

**A STUDY OF COVERAGE DECISION-MAKING
BY MANAGED CARE ORGANIZATIONS**

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I. THE POLICY PROBLEM

The rapid growth of managed care has raised concerns about quality of care and bred distrust among consumers, doctors and policymakers. Recent studies highlight the low esteem in which managed care organizations are generally held by users and providers alike.¹ State and federal policymakers have responded with major legislative initiatives. Forty-six states and the District of Columbia enacted consumer protection measures between 1995 and 1998. These measures include prohibitions on physician "gag clauses," requirements that certain coverage denials be independently reviewed, and coverage mandates for designated types or levels of care—for example, emergency treatments, minimum maternity stays and mental health parity legislation.² At the federal level, congressional debate over patients' rights legislation has emerged as the most significant consideration of health care reform since the debate over the Clinton Health Security Act.

Managed care's core mission is to reduce unnecessary or marginally beneficial care by changing the financial incentives that bear on the treatment relationship. Thus, it is hardly surprising that the processes used to determine which health care services are covered by insurers, and which are not, have become a focal point for both public concern and remedial legislation. As the debate over managed care has evolved, processes for articulating grievances and appealing coverage decisions have come to be regarded as central to ensuring quality of care. Grievance and appeal procedures are seen as a bulwark against "excesses" that may occur in pursuit of the managed care mission, ensuring that health plans (and doctors) are responsive to their patients in the face of incentives to cut costs by reducing "unnecessary" care. Annas points out that the importance of internal and external review grievance and appeal procedures is magnified by the fact that managed care patients typically have a limited ability to switch plans if they are dissatisfied.³ Restrictive enrollment rules and limited health plan choices often make it difficult for enrollees to "vote with their feet." Grievance and appeal procedures thus stand as "an important mechanism to confer power and adjust the balance of power among parties to the process."⁴

If appeals processes in managed care are expensive, time consuming, subject to long delays, perceived by consumers as unresponsive or unfair, or (in fact) subject to inappropriate biases, the economic and social costs can be high. Coverage denials can harm patients, not only by leaving them with the costs of care, but also by imposing costs in time lost from work and physical harm if physicians do not then provide needed care. For plans, disputes may slow early medical intervention, consume administrative resources, weaken satisfaction and customer retention, lead to litigation, and attract draconian regulatory oversight.

Consumers, providers, purchasers, and even plans themselves increasingly believe that grievance and appeals procedures are in need of attention. The President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry made a

number of recommendations about the need to improve accountability in health care markets by strengthening appeals and complaints processes.⁵ In addition, California's recent Managed Care Task Force concluded that current processes are poorly understood and frequently inefficient.⁶

Specific moves in the policy arena to bolster patient protections in the coverage decision-making sphere are well underway. Some recently-enacted reforms introduce mandatory independent review options,⁷ others seek to set stricter standards for internal processes,⁸ while a few states have gone a step further, paving the way for lawsuits against plans.⁹ In addition to these public measures, private accreditation organizations require plans to provide enrollees with appeals and grievance panels, and dictate a range of other internal remedies.¹⁰

This action and reaction has played out against a backdrop of remarkably scant empirical information about how coverage decision-making processes actually operate. Moreover, little is known about who utilizes appeal mechanisms, for what reasons, and with what outcomes. In short, there is a pressing need to investigate this significant source of public unrest and to be certain remedial action is based on a clear understanding of the procedures used to make coverage decisions, and their outcomes. The research described here seeks to provide this information.

II. OVERVIEW OF PROPOSED RESEARCH

The goals of the proposed research project are fivefold:

- (1) to describe the process of coverage decision-making within plans, from initial utilization review to end stage appeals;
- (2) to determine what patient characteristics affect entry into, progress through and outcomes of coverage appeals processes;
- (3) to determine what health care service characteristics affect entry into, progress through and outcomes of coverage appeals processes;
- (4) to investigate how various structural features of the processes (identified in (1)) relate to patterns of entry into, progress through and outcomes of the process; and
- (5) to explore how clinical factors interact with use and outcomes of the coverage decision-making process.

Section III describes the study questions in detail.

The proposed project will use data collected from three large managed care organizations in California. RAND researchers have already secured the plans' agreement to cooperate in the study, and in particular, to provide RAND with access to administrative files on coverage decisions made by the health plans. We developed these agreements, identified the data available for the research and specified the research design using planning funds provided by the Pension and Welfare Benefits Administration (PWBA). The participating plans and data available are described in more detail in Sections IV and V. Research

methods are described in Section VI. Section VII details the project timeline and Section VIII describes the deliverables on the project.

The study will be led by Dr. Deborah Hensler, Senior Fellow at the RAND Institute for Civil Justice and Judge John W. Ford Professor of Dispute Resolution at the Stanford Law School. The lead analysts are Drs. David Studdert, a RAND health services researcher and lawyer, and Carole Gresenz, an economist at RAND. Dr. Jeff Algazy, a physician and Robert Wood Johnson clinical scholar, will have lead responsibility for analyses of clinical issues. Expert consultation will be provided by Dr. Jose Escarce, a physician-economist and Dr. Troyen Brennan, a physician-lawyer. The team's relevant expertise is described in more detail in Section XIX.

