CHAPTER 2—BACKGROUND ON PAYMENT INCENTIVES AND CARVE-OUTS

This chapter discusses the carve-out concept and its theoretical effects for service use and costs, and summarizes the key literature on carve-outs and a more general literature on provider responses to payment incentives. The chapter begins with an overview of policy objectives in carve-out initiatives. This is followed by a brief review of approaches to and results from evaluating provider response to financial incentives. Attention to methodologies employed is included. A discussion of roles and impact for public agencies involved in a carve-out policy is then provided. This is followed by an overview of evaluations undertaken in Medicaid program or other public program carve-out policies. Specific areas in which studies are needed to understand incentive impact also are discussed.

2.1 Financial Incentives and Use of Carve-out Arrangements

This section reviews the relevant literature on provider response to incentives, examines what is known about provider cost-shifting in managed care, and synthesizes the limitations of the existing literature for answering the primary policy questions that are the focus of this study.

Policy Objectives of Service Carve-Outs

The rationale for excluding specific services or health insurance benefits—such as mental health services—from prepaid health plan contracts has been primarily to manage the moral hazard of insuring specific services by having specialists manage those benefits (Frank, Huskamp, McGuire et al 1996). Exclusions from mainstream prepaid health plan contracts of services or of particular populations, such as Medicaid beneficiaries with diagnoses requiring intensive, expensive medical care, are thought to reduce health plan incentives to compete on patient risk (Glied 1998). Typically these exclusions, termed “carve-outs”, are managed separately from other medical care, and have distinct budget, and distinct provider networks and incentive arrangements (Frank, McGuire, Newhouse 1995).

Survey results reported by Hodgkin, Horgan, and Garnick (1997) indicated that in 1989, 54 percent of commercial managed care organizations used separate contractors to provide behavioral health services. Grazier and Eselius (1999) report on key objectives of carve-out arrangements for mental health services. They report that cost objectives are coupled with access concerns with a special interest in the parity of mental health and medical care increases. Often payers are looking for the most cost-effective alternative, and this may mean using a specialty MCO for the mental health benefit. These authors excluded from their review some evaluations of carve-outs that had divided benefits.

A 1997 study (Brisson, Frank, Notman et al) of a behavioral health carve-out with a national managed care organization highlights the outcomes of interest in a specialized managed care carve-out, and underscores some of the differences between expected outcomes in such an arrangement and
the possible expected outcomes in a publicly managed service carve-out. It also highlights the outcome commonly studied in such carve-outs, which is utilization of the carved-out services.

Implementation of service exclusions in many State Medicaid programs in the 1990’s provides a unique opportunity to evaluate effects of such exclusions on health care costs. It has been observed that carve-out policies can limit biased selection (resulting from health plan competition to reduce enrollment of higher cost individuals) but in other cases are adopted to take advantage of the specialization in managing certain services that a specialized managed care organization can provide (Brisson, Frank, Notman et al 1997). With respect to possible selection effects, service exclusion policies are currently attractive to many states because the field of pediatric risk adjustment for aligning incentives is only in early stages. This is in part because the children who would most benefit (those at risk for high costs due to complex medical conditions) are small in number, but have a very diverse set of diagnoses and unpredictable costs that do not lend themselves easily to expected-cost-based risk adjustment systems (Andrews, Anderson, Han et al 1997; Ireys, Anderson, Shaffer et al 1997; Fowler & Anderson 1995). Also, the impact of misaligned incentives on children’s access to care and on their health outcomes may be significant, long-term, and politically sensitive.

A policy compromise that may achieve the best of fee-for-service and of prepaid health care involves transforming payment policies into mixed managed care and fee-for-service systems (Glied 1998). Such an arrangement embodies aspects of a carve-out policy by placing an organization at financial risk for some services but handling other services sensitive to selection or underutilization problems under a different financial arrangement. Investigation of how well such mixed policies function in practice is deserving of study because of the significant implications for overall costs and efficiency.

Most published studies on this topic focus on carve-outs and exclusions that create distinct, prepaid contracts for specific services. These carve-outs exclude all services of a particular type; in contrast, the California policy excludes services only when they are specifically required for certain underlying diagnoses.

