goldman and McGuire, 1992) suggest that adding limits to plans which call for 50% copayment rates results in few additional cost savings to health plans. Large losses are from the insured’s point of

view, the most valuable to insure. The apparent inefficient imposition of a limit may be due to selection related incentives as opposed to our earlier example of higher cost sharing for psychotherapy that had a rationale in controlling moral hazard.

Where does this leave the parity debate and more generally the role of regulation of MHSA coverage in insurance markets? The fundamental empirical research question about MHSA care under indemnity insurance was demand response. This was well-appreciated in the 1970s and 1980s, for all areas of health care, and was the main rationale for the HIE. Knowing demand response for various areas of care would allow us to decide, based on efficiency considerations of balancing risk-spreading gains against creation of excess utilization, which areas should be covered well and which areas not so well. The parameters for optimal insurance would be derived from research, and those could then be compared with what was observed in a market. Where the market provided less insurance than researchers concluded was optimal, adverse selection would be the likely culprit, and regulation could be recommended to address the problem. In some cases, this was relatively easy. In the early 1970s, when many plans had no coverage for MHSA care, no hospital care, no coverage for psychotherapy, state mandated benefit legislation to provide minimal coverage was almost certainly efficiency enhancing, overriding market outcomes likely distorted by selection related behavior by insurers (McGuire and Montgomery, 1981; Frank, 1989). In other cases, such as the never-fully-joined debate on the terms of national health insurance, what the right coverage for mental health and other services should be based upon this reasoning would have been a more difficult call. In any case, it was clear, based on empirical research, that parity for mental health and substance abuse care was not the right policy goal in terms of the economic interest of consumers.

III. Parity under Managed Care

Managed care controls health care utilization in a different way, not by relying on what the consumer would demand at various out-of-pocket prices specified in an insurance benefit design, but by influencing providers' decisions to supply care or by direct intervention through vehicles such as utilization review. There is no doubt that managed care controls use of health services by "rationing" care (Frank and McGuire, 1997; Goldman, McCulloch, Sturm, 1998; Ma and McGuire, 1998; Brisson et al., 1997). How is parity to be understood when benefit design is not the primary method of rationing of care? And, what then is the case for parity and related regulation of terms of health insurance.

At present, there is no paradigm that governs our thinking about managed care in the same way that the demand analysis paradigm shaped policy towards insurance benefit design. As Moran (1997) commented in a recent paper, regulation of managed care is an "impetus in search of a theory." We know we need to be concerned with market outcomes in managed care insurance and probably to regulate those outcomes, but we lack a framework for thinking clearly about the problem.

We suggest a way to view managed care that can be helpful in thinking about the implications for the "parity" issue and insurance regulation more generally.¹ First of all, consider the meaning of parity in managed care, beginning with the way managed care rations care. There are many tactics that make up managed care: capitation payment to providers, bonus payments associated with cost or care targets, other forms of risk sharing, network selection of providers and associated incentives, pre-certification of care, standards of treatment, continuing review,

¹ These ideas are being jointly developed with Jacob Glazer.

and others. “Parity” in the realm of managed care must mean that these devices to ration care should be applied to MESA care in the same fashion as they are in other areas. How is this statement to be understood? What does it mean to have “parity” when the rationing device relies on the techniques of managed care? How can this be compared across service areas? When the rationing device was coinsurance this was straightforward -- parity meant equal coinsurance. How does one conceive of “parity” given the complex set of rationing methods that are now in place under most health plans.

Economists writing about managed care have taken two tacks in modeling the effect of managed care. One approach, associated with Baumgartner (1991), Ramsey and Pauly (1997) and Glazer and McGuire (1997) is to view managed care as setting quantity -- that is, specifying what a person with a given demand curve would get under managed care. A strict rationing system would set a low quantity, a looser one would set a higher quantity. The other tack, taken by Keeler, Carter and Newhouse (1997) and Frank, Glazer and McGuire (1998) is to view managed care as setting a shadow price for each service. The shadow price describes the results of rationing. It is as if consumers were charged this price, and the managed care plan gave them all services that had a value to them above the shadow price and denied care for all uses for which the value was below the shadow price.