In addition, the RAND team is collaborating with the Stanford Center for Health Policy (CHP). Through contacts CHP researchers developed with medical directors during a recent conference on medical necessity, the Center has been instrumental in helping the RAND team secure health plans' interest. At an early stage of the research project, we anticipate collaborating with CHP researchers to develop definitions of key terms in the coverage decision-making process. As the General Accounting Office recently found,¹¹ there are no standard definitions for disputes and appeals and no uniform processes for managing and tracking them. The CHP has a particular interest in this area, and is presently seeking financial support for their component of the collaboration—specifically, the development of a taxonomy to aid comprehension and standardization of coverage decision-making activities.

III. STUDY QUESTIONS

Our research agenda is organized around 5 study questions (SQs):

- SQ 1. What are the formal characteristics of the multi-level processes through which coverage decisions are made and reconsidered within health plans, and how do they work in practice?
- SQ 2. What patient characteristics affect (a) propensity (or reluctance) to appeal coverage denials, (b) progress through the process, and (c) outcomes of appeals procedures once they are initiated?
- SQ 3. What service-related characteristics (e.g. type of care, cost of care, physician advocacy) affect patients' (a) propensity (or reluctance) to appeal coverage denials, (b) progress through the process, and (c) outcomes of appeals procedures once they are initiated?
- SQ 4. How do the specific procedural features (from 1., above) affect appeal behavior and outcomes of appeals?

SQ 5. What are the roles of various clinical factors in the use and outcomes of coverage decision-making processes?

Figure 1 situates these questions in the context of our study. Each is described in greater detail below.

SQ 1. Describe the coverage decision-making processes within health plans.

Despite widespread concern about managed care coverage decisions, remarkably little is known about the actual processes through which coverage decisions are made. To date, the policy discussion has veered toward monolithic and (plans argue) simplistic characterizations. Anecdotal evidence suggests that many critics regard the process as unsophisticated, financially-driven, and marked by perfunctory and somewhat arbitrary decisions.

Our exploratory work (undertaken with prior PWBA support) has suggested that the structures in place—from initial utilization review through multiple levels of appeal—are considerably more complicated than is generally understood. Moreover, we have observed signs of significant cross-plan variation, with each of our participating plans exhibiting a variety of approaches to dispute resolution and consumer protection. By identifying key procedural features, describing variation in these features and considering how coverage decision-making in practice measures up to standards for dispute resolution that have been articulated by dispute theorists and empirical researchers, the products of this phase of the research can help to move the policy debate over appropriate decision-making processes forward.

Specifically, we will address the following questions:

- What opportunities do enrollees who are denied coverage for care have for reconsiderations?
- How are those opportunities communicated to enrollees?
- How do enrollees access the appeals/reconsideration procedures?
- What triggers subsequent level appeals?
- What are the formal characteristics of decision-making procedures at each successive stage? For example:
 - who are the decision-makers?
 - what role, if any, does the treating physician play?
 - what role, if any, does the patient/enrollee play?
 - what information is used as a basis for decision-making?
 - how are decisions documented?
 - how are decisions communicated to the treating physician and/or patient/enrollee?
 - what time guidelines exist for each stage of the process?
 - what differences, if any, are there between formal procedural guidelines and decision-making practices, and what explains any such differences?

- What volume of cases move through (and terminate) at each successive level within the participating plans?

Two further points are worthy of note in relation to this study aim. First, previous analyses by the GAO,¹² Richardson,¹³ and others¹⁴ have embarked upon preliminary evaluations of appeals processes, measuring performance against criteria such as timeliness, efficiency, integrity of decision-making, effectiveness of communication, and selected patient rights in disputes (e.g. representation, burden of proof, access to an independent review). Our emphasis in this part of the study is on process *description* rather than *evaluation*. Second, because managed care appeals systems have not been studied in detail previously, we recognize that some effort in this descriptive work will need to be devoted toward developing a taxonomy of key terms. Such a taxonomy will allow important structural features to be identified, catalogued and compared across our plan participants. It may also form the basis for more wide-ranging standardization and monitoring of coverage decision-making activities. Our Stanford collaborators plan to tackle this aspect of the project in greater depth.

SQ 2. Determine patient characteristics that affect (a) propensity/reluctance to appeal coverage denials, (b) progress through the appeals process, and (c) outcomes of those appeals procedures once initiated.

Differential access to health care services among patients according to socio-demographic characteristics such as age, gender, race, income, health status, and education, is a topic of major research and policy interest.¹⁵ Previous studies have also examined similar disparities in access to legal processes in the health care sector.¹⁶ Information about the types of patients that do and do not take advantage of opportunities open to them for reconsideration of coverage decisions adds important information to the patient protection debate. It should be useful in identifying vulnerable populations and testing the effectiveness of particular process structures. It may also be used to design and target appropriate regulation—for example, evidence that certain types of patients rarely seek review or secure overturns may be useful in shaping the quality improvement work of the National Commission on Quality Assurance (NCQA).

Our capacity to analyze characteristics of those enrollees who do (or do not) appeal immediately after initial utilization review (UR) is constrained by the data available from our participating plans (see Section V for further detail). Two of the plans completely delegate authority over initial utilization review decisions to contracting medical groups. Hence, little information is available on initial UR determinations, and we cannot analyze the effect of socio-demographic characteristics on propensity/reluctance to lodge a first stage appeal. Enrollees' decisions about whether to persist with appeals after that first stage, however, together with the outcomes of those appeals will be measurable. The third health plan contracts with medical groups on both a delegated (initial UR decisions are made by the medical groups) and non-delegated (all coverage decisions are made by

the health plan) basis.* Data from the non-delegated arrangements span initial UR decisions and end stage appeals, and allow for causal analyses of the first decision to appeal.

