Centre for Health Economics and Policy Analysis

PAPER 96-6

THE MANY MEANINGS OF MONEY: A HEALTH POLICY ANALYSIS FRAMEWORK FOR UNDERSTANDING FINANCIAL INCENTIVES

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The Many Meanings of Money: A Health Policy Analysis Framework for Understanding Financial Incentives

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Cite as: Giacomini M, Hurley J, Lomas J, Bhatia V, Goldsmith L: "The Many Meanings of Money: A Health Policy Analysis Framework for Understanding Financial Incentives", McMaster University Centre for Health Economics and Policy Analysis Working Paper 96-6, August 1996.

ABOUT THE FINANCIAL INCENTIVES PROJECT

This study emerged from a collaborative research project entitled, "Financial Incentives in the Canadian Health System." The Financial Incentives project was conducted by investigators at the Centre for Health Economics and Policy Analysis at McMaster University, and funded through a grant from National Health Research and Development Program.

The purpose of the project was to develop a framework for understanding how financial incentives work within the social and institutional context of the Canadian health system. The project involved several phases of research.

The first phase involved developing a trans-disciplinary conceptual framework for analyzing financial incentives as a communication process between policy makers and affected organizations. In this framework we incorporated theory from the diverse fields of organizational behaviour, psychology, policy analysis, management, and economics.

We then applied the framework empirically, to seven case studies of financing innovations in the Canadian health system. Case study topics included: block funding for human services, capped provincial budgets for physician payment, pharmaceutical dispensing incentives, case-based hospital funding, the introduction of public payment for midwives, and the deinsurance of invitro fertilization. Each case study examined financial incentives from both policy makers' and stakeholders' perspectives, and examined especially how different stakeholders interpret and respond to financial incentive signals from sources. In the final phase of analysis, we used the findings within and across cases to refine the conceptual framework and generate project-wide conclusions.

Following is a complete list of the papers in the project report.
Each is now available as a CHEPA working paper.

PAPERS FROM THE "FINANICAL INCENTIVES PROJECT"

Giacomini, M.; Hurley, J.; Lomas, J.; Bhatia, V.; Goldsmith, L. *The Many Meanings of Money: A Health Policy Analysis Framework for Understanding Financial Incentives.*

Lomas, J.; Rachlis, M. *Moving Rocks: Blocks Funding in P.E.I. as an Incentive for Cross-Sectoral Reallocations Among Human Services.*

Grootendorst, P.; Goldsmith, L.; Hurley, J.; O'Brien, B.; Dolovich, L. *Financial Incentives to Dispense Low Cost Drugs: A Case Study of British Columbia Pharmacare.*

Giacomini, M.; Hurley, J.; Stoddart, G.; Schneider, D.; West, S. *When Tinkering is Too Much: A Case Study of Incentives Arising from Ontario's Deinsurance of In Vitro Fertilizaton.*

Giacomini, M.; Peters, M. *The Introduction of Public Funding for Midwifery in Ontario: What the Payment Model Means to Stakeholders.*

Hutchison, B.; Birch, S.; Gillett, J. *Health Service Organizations: The Evolution of Capitation-Funded Physician Care in Ontario.*

Hurley, J.; Goldsmith, L.; Lomas, J.; Khan, H.; Vincent, V. *A Tale of Two Provinces: A Case Study of Physician Expenditure Caps as Financial Incentives.*

Bhatia, V.; West, S.; Giacomini, M. *Equity in Case- Based Funding: A Case Study of Meanings and Messages in Hospital Funding Policy.*

Giacomini, M.; Lomas, J.; Hurley, J.; Bhatia, V.; Goldsmith, L. *The Devil in the Details:Some Conclusions about How Funding Changes Translate into Financial Incentives in the Canadian Health System.*

Giacomini, M.; Goldsmith, L. *Case Study Methodology for Studying Financial Incentives in Context.*

ACKNOWLEDGEMENTS

We are grateful to Cathy Charles for her insightful critiques of earlier manuscripts. We also thank the members of the "Incentives Project" for their energetic contributions as well as their comments on the ideas in this paper. Julia Abelson provided helpful suggestions regarding applications in case studies. Joanne Bannister provided secretarial support to the project. This research was funded through a grant from Health Canada's National Health Research and Development Program. Our work was also supported by the collegial environment and resources of the Centre for Health Economics and Policy Analysis, which is funded in part through a grant from the Ontario Ministry of Health. The conclusions presented here are solely those of the authors; no formal endorsement by the acknowledged colleagues, Health Canada, or the Ontario Ministry of Health should be inferred from their support.

ABSTRACT

Health funding reforms often fail to change organizations' and individuals' behaviour in the way that policy makers intend. This is perhaps because financial incentive systems traditionally have been designed according to a "reward-punishment," or behaviourist, model of influencing human behaviour. We argue that this model inadequately captures the way that funding reforms work in real institutional environments. To supplement the behaviourist view, we propose a "communication model" for understanding how social context helps construct financial incentives in the health care system. This model envisions funding changes as essentially *sending messages* to organizations regarding policy goals and desired behaviours. Like other forms of communication, these messages can be inarticulate, imperceptible, or confusing -- and in any case, open to interpretation. Organizations' internal and external environments affect their interpretations of, and responses to, funding reforms. We describe three processes that affect the meaning of a funding reform and its consequent incentives: 1) the basic features of the funding structure, which we refer to as the policy maker's signal; 2) cues and concerns that the affected organizations use to interpret the meaning of this signal; and, 3) issues that mediate organizations' willingness and ability to respond to the perceived message. This conceptual framework highlights the political and social nature of policy making with financial incentives.

INTRODUCTION

Financial incentives appeal to public policy makers in part because they seem a non-political way to influence others' behaviour. A health economist's statement neatly summarizes the belief: "monetary incentives... have the advantage of being comparatively easy to alter in the short term and of being reasonably certain in their effects" (Glass, 1974, p. 206). In contrast to the messy business of persuasion (e.g., using information), restructuring (e.g., changing institutions), or coercion (e.g., using regulation), financial incentives seem cleanly instrumental: simply "offer money, and they will comply."

However, when applied as policy making tools, "[i]ncentives do not avoid political questions; they change the nature of them" (Miller, 1973, p. 203). This is because structuring funding around policy goals necessarily involves taking positions and making value judgments about how the system "does" and "ought" to work. Conversely, *neglecting* to set goals, or introducing purely fiscal reforms with no thought to their potential incentive properties implies no less political meaning to stakeholders. Like verbal or regulatory statements, financial incentive policies carry messages. These messages, like any form of communication, are open to some interpretation. Just as the meanings of words may be altered by syntax, the meanings of policies expressed as funding changes are influenced by their own context of use. This paper explores how institutional context influences the interpretation of financial incentives, and how the interpretation influences behavioural response.

Stone suggests that financial inducements form "a system with three parts: the inducement giver, the inducement receiver or target, and the inducement itself." (Stone, 1988, p. 213) Further:

> Above all, it is important to remember that no system of inducements is self-executing, automatic, or apolitical. Inducement strategies are organized social systems involving two sets of people who are trying to influence each other... [Inducements'] impact on people's behavior depends on how they are interpreted by both the givers and receivers, and their meaning is subject to on-going negotiation and change. (Stone, 1988, p. 230).

Funding changes can mean many things to many different stakeholders in the health care system, and can inspire many different behaviours in response. In line with Stone's proposition, we examine financial incentive policy making as a process of *communication*. Funding changes interact with existing systems of social relationships and structures to become constructed into "financial incentives" or motivations for taking action.