**Provider Response to Financial Incentives**

There is a substantial literature on how providers respond to reimbursement changes. The economics of provider behavior—whether the hospital or the physician—generally focuses on the medical care provider as an income maximizer. Some studies of physician behavior suggest that physicians respond to changes in relative pricing of services (by large payers such as HCFA) generally by increasing or decreasing the provision of specific types of services (Gruber & Owings 1996; McGuire & Pauly 1991; Rice & Labelle 1989; Reinhardt 1985). Several studies on physician incentives under price ceilings identify a tendency for physicians to increase the total volume of claims, which has been termed a “volume offset” effect (Barer, Evans, Labelle 1988; Reinhardt 1985). “Volume offset” behavior would enable a physician to maintain a certain income level given
the price constraint. A number of studies have sought to quantify physician response to relative price changes (Escarce 1993; Christensen 1992).

A number of studies examine whether or not providers respond to price limits or prepaid contracting by increasing charges to other patients. Studies of hospital responses to financial incentives find that exogenous changes such as Medicaid reimbursement reductions, or an increased share of prepaid patients in a hospital population, can result in some costs being shifted to other types of patients (Foster 1985; Hay 1983; Danzon 1982). Numerous studies find strong effects of prospective payment incentives for physicians and hospitals, sometimes reducing total services and sometimes resulting in apparent “quality” changes to attract more profitable patients (Ellis & McGuire 1996; Ellis & McGuire 1993; Dranove 1987).

Other possible explanations for how incentives could drive a carve-out effect have been offered. For example, Gruber & Poterba (1994) refer to "recognition effects" in which implementation of a policy causes the relevant actors to alter their behavior based on new perceptions. Thus it can be the simple implementation of a policy, rather than its magnitude, that causes the impact.

Other studies examine the presence or magnitude of response when mixed financing arrangements are used to compensate providers for the care of a patient. Providers may respond when the individual receives care from more than one provider, institution, or payer, and when responsibilities for care are difficult to clearly define among providers. This may be particularly likely to occur for children with complex medical conditions, because of the inherent difficulty of dividing responsibility for their care. This type of payment response has been described as a moral hazard effect of payment incentives, and has been labeled more specifically a “claims reporting” type of moral hazard by Butler, Hartwig, Gardner (1997).

Children with CCS eligible diagnoses often receive services from multiple programs and providers. Studies of workers' compensation patterns linked to regional HMO penetration rates provide a conceptual and methodological foundation for examining carve-outs for children. Butler et al. examined the association between growth in workers compensation claims and HMO penetration in health care markets. The workers compensation case is somewhat analogous to a Medicaid service carve-out. State laws require fee-for-service indemnity payment for workers compensation injuries; at the same time, medical benefits of workers can be prepaid or fee-for-service, depending on the worker’s selection of a health insurance benefit. The authors examined the association between HMO penetration, and claimants’ insurance type, on both the frequency and the severity of workers compensation claims.

A methodological difference between workers' compensation studies and the analysis of the CCS carve-out policy is that costs per episode can be evaluated for such studies. Also, the policy implications of cost-shifting are somewhat different in the workers compensation example than in a Medicaid service carve-out situation. In the workers’ compensation example, costs were shifted to a different financing source when changes occurred in a separate market (the commercial health insurance industry). Personal medical costs were shifted to workers compensation funds. In a
Medicaid service carve-out, costs are more likely to simply be shifted from one stream of Medicaid funds to another, rather than from one payer to another. However, similar implications hold in the workers compensation and the Medicaid carve-out examples. One effect is to drive up costs in one funding stream while another sector—prepaid health plans—may achieve higher profits while appearing to achieve cost savings. A second potential effect is to increase the number of individuals filing at least one claim, which in the Medicaid case would translate to increased case-finding of children with Title V-eligible conditions.