SQ 3. Determine service-related characteristics that affect patients' (a) propensity/reluctance to appeal coverage denials, (b) progress through the appeals process, and (c) outcomes of those appeals procedures once initiated.

In addition to patient characteristics, we are interested in the extent to which service characteristics—for example, type of treatment at issue, cost of the treatment, and the treating physician's advocacy on behalf of the patient—influence patterns of coverage appeals. Again, our interests include the patient's point of entry into the system, as well as his or her progress through the appeal process and the outcome of the process. Like information on socio-demographic predictors of use and outcomes of appeal processes, data identifying hotly-disputed services and their characteristics inject important information into the policy arena.

To the best of our knowledge, virtually no analyses of service characteristics associated with coverage disputes have been conducted to date. A 1993 study by Richardson and colleagues¹⁷ catalogued dispute types; however, its value was limited for three reasons. First, the patient population was confined to Medicare beneficiaries. Second, the study relates only to disputes that reached the ultimate stage of appeal—external review at the Center for Health Dispute Resolution in the case of this patient population. And third, the investigators did not undertake multivariate analyses to test the association of particular service characteristics with use or outcomes of appeal processes.

We propose to explore a number of questions, including:

- Which service characteristics mark difficult-to-resolve disputes?
- Does service cost influence the speed or outcome of appeal determinations?
- How does physician advocacy affect the decision to appeal and the outcome of the appeal?
- Does the financing context in which the service is delivered (e.g. treating physician capitated or not) affect propensity to appeal, likelihood of physician advocacy, or patterns of appeal outcomes?

In this component of the study we will also replicate the basic approach taken by Richardson and catalogue bases for appealed disputes in health plans.

* The term "delegated" refers to the transference of a range of functions from the plan to the medical group. Such functions may include claims processing and adjudication, medical management (utilization review, provider credentialing, quality improvement) and subcontracting responsibilities (hospitals, other physicians, actuarial and other ancillary services.) Typically, delegation occurs in the context of a capitated contract between the plan and the medical group. For purposes of this proposal, the key distinction between the terms "delegated" and "non-delegated" turns on the transference of authority over utilization management. However, capitation is coincident with delegation of this function in all three participating plans.

A question of particular interest in this analysis is what proportion of coverage disputes involve non-clinical, contractual determinations (i.e. whether the enrollee's health insurance policy covers the benefit at issue) as opposed to clinical or appropriateness of care determinations. We recognize that some disputes will blend these considerations—when, for example, the insurance policy stipulates permissible use of out-of-area care when it is “medically necessary.”

SQ 4. Investigate the relationships between specific procedural features (from 1., above), and both appeal behavior and outcomes of appeals.

Empirical research suggests that individuals' propensity to use legal dispute resolution procedures increases as the monetary and non-monetary costs of the procedure diminish.¹⁸ Similarly, we would expect that coverage decision appeal procedures that are more difficult to understand or that impose greater burdens on enrollees would be used less frequently than those that are easier or less costly to access. Such effects might disproportionately affect lower-income and less-educated enrollees. However, in the context of coverage decision-making, physician advocacy might mitigate any such effects.

There is also strong evidence that structural features of dispute resolution procedures influence disputants' subjective evaluations of procedural fairness and satisfaction with dispute processes and outcomes.¹⁹ Social psychologists have hypothesized that individuals use assessments of procedural fairness as “heuristics” (i.e. mental short-cuts) for judging the fairness of outcomes that they otherwise feel incompetent to assess.²⁰ Our proposed research plan will not permit us to directly observe enrollees' perceptions of procedural fairness. But we can reasonably expect that disputants who believe that the procedures for resolving their disputes are unfair will be less likely to turn to these procedures for redress.

Research on legal disputing suggests that disputants' standards of procedural fairness comport with rough notions of “due process”—a fair hearing before a neutral party who is provided with accurate and adequate information and who issues an explanation for resulting decisions.²¹ So we might expect that the constitution of review committees, ways in which expert medical input is used, protocols for eliciting information from the treating physician, and method of communicating the decision would all affect enrollees' propensity to appeal and progress through the appeals process.

There is less theoretical grounding for hypothesis development with regard to the relationship between procedural features and outcomes of coverage decision appeals processes. In an analogous field, health care risk management, Morlock, Flood, and others have found a direct relationship between the structure of a quality improvement or risk management program within a hospital and its effectiveness.²² Factors they found important, such as resources devoted to risk management, the program's relationship to

the senior management in the business hierarchy, and the nature of information flow also may be important in the management of appeals within health plans.

SQ 5. Determine how various clinical factors influence the use and outcomes of coverage decision-making processes.

The final study question involves analysis of clinical issues pertinent to coverage decision-making. The feasibility of various types of study questions will largely depend on the availability and depth of clinical data that accompany the administrative data available at each of the participating plans. We do not envision an analysis focused on whether individual coverage decisions meet various appropriateness criteria—the information required to conduct such a study is beyond the scope of our data collection effort. Rather, candidate study questions include:

- What role does clinical uncertainty (i.e. diagnosis-treatment pairings for which guidelines/evidence are murky or nonexistent) play in patients' decisions to appeal coverage decisions?
- What effect does a patient's gathering of independent clinical information (e.g. via the Internet) have on demand for reconsiderations? (Interestingly, such information appears to be available from administrative files.)
- What is the quality of the process by which all "relevant" clinical information is transferred from treating physician to the plan in reconsiderations?