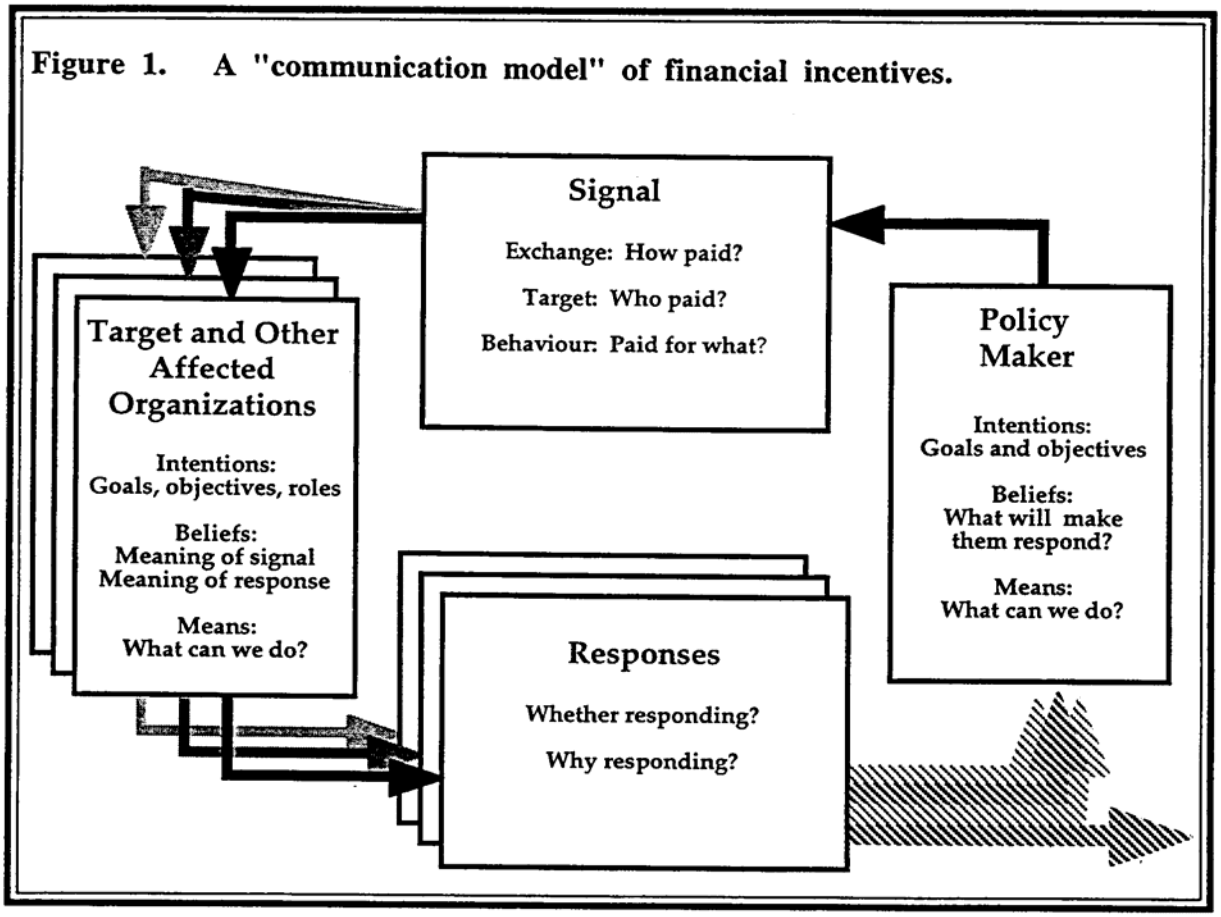
A preliminary overview of the model and some basic definitions

Our "communication model" is schematized in Figure 1, and shows how funding changes become financial incentives through a process of social construction.

First, the policy maker attempts to send a "signal" via a *funding change*. The policy maker uses its goals, its beliefs about how funding changes influence behaviour, and its available means of implementation to design the funding change. The new funding policy then exists as a kind of a "signal" in the policy environment, intended by the policy maker to carry a message regarding what behaviour is valued, who is expected to comply with such behaviour, and the terms of financial exchange of behaviour for money. These meanings are supposed to be carried by the funding policy itself: *what* is being paid for, *who* is being paid, and *how* payments are made.

Second, affected organizations (which may include others besides the intended target) perceive the funding change. Their perceptions are influenced by contextual cues from the political, regulatory, informational, and institutional environment, as well as the organization's own internal goals, beliefs, and resources. Organizations use these various internal and external cues to help (re)construct

Figure 1. A "communication model" of financial incentives.



what the policy maker "meant" by changing the funding structure. This interpretation can deviate from the message the policy maker intended. Different organizations, by virtue of their different situations, may also interpret the same funding change differently.

The third step in the communication loop is the organization's own response to the funding policy. This action (or inaction) itself sends a message back to the policy maker. Like the original funding change, this message is open to interpretation by the policy maker, and that interpretation may or may not match the organization's intended meaning

Funding changes are constructed into "financial incentives" by a communication process between the policy maker and affected organizations. It is the meaning of the funding change, as interpreted by affected organizations, that transforms a mere funding change into behaviour-motivating "incentives" in the health care system. This view is based on the idea that experiences are determined in large part by how they are "socially constructed" (Berger and Luckman, 1967).

This view requires a careful definition of the term "financial incentive." To apply this model, we must differentiate between a "funding structure" itself and the "financial incentive" it creates. Policy analysts often assume that certain "financial incentives" are inherent in certain funding structures, but a our model suggests that this is not the case. Consequently, we will use the terms *funding structure*, *funding change*, or *funding reform* to refer to the concrete terms of funding, the funding policies themselves (e.g., fee-for-service, block funding, deinsurance, etc.). We will reserve the term *financial incentive* to refer to the meaning that stakeholders place on that funding structure (e.g., rewarding higher utilization, encouraging budgetary reallocations, discouraging use of ineffective services, etc.). It follows that the terms "*incentive*" versus "*disincentive*" should not be used -- as they commonly are -- to refer to funding structures themselves, or to the behavioural goals of a funding policy (e.g., to set up "disincentives" for overutilization). Whether a policy is rewarding or punishing is determined foremost by how the stakeholder experiences the policy, and this experience may differ from policy makers' intentions.

This framework also implies a particular view of the targets of funding reforms, which we will refer to as the *organizations* affected by funding structures. We are accustomed to thinking of funding reforms as being targeted at problems. This is the basis for many common incentive typologies (e.g., incentives to improve efficiency, control costs, discourage unproved interventions, etc.). But in fact, funding reforms are targeted not at problems, but at *organizations*, meaning any individuals, coalitions, or institutions with interests in the health care system, who are supposed to respond in a way that helps solve the problem. Taking this broad view of organizations affected by funding structures is

helpful in several ways. First, funding reforms affect more than the intended "targets," due to systemic relationships between organizations in the health care system. Second, preconceived stereotypes (e.g., "the" hospitals, "the" consumers, "the" doctors, etc.) can oversimplify complex roles; analyses relying on "over socialized" views of motivation do not yield useful insights (Granovetter, 1985). The third and perhaps most important reason in the Canadian context is that many funding reforms aim expressly to *re-organize* interests and so *re-define* traditional roles to create more efficient and effective forms of organization. The familiar stereotypes may become obsolete.

Organizations are characterized by collective interests among members, internal goals oriented toward structuring activity and survival, and external interactions oriented toward the pursuit of collective goals and responding to environmental influences (e.g., Scott, 1987). Numerous organizational forms involve such elements. Administrative structure can be more or less formal, membership more or less fluid, goals more or less clear, objectives more or less systematically pursued, and external factors more or less influential. In this framework, we consider any health-interested entity an "organization." This would include the business of a solo general practitioner at the one end of the spectrum, and regional health board or province toward the other end.[1]

In following sections, we explore each element of the communication model in detail, and we conclude with a discussion of how this model may be applied to the case study of funding reforms.

Policy Making: Sending Messages through Funding Changes

Policy Beliefs

Policies are supposed to influence organizations to help solve policy problems. The policy maker's beliefs about the *cause* of the problem will affect the policy intervention designed to deal with it. Policy makers rely heavily on causal models both to assess the origins of a problem (i.e., what needs to be changed) and to determine behavioural solutions (i.e., how to change it). Funding changes are only one policy tool available to policy makers. Other tools include rules and regulations, institutional structures, and information. The use of funding as a policy tool presumes that funding reforms will change the financial incentives, which in turn will achieve the policy goal and solve the problem.

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1 A theoretical note: it is sometimes useful, and sometimes misleading, to treat firms as if they were simply gigantic individuals, or conversely, to treat individuals as if they were miniature firms. The conceptual tension is fundamental in theories of incentive systems, which focus alternately on individuals, individuals in charge of organizations (executives), and organizations themselves. It is beyond the scope of this project to resolve this essential conceptual dilemma in the social sciences.

Policy makers tend to pursue two types of goals through funding reforms: fiscal and programmatic. Common fiscal goals in Canadian health care include expenditure predictability or control. Common programmatic goals include improving health outcomes, efficiency, equitable access, consumer satisfaction, or population health. Fiscal goals are relatively easy to pursue through funding changes: literally limiting budgets is a forthright way to control costs.[2] However, some funding reforms deny the role of financial incentives altogether; fiscal goals (e.g., controlling health care spending) may become a primary objective without concern for behavioural objectives (e.g., health production). Indeed, we often do not want funding changes to result in financial incentives that alter behaviour (e.g., we might hope that across-the-board health care spending cuts won't lower output). However, as Evans (1984a, p. 174) notes, "...of course all forms of reimbursement create incentives insofar as they make an individual's or organization's access to resources conditional on some form of behaviour." The pursuit of programmatic goals (or consideration of the financial incentive effects of purely fiscal reforms), relies on a two-stage causal mechanism: funding structures change organizations' behaviour, and their behaviour in turn achieves health goals (e.g., improved health, health care efficiency, access equity).

Traditionally we have thought of financial incentive schemes simply as systems of monetary rewards and punishments that induce the "right" behaviour by relying on the targeted parties' natural concern for the financial consequences of their actions. The reward-punishment theory underlying the use of funding reforms as a policy tool is "behaviourism." Behaviourism and economics share similar core assumptions about human nature and motivation, a fundamental assumption being the belief that human nature is reliably self-interested and profit-seeking (e.g., Schwartz, 1986a-c). In the words of the policy maker Napoleon Bonaparte, "there are two levers for moving [people] -- interest and fear." From this assumption follows the policy making principle that if rewards and punishments are made conditional upon some behaviour, an organization will increase that behaviour to gain the reward or decrease it to avoid punishment. In health care, for example, we often strive for payment schemes that will systematically reward efficiency and quality, as well as punish waste and ineffectiveness. Two characteristics of the Canadian health system may particularly encourage the current interest in finan-

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2 ...At least in the targeted sector. A common problem of health care cost control measures is cost-shifting to sectors outside those targeted by the policy, which can undermine net health savings (or even cost net increases) despite savings in the targeted sector.

