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FINANCIAL INCENTIVES TO DISPENSE LOW-COST DRUGS:
A CASE STUDY OF BRITISH COLUMBIA PHARMACARE

Paul Grootendorst
Laurie Goldsmith
Jeremiah Hurley
Bernie O'Brien
Lisa Dolovich

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A Case Study of British Columbia Pharmacare

Paul Grootendorst  Ph.D. 1
Laurie Goldsmith B.A.& Sc. 2,3
Jeremiah Hurley Ph.D. 2,3
Bernie O’Brien Ph.D. 1,3
Lisa Dolovich B.Sc., Ph.m., Pharm.D. 1,4

1 Centre for Evaluation of Medicines, St. Joseph’s Hospital
2 Centre for Health Economics and Policy Analysis, McMaster University
3 Department of Clinical Epidemiology and Biostatistics, McMaster University
4 Faculty of Pharmacy, University of Toronto

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 "FINANCIAL INCENTIVES PROJECT"


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


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


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


ABSTRACT

All provincial governments in Canada reimburse some portion of the cost of out-of-hospital prescription drugs consumed by groups such as the elderly or those with low incomes. A characteristic shared by all programs in recent years has been rapid growth in expenditures. In an effort to control costs, policy makers have directed cost-containment policies at patients (e.g., introducing or increasing co-payments), drug prescribers (e.g., bulletins, academic detailing), and pharmacists (e.g., drug pricing policies).

This study examines two policies that targeted financial incentives to pharmacies to encourage prescribing of lower cost or “generic” bio-equivalent drugs. The setting of our case study is British Columbia Pharmacare – a publicly funded drug insurance program that assists certain British Columbia residents in paying for prescription drugs and medical supplies received out-of-hospital. BC Pharmacare is responsible for 40-45% of drug expenditures in British Columbia.

The specific initiatives we examine are the Product Incentive Plan (PIP), introduced by Pharmacare in 1990, and the Low Cost Alternative (LCA) program, which replaced in the PIP in 1994. Before PIP, when a pharmacy filled a prescription covered by the Pharmacare program, the pharmacy was reimbursed for the drug acquisition cost and paid a professional dispensing fee. Under PIP, for drugs that fell into designated multi-sourced therapeutic classes, the pharmacy also received a bonus payment for dispensing drugs whose prices were less than a pre-set “base” price. The PIP bonus payment was 20% of the difference between the base price and the actual price. The LCA eliminated the bonus payment scheme and reimbursed a pharmacy cost at a rate no greater than the average cost of the generic drugs in the drug class.

This analysis applies a conceptual framework which poses funding changes – and their “financial incentive” properties – as part of a communication process between the funding source and affected organizations. The following issues were addressed: First, why were the PIP and LCA introduced? Second, how were the PIP and LCA policies interpreted by pharmacies and pharmacists? This raises issues of both the adequacy with which the policies were disseminated and the characteristics of these policies which were most important to the affected organizations. Third, what was the response to the policy? In this case study we are able to address both whether the policies were successful in achieving its stated objectives and how and why certain stakeholders in the system responded to the financial incentives.
Prior to the introduction of the PIP, there was pressure on Pharmacare by the British Columbia Pharmacy Association (BCPhA) to increase professional (dispensing) fees, which were the lowest in Canada. Nominal expenditures on prescription drugs reimbursed by Pharmacare had also grown 135% over the period 1985 to 1990 (Pharmacare Trends, 1995), so there was a desire to reduce program costs. In addition to these two pressures, Pharmacare did not want to reduce coverage for existing beneficiary groups.

Pharmacare believed that the PIP would simultaneously transfer income to pharmacies, help control Pharmacare expenditures, and do so in a way that maintained coverage for beneficiaries. Sharing savings from dispensing lower cost generic drugs with pharmacies would encourage pharmacists to substitute generic drugs keep the costs of their products as low as possible and could lower Pharmacare costs. The policy would also be simple to administer, appealing to pharmacists and would not affect the quality of patient care.