Other studies have evaluated health plan “learning curves” following implementation of carve-out payment policies. Sturm (1999) used several measures to evaluate whether effects of behavioral health carve-out policies manifest not immediately but over time. Reasons to expect that experience over time could matter include network maturation; improvement in care management procedures; and improved monitoring policies and procedures that can lead to greater carve-out response over time (Sturm 1999). This study examined annual data for 52 managed behavioral health plans in 14 states that implemented between 1991 and 1996. Measures whose association with carve-out service costs were examined included (1) time since plan implementation, to capture plan-specific organization learning; (2) volume of claims in the plan's primary state, to capture provider (network) maturation affecting all plans in a particular region; and (3) cumulative volume of claims processed by the plans' management company, to capture experience.

2.2 Evaluations of Managed Care and Service Exclusions

This section reviews the results of several studies in workers compensation, in commercial health insurance arrangements (behavioral health services), and also in Medicaid managed care expansions. It also identifies the special relevance of the carve-out mechanism and payment incentives for services to children with special health care needs.

In their workers compensation study, Butler et al. found that an eight percent increase in the HMO covered population would have increased the number of claims by 19 percent, and would increase average medical costs by 10 percent more than average indemnity costs (Butler et al. 1997). These authors also used data from a single firm operating in all 50 states to better control for occupational differences and possible changes in employee benefits over the study period. These data were evaluated to determine how state-level HMO participation rates affected individual-level costs and frequency of work-related episodes. The frequency of claims was found to be higher for patients visiting HMO providers and was consistent with findings from the earlier study. Medical costs per claim for workers compensation patients visiting HMO physicians were found to be slightly lower than costs for those visiting fee-for-service physicians, suggesting that workers with HMO coverage have a higher frequency of claims but that the average severity or cost of the claim is relatively low. The authors suggest that both the reporting of problems as work-related, and the frequency of work-related claims once reported, increased with HMO penetration and with workers’ enrollment in HMOs. Butler et al cite an earlier study of workers’ compensation costs, which studied workers compensation claims for federal civilian employees working at eight shipyards, and found that areas
in which more workers were enrolled in HMOs also had higher average workers’ compensation costs (Ducatman 1986).

A 1997 study (Brisson, Frank, Notman et al) of a behavioral health carve-out with a national managed care organization highlights the outcomes of interest in a specialized managed care carve-out, and underscores some of the differences between expected outcomes in such an arrangement and the possible expected outcomes in a publicly managed service carve-out. It also highlights the outcome commonly studied in such carve-outs, which is utilization of the carved-out services. This study examined utilization of the services for a continuously enrolled population for periods prior to and following implementation of the behavioral health carve-out. The change in the contractor was accompanied by a change to the financial risk arrangement; the new contractor was at risk for inpatient services, while in the previous contract the inpatient stays were paid to hospitals by the health plan on a fee-for-service basis. The authors found that utilization of inpatient services declined, as did total expenditures per enrollee and the likelihood of an enrollee using any service within the carved-out benefit (Brisson, Frank, Notman et al 1997). Expenditures among those receiving only outpatient services declined by 35 percent. In this specialized managed carve-out, there was an incentive to reduce utilization and expenditures for the carved-out benefit.

A 1998 study by Ma and McGuire examined costs and use in a carve-out program for mental health care among privately insured individuals. The purpose of this study was to determine how incentives within the service carve-out were associated with the use and costs of services. (As noted in Huskamp (1999), benefits were also increased as part of the implementation, particularly for in-network outpatient care). The authors note that a "ratchet effect" was also put into place, in which reduction in expenditures would result in lower future rates paid to the contracting organization. The authors also note that the contractor might want to demonstrate good performance in the first year. This study did not evaluate cost-shifting between the carved-out mental health benefit and the medical plan, although the authors note the possibility. The authors report a nominal decline in costs (50 to 60 percent) in the two post implementation years. The impact was further adjusted for possible changes to case-mix by selecting only those continuously eligible. This study used a group of enrollees who were continuously enrolled for a four-year period to compare cost outcomes in the pre and post carve-out periods. Authors also adjusted for medical price changes by using the medical care component of the Consumer Price Index (CPI). Regression was used to account for an independent time trend for the continuous eligibles. It was not clear that the downward trend in the pre implementation period would have continued, and that there was an appropriate counterfactual. Thus the authors note that they may overstate the independent trend. Overall, the authors conclude that the minimum estimate of the carve-out effect was a 30 to 40 percent change. There was a more substantial decline in inpatient expenditures than in outpatient expenditures.