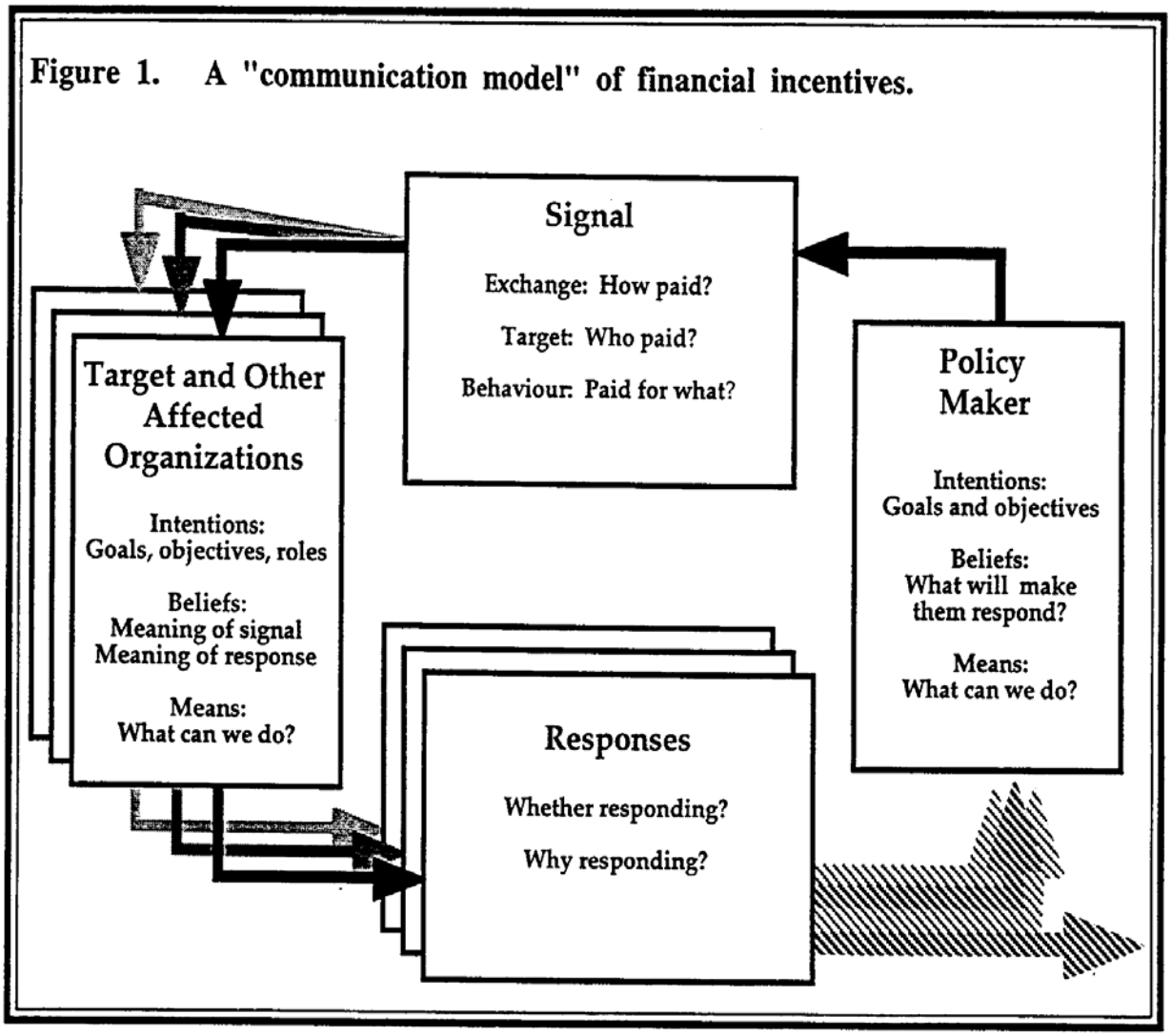
cial tools to sway behaviour. First, the federal government's role in health care is constitutionally limited to the exercise of its spending power (e.g., Watson, 1985; Courchene et al, 1985). Consequently, financial levers have been the primary instruments available to the federal government since the initiation of medicare. Second, the provincial governments introduced medicare only after much opposition from the medical profession, resulting in an implicit pact -- "you practice medicine and we'll just pay the bills" (Naylor, 1986). Only with the onset of the recession in the early 1990s have provincial governments become more interested in venturing beyond the fiscal goals of their "paymaster" role, to *manage* their health care systems by creating financial policies expressly to influence behaviour.

Figure 2 shows an example of a behaviourist (economic) model for understanding specifically how policy making with financial incentives works (Rovira, 1991). The policy maker has specific objectives, and aligns the target's behaviour in the direction of the policy objective by capturing the organization's interests within its own interests using its financial means. Stoddart (1991) notes that this view considers responses to changing interests as reflexive in nature. It expects funding changes to *be* "financial incentives," which act as "stimuli" in a "stimulus-response" mechanism. Evans (1984a, p. 174) succinctly describes how the economist understands the organization's response process:

> ... the behavioural response to any...incentive pattern will depend on the objectives of the individual/organization, and on the constraints, resource or otherwise, which bind it. An economic model is simply an explicit representation of these objectives and constraints.

Of course, accounting for *all* of these stimuli and responses in the real world of policy making is complicated indeed (Stoddart, 1991). The "explicit representation" requires quantifying objectives, constraints and behaviour, and modeling their relationships mathematically. Any unquantifiable constraints or objectives (e.g., social norms, value systems, ethical dilemmas) are lost from analysis, as are any relationships that defy mathematical algorithm (e.g., how social roles affect both constraints and

Figure 1. A "communication model" of financial incentives.



Behaviourist models understand financial incentives in several characteristic ways. The organization itself is opaque to analysis, it is a "black box." A behaviourist model is unconcerned with why the organization holds certain references or behavioural predilections, and assumes no motives beyond a drive for material gain. Other nonmaterial motives are assumed to exist, but to be more or less constant. In any case other motives are considered unobservable and unnecessary for predicting behaviour in response to funding structures; material motives are ganization itself is opaque to analysis,

it is a "black box." A behaviourist model is unconcerned with why the organization holds certain preferences or behavioural predilections, and assumes no motives beyond a drive for material gain. Other nonmaterial motives are assumed to exist, but to be more or less constant. In any case other motives are considered unobservable and unnecessary for predicting behaviour in response to funding structures; material motives are presumed to operate mechanistically. The main engine driving the mechanism is self-interest and particularly the pursuit of financial gain. Whether a funding structure is "rewarding" or "punishing" is considered foremost a property of the funding structure itself -- opportunities for financial "gain" are intrinsically "rewarding," threats of financial "loss" intrinsically "punishing." A final assumption is that of one-way instrumentality -- that is, that the party with the funding leverage and a basic understanding of behaviourist principles can use these to "condition" compliant behaviour from those financially dependent. To build a predictive model, the behaviourist quantifies and correlates material opportunities and constraints (as predictor or input variables) with degrees of behavioural response (as outcome variables). Other unmeasured inputs, as well as inconsistencies in the "mechanism" of the black box, are not studied directly, but rather appear in the model only as some degree of imprecision in the behavioural predictions. Finally, entirely unexpected and unmeasured behaviours might also arise in response to a funding structure. However, as the behaviourist dynamic is modeled, these are considered "side effects." Side effects tend to be studied selectively; there is nothing in the behaviourist model that dictates scanning all possible behaviours resulting from a funding policy.

In the following discussion we review critically these common policy maker assumptions about how funding structures "ought" to work as financial incentives. We offer for each of these assumptions some counter-hypotheses. It is upon these alternative hypotheses that we build our framework for understanding financial incentives. Our framework is not intended to replace traditional behaviourist or economic models. Behavioural models do have explanatory power, especially in contexts where all parties (i.e., the policy maker and the affected organizations) themselves subscribe to behaviourist views of how funding changes should affect behaviour in the health care system (e.g., Schwartz, 1986). However, it is equally true that much behaviour in the health care system cannot be attributed to the mechanism of financial incentives, and we question the common policy assumption that this is due simply to inadequately designed funding structures. Our conceptual framework seeks explanations in the broader social context, which includes but is not limited to the principles of material opportunism.

There is inevitably a lot more going on, both inside the "black box" and in the resulting social interactions, than behaviourist models can explain. Part of the justification for developing a framework that goes beyond the historically predominant behaviourist view of policy making is the observation

that many funding reforms developed according to this model have failed to work as incentives in the intended ways (e.g., Stewart-Brown et al, 1995; Hutchison et al, 1996; Hurley and Labelle, 1994; Lomas, 1993; Iliffe and Munro, 1993; Lowy et al, 1993; Champagne et al, 1991; Hughes and Yule, 1991; Moore et al, 1983). Even when a funding reform apparently succeeds to create the "right incentive," we remain uncertain why it worked, whether the it would work in the future, or whether it would work in a different situation. And even when a funding structure appears to work on average, individual respondents may still deviate a great deal around the norm in their responses (e.g., Nalbantian, 1987); to promote equity as well as effectiveness, policy makers must concern themselves with the entire range of possible responses, as well as the "typical" response.