What were the effects of the PIP? The average annual PIP payment to pharmacies was $6,000, about 18% of the annual dispensing fee income provided by Pharmacare. But the PIP did not meet desired income targets of the BCPhA and pharmacy owners/management. PIP increased generic prescribing, but until 1993 the additional savings generated by the PIP were insufficient to cover the incentive payments to pharmacists.

By 1994, controlling the growth in Pharmacare program expenditures had become a priority, and in April of that year the LCA program replaced the PIP. By eliminating the PIP bonus payments and restricting reimbursement for multi-sourced drugs to the average prices of the generic drugs in the drug class, the policy resulted in a large increase in generic dispensing and reduced Pharmacare expenditures by $18 million in its first year of operation, relative to what costs would have been under the PIP.

To understand pharmacy’s interpretation and response to the PIP and LCA incentives, it is important to understand the structure and objectives of pharmacies and of pharmacists. Dispensing pharmacists have competing goals: pharmacists are trained to act in the best interests of their patients; pharmacists also work in pharmacies to earn profits.

The PIP and LCA policies shared the policy goal of lowering Pharmacare program expenditures by encouraging the use of generic drugs. The LCA was, however, much more effective in realizing this goal. The difference in dispensing responses to these incentives stems primarily from their different financial ramifications on the pharmacy. Under LCA, failure to
dispense generic drugs resulted in substantial financial losses; under PIP, failure to dispense generics merely meant forgoing the maximum bonus payment – the pharmacy still received full reimbursement for ingredient cost. PIP also provided windfall gains even to those who did not change behavior. Because the base price was initially set higher than the price of the highest cost brand name drug in a therapeutic class, even if a brand name drug was dispensed, the pharmacy received a bonus payment. Further, if a pharmacy dispensed generic drugs prior to PIP, it received bonus payments under PIP without changing behavior.

Certain professional considerations may also have inhibited substitution under PIP. Many patients question changes in the pills they receive. Under PIP, the pharmacist would have to explain that generics were substituted so that the pharmacy could receive a bonus payment, a behavior in conflict with their professional image as acting only in the patient’s interest, and certainly not an image they would want cultivated in the public’s eye. Under LCA, in contrast, when asked the same question, they could readily make the government the scapegoat and tell patients that the government will only reimburse the pharmacy for the costs of the generics.

Even though LCA was clearly more successful in controlling costs, it did so at the price of disenfranchising pharmacies and pharmacists. First, PIP had been interpreted as a signal that Pharmacare wished to work together with the pharmacy profession to achieve policy goals. Indeed, the program would succeed in reducing Pharmacare program expenditures only if pharmacists changed dispensing patterns. Second, under PIP pharmacists had scope to exercise their discretion — without penalty — when deciding whether to substitute a generic drug. In particular, it allowed pharmacists to forgo substitution if there was discomfort with recommending drug substitutions for pecuniary reasons. Third, one particular aim of the profession is to receive remuneration for the delivery of discretionary cognitive services to patients such as patient medication assessments, rather than being paid to merely “count pills.” The PIP signaled a willingness to some of the interviewees that Pharmacare might consider implementing alternative modes of pharmacy remuneration. These features of PIP added further credibility to their perception as an important health care profession. LCA, on the other hand, removed notions of cooperation between government and the profession that existed during the PIP. The LCA also penalized pharmacies for dispensing brandname drugs and thereby removed some dispensing discretion. Finally the LCA was seen as a message that the skills of pharmacists were not valued by government.

The major conclusion of this study is that the form of the financial signal appears to have a dramatic effect on the behaviour of stakeholders. Penalty-based schemes such as the LCA lead
to a larger behaviour change than do bonus-based schemes such as the PIP. Because penalty-based schemes are also less expensive to administer, the cost to government for a “unit” of behaviour change is smaller than under bonus-based schemes. The use of penalty-based schemes does, however, come at the cost of disenfranchising stakeholders.