IV. STUDY PARTICIPANTS

Profile of Participating Plans

Our study group consists of three large health plans (hereafter referred to as plans A, B and C) whose principal business operations are located in California. Together they cover more than 5 million commercial managed care enrollees. Table 1 provides a brief description of each.

Table 1: Profile of Participating Plans

Plan	Commercial enrollee population in CA	Description
A	3 million	<ul style="list-style-type: none"> • Delegated arrangements with medical groups • 1.3 million in HMO plans • Wide range of other products, including PPO, POS, and specialty managed care products
B	1.6 million	<ul style="list-style-type: none"> • Delegated arrangements with medical groups • Largest enrollment in HMO product
C	700,000	<ul style="list-style-type: none"> • Combination of delegated and non-delegated arrangements with medical groups • Delegated and non-delegated HMO plans • Non-delegated POS product

The plans provide a mix of service delivery models. Plans A and B use delegated arrangements almost exclusively. In these delegated arrangements, medical groups design and conduct their own prospective and retrospective utilization management; that is, the medical groups are responsible for making initial UR determinations. In such arrangements the contracting medical group bears financial risk under global or partial capitation arrangements.

Plan C contracts with medical groups under both delegated and non-delegated arrangements. In non-delegated contracts—approximately one third of Plan C’s book of business—initial utilization review decisions are made by the plan, which also retains significant financial risk. Plan C affords us some opportunity to examine all levels of coverage decision-making.

In the main, however, the plan participants will be able to provide data that will support analysis of (re)considerations at second, or subsequent levels (i.e. as opposed to initial utilization review, and in some cases, first level appeals). This study design raises two issues. First, potential biases arise from our data due to the unobserved decision-making in the medical group. Second, because the delegated model is more prevalent in California than elsewhere in the country, a related question about generalizability of our findings arises. We deal with the first issue in Section V of the proposal; the second relates directly to the profile of our plan participants and is addressed in what follows.

Study Participants in Context

The study group comprises only California health plans, and it is widely-recognized that Californian health care markets differ from those in the rest of the country. Robinson and colleagues have described a number of distinctive features of health system organization in California.²³

- Purchaser-provider relationships have evolved more rapidly than perhaps in any other state.
- Employer-purchasers have vigorously and successfully negotiated price with both medical groups and plan intermediaries.
- Large purchasing cooperatives—most notably the Pacific Business Group on Health (PBGH) and the California Public Employees Retirement System (CalPERS)—are understood to exert considerable influence on the market.
- Use of utilization and quality data, including consumer satisfaction data, is more sophisticated and widespread than in most other regions of the country.
- Delegated arrangements with medical groups, involving capitated payments, predominate.

The impact of these market dynamics on the cost and types of care in the state are striking. Premiums for large purchasers and purchasing groups in California, which had doubled between 1987 and 1992, were flat from 1992 through 1998. In 1985 there were 6.2 million HMO members in California; by 1996 there were 14 million.²⁴ Among Californians who obtained coverage through their employer in 1996, 63 percent were in HMOs, 7 percent were in point-of-service (POS) plans, 23 percent held preferred provider insurance, and only 7 percent still held traditional fee-for-service indemnity coverage.

In summary, the aggressiveness of managed care penetration in California may render the state somewhat of an “outlier” *today* in coverage decision-making processes. Nonetheless, we believe that, for several reasons, a study focused on Californian plans feeds important information into the public debate.

First, and most importantly, over the past decade California has assumed bellwether status in relation to trends in managed care markets nationwide.²⁵ While the delegated group model is predominant in California, and this is not yet the case in other places, interest in and resort to the capitated, delegated model continues to grow in other regions of the country. Thus, while some of our findings in California may not be immediately applicable to delivery models in many states, they may well shed light on the costs and benefits of future organizational reforms in those states.

Second, there is a substantial amount of legislative activity to restrict managed care practices in California, a trend that is on the upswing in other states. During 1990-1997 the California legislature passed eighty-nine laws reforming managed care, including legislation pertaining to access, disclosure, mandated benefits, patient billing and claims practices, provider contracting, solvency and regulation, and managed care in workers' compensation.²⁶ In 1997 alone, ninety managed care bills were introduced.²⁷ These developments make California of particular interest: It is in the vanguard of states that have begun to take a strong regulatory line despite a lack of empirical evidence about coverage decision-making.

Third, all else being equal, one would expect the effect of California's managed care strategies would be to generate a larger number of disputes over coverage denial, and accordingly, more widespread use of appeals mechanisms in health plans. This should provide a relatively large body of appeals at single plans, relative to other states—a useful feature for our analyses. It is not obvious why the actual characteristics of these disputes would differ from those elsewhere, simply by virtue of their greater prevalence, thereby diminishing concerns about generalizability.

Finally, approximately one in every nine non-elderly Americans enrolled in managed care lives in California. Therefore, even if the study's findings were perceived as mainly relevant to California, they would pertain to a substantial portion of the national population of managed care enrollees.

V. DATA AND SAMPLING

Figure 2 shows a standardized framework for the coverage decision-making process; it also illustrates the interface between plans and medical groups. A comprehensive data set on the coverage decision-making process would include approvals, denials and appeals stemming from each shaded box ("stage") in the diagram. Data source limitations inhibit our ability to sample from every stage. Although all three participating plans maintain some data about each of the steps, and do so for both their delegated (UR decision by medical groups) and non-delegated (UR and subsequent decisions by health plan) products, the comprehensiveness of the data varies both across and within plans.