Revisiting the Assumptions of the Behaviourist Model

Behaviourist models of financial incentives rely on several assumptions which should be questioned: 1) that organizations or individuals may usefully be regarded as "black boxes," i.e., that knowing *whether* and how strongly they respond to funding structure is more important than knowing *why* they respond; 2) that within the "black box" there exists a mechanism which reliably relates funding structures to behaviours; 3) that the mechanism, a self-interested drive for financial gain, is a pervasive and useful motivator for harnessing organization's activities toward the pursuit of policy goals; 4) that the motivating properties of a funding change are determined primarily by how it is structured and that these exist independently of the context in which it is applied; and, 5) that the instrumental dynamic between payer and paid works one-way, whereby the payer incites and the paid responds.

Black boxes

The behaviourist "black box" assumption holds that, in order to use the stimuli (funding structure) to evoke desired behaviour, one needs not learn *why* certain behaviours follow certain stimuli, only *that* certain behaviours tend to follow certain stimuli. However, this pragmatic approach works only if the stimulus as well as the contents of the black box (or process by which the organization responds) are both fairly fixed across organizations and situations. In other words, a dollar is always merely "one dollar," and is never seen as more, less, or symbolic of something else. Likewise, the organization always follows the dollar in some measurable and predictable way. However, in real organizations operating within political contexts, neither perceptions nor behavioural responsiveness are fixed phenomena, but rather are subject to constant negotiation from both within and outside the organization. More insight about the determinants of behaviour can be gained from looking directly at the organization's experience of a funding structure -- essentially, looking inside the "black box" to watch *how* financial experiences create "financial incentives."

The myth of mechanism

What happens inside the black box? Even though behaviourists do not try to "see" in, they make assumptions about how the innards work. First, the behaviourist paradigm posits a one-to-one correspondence between a funding structure's technical features, its intrinsic meaning, and its behavioural effects on organizations. Incentives become reflexive responses to stimuli. Behaviourists assume that this correspondence exists as a kind of natural law that can be discovered and generalized through empirical modeling. More specifically, a belief in funding policies as tools for controlling behaviour "...postulates the [organization] to be an economic instrument, as Henderson says, 'a computer... programmed in the language of dollars and cents.'" (Mintzberg, 1983, p. 628).

The presumption of this sort of mechanism biases understanding of how financial incentives work. The search for one-to-one correspondences necessarily ignores the "many" inherent in organic, social systems -- the many perspectives of many stakeholders, the possibility of many qualitatively different effects, and the many unquantifiable values that do not readily add up to dollars and cents. The organization's expectations and perceptions determine whether a funding change seems rewarding or punishing (e.g., Whyte et al, 1955; Stone, 1988). A policy maker's simplest "carrot" can transform into a potent "stick" depending upon the respondents' contextual expectations, values, and needs, e.g.:

> An offer of $100 sounds like a reward, but if you had every reason to expect $200, you will experience it as a penalty. Likewise, a notice that you will have to pay a $100 fine will feel like a reward if you expected to owe $200. Inducements are thus negative or positive only in relation to the target's expectations, and understanding the target's point of view is critical in designing them. (Stone, 1988, p. 217)

In the policy world it may be particularly misleading to posit a single primary effect, and to study only incidentally the possible "side" effects. This sort of modeling ignores the fact that what may be a "side" effect to one stakeholder (or one value system) may be a "primary" effect to another. Nor is this view faithful to the perspective of the policy maker alone: it is rare that policy makers pursue a single goal to the exclusion of others. Public policy goal setting seems less a matter of hitting straight toward a goal than of juggling many at once. The unexpectedness and undesirability of a side effect can have nothing whatever to do with its eventual policy importance. This is easy to forget when side effects are pictured as mere offshoots of a presumably central dynamic.

Intrinsic motivators

The pursuit of financial gain is only one of many models for human motivation. Policies depending upon funding tools rely either on the preexistence of this drive, or the *creation* of this drive (sometimes to the detriment of other drives) -- what we refer to as the creation of "economic animals." A growing psychology and administration literature (e.g., Meyer, 1975; Wright, 1994; Kohn 1993a, Kohn 1993b) suggests that rewards and punishments can actually distract people from both goals and "intrinsic" motivators, e.g.: "[t]o the extent that pay is attached directly to the performance of a task, intrinsic interest in the task itself decreases. When pay becomes the important goal, the individual's interest tends to focus on that goal rather than on the performance of the task itself." (Meyer, 1975, p. 41). The dynamic applies to organizations as well; Mintzberg (1983, p. 626) describes the essence of policy making with financial tools thus: "'induce it' tells society to 'pay it to be good,' and tells the corporation to 'be good only where it pays.'" Consequently, traditionally understood financial reward-punishment systems might be expected to work best in situations where making money is the organization's very mission, as for example in the finance industry. In this case, the "extrinsic" motivator (money) relates directly to the "intrinsic" drive (profit-seeking). But for other organizations, behaviour may be driven by other intrinsic or extrinsic motivators, such as social affiliation, status, political power, job satisfaction, social role expectations, ideology, ethical imperatives, service, professional norms, community responsibility, creativity, curiosity, and so on. Redirecting attention to financial contingencies may actually undermine these other non-financial criteria for "doing well" or "doing right."

The role of context

Response to a funding change is not only determined by the diversity in stakeholders' internal environments, but also by the diversity of their external environments. Behaviourist models seek generalizable laws that can be applied across diverse contexts. However, we suggest that a single type of funding structure could convey various meanings, generated by features of the funding structure *together with* the social and political context in which the funding structure operates (March and Olsen, 1989). Sometimes behaviourists study contextual factors as confounding variables. In quantitative (e.g., econometric) modeling, these variables may be chosen according to formal theory; some researchers also select and include them by convenience or by common sense. However, they are rarely selected through systematic, empirical investigation of the organizational contexts in which the policy may be enacted (this would require some sort of preliminary qualitative or policy analysis).

We suggest that the institutional, regulatory, social, and economic contexts all matter to how funding changes become transformed into "incentives." We might be tempted naïvely to consider

financial incentives as being about no more than "who gets paid for what and how." But perhaps not surprisingly, March and Olsen have characterized *institutional politics* as essentially about "who gets what when and how" (March and Olsen, 1989, p. 47). Economics and politics blur quickly in real institutional environments: the way resources change hands creates *meaning* in the political sense, as much as it creates material structure in the economic sense.

The organizational sociology literature suggests that organizations with different internal compliance systems will regard financial incentives differently. Some sociologists have classified institutions based on the degree to which they use material incentives to their members to gain members' compliance with the organization's goals. This literature suggests that members cooperate toward collective goals not just for material gain, but also for normative reasons such as social solidarity and enjoyment, instrumental reasons such as to accomplish collective purposes, or because they are coerced (Clark and Wilson, 1961; Etzioni, 1975).

Reciprocal dynamics

Not only do differences between individual stakeholders' perspectives and differences between various contexts of application matter, but relationships between payers and stakeholders matter. A common but false assumption is that the instrumental action of an incentive is unidirectional, from policy maker to target organization. We suggest rather that the dynamic is fully reciprocal: the target can be quite interested in affecting the policy maker in turn. Payer and payee exist in an interdependent, ongoing relationship. Payers may believe that financial rewards and punishments are conditioning desired behaviours from payees. But payees can likewise condition the behaviour of the payers through their responses. A cartoon depicts this nicely: in one frame, a man says proudly to his friend, "I taught my dog to sit today." In the next frame, the dog is shown saying to another dog, "I taught a guy to give me dog biscuits today." Of course, to say that the relationship between the payer and the paid is fully reciprocal is not to say that it is fully *equal* in the pressure each party can exert on the other. Organizations are materially dependent upon to their funding sources. However, the dependency is inevitably mutual, and the power relationship complex when the many dimensions of institutional interdependency are considered (e.g., political influence, popularity, moral persuasion, status, allies and support elsewhere in the system, and so forth). Power struggles are a natural consequence especially of policies intended to control (i.e., decrease) health care spending. This is in part due to economic interest, as every cost savings to one party tends to be an income loss to another (e.g., Stein, 1973; Evans, 1984b), but it is also due to political significance: divestment can signify the devaluing of larger social purposes or institutions.

The dichotomy between "policy maker" and "affected organization" may itself be false in a world of systemically related institutions. First, affected organizations are often involved in the construction of public policies; this can range from stakeholder consultation to stakeholders actually

designing and initiating a policy from grass-roots. Collaborative policy making in joint committees between provincial governments and professional associations (e.g., hospitals, physicians) is common in Canada. Second, policy making creates policy makers. If policy is viewed as actions designed to change organizational or individual behaviour to solve perceived problems, it can emanate from numerous sources other than governments (e.g., Boulding, 1967; Bardach, 1977; Majchrzak, 1984). In the health care sector, regional health boards, hospitals and other institutions, professional associations and disciplinary bodies, even individual provider's practices all have the potential to create policy, through funding changes, institutional structures, or rules and regulations. Indeed, some funding policies may encourage non-governmental organizations to create and implement their own policies to control the behaviour of their own constituents through either funding changes, information, institutional structures, or rules and regulations. A government-originating funding change is potentially precipitates a cascade of signals and consequent incentives through the health care system.