Shadow prices are a convenient way of conceptualizing the idea that a plan uses a variety of tools to allocate services to enrollees with varying demands for care. In this view, clinicians and patients have considerable latitude in choosing quantities of service that will be most beneficial, but they must do so subject to a number of financial and administrative pressures to Manage care choices “economically.” Conceptually we can describe the “intensity” of rationing by the level at which shadow prices are set. The virtue of the shadow price approach to modeling

managed care is that the shadow price or stringency of rationing can be compared service to service. We can define parity as “equal shadow prices.” The rationing devices for MHSA and general medical care should be equivalent to the same shadow price imposed on consumers. Using this conception of managed care, we can reconsider the efficiency of “parity.”

Apply the shadow price representation to the same demand curves for general and MHSA as applied under indemnity insurance. Consumers have the same willingness to pay (or demand) for care as they did under the old rationing system, but now face rationing of a different sort, represented by a shadow price. Figures 2a and 2b take the same demand curves from Figures 1a and 1b for general and MHSA care and impose an equal shadow price equal to p to ration both forms of care. Initially, the managed care plan would provide g dollars of general health care and m dollars of mental health care to someone with these two demand curves. Now, a slightly higher shadow price p' for each area of care is shown, representing more strict rationing, and leading to quantities g' and m' . Note that because the demand for MHSA is more responsive to price, a higher shadow price leads to a larger cutback in the spending on MHSA than for other services.

When the shadow price is raised, what are the efficiency implications for the consumer? Here is an important difference between indemnity plans and managed care plans: The shadow price is an “as if” price. The consumer is not actually paying it. Thus, there is no increase in financial risk imposed on the consumer by an increase in shadow price from p to p' . Indeed, this is the appeal of managed care, controlling moral hazard without imposing financial risk on consumers. Thus, for neither type of service does increasing the shadow price impose a risk cost on consumers. Raising the shadow price, if the shadow price is below \$1, the social cost of spending, increases the efficiency of the health plan. By reducing spending from g to g' , health

plan premiums can be reduced, and since the consumer does not value spending between g and g' at the cost of providing it, this makes the plan more attractive from the consumer's point of view. We emphasize that this argument applies to MHSAs as well, and indeed to any area of care. Both the shadow price rise for general health care and the shadow price rise for MHSAs can be efficiency enhancing, if both lead to excision of low value spending. It should be clear that the optimal shadow price for a managed care plan is \$1 -- that is, spending on care should only occur on those services for which the benefits exceed the costs.

The efficient managed care plan is characterized by parity, at a shadow price equal to \$1. Said another way, with managed care, parity in terms of equally binding rationing devices is efficient.

We can say more. Providing managed care at an efficient level of shadow price equal to \$1 implies a certain budget for the managed care plan, sufficient to cover all the costs incurred at that level of rationing. Suppose this were not true, in the sense that the managed care plan had to get along at some other budget, higher or lower than the efficient one. For *any budget*, the efficient way to use that budget is to ration equally in the sense of setting the same shadow price for all services. (Note that the most efficient shadow price would now be more than \$1). This is easy to show mathematically via a constrained optimization problem where a health plan seeks to maximize consumer welfare subject to a fixed budget. Intuitively, the health plan should make sure that the value of spending is equal in all uses, implying that the value of spending the last dollar across services should be equal. An equal shadow price accomplishes this objective.

To sum up: *parity – equal access as indicated by a shadow price -- is a feature of an efficiently run managed care plan maximizing consumer welfare subject to a budget.* The financial risk/efficient level of care tradeoff is circumvented in managed care because demand-

side cost sharing is unnecessary for rationing use. Freed from this concern, the efficient health plan can equalize the value of spending in all uses -- parity.

In terms of policy, the argument for parity under managed care is very strong. If we do not rely primarily on demand-side cost sharing to ration care, there is little reason to have higher cost sharing for MHSAs. Parity in a benefit design sense is thereby efficient policy. Demand-side cost sharing contributes to financial risk of consumers but offers little help in rationing care. A complication to this argument is that actual health plans may use both managed care and demand-side cost sharing to control moral hazard. As the plan tilts more toward old-fashioned demand side cost sharing, the old argument for unequal coverage comes into play. As the plan tilts more toward managed care as the locus for rationing, the new argument for parity should win the day. A further implication here is that regulations forcing parity in benefit design will force plans to use other means to ration care.

Over and above parity in terms of benefit design, efficiency in managed care requires parity in all forms of rationing (equal shadow prices). The benefits generated by spending money should be the same at the margin in all uses is a powerful and general argument. Whatever the rationing device, it should be applied equally across all service areas.