The primary factor determining what data are collected and maintained at each stage is whether the plans are operating under a delegated arrangement with medical groups or a non-delegated arrangement, and thus which entity (the plan or medical group) is responsible for a decision at a particular stage. Overlaid onto Figure 2 is a summary illustration of the coverage decision-making process in operation at each plan.

In Plans A and B, the initial utilization review decision is made by the contracting medical group in the vast majority of cases. Neither plan collects data on the universe of delegated decisions in any consistent or comprehensive manner, although limited information is collected about denials. Plan C, similarly, has incomplete information on initial utilization review decisions made by medical groups operating in its delegated system. However, Plan C's book of business does include a significant portion of non-delegated contracts. Initial utilization review, together with all appeals, are conducted at the plan level. Detailed data on *all* stages of coverage decision-making are thus available for a subset of enrollees at Plan C.

For all Plan B and C products, first stage appeals of initial utilization review denials are handled at the plan level. At Plan A, first level appeals are handled by the medical group, except in urgent or special circumstances. In all plans, second and further stage appeals are handled by the health plan.

In summary, because plan administrative systems provide our principal source of data, sampling will be focused as follows:

- Plan A:** Second and later stage appeals
- Plan B:** First and later stage appeals
- Plan C:** *Delegated products*—first and later stage appeals
 Non-delegated products—all coverage decisions

As described earlier, UR considerations are useful because they provide a firm baseline against which to assess characteristics of those who appeal and those who do not appeal. A sample window for this analysis that includes only first or later level appeals may produce biased results—in the extreme scenario, for example, the most vulnerable patients may already have experienced a denial and desisted from any further action.

There are several possible ways in which we can accommodate the limitations of the data available. First, it is worthwhile to note that the comprehensive data set available at Plan C will provide the basis both for sensitivity analyses and direct investigation of appeals and outcomes at the UR level. In addition, UR data that health plans obtain from medical group contractors in a yearly audit may provide some information. The audit data include reports on the annual number of UR requests and denials. While some plan officials expressed doubt about the reliability of this information, others have suggested it would provide useful baseline data against which to measure and calibrate subsequent appellate decisions on coverage.

We will also explore the possibility of obtaining information on UR decisions made by medical groups from one or two large medical groups who contract with one or more of the three health plans. As the three health plans each contract with many medical groups, in the order of 150-200 groups, and as there is likely to be substantial variability across medical groups in their UR decisions, the initial UR data from one or two large medical groups will not necessarily be a representative baseline from which to assess the appeals observed at the health plan level. But, the information may be useful in combination with other data supplementation strategies.

The issue is further complicated by the fact that any formal data from the initial UR level will largely capture explicit UR decisions, but no such decisions that are implicitly made. Implicit decisions include, for instance, physicians not informing patients of particular types of care that they could receive or a physician not submitting a request for coverage for a particular type of care, knowing the request would be denied by the MCO. These implicit decisions are not the focus of our study, but some understanding of their importance and extent of implementation by physicians is useful for providing a context for the results of our analyses of explicit decision-making. Part of our efforts to supplement the health plan data may include conducting focus groups with physicians to better understand implicit coverage decision-making.

Finally, as part of the process of determining the best strategy or strategies for rounding out the data we collect from the three health plans, we will draw on the expertise of our RAND Health colleagues, a number of whom have considerable experience dealing with the imperfections and limitations of health plan data.

In addition to cross-plan variation in the number of coverage decision stages available, the form of the data collected (hard copy vs. electronic files) differs from plan to plan, as summarized in Table 2.

Table 2: Percentage of Plan's Data Kept in Electronic Form

Plan	Proportion of in-plan CDM data in electronic form
A	60-80%
B	<20%
C	80-100%

Plan A has an advanced electronic tracking system and keeps fairly comprehensive data on stages of the process within its purview (second and third stage appeals), including clinical, demographic, and timeline information. Plan B keeps comprehensive information on the first, second and third stage appeals, but the data reside in hardcopy files, not in electronic form. Plan C keeps comprehensive, electronic data on utilization review decisions and appeals for enrollees receiving care through non-delegated arrangements. Appeals data for the delegated plans are comprehensive and in electronic form.

VI. METHODS

The analyses outlined in Section III require administrative data on enrollees' use of the coverage decision-making process (SQs 2-5) as well as data gathered from plan executives on the specifics of the process (SQ 1). We plan to gather information from plan officials through informal interviews within the first few months of the project, at the same time that steps are being made to gather administrative data. We anticipate visiting each plan twice to arrange for the collection of administrative data and to talk with plan officials knowledgeable about the appeals process.

For administrative data, our target sample is 1,500 first stage appeals from each plan. Time periods will be fixed to accommodate this sample size. The form of the data affects the data collection methods that will be used to collect the sample from each plan. For Plans A and C, we will work closely with the data manager at the health plan in constructing one to two year samples of cases in the electronic data files. A significant time investment on the part of data management personnel will be necessary to assist us in understanding file layouts and variables. Thus, some remuneration for this time and effort is included the budget. Given the comprehensiveness of the electronic data bases at

Plans A and C, we do not anticipate having to conduct any manual data abstraction from hard copy files.

Gathering information from Plan B will require manual data abstraction. We will develop a data abstraction instrument, recruit and train data abstractors, and oversee their work. We anticipate data abstraction will take approximately 20 minutes per file; and thus approximately 500 hours of abstractor time will be required to abstract our target of 1,500 case files. With a team of 3 data abstractors working full time, the abstraction should be completed within one month.