The very use of funding structures as "instruments" to control behaviour -- in lieu of other policy options such as persuasion, regulation, and so forth -- can provoke reactions. In other words, affected organizations may respond not to rewards or punishments themselves, but to the very idea that they are being managed by rewards and punishments at all. Targeted organizations in particular may protest the expectation that they are programmed to react in a predictable, mechanistic way (Kohn, 1993; Frankford, 1994).

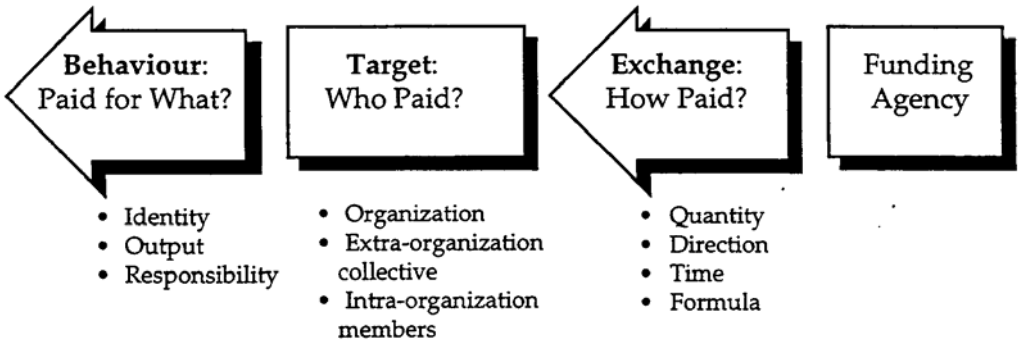
Conversely, if targets comply too well with the reward-and-punishment game, such models of social control may create self-fulfilling predictions. Structuring institutions, relationships, or policy environments through funding can reinforce the role of economic self-interest and actually render other motivations socially deviant (e.g., Schwartz, 1986c). Health organizations are motivated by far more than financial gain, and financial incentives interact with other motivators. Individuals can affiliate and cooperate with collective ("policy") objectives for reasons other than monetary gain; these include social affiliation or solidarity, purpose or mission, role expectations or convention, personal expression, coercion, and so forth (e.g., Clark and Wilson, 1961; Etzioni, 1975; Zald and Jacobs, 1978; Bromley and Busching, 1988). Depending upon the social milieu, commitment to a social or personal goal can overshadow commitment to financial gain; volunteers can be more fervent than mercenaries for example.

In brief, we can expect organizational responses to funding changes to be interpretive, strategic, and perhaps in some cases to defy "rational," instrumental explanations (e.g., Allison, 1971; Stone, 1988). Further, we can expect the interpretation and response process to vary across different types of organizations. Different stakeholders will bring different interests, beliefs, ideologies, power, institu bear on these interpretation and response professtional roles, ways of knowing, information, intrinsic motivations, and decision making processes.

The Funding Change -- Features of the Signal

The policy goals behind a funding change may be fiscal or programmatic, concrete or abstract, explicit or implicit -- or all of these -- especially for solving complex problems. The policy maker designs a funding reform with objectives in mind, but must somehow translate objectives into specific changes in funding structure. The policy maker formulates the financial signal to communicate a message about desired behaviour (i.e., toward policy goals) and its contingencies (i.e., funding consequences) to organizations in the health care system. There are several features of a funding structure that relate both to the policy maker's intentions and the affected organization's perceptions of the message it carries. Three basic features of the message regard: 1) the contingent *behaviour* -- *what* is being paid for, 2) the *target* -- *who* is paid, and, 3) the *exchange* -- *how* payments are made. Each of these three can further contain many dimensions of meaning, which are listed in Figure 3. It is important to note that the various dimensions of each of the three features are not exclusive -- that is, a single policy often invoke many of them at once. To use "what is being paid for" as an example, hospitals are paid not only for maintaining licensing (identity), but also on the basis of the services or programs they offer (output), and payment may further depend on local population health status (responsibility). Overlying these elements are also more general features of the signal. Funding changes may carry a fuzzy or clear message with regard to the behavioural conditions of payment, or policy

Figure 3. Three features of a funding change "signal" that can give meaning to the financial incentive.



goals. The signal may be perceptible or not; it may be broadcast to a wide audience, a narrow audience, or even the "wrong" audience. Affected organizations essentially must decipher what is paid for, who is paid, and how they are paid from the funding change and other policy signals coming their way (e.g., other information about the policy agenda). The interpretation will not necessarily match the policy maker's intended message (interpretation will be the topic of the following section on the organization's role).

The Behaviour: What is paid for?

The *basis* for payment is simply *what is paid for*. Typically when we attempt to create an incentive, we set payment contingent on some particular compliant *behaviour*. We use this feature, then, to communicates the policy objectives. Health policy wisdom has evolved considerably over the past thirty years regarding the ideal bases for funding health care services. The traditional basis has been to fund *services* (e.g., fee-for-service payment to providers) or the *institutions* which provide services (e.g., global funding for hospitals). More recently, payers have become more interested in remunerating not health care services, but the production of health itself (i.e., not processes, but outcomes). This shift results from the realization that many health care services are unnecessary or unproved and possibly a waste of money. This trend toward outcome accountability has dovetailed with increasingly comprehensive definitions of "health" itself. We are moving away from a definition of health as the absence of disease in individuals, and toward a definition of health as well-being of entire populations (Premier's Council on Health Strategy, 1991; WHO, 1995) and further toward seeing health organizations as *responsible* for the ensuring the health of populations. Consequently, the basis of payment relates to at least three broad dimensions of a target organization and its behaviour: 1) its *identity* -- i.e., what or who it is as an institution, 2) its *output* -- i.e., its services or products, and, (3) *responsibility* -- i.e., who it serves, or its target population. Different funding structures may emphasize one of these three bases, however, all three will be relevant in a single funding policy to some extent.

Identity. In the health care system, where professional and institutional licensing qualify providers to practice, organizations are paid to some extent according to who or what they are -- their identity. Payment is almost always contingent upon the organization's identity, purpose, professional or institutional licensing, legal status, etc. A familiar Canadian policy which tends to emphasize this dimension is global budgets for hospitals but not for other health care institutions.

Output. The most familiar contingency for funding health care is output, or what organizations produce in terms of either health services (processes) or health outcomes. A central problem in designing a funding scheme is how to define the services or outcomes being paid for, and how to

exclude payment for undesired services or outcomes. For example, if only "medically necessary" services qualify for public payment, what should be included and excluded? If only "effective" care were to be covered, how should we define and identify effectiveness? Equity issues also arise in determining which services to privilege with coverage, as well as the remuneration levels for various services. Familiar policies which emphasize service output include fee-for-service remuneration of physicians and per-diem remuneration for hospitals. Funding on the basis of health outcome *per se* has been much discussed but little implemented in health care. One of the few financial consequences of outcomes *per se* is malpractice settlements, but even this "policy" is implemented only on an *ad hoc* basis through the judicial system.

Responsibility. The third basis of funding is who the organization serves, or its fiduciary *responsibility* to meet the health care needs of a defined population. To determine funding levels, the payer has to take into account "needs" of the population as well as the average cost of appropriate services to meet those needs. Examples of familiar policies which tend to emphasize the responsibility dimension include capitation payments to physician practices, and federal block funding for comprehensive provincial health plans.

It is important to note that any of these bases for funding may be qualified by a performance criterion. Payment can be contingent on how *good* the organization is at doing what it does, being what it is, or serving who it serves. Quality-contingent payments may depend upon some threshold value (e.g., restricting funds only to licensed professionals), or may be continuously scaled (e.g., relatively higher salaries for relatively more skilled or effective clinicians). These generally require sophisticated monitoring and feedback systems that track performance and adjust payment accordingly.

The Target: Who is paid?

As we have discussed, identity is an important part of the behavioural basis for payment; payment may be contingent on the organization's qualification for payment through licensing, training, certification, etc. A related but different issue is who the funding agency actually *targets* for payment -- what specific organizations, or what administrative levels of an organization. This is the *organization* whose behaviour is supposed to be influenced by the funding structure (as opposed to *the behaviour* itself, which may include licensing etc.). Usually these targets are already in dependent funding relationships with the payer. However, policy makers may also use funding structures to create new relationships (e.g., offering payment for previously unpaid services such as obstetrical care by midwives), to create new organizations (e.g., offering funding for envisioned delivery programs such as Comprehensive Health Organizations in Ontario), or to create new coalitions of organizations (e.g., block funding of health and welfare services). By altering who is paid, funding changes can challenge

organizational identity, security, or goals when they challenge traditional relationships by creating new collectives or granting new autonomy.