Normative economic analysis, concerned with what an efficient health plan looks like, swings around in favor of parity under managed care. The positive (or descriptive) analysis of the functioning of insurance markets under managed care brings with it less welcome news. Health plans have the same incentives to discourage membership of persons with high health care costs as they did under indemnity insurance. Indeed, with the renaissance of real risk bearing by health plans in insurance markets, if anything, that incentive is enhanced under managed care. In a market in which plans are paid by capitation or a related mechanism,

incentives related to adverse selection will lead plans to distort rationing devices (shadow prices) away from the efficient levels. The basic idea is that plans will strictly ration services in areas of care that are attractive to persons with high health care costs. This is a force which influences the setting of shadow prices apart from the efficiency driven dynamics that will tend to equalize shadow prices. Selection incentives will tend to raise shadow price for areas of care (MHSA) which “loser” enrollees value. That is, excessive rationing would be driven by a desire to avoid unattractive enrollees even in the presence of “parity” in benefit design. It is in this sense that parity laws are necessary but not sufficient to ensure that efficient levels of access and quality of mental health care will result in competitive insurance markets (Frank, Koyanagi, and McGuire, 1997).

We have two points to make about this problem in this paper. The first is that we know very little about the process of rationing in managed care. Decision making within managed care plans is poorly understood. The services that would be affected by this selection-related incentive have not been identified. MHSA is certainly a candidate here, but aren't other illnesses as well? However, all areas of care cannot be discriminated against in relative sense. Can we expect MHSA to fare less well than average in managed care given these incentives? What evidence is there to refer to on this point?

Second, even if MHSA were distorted by selection-driven competition among managed care plans were identified, what could be done? When insurers used co-payments to ration care, for all their disadvantages, at least regulators knew what to regulate and how. If we believed selection led to inefficient outcomes in a market with benefit design, it was possible to stipulate what we wanted and to change the outcome.

The problem of setting policy to enhance the efficiency of markets for health plans has become far more difficult under managed care. Four approaches to regulation of health plans have been advanced to counter selection-related incentive to distort the delivery of care. They are (1) risk adjustment of premiums, (2) direct regulation of managed care contracts, (3) carve-outs for mental health and other services, and (4) measurement of quality.

Risk adjustment or premiums clearly will attenuate selection-related incentives. However, existing methods appear not to be sufficient to eliminate large gains to health plans from engaging in activities which distort access and quality of specific services in the interests of influencing enrollment patterns (Newhouse and Beeuwkes Buntin, 1997). Carve-out programs where a payer removes behavioral health care from all health plans certainly guarantees that the carved-out service will not be the object of distortions arising from attempts to achieve favorable selection of enrollees. Carve-out programs have a number of disadvantages. They include: high administrative costs (8% to 15%), difficulties in coordination of care between, for instance, health and mental health and incentives to shift responsibility for care across insurance segments.

Direct regulation of contracts has been suggested in state legislatures and elsewhere (Gopelrud and Rosenbaum, 1998). As we have argued above, rationing within managed care is a complex, heterogeneous and poorly understood business. We believe that rationing involves hundreds of decision points within managed care organizations. This is likely to make direct regulation of these practices costly, complex, difficult to monitor, and probably subject to endless litigation. More importantly, given our meager understanding of rationing in managed care, it is not clear that the distortions created by incomplete regulation of a process that is not well understood would improve or hinder the fair and efficient provision of mental health and substance abuse care.

Finally, quality measurement is in its infancy. Direct measurement of health plan performance is currently a subject of active research. Measuring the quality of specific services such as mental health care lags behind the overall effort (IOM, 1996). Using these measures to consider relative rationing offers a yet more difficult challenge. Development of quality indicators to regulate rationing remains a distant goal.

IV. Conclusions

The arguments we have made above have a number of implications for the continuing debate over “parity” for mental health and substance abuse care in private insurance. First and most important, managed care, by changing the terms of rationing in health care, offers the potential to efficiently provide enrollees better financial protection against the risk of mental and addictive disorders. A final judgment on this point requires understanding how expanding benefit design provisions for mental health and substance abuse care affects the *response* of behavioral health spending within managed care. The fact that managed care reduces the level of spending does not inform policy makers about the value of new spending created by benefit expansions. It seems doubtful that it is reasonable to use demand response parameters from 1970s indemnity insurance to inform us about the more complex rationing system found in managed care. Managed care may both *shift* the demand curve *and* change its shape (alter the elasticity).