Once the data are cleaned, and in the case of Plan B keypunched and cleaned, we will begin analysis of SQs 2-5. Our dependent variables will include a dichotomous variable for use of the appeals process at each stage among the sample of individuals denied coverage for care at the previous stage. In addition, the outcome of the decision may be parameterized as either a dichotomous indicator of the provision or sustained denial of coverage for care, or as a trichotomous variable representing full denial, partial denial, or full provision of coverage. Multivariate logistic and multinomial logistic regression techniques will be employed in analysis.

Independent variables include the variables of primary interest discussed in SQs 2-5 as well as those in the list of variables summarized in Appendix I. Independent variables indicating procedural features will be interacted with patient and service characteristics for analyses in SQ 4.

As noted previously, causal analyses of the initial decision to appeal a coverage denial are limited by the data health plans track and have available. Plans A and B, which are largely reliant on delegated arrangements, do not provide us data on the initial UR stage that would allow for analysis of the effect of socio-demographic characteristics, for example, on the first appeal decision. However, the health plans' data can be used to describe the universe of appellants, and to conduct causal analyses of decisions to appeal coverage decisions made in subsequent stages of the appeal process. In contrast, Plan C's non-delegated arrangements allow for causal analyses of the decision to appeal the UR denial. In addition, we will explore the strategies outlined in Section V for supplementing health plan data to better understand initial UR decisions, such as using medical group audit data, collecting data from medical groups themselves, and conducting focus groups with physicians.

VII. TIMELINE

Table 3 outlines a proposed timeline for work and completion of each of the Project Tasks.

Table 3: Schedule of Tasks by Month from Project Inception

Tasks	1-3	4-7	8	9-12	13-15	16	17-19	20-23	24
Task 1: Data Collection									
1a. Obtain electronic data	XXX	XX							
1b. Manual data extraction	XXX	XXXX	X	X					
Task 2: Data Cleaning	X	XXXX	X	XXXX	XXX	X	XXX		
Task 3: SQ 1									
a. Research and analysis	XXX	XXXX							
b. Prepare report		X	X	XXX					
Task 4: 1st Interim Briefing									
a. Prepare briefing materials		X	X						
b. Deliver briefing to DOL			X						
Task 5: SQs 2 & 3									
a. Research and analyses				XXXX	XXX				
b. Prepare reports					XX	X	X		
Task 6: SQ 4 & 5 Analyses					X	X	XXX	XX	
Task 7: 2nd Interim Briefing									
a. Prepare briefing materials						X			
b. Deliver briefing to DOL						X			
Task 8: SQ 4 & 5 Reports								XXXX	
Task 9: Final Briefing									
a. Prepare briefing materials								XX	X
b. Deliver briefing to DOL									X

Task 1. Identify the set of variables to extract from the electronic and hardcopy files. Develop abstraction instrument for manual extraction effort. Recruit and train abstractors. Commence manual extraction.

We expect that manual data extraction will begin in the first 3 months, but may take as long as 9 months to complete.

Task 2. Clean electronic data. Enter and clean manual data as they become available.

This task is likely to extend over much of the course of the project. Transforming administrative data into a file suitable for analysis is a large task, and more so with three health plans. We expect the task to take between 12 and 18 months.

Task 3. Describe and compare CDM processes across plans (SQ 1).

This SQ will be addressed early in the project as part of Task 3, with the objective being to report on our findings on this question in the first interim briefing.

Task 4. The first interim briefing will be prepared and presented to DOL/PWBA 8 months into the project. This briefing will provide a preliminary report on findings in three areas:

- (1) Results from SQ 1—our description and analysis of appeals mechanisms established and used in plans;
- (2) A preliminary report on a taxonomy for understanding managed care denials and appeals (SQ 1);
- (3) Summary statistics for the denials and appeals caseload.

Task 5. Conduct analyses of and prepare reports on effect of patient (SQ 2) and service (SQ 3) characteristics on use and outcome of appeals.

We expect to be able to begin our analysis of study questions 2 and 3 towards the end of the first year of the project. Data cleaning will not yet be complete, but enough will be done to support some preliminary analyses.

Task 6. Commence analyses of SQs 4 and 5.

Analyses of SQs 4 and 5 will commence as data required for analysis become available in the first half of Year 2.

Task 7. The second interim briefing will be prepared and presented to DOL/PWBA 16 months into the project. This briefing will report on findings in two areas:

- (1) Final results from our analysis of the structure of coverage decision-making processes, including a comparison of the managed care setting to others where similar mechanisms are used in lieu of litigation.
- (2) Results from analyses for SQs 2 and 3.

Tasks 8. Prepare reports for SQs 4 and 5

Reports on SQs 4 and 5 will be undertaken in the second half of Year 2.

Task 9. A final briefing and presentation of reports to DOL/PWBA will occur in the last quarter of Year 2. This briefing will highlight findings from all parts of the study.

VIII. DELIVERABLES

Year 1: RAND will deliver an on-site briefing to PWBA officials during month 8 of the project (see Timeline above – “first interim briefing”). A final report relating to SQ 1 will follow this briefing, to be delivered no later than the end of month 12 of the project.

Year 2: Two briefings follow in the second year of the project. Both will be given on-site at PWBA offices. In month 16, we will report final results from our analyses of the structure of coverage decision-making processes, and present results from analyses relating to SQs 2 and 3 (see Timeline above – “second interim briefing”). In month 24, we will present a final briefing covering all study questions. Reports summarizing the content of both briefings given in Year 2 will be delivered to PWBA no later than four weeks after each briefing.