While the policy maker defines a "target" organization and aims the funding reform at that target, other affected organizations may be involved by virtue of their relationship to the target. Consequently we refer to stakeholders generally as "affected organizations" rather than "targets." From the perspective of a single affected organization (rather than the perspective of the policy maker), a funding reform may seem targeted in one of three ways: 1) directly at the *organization itself*, 2) at a larger *collective organization* that envelopes the organization together with others (i.e., at a group of organizations of which the organization is a member), or, 3) at *individual members* (or smaller organizations) within the organization's boundaries. Each level challenges in different ways the organization's own administration, its relationship to other organizations, and its relationship to its own members.

The simplest target aims directly at existing institutions. Here, the organization itself is being paid for "what the organization does." Such funding structures best typify those traditional from the inception of public funding: hospitals are paid to produce "hospital services," doctors to provide "physician services," etc. The organization's administration and behavioural identity (with regard to what it produces and how) can remain more or less intact as its own administration responds to the policy signal.

Alternatively, some policies restructure funding to aim at (or sometimes, to create) an administrative target *beyond* existing organizational administrative structures, usually to join diverse interests together to pursue a common goal such as resource allocation or population health production. This sort of funding target typifies currently popular reform models in Canada, for example block grants combining social welfare and health funds. These reforms target payment at a newly defined, extra-organizational collective. It is the behaviour of this new collective as a whole, and not the behaviour of its organizational constituents, that is the contingency for payment. This challenges previously autonomous organizations to do several things: 1) understand their own activities as part of a process of producing the larger collective service; 2) to compete or cooperate with other enveloped organizations to claim a share of the common funds; and, 3) jointly (although not always democratically or consensually) to create an administrative structure for allocating the common funds and managing cooperative activity, and, 4) to develop mechanisms to resolve conflict between organizations retaining autonomy within the collective (e.g., Ostrom, 1990; Bromley 1992; Hurley and Card, 1996).

At the other end of the spectrum, funding changes may target members *within* existing organizations. Rather than pay the institution for its behaviour as a whole, the funding agency pays the

members for what they do in particular. A Canadian example is the payment of physicians working in academic medical centres on a fee-for-service basis, which can create conflict with the globally funded centre's objectives (e.g., Stoddart and Barer, 1992). Such a policy essentially transgresses organizational boundaries. By doing so, it can supersede or circumvent administrative policies within an organization (especially where the funding agency's goals conflict with the organizational management goals). Conversely, administrative policies within the organization can also mitigate the behavioural effects of the financial incentives as they emerge.

The Exchange: How are payments made?

The technical terms of *exchange*, or *how* payments are made, also lend meaning to the signal sent via a funding reform. The payment amount, its administration as a penalty versus a reward, the timing of payment, and the factors used to calculate payment rates are each potentially important to the successful translation of a funding scheme into an incentive. How important these various terms of exchange are, and why they are important to stakeholders, will vary depending upon the context.

Quantity. The magnitude of any behavioural response to funding changes will depend in part upon the size of the contingent gain or loss. If a reward or penalty is too small, it may be irrelevant to the target. At the other extreme, very large penalties may be intimidating and paralyze activity, and very large rewards can attract the attention of non-targeted organizations. Either can trigger political protests for being inequitable or coercive. Customizing payment to behavioural responsiveness also creates potential inequities: the amount of payment required to get stubbornly uncooperative targets to behave will be higher than required for the naturally cooperative -- so paradoxically, the reticent paradoxically "win" more than the willing (Miller, 1973). Organizational expectations in the current economic environment will also determine whether the size of a financial reward or punishment is trivial, fair, extravagant, etc., and consequently how strongly it motivates.

Direction. The direction of contingent funding, i.e. whether it is a positive payment for desired behaviour or a negative penalty for undesired behaviour, matters. However, as pointed out by Stone (1988) and others, in the policy world this direction should not be treated as determined only by the structure of funding itself, but also by the expectations of the target (e.g., a reward which is smaller than expected, demanded, or deserved can feel like punishment).

Time. Timing can affect the meaning of financial structures in at least two ways. First, it often matters whether payment is prospective or retrospective, that is, whether it precedes or follows the compliant behaviour. For example, prospective payment is often used to get providers to assume

financial risk for utilization levels or costs, in the hopes of promoting more appropriate servicing or cost control. Second, timing and frequency of payment matters, especially in regard to how responsive the flow of funds is to actual behaviour. For example, continuous monthly "clawbacks" to physicians incomes under an expenditure cap may affect their day-to-day clinical behaviour differently than do annual clawbacks.

Formula and calculation. Deciding in principle who will be paid, what for, and how much, can be easier than "operationalizing" these ideas into the quantitative elements of a payment formula. At least three elements of a payment formula tend to matter to organizations. The first is the *unit* of payment. The unit may be relatively gross (e.g., salary), which tends to de-link an organization's fine-grained behavioural decisions from its revenues. Or the unit may be relatively fine (e.g., fee-for-service), linking payment closely to decisions and behaviour. A second issue is *precision* and *accuracy* of calculation, which will be affected by the statistical models, variables, and data used to represent the criteria on which payment is supposed to be based. Organizations may agree in principle with the elements of a formula but have little faith in the information payers apply to get the rate (e.g., standard mortality ratios are debated as appropriate bases for needs-based funding). Finally, the transparency of the formula to organizations can affect its meaning. The formula tells organizations the "bottom line" criteria for funding. They may use this as a guide to understand better the basis for funding. Or they may respond in less desirable ways, either protesting the formula, attempting to affect the quality of data or information used, or adapting activities to make the most of the formula's factors and biases (e.g., shifting diagnoses to fit more lucrative payment categories) (e.g., Matsaganis and Glennester, 1994; Simborg, 1981).

Affected Organizations: Constructing the Message from the Signal

Affected organizations -- or stakeholders in the health care system -- rarely respond to funding changes reflexively, by automatically adjusting activities in a predictable way. Rather, they respond strategically, after pondering the meaning of the funding change to their circumstances and the meaning of various responses open to them (e.g., Murray and Jick, 1984). Two important processes occur inside the "black box" of the organization: *interpretation* of the policy signal, and formulation of a *response* to it. Although we will discuss these each in turn, it is important to note that they may not occur as discretely sequential steps. Interpretation and response processes can overlap considerably, and affect each other iteratively, as responses follow interpretations and reinterpretations follow re-

sponses.

Interpreting: What is being asked of us?

Preceding strategic response is the reconstruction of the meaning of the policy from the "signal" -- the features of the funding change itself. This interpretive process transforms a mere funding change into a "financial incentive." Money -- and how it is allocated -- is intimately related to values. Thus, a funding change essentially acts as a statement from the payer to the organization about values: what the payer values, and how the organization is part of what is valued. By offering rewards or penalties, the policy maker may imagine itself stating matter-of-factly to the organization, "I want you to do X and I will pay you for it." The organization typically hears the "I" and the "you," but may impute any number of messages about what the payer desires and offers, and especially, *why*. We can think of interpretations as falling into three categories that closely parallel the categories used to analyze the features of the funding signal: 1) messages regarding "who the organization is" (targets or identities), 2) messages regarding "what the organization does" (output), and, 3) messages regarding "who the organization serves" (powers and responsibilities). These all look a little different from the perspective of an affected organization than they do from either the perspective of the policy maker or the perspective of a dispassionate observer of the "signal."

Targets and identities: From "who is paid" to "who we are"

To the organization, funding changes may appear aimed not so much at its work as at its very *identity*. Who the payer pays (as well as what for and how) says something about who the organization is. Several possible interpretations of this sort are listed in Table 1. For instance, rather than the message, "I value your work differently," an organization may hear, "I value *you* differently." An organization facing a funding increase or decrease will naturally question whether its mission as well as its livelihood is supported or threatened. Any destabilizing funding change may be seen as a demonstration of power. With the stroke of a pen at a budget line-item, the policy maker can send organizations into crisis or stability, seeming to remind them, "I can buy you, make you, or break you." This is of course especially true under a monopsony such as Canada's single-payer health care system. The change can signify an exercise of power by the funder by making an affected organization more dependent or accountable, or conversely, a delegation of power ("empowerment") to the agency by making it less dependent or accountable.

Table 1. Illustrative interpretations of funding changes, with regard to organizational identity.

• "I now value you more than before."	• "I now value you less than before."
• "You are more accountable to me (empowered) now."	• "You are less accountable to me (disempowered) now."
• "I value you more than others."	• "I value you less than others."
• "I want you to expand your mission."	• "I want you to change your mission."
• "Your mission is a valuable end in itself."	• "Your mission is only valuable as a means to a larger end; you should collaborate with other organizations."
• "You are special, and should be protected from competition for resources."	• "You are just like everyone else, and should compete with them for resources."