The expectation of relatively constant chronicity and health need is likely to be less appropriate in children than in adults. Few children with complex medical diagnoses can serve as their own “controls” in a pre-post policy evaluation. This underscores the importance of having an adequate control group as well as a pre-post comparison.
Another evaluation of managed care in Massachusetts focused on a behavioral health carve-out for state employees (Huskamp 1999). In this implementation, the transition changed not only the financial incentives but also the benefit administration, procedures, service benefits, and the preferred site of care. This study examined the probability of any use of care among eligibles along with the site of care, expenditures per episode, and effects for individuals receiving care for specific diagnoses. This study also did not have pharmacy data available for evaluation.

**Use of Carve-Out Policies in Medicaid Managed Care Transitions**

State Medicaid agencies have used different types of “carve-outs” in administering their managed care systems. Some Medicaid carve-outs are service-based (such as mental/behavioral health care), while others are population-based (such as children receiving SSI), or disease-specific (such as HIV-related care, diabetes care) (Medstat 1997; Fox, Wicks, Newacheck 1993).

Published studies on service carve-outs for children are scarce. Several studies have been conducted on the effects of mental health care carve-outs in state Medicaid programs. While the structure of these carve-outs is not identical to California’s carve-out policy, the methodological approaches of these studies are relevant to the study design.

Burns et al (1999) evaluated the impact of a managed care pilot in North Carolina. This pilot was implemented in the 10 of 40 local mental health program areas in the state that had the highest historical inpatient costs. Initially these local programs were placed at risk only for inpatient mental health services, and two years later the risk arrangement was extended to full risk for all mental health services. The rate of service use among children increased after the publicly managed capitated Medicaid mental health program was implemented in the pilot counties. However, rates of service use also increased in the non-pilot counties. Authors speculated that this was due to anticipation of a statewide expansion of the risk arrangements. Inpatient expenditures declined to 50.1 percent of the pre-pilot amounts in the pilot counties while increasing by 3.3 percent in the non-pilot counties. Outpatient expenditures increased 21.3 percent of the pre-pilot amounts and increased by another 32.5 percent of the pre-pilot amounts by the last year reported. In total, the increase was 53 percent of the original amounts. For the non-pilot areas, outpatient service expenditures declined from 21.0 percent to 14.7 percent.

These studies also highlight several methodological challenges for studying service carve-outs for chronically ill children: identifying an appropriate control group, studying a representative group of beneficiaries, and discerning effects for beneficiaries who have different underlying levels of medical need.

Callahan (1995) evaluated the MHSA carve-out in the Massachusetts Medicaid program. This study found an increase in the proportion of beneficiaries receiving outpatient services. Overall users increased by 5 percent. Total services per beneficiary declined, as did inpatient services. Of the 13 service types, increased use was found for six types, and lower use was found for seven.
Dickey (1995) examined the same population. As in Callahan (1995), the volume of individuals treated was found to increase. The effect was due to an increase in outpatient services, as inpatient services had declined. Dickey (1996) found that for those with schizophrenia, in the first post carve-out year compared to the previous year, there was a 46 percent increase in the number of individuals treated. There was a 3 percent increase in the second year. Inpatient services declined 52 percent in the first year but only 15 percent in the second year.

Norton, Lindrooth, and Dickey (1996, 1997a) report other findings on use of mental health services following the managed care expansion. The authors found that cost-shifting from the managed care contractor to the Medicaid program was higher for enrolled beneficiaries in the top quartile of total per beneficiary expenditures (Norton, Lindrooth, Dickey 1997a). In a subsequent study of Medicaid/AFDC enrolled children and adults (1997b), the authors examined total public expenditures and also compared psychiatric and non-psychiatric utilization to assess cost-shifting. The authors found little change in utilization for the AFDC-eligible population, attributing the lack of an effect to the low utilization of AFDC beneficiaries of mental health services. They contrast this finding with the more significant effect identified for adult beneficiaries eligible for Medicaid due to disability from a severe mental health problem.

Because HMO enrollment was voluntary in this study, the enrolled population was not necessarily representative of the total population. Further, this study did not have a control group that was not subject to the carve-out. However, the authors were able to compare their results with a study of a different population—a private sector study of inpatient and outpatient utilization trends in the same state.