(Note with respect to deliverables: It is understood and agreed that the work performed under this contract is research and development, as defined and described in FAR Part 35. To provide flexibility and minimum administrative burden, the deliverables schedule set forth in each task order may be extended as necessary throughout the contract/task order period of performance provided the contractor provides reasonable notification to the Contracting Officer’s Technical Representative (COTR) and receives approval from same. The notification and COTR’s approval will be confirmed in the monthly progress report. Except as stated in the this paragraph, all other terms and conditions shall remain unchanged.)

IX. STUDY TEAM

The RAND team will be led by **Deborah Hensler** (Ph.D., Political Science, Massachusetts Institute of Technology). She is the Judge John W. Ford Professor of Dispute Resolution at Stanford Law School and Senior Fellow at the RAND Institute for Civil Justice (ICJ), which she directed from 1993 to 1998. Dr. Hensler is a nationally-recognized expert on dispute resolution processes. Her work on civil justice issues includes studies of alternative dispute resolution, class actions, mass torts and civil litigation trends. At RAND, she was co-principal investigator for the first national study of the costs of personal injury, funded by the U.S. Department of Health and Human Services. She was the founder and for ten years the director of the RAND Survey Research Group and served as survey research methodologist for the Health Insurance Experiment (HIE) early in her RAND career. She has authored research monographs and journal articles on alternative dispute resolution, mass torts and compensation for personal injury, and the use of scientific evidence in the courts, and appeared before judicial, legislative and executive agencies at the state and federal level to discuss civil justice issues.

The lead analysts are **David Studdert** (JD, University of Melbourne; ScD, MPH, Harvard University), a health services researcher and lawyer and **Carole Roan Gresenz** (PhD, Brown University), a health and labor economist. Dr. Studdert has worked on several studies analyzing the epidemiology of health care disputes, primarily in the context of medical malpractice and injury compensation. Most recently, he worked as lead investigator on a study assessing the impact of reporting requirements to the National Practitioner Data Bank on resolution of health care disputes. Dr. Gresenz has worked extensively on managed care issues in the behavioral health care field, serves on the Executive Committee of the joint RAND/UCLA Research Center on Managed Care for Psychiatric Disorders, and is Co-Director of the Policy Core under that Center.

In addition, the team consists of **Jose Escarce** (MD, PhD, University of Pennsylvania), **Jeff Algazy** (MD, University of Pennsylvania; MPH, Yale University), and **Troyen Brennan** (MD, JD, MPH, Yale University). Dr. Escarce is a physician-economist and Senior Natural Scientist at RAND. He co-directs the Center for Research on Health Care Organization, Economics and Finance at RAND, and is Director of the RAND/UCLA/Harvard Center for Health Care Financing Policy Research. Dr. Escarce's research has focused on practice variation, access to care, and quality of care in managed care systems. Dr. Algazy, an internist, is currently a Robert Wood Johnson Clinical Scholar at RAND/UCLA. He completed his residency in internal medicine at the Hospital of the University of Pennsylvania, and earned a Masters degree in Public Health from Yale University. Dr. Brennan, a physician-lawyer, is Professor of Law and Public Health, Harvard School of Public Health, Professor of Medicine, Harvard Medical School, and Executive Director of the Physician-Hospital Organization at the Brigham and Women's Hospital, Boston. He is a nationally-recognized expert on quality of care, medical malpractice, and medical ethics.

Finally, the RAND team's collaborators at the Stanford Center for Health Policy (CHP) are led by **Sara Singer** (MBA, Stanford University). Ms. Singer is Executive Director of CHP and Director of the Health Care Management Program at the Stanford Graduate School of Business. She is a prominent commentator on the US health care system. Most recently, she was staff director of California's Task Force on Managed Care and led a study of medical necessity for the California Health Care Foundation.

Relevant Collaborations

Drs. Hensler and Gresenz have completed two previous studies for the Pension and Welfare Benefits Administration of the Department of Labor. The first evaluated the litigation impact of relaxing barriers to suits against managed care organizations through amendment of the Employee Retirement Income Security Act (ERISA).²⁸ The second, in which Dr. Studdert joined them, involved a broader analysis of the impact of an ERISA amendment on employee-based health insurance.²⁹

Drs. Studdert and Brennan have collaborated closely on a range of projects over the past 5 years. Their work together has included a mixture of quantitative and qualitative projects, including: A large empirical study of medical injury and malpractice claiming behavior in Utah and Colorado;³⁰ work on estimating the societal cost of adverse events in Utah and Colorado;³¹ an analysis of liability issues in alternative medicine;³² study of ethical issues in clinical trials;³³ an evaluation of no-fault compensation systems;³⁴ and analysis of the use of punitive damages in managed care disputes.³⁵

Drs. Escarce and Algazy will collaborate on the clinical investigations. While they have not worked together previously, both were trained at the University of Pennsylvania and share a number of research interests. Dr. Escarce will supervise Dr. Algazy's work, as will several other RAND-based senior clinician investigators, under the auspices of the Robert Wood Johnson Clinical Scholars program.