Shifting funding from one type of service to another also challenges organizational identity. It can imply a change of power or status not only vertically, between the payer and paid, but horizontally, between various affected organizations. Organizations take great interest politically in whether they seem to be winning or losing the perennial interest group battle over social resources. Shifts may be interpreted as payers preferring the services of other organizations, and so inspire competition with the others, or political protest to the funding agency. Or conversely, funding shifts may be interpreted as an incentive for collaboration with more financially privileged organizations. They can also seem to suggest that the organization change identity altogether, by moving into a more lucrative field of service. When a funding reforms captures diverse organizations into a single budget (e.g., block grants or envelopes), it may challenge organizations to view their services not as ends in themselves, but as means toward a larger social end. Conversely, protection of certain organizations from funding envelopes may affirm that they are uniquely valued, special. Funding reforms aimed at members, rather than the organization itself, may seem to subvert the organization's administrative authority or collective mission.

tions, but about the value of their work. Funding reforms often are supposed to inspire organizations to change outputs -- either output levels, mix, distribution, efficiency of production, or the products themselves. Organizations strive to align what the payer *seems to pay for* with what the organization *does* -- or perhaps what it *should* do.

Table 2 summarizes some examples of messages that may be constructed about an organization's output. For example, restricting funding or putting a provider at risk for expense may be intended to carry the message: "improve your efficiency." However, it could be alternately interpreted by the organization as an imperative simply to do less, or do less well, or that the service is less important. Likewise, an increase in funding may intend to say: "do more." However, if the organization has been feeling underpaid or underappreciated, it may consider the bonus as remedial compensation for past or current activity levels and change output not at all. If funding changes seem capricious or unintelligible, organizations may perceive that the payer has little appreciation for the value of their work, and lose confidence in the policy directives of the payer altogether.

Table 2. Illustrative interpretations of funding changes, with regard to organizational output.

• "I don't mind if you lower the amount of your output."	• "I want you to maintain your productivity level (e.g., despite less funding)."
• "I don't mind if you lower the quality of your output."	• "I want you to maintain your quality level (e.g., despite less funding)."
• "I value your product more than before."	• "I value your product less than before."
• "I finally recognize the value of your product."	• "I have no idea what your product is worth."

Powers and responsibilities: "How we serve"

A final dimension, which lies conceptually somewhere between an organization's identity and its outputs, is that of its powers and responsibilities to serve in the health care system or in "society." Organizations can interpret funding changes as messages regarding their stewardship over social welfare. Illustrative examples of messages an organization might interpret with regard to powers and

organizations closer to the community to direct resources to local needs. But the same reform may seem morally burdensome in an era of cutbacks -- perhaps as an abdication of tragic rationing decisions by higher levels of government. Whether organizations choose to interpret devolution as granting new rights to make good decisions, or imposing new responsibilities to "do the dirty work," will depend upon their expectations and perspective. Another example is the issue of service privatization. Organizations may perceive public payment as entailing responsibility to serve "society" and to meet practice standards of government, but private payment may be perceived as entailing foremost a responsibility to serve and please private consumers.

Table 3. Illustrative interpretations of funding changes, with regard to organizational powers and responsibilities.

• "I trust you to allocate resources and services most appropriately."	• "I'd rather *you* made the tragic rationing decisions."
• "You are still accountable to my needs or standards."	• "You are now accountable to someone else's needs or standards."
• "We are playing the same strategic game we always have."	• "We are playing a different game now, by different rules."

Funding changes may seem to create entirely new rules of engagement, the institutional "games" the various stakeholders expect to play. As we discussed earlier, organizations facing new financial structures may react to the very use of funding as a policy instrument, and not just to the particular features of the funding structure. That is, an organization may interpret a funding change as a call to pay more attention to money for its own sake (especially if given the impression that pursuing one's own financial gain will naturally lead to the achievement of health care system goals, because the financial incentives have been "carefully designed".[3]

has shifted from cooperation to competition. Another example is the tension between cooperation and competition introduced by budget caps and resource "commons." Organizations may find themselves newly preoccupied with getting their fair share of resources on new terms, and possibly distracted from other organizational responsibilities -- especially any not specified in the funding formula or explicitly mandated through other policies (i.e., regulations). Stakeholders in the British NHS, for example, interpreted the system's move from a planned system to managed competition via purchaser-provider splits as a transformation of the role of general practitioners and hospitals from cooperation to meet needs, to competition to meet demands (Pollock, 1995).

Responding: What should we do? What can we do?

If *interpretation* is what makes a funding change into a "financial incentive," the *response* process is what transforms the "financial incentive" into an actual behaviour change. Material constraints and opportunities only partly determine organizational decisions. Additional factors include information, cognitive processes such as bounded rationality and rationalization, social role expectations, values, the use of imagination, and the preexisting power and compliance structures in the organization. Each of these elements can affect "rational" choice, by influencing the way the organization understands its choices, or the way it searches for solutions it can live with (not only as an economic "firm," but also as a social and political institution). The organization constructs its response using the following elements: 1) organizational *beliefs* regarding the meaning of the signal as well as the meanings of their possible responses, 2) *intentions*, which include the organization's sense of mission and social role expectations, as well as more explicit goals and objectives, and, 3) *means*, or the organization's wherewithal to respond at all, and if so, in what particular ways.

Beliefs

Like policy makers, organizations bring to problem solving a set of beliefs about how the world "does" and "ought" to work, a set of causal hypotheses about what-causes-what, and ideologies about underlying principles such as human nature. Two sets of beliefs are especially important to the process of formulating a response to financial incentives. The first set involves the interpreted meaning of the funding change, as described previously. This is an organization's belief about what values and activities the policy maker is promoting through the funding change, and what the policy maker expects the organization to do. To the extent that a policy appears to conflict with organizational beliefs or principles, genuine "buy-in" and cooperation may take many years of persuasion (Jenkins-Smith and Sabatier, 1993).

The second set of beliefs concerns the meaning of various responses available to the organization. These beliefs concern ideas about what is possible, what will work, and what is "right." While the first two may be more (or less) based on analysis of evidence, or beliefs about how things "really

are," the third must necessarily be based on ideology, or a normative framework about how things "should be" (e.g., Rein, 1983; Schwartz, 1986). These beliefs are not interchangeable; that is, empirical analysis will not satisfactorily dictate "what is right," while moral persuasion will not satisfy the question of "what works." All of these beliefs -- about the meaning of the message and about the feasibility, effectiveness, and wisdom of various possible responses -- will be used to choose an "appropriate" response.

Intentions: Goals and objectives

Organizational missions, goals, and objectives collectively all fall under the general rubric of "intentions." Although some organizational analyses require distinctions between these categories, the funding reforms that we are concerned with may address any level of goal, from broad missions (e.g., "to improve population well-being") to narrow instrumental objectives (e.g., "to decrease the number of unnecessary surgeries"). Organizations pursue various goals, concerned primarily with productivity and survival. Financial reform policies generally aim to bring the organizations' goals in line with the policy maker's goals. Production goals may include objectives such as efficiency, equity, quality, and quantity of services. Survival goals are often more complex, as different environments interact with different organizational capacities to create myriad challenges to organizational survival. Briefly, survival goals may include sustaining revenues and other resources, cultivating conviviality and security within the larger system of organizations, maintaining autonomy of authority and action, preserving organizational integrity and identity from within and without, being adaptable to external changes, and preserving the internal "infrastructure" necessary for decision making, production, etc. Within an organization, different members, departments, and levels in turn each have their own set of production and survival goals, which can be partly at odds with the goals of the organization as a whole. .

Goals are strongly influenced by stakeholders' understandings of their social roles, or what they are "supposed" to do according to their institutional, professional, or personal identities. For example, chief executive officers of private corporations are "supposed" to be concerned primarily with profit, clinicians are "supposed" to be concerned primarily with patient welfare. The details of such roles are seldom spelled out, although contracts (e.g., job descriptions, licensing regulations) can partially specify social expectations. For the most part, though, social roles are normative pressures exerted implicitly in organizations; they create a "logic of appropriateness" that drives institutional politics by imposing "collection of interrelated rules and routines that defined appropriate actions in terms of relations between roles and situations" (March and Olsen, 1989b, p. 160). Organizations, their individual members, and the collectives they comprise may also fill multiple roles and so pursue multiple goals to fulfill them. Role conflicts -- and their attendant conflicts of duty and interest -- are endemic throughout the health care system. For example, a single individual could fill the various roles

of clinician, hospital administrator, employer, voter, parent, pharmaceutical stockholder, and patient. Similarly, a single organization can be torn between the role expectations of health care provider, public resource steward, major employer, and business.

As mentioned earlier, adherence to behaviourist expectations -- or the predictable pursuit of self-interest and material profit -- is itself a social role. Critics point out that individuals are easily insulted by the expectation that they respond in such a facile way, e.g.,

> [Because] the first image that comes to mind when one thinks 'carrot-and-stick' is a jackass, obviously the unconscious assumption behind the reward-punishment model is that one is dealing with jackasses, that people are jackasses to be manipulated and controlled. (Levinson, 1973, p. 10)

This conflict between pecuniary and professional role expectations has been noted especially by scholars of physician payment reform (e.g., Frankford, 1994; Iliffe and Munro, 1993): "In the end carrots and sticks may make general practitioners behave more like donkeys than doctors." (Iliffe and Munro, 1993, p. 1157)

Above all it is helpful to remember that organizational goals essentially are images (Etzioni, 1975), perennially formed and transformed by those in the health care system. To pursue a goal directly, one must first "see" what it is and where it is. In organizations, these images are socially created and sustained, for example, by a "visionary" leader, or through collective exercises such as formulating mission statements. Because intentions are aesthetic constructs, not concrete things, they are hard to hold stable and pursue directly. Much management *science* is devoted to translating vague missions and goals into discrete measurable "objectives," but the original spirit of an intention often gets lost in this translation. Much management *philosophy*, on the other hand, focuses on the important role of leaders in helping organizations to envision and follow goals. Ephemeral or not, organizational intentions affect the responses to financial incentives.