Christianson (1995) found that in the Utah Medicaid program, inpatient use declined 17 percent in the implementation areas in the first year, but no changes in outpatient or emergency department services were found. Stoner (1997) studied the same population for 3.5 years and found that the hospitalization differences dissipated.

2.3 Carve-Out Roles and Impact on Public Health Agencies

Gold (1999, HSR) has observed that Medicaid managed care transitions are complex and that absent unique operational details of a state's transition, inference about program impact may be inaccurate. Effective description of implementation, of trends over time on performance measures, and design options are identified as analyses that are most needed by state policy-makers (Gold, 1999 HSR).

State Medicaid programs and Title V programs serve a traditional "safety net" role for low income and chronically ill people—especially for children, who are the largest group of beneficiaries. Thus they have a particularly vital policy interest in the effects of new financial incentives and have monitoring responsibilities. States also continue to have public health responsibilities for policy development, assessment, and assurance, as well as the Medicaid mandate to assure health care access for many low-income and chronically ill beneficiaries. Thus these new payment systems, which include privatization, mean that state agencies are moving away from providing medical care
and have the opportunity to oversee how care is provided and to focus on population needs and health outcomes. The focus on oversight enables an agency to attend to operational details that enhance or detract from performance objectives.

At the same time, State agencies have important roles and responsibilities that pertain to the implementation of service carve-outs. Thus Title V agencies in particular have continuing and emerging roles in terms of public-private relationships, specifically with the providers and managed care organizations that are involved with the carve-out program.

Policy questions of interest to Medicaid and Title V agencies that are preparing to convert their systems include what public agencies that have administered in carve-out programs to date have done to make the transition to a new public-private relationship work, and what issues have been encountered. Specific questions that are relevant include how public agency-managed care organization disputes about coverage are resolved; what types of policies and procedures the public agencies can put in place to track the services children receive and their access to needed medical services; what changes this requires in terms of how staff roles change; and what knowledge and information/data are needed by agency staff to carry out these roles successfully.

Summary

A 1999 study by Gold examined how characteristics of a state's transition to Medicaid managed care appeared to correspond to Medicaid beneficiaries' self-reported experiences with health care access. This approach underscores the potential importance of the transition for beneficiary and provider experiences.

As noted earlier, the 1998 national survey of state Medicaid program financing policies under managed care found that states were implementing a variety of mandates, exclusions, and carve-outs (Holahan, Rangarajan & Schirmer 1999a). This survey included responses from 41 of 45 states deemed to have capitated Medicaid managed care programs. Only 5 states reported carving-out services provided to children with special health needs (Holahan, Rangarajan, Schirmer 1999b). The authors reported that interviews with state administrators identified different approaches in use, such as managed care exclusions for Title V eligibles, and choices between managed care and a limited risk primary care case management (PCCM) arrangement. Among these 41 states, a total of 23 reported full or partial carve-outs of mental health services while 20 states reported full or partial carve-outs of substance abuse services and 8 reported full or partial carve-outs for HIV/AIDS related services (Holahan, Rangarajan & Schirmer 1999a). The authors reported that public agencies administer the carved-out behavioral health benefit in some states while private sector organizations administer the carve-out in other states, but did not report the frequency of each type of arrangement.

In summary, there is evidence that managed care penetration rates within the commercial health care sector can induce provider behavior in terms of classifying care as relating to non-capitated diagnoses or services. Reimbursement arrangements that carve-out specific services from medical
care contracts have been found to affect volume of health care recipients as well as the intensity of services provided. A number of these studies focus on carve-outs that involve multiple commercial managed care organizations rather than a combination of commercial and public institutions managing different services within the insurance benefit. Several have focused on commercial managed care organizations with a behavioral health benefit managed by a public agency. The fact that there are numerous and complex public programs that serve children, and children in low-income families in particular, means that the concept of a service carve-out and its incentive effects can generalize to more child health programs than Title V. Experiences with implementation and impact on key program objectives thus provides useful information for states designing Medicaid managed care systems and may also be applicable to financing arrangements for other child health programs.