A second related point is that since “parity” in benefit design now regulates only one of many rationing mechanisms, it may accomplish little in terms of attenuating selection-related incentives. Today’s parity laws, we expect, will have far less impact than the benefit mandates of the 1970s and 1980s. Managed care creates a host of tools for affecting enrollment, “parity”

laws have little to say about most of these mechanisms. If one regulates one mechanism used by health plans to ration care (e.g. benefit design), those health plans have strong incentives to exert more effort through other mechanisms in order to stay within fixed budgets.

If the goal of “parity” laws is to encourage fair and efficient treatment and coverage of behavioral health care in health insurance plans, much work remains. Parity laws will help in terms of setting terms for the out-of-pocket financial risks of consumers, but they may have little direct effect on how care is delivered in managed care. Understanding health plan rationing and what tools of policy affect that rationing is today’s work in the cause of a fair and efficient mental health care system.

Figure 1
Welfare Cost of Insurance

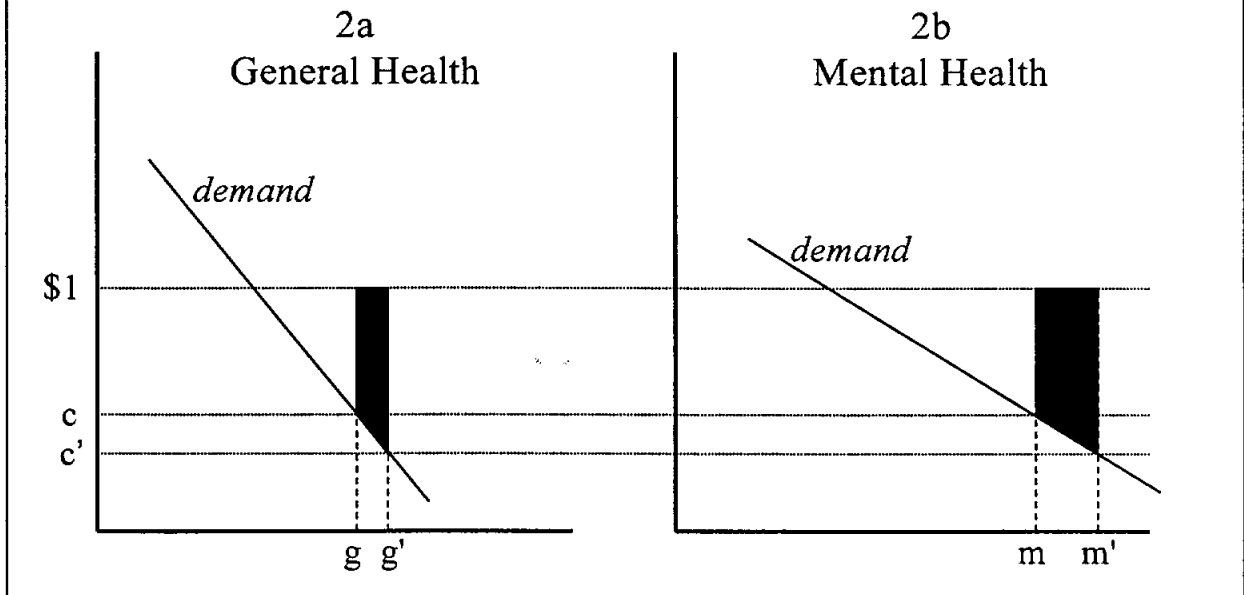


Figure 2
Managed Care Rationing by Shadow Prices

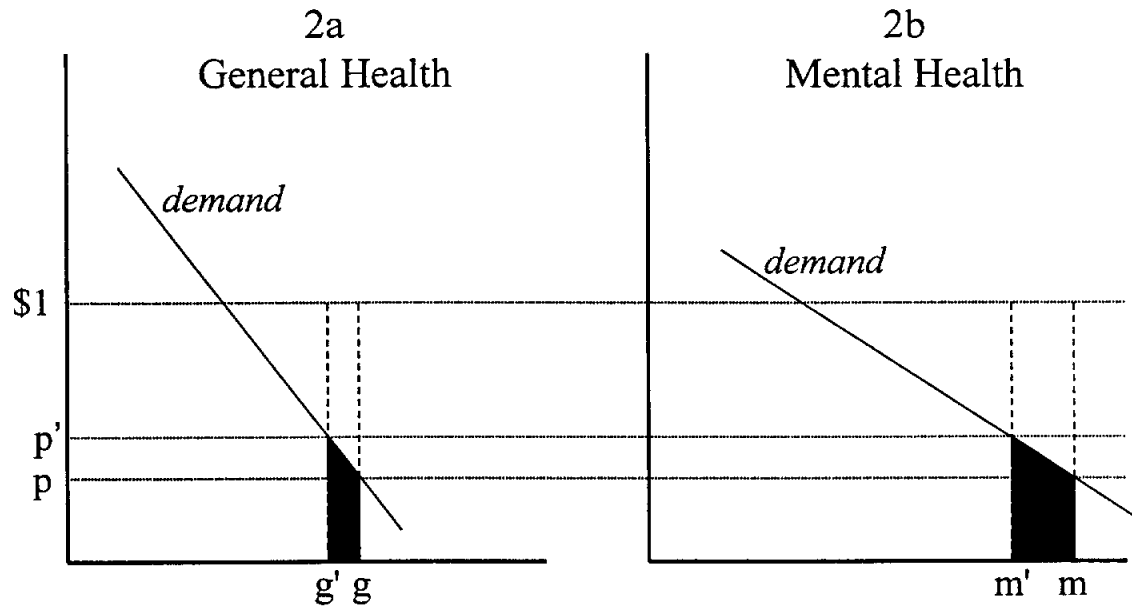
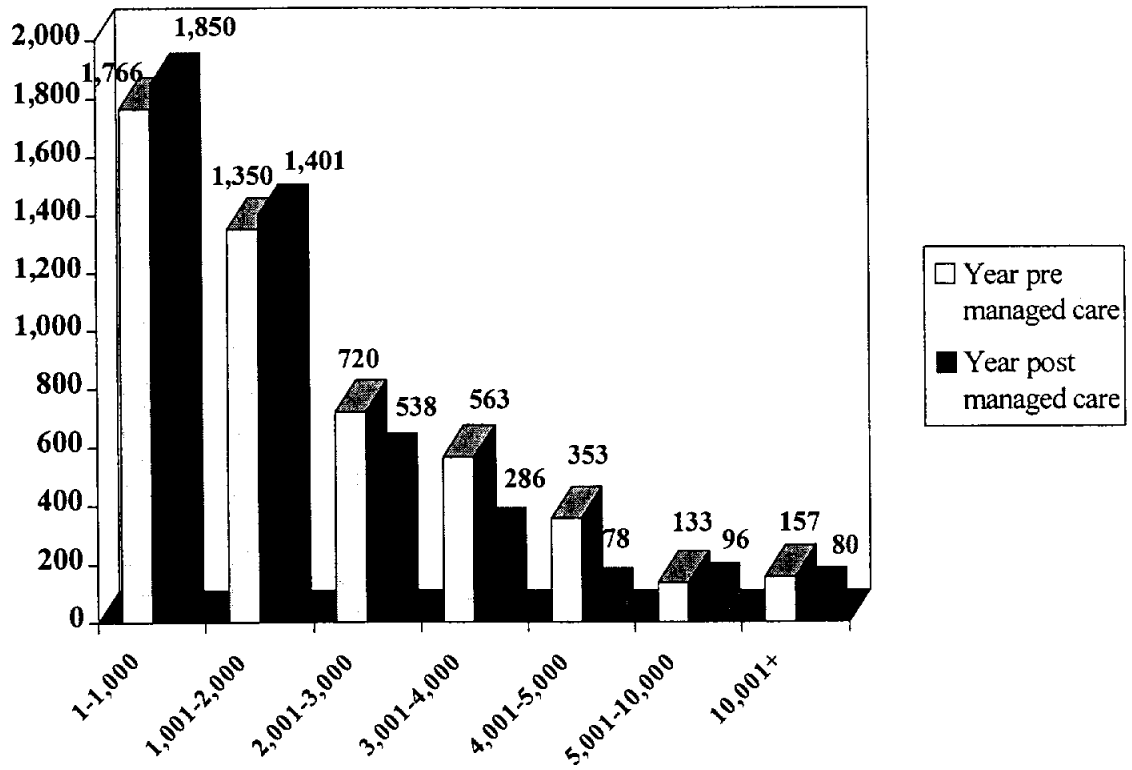


Table 1[^]
Distribution of Annual Spending, Pre/Post Managed Care



[^] Source: Authors' calculations from data described in Ma and McGuire, 1998.

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