Experience with the PIP and LCA programs yields other insights into the role of alternative policies designed to control expenditures in the prescription drug market. Drug expenditures are the product of drug price and quantity. Policies such as the LCA attempt to lower expenditures by regulating allowable reimbursement (i.e. price) and are not intended to influence the volume of drugs utilized. Controlling drug expenditures by price regulation is, however, only one tool for cost-containment. Anderson et al. (1993) have shown that growth in drug expenditures is due to several factors (e.g. introductions of new medicines, demographic change and increased per capita utilization of medicines). Given that the reasons for expenditure growth are multi-factorial, the problem should be addressed on a number of policy fronts, not solely through reimbursement controls. For example, initiatives to inform physicians about appropriate prescribing and education of consumers are part of an integrated policy towards management of drug expenditures.
INTRODUCTION

All provincial governments in Canada reimburse some portion of the cost of out-of-hospital prescription drugs consumed by groups such as the elderly or those with low incomes. A characteristic shared by all programs in recent years has been rapid growth in expenditures (Anderson et al., 1993). In an effort to control costs, policy makers have directed cost-containment policies at patients (e.g., introducing or increasing co-payments), drug prescribers (e.g., academic detailing), and pharmacists (e.g., drug pricing policies).

This study examines two policies that targeted financial incentives to pharmacies to encourage prescribing of lower cost interchangeable (bio-equivalent) drugs. The setting of our case study is British Columbia Pharmacare – a publicly funded drug insurance program that assists certain British Columbia residents in paying for prescription drugs and medical supplies received out-of-hospital. BC Pharmacare is responsible for 40-45% of drug expenditures in British Columbia.

The specific initiatives we examine are the Product Incentive Plan (PIP) and the Low Cost Alternative (LCA) program. The PIP, introduced by Pharmacare in 1990, offered pharmacists a bonus for dispensing lower cost drugs by paying them a share of the difference between the cost of the drug dispensed and the cost of the highest priced drug in the category. In 1994, Pharmacare terminated the PIP and introduced the LCA. The LCA eliminated the bonus payment scheme and reimbursed medicines at a rate no greater than the average prices of the generic drugs in the drug class, regardless of the drug actually dispensed.

This analysis applies a conceptual framework (Giacomini et al, 1996) which poses funding changes – and their “financial incentive” properties – as part of a communication process between the funding source and affected organizations. The following issues were addressed:

1. What were the policy maker’s objectives for PIP and LCA? We consider not only quantitative issues concerning expectations of the expenditure effects of these policies but also their beliefs as to how stakeholders would react to the policies.

2. How were the PIP and LCA policies interpreted by pharmacies and pharmacists? This raises issues of both the adequacy with which the policies were disseminated and the characteristics of these policies which were most important to the affected organizations.
3. What was the response to the policy? In this case study we are able to address the effects of the policies on generic prescribing and the overall drug costs to Pharmacare, as well as how and why certain stakeholders in the system responded to the financial incentives.

4. How did PIP and LCA policy evolve? By taking a historical perspective over these policy initiatives to reduce the cost of drug dispensing we are able to explore the feedback loop from experience of a policy to formulation of new policy initiatives.

The methods of this case study are both quantitative and qualitative. First, we use claims and expenditure data from BC Pharmacare to assess the impact on drug expenditures of the PIP and LCA. Second, we conducted a literature and media search to determine the stakeholders who were primarily affected by these policies. Representatives of several stakeholder groups in the pharmaceutical sector were also interviewed, including Pharmacare administrators; present and previous pharmacy owners and managers; present and previously practicing pharmacists; a practicing physician; representatives of the British Columbia Pharmacy Association (BCPhA); the British Columbia College of Pharmacists; and the Chain Drug Association. Names and affiliations of the interviewees are listed in the references. Appendix 1 contains details on the methodology adopted for this case study.
THE PRODUCT INCENTIVE PLAN (PIP)

A. How did the program work?

The idea behind the PIP was quite simple: for therapeutic drug classes that contain both expensive drugs (in this paper, referred to as “brandname drugs”) and less expensive bio-equivalent drugs (referred to as “generic drugs”), the PIP encouraged pharmacists to dispense generic drugs by sharing with the pharmacists the cost savings associated with prescribing generics. As an example, there are at least four different types of the ulcer medication ranitidine – a brandname drug (Zantac) and three bio-equivalent and less expensive generic drugs (Table 1).