Relevant Expertise

The study demands skills in several types of research methodology and expertise in a range of health policy topics. Our multidisciplinary group is well-credentialed to meet these demands:

Research methods:

- Qualitative/quantitative analysis of dispute resolution mechanisms (Hensler)
- Health plan data collection & analysis (Gresenz, Escarce)
- Claims file data collection & analysis (Studdert, Brennan)

Areas of expertise:

- Dispute resolution (Hensler, Studdert, Brennan)
- Claiming behavior (Hensler, Studdert, Brennan)
- Economics of medical care (Gresenz, Escarce)
- Clinical landscape of UR denials and appeals (Algazy, Escarce, Brennan)
- Quality of care issues (Algazy, Escarce, Brennan)
- ERISA/legal issues (Hensler, Gresenz, Studdert, Brennan)
- Ethical issues (Studdert, Algazy, Escarce, Brennan)

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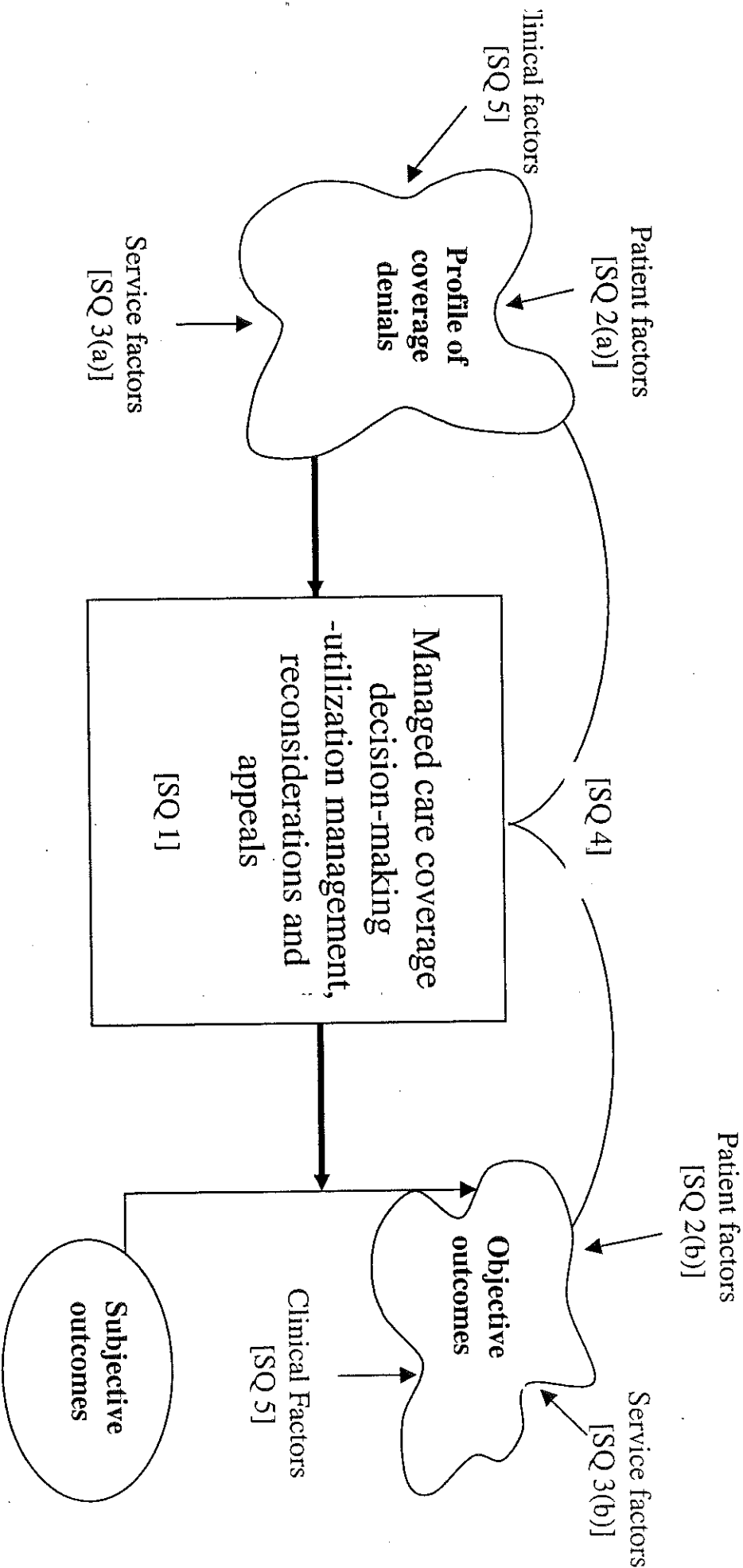
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Figure 1. Research Objectives



Appendix 1: Key Variables

Dates	<ul style="list-style-type: none"> • Initial UR request; • Initial denial • First appeal filed (if any) • Information complete to decided first appeal • First appeal decided • Second appeal filed (if any) • Second appeal decided
Decision stage	<ul style="list-style-type: none"> • Utilization review • First appeal • Second appeal • Third appeal
Type of denial	<ul style="list-style-type: none"> • Pre service/post-service decision • Type of service denied (practitioner services, mental health, inpatient hospital, home health) • Estimated cost of claim
Basis of denial	<ul style="list-style-type: none"> • Medical necessity in plan or out of plan • Experimental treatment • Failure to follow MCO policies • Definition of extent of coverage • Urgency of emergency care • Urgency of out-of-area care •
Provider advocacy (letter, call etc?)	<ul style="list-style-type: none"> • Physician lodged appeal (if permitted) • Physician letter to/call with decision-maker •
Product	<ul style="list-style-type: none"> • General descriptors (<i>to be determined</i>) • Enrollment information (date enrolled/disenrolled, product switch) • Risk structure (plan, medical group)
Enrollee characteristics	<ul style="list-style-type: none"> • Age • Gender • Zipcode • Dependents • Basic health status measures (e.g. #inpatient days in previous 5 yrs)
Clinical variables	<i>To be determined</i>