Means: What can we do?

The role of instrumental means in organizational decision making has been addressed most thoroughly by the discipline of economics. Economic theory suggests that instrumental means (financial resources, technology, etc.) enable organizations to pursue their objectives. Such models generally assume organizations will behave highly "rationally" in pursuing these objectives, and keep faith that even apparently "irrational" behaviour is only well-hidden rationality, e.g.:

> ... while the assumption of rational action must always be problematic, it is a good working hypothesis that should not easily be abandoned. What looks to the analyst like nonrational behavior may be quite sensible when situational constraints... are fully appreciated. (Granovetter, 1985, p. 506)

To fit the model, an organization is expected to act as a unified entity with no internal divisions or interests, and to have a well understood, unambiguous objective (e.g., maximize income, utility, sales, etc.). It also must be cognizant of all the relevant constraints, both in terms of resources at its command (e.g., financial, human and physical) and the technologies available, to combine these resources in pursuit of its goals. In this context, an organization evaluates its options, and selects activities that maximize the attainment of its objectives. In real health care systems, the economic mechanism can become complicated. Applying the objective-maximizing model requires a solid sense of both objectives and what endeavors can achieve them. As we have discussed, these two factors are largely socially constructed, and consequently it is no simple matter to integrate goals and means into an objective-maximizing formula. Beliefs will determine an organization's understanding of both the value and importance of various objectives and what might work to achieve them. Objectives may be multiple and irreconcilable, that is, not reducible to a single parsimonious "compromise." Even once objectives and their determinants are settled, organizations often require additional instrumental means to pursue the best course of action. These include information and information processing, rationality, "rationalization," and the compliance of organizational members with collective activities.

Information. Decision making processes will be affected by whether the organization has access to the information it needs, as well as how it processes that information into the "knowledge" and "wisdom" that guide choices. Organizations vary in their analytic and synthetic abilities, such as computing resources and expertise. They also vary in their analytic style or biases, determined for instance by the disciplinary background of the analysts. Economic analyses will naturally yield different "answers" than sociological analyses or managerial intuition.

Rationality. It is well known that no one is capable of perfectly rational decision making. There are several reasons for this.[4] First, even if one had all the information in the world, one could never muster the time or energy to consider all of it. Second, all decision making involves first triaging important considerations from less important ones, paradoxically *before* fully exploring their importance (e.g., Lindblom, 1959). Gut-feelings, intuition, and other opaque analytic processes play an important role; these in turn are conditioned by the experiences and circumstances of the decision maker. Third, cognition naturally tends toward "irrational" understandings of even quite simple choice dilemmas, especially when they involve probabilities (see e.g., Hogarth and Reder, 1987). In sum, human organizations do not decide the way a computer might, even when offered the same information

and formulas to use. Whether this human element improves or compromises the quality of organizational decisions remains a matter of much ideological debate in the policy and management literatures.

Rationalization. Closely related to bounded rationality in the *prospective* choice of actions is the *retrospective* process of politically or psychologically rationalizing the actions ultimately chosen (Plous, 1993). To justify a decision to oneself and to others, conflicting values are resolved not technically, but through denial, bolstering, and other artifices of persuasion (Milburn, 1991). Rationalization is also fundamental to political strategy (e.g., Stone, 1988; March and Olsen, 1989). This has special importance for the use of financial incentives in the health care system. Health care is a culture suffused with normative and moral imperatives, which are often seen as distinct from economic imperatives. Financial incentives link economic concerns to decisions, and in doing so may strain an organization to reconcile its programmatic or social responsibilities with new fiscal pressures. A popular rationalization for health institutions responding to financial incentives is that they have actually made their choices on the basis of some higher principle than financial viability. The ability of an organization to rationalize it actions in non-financial terms may affect its ability or willingness to respond to financial incentives.

Culture of compliance. Finally, different types of organizations have different cultures of control by which they gain the cooperation of their members to work toward common goals. Many organizations use internal funding structures -- and their hoped-for incentive effects -- themselves. However, organizations, like policy makers, have additional tools at their disposal, including rules, information, and intrinsic motivators such as the drive for status and social affiliation among their members. The power to gain compliance from others comes in qualitatively different currencies, depending upon the goals of the organization. Theory in this area (e.g., Etzioni, 1975; Clark and Wilson, 1961) suggests that members of organizations with primarily economic productivity goals are best primed to respond to financial incentives. Members of organizations pursuing primarily social or cultural goals (e.g., pursuing "good causes," or socializing), tend to respond more to normative pressures (e.g., moral imperatives, social role expectations) or solidarity (e.g., identification and a sense of belonging with others in the organization). Modern health care organizations can be difficult to place within these typologies. In particular, material resources increasingly compete with normative expectations as sources of power and influence both within and outside health organizations.

Conclusions

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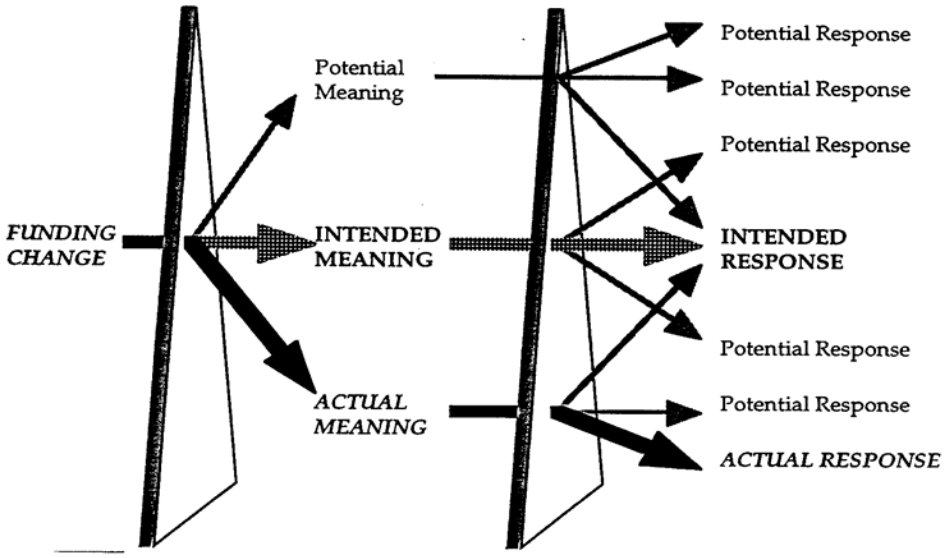
4 For the purpose of this discussion, we will leave aside the larger philosophical question of whether "rationality" is a legitimate norm altogether. We assume that policy makers generally desire and expect rational behaviour of target organizations.

In summary, funding changes are transformed into financial incentives when their *meaning* in the health care system is constructed and acted upon by stakeholders. Traditional behaviourist policy making searches for a singular relationship between certain funding structures, the organizational motivations they harness, and the natural behavioural response driven by these motivations. We suggest that the social context (i.e., politics, institutions, regulations, information) acts as a kind of prism on these singular relationships, refracting one funding change into an array of potential interpretations, and further refracting each interpretation into a range of potential responses. This dynamic is schematized in Figure 4.

Figure 4. The prismatic effect of context on the meaning of funding changes and their behavioural incentives.



This figure illustrates several issues important for both prospectively planning and retrospectively analyzing the incentive effects of funding reforms. First, the policy maker needs to formulate clear objectives in order to "aim" a funding policy at the desired response. But simply aiming a policy does not guarantee the ideal response. Further, un-aimed policies (e.g., a funding change with no incentives intended) often evoke some response anyway. As we have discussed, it is a challenge in the modern health care system to select single objectives to pursue. It is also a challenge to get crucial stakeholders to envision an objective in the same concrete terms. For example, while most can now agree that "producing health" is a worthy objective of any health program (e.g., Evans and Stoddart, 1990), "health" itself may be defined in countless ways by countless interested parties.

Second, intervening between the policy and the response is an interpretive process. Figure 4

illustrates that the prismatic effect does not work like a decision-tree, whereby a given interpretation "branch" necessarily limits the potential response "branches." Rather, the branches cross and overlap: one can get the intended response based on an erroneous interpretation, or an unexpected response based on the intended interpretation. Put plainly, organizations may do the right thing for the wrong reasons, or the wrong thing for the right reasons. A robust policy should ensure not only that organizations "do the right thing" but do it for the "right reasons."

Third, a single financial signal -- no matter how carefully crafted -- possesses a range of potential meanings and effects. The policy maker's challenge is to *focus* organizations on the intended understandings and behaviours, i.e., craft the regulatory, institutional, and informational context into more of a "lens" that focuses than a "prism" that refracts. A funding change cannot focus itself. Institutional, informational, and regulatory frameworks are crucial to determining how financial incentive policies play out.

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