Before PIP, when a pharmacy filled a prescription covered by the Pharmacare program, the pharmacy was reimbursed for the drug acquisition cost and was paid a professional dispensing fee. Under PIP, for drugs that fell into designated multi-sourced therapeutic classes, in addition to the drug cost and the dispensing fee, the pharmacy received a bonus payment for dispensing drugs whose prices were less than a pre-set “base” price. A PIP-eligible therapeutic class was defined as a therapeutic class which is multi-sourced and in which switching between drugs is not medically contra-indicated. In July 1992, there were 1,983 active therapeutic classes of which 762 were multi-sourced; 216 of these 762 were PIP-eligible. These 216 therapeutic classes did represented a large proportion of total Pharmacare expenditures. In addition, the pharmacist could only interchange drugs if the physician did not specify “no substitution” on the prescription form.

The PIP bonus payment was equal to 20% of the difference between the base price and the actual price. The payment formula for prescriptions in PIP-eligible therapeutic class \( i \) is:

\[
0.20 \times (\text{baseprice}_i - \text{drugprice}) \times \text{scriptsize}
\]

where:

- \( \text{baseprice}_i \) = price set by Pharmacare for therapeutic class \( i \)
- \( \text{drugprice} \) = per unit price of the drug dispensed
- \( \text{scriptsize} \) = the number of units (e.g. tablets) of the drug dispensed.

The initial base price, used at the beginning of the PIP in July 1990, was set equal to the mean value of the highest priced drug in the therapeutic class over the period January 1990 to June 1990 plus 10%. The base price was revised upwards only once in the course of the program, in March 1991.
To illustrate, suppose a patient presents a pharmacist with a prescription for a one month regimen (28 tablets) of 300 mg Ranitidine. The pharmacist can fill the prescription with any one of four chemically equivalent formulations of the drug. Table 2 displays the PIP payment and reimbursement for drug ingredient cost associated with each choice of medicine under the assumption that the base price is $2.51, 10% above the highest priced drug in the therapeutic class.

There are several important characteristics of this incentive signal. First, the lower is the per-unit-price of the drug dispensed, the higher is the bonus payment to the pharmacy. Second, at the start of the program the base price was set 10% above the price of the highest priced drug in the therapeutic class. This meant that initially all PIP-eligible scripts dispensed, brandname or generic, generated a bonus payment to the pharmacy. Even pharmacies which exclusively dispensed brand name medicines initially received bonus payments. Third, the bonus payments were made to the pharmacy owners/management; yet for most pharmacies, the bonus was generated by the dispensing decisions of pharmacist employees. The effectiveness of the incentive payment to increase generic prescribing therefore depended in part on the ability of pharmacy owners/management to change the behaviour of their employees.

B. What were the policy objectives?

The objectives of the PIP were threefold: (1) to transfer income to pharmacies, (2) to help control Pharmacare expenditures, and (3) to do so in a way that maintained coverage for beneficiaries. Pharmacare believed the PIP could simultaneously achieve all three objectives.

Prior to PIP, the BCPhA and the pharmacies had been calling on Pharmacare to increase remuneration for pharmacists’ professional services. Pharmacy revenues were held in check by downward pressure on both the pharmacy dispensing fee paid by Pharmacare and the volume of scripts prescribed by physicians. In April 1987 Pharmacare implemented patient co-payments on the dispensing fee for drugs prescribed to seniors, who are the single largest beneficiary group. Seniors responded to the co-payment policy by patronizing pharmacies with lower dispensing fees, which in turn encouraged price-competitive pharmacies to lower dispensing fees. Pharmacare, however, restricted dispensing fee reimbursement to 15% above the average of the dispensing fees submitted to Pharmacare over the previous 12 months. Price-competitive pharmacies therefore depressed dispensing fee reimbursement for all pharmacies. Figure 1 demonstrates the downward pressure on the average dispensing fee by comparing fees for prescriptions dispensed to Plan A beneficiaries (seniors) who faced the co-payment in 1987 and Plan C benefi-
ciaries (social assistance recipients) who faced no co-payment. The co-payment also encouraged seniors to request larger prescription sizes, so as to minimize the number of prescriptions dispensed.

Pharmacare Trends (British Columbia Ministry of Health, 1995) reports that the introduction of the dispensing fee co-payment resulted in a 20% increase in prescription size, thereby reducing the annual number of prescriptions by approximately 300,000. The combined effect of price and quantity reductions was to reduce dispensing revenues for all pharmacies by at least $1.8 million in 1987 and $2.2 million in 1988.

During the same time, nominal expenditures on prescription drugs reimbursed by Pharmacare had grown 135% over the period 1985 to 1990 (British Columbia Ministry of Health, 1995), so there was a desire to bring program costs under control. In addition to these two pressures, Pharmacare did not want to reduce coverage for existing beneficiary groups.

Pharmacare explored several policy options to achieve these three goals. Pharmacare considered using a formulary list – an approach used by some other provinces. It was concluded, however, that even without the formulary, British Columbia Pharmacare prices were as low or lower than those provinces with such a formulary. Formularies were therefore not control costs and would not address the pharmacy profession’s revenue concerns.

Pharmacare also commissioned a consulting firm to devise a new purchasing incentive method for remunerating pharmacists. The report (Peat Marwick Thorne, 1989) recommended that an incentive structure similar to the PIP would meet Pharmacare’s objectives. Sharing savings with pharmacies would encourage the substitution of generic drugs and could lower Pharmacare costs. The PIP would also “encourage pharmacists to keep the cost of their products as low as possible through whatever sound business practices may be feasible, such as buying in economical order quantities.” The report recognized that for some scripts, the pharmacist was required to dispense the brand name drug. Setting the base price above the highest priced drug in the therapeutic class would give an incentive to keep all drug prices as low as possible. The report predicted that a PIP-type policy would be simple to administer and would be appealing to pharmacists because they would be rewarded for their efforts but the quality of patient care would not be reduced.

The proposed incentive scheme was not without potential drawbacks. The report indicated that Pharmacare costs could actually increase if generic substitution did not increase suf-
ficiently, and conceded that “it is unknown how much generic substitution will take place after the introduction of such a plan.” The report identified a further problem: “the incentive to substitute generics for ‘brands’ might cause a reaction from the drug manufacturers if it is very successful.”

Despite the drawbacks Pharmacare decided to adopt the proposal, but increased the percentage of the savings accruing to the pharmacy from the 8-10% recommended by the consultants to 20%. Pharmacare recognized that the program might increase costs initially and therefore requested seed money from the Minister of Health to get the system off the ground (Henderson, 1989). Five million dollars were allocated to the program for start-up costs.

C. **How was the PIP implemented and communicated?**

Pharmacare did not consult with any pharmacy organization, including the BCPhA, in the design of the basic elements of the bonus payment scheme. Once the basic design was determined, however, Pharmacare worked with representatives of the BCPhA to implement the program, including the therapeutic drug classes that would be eligible for the incentive payment.

Pharmacare took sole responsibility for communicating details of the program to individual pharmacies. Information about the PIP was provided in two editions of the Pharmacare Newsletter, which were mailed directly to pharmacies. The program was pitched as an attempt to “assist the Province’s pharmacies meet increased operating costs” (Pharmacare Newsletter, 1990a). The Newsletters also invited pharmacists to provide input on the PIP to the representatives of the BCPhA who were involved with its implementation.
THE LOW COST ALTERNATIVE PROGRAM (LCA)

A. How did the program work?

The LCA program replaced the PIP in April 1994. There were two important differences between the programs. First, for drugs in multi-sourced therapeutic classes, the LCA program eliminated bonus payments for dispensing generic drugs and substituted a penalty for dispensing brand name drugs. Under the LCA, interchangeable drugs in a therapeutic class were classified as either “partial benefit” or “full benefit” on the basis of their prices. Full benefit drugs were typically lower cost and under LCA were fully reimbursed by Pharmacare. High-priced drugs were assigned partial benefit status and were reimbursed by Pharmacare at a weighted average of the prices of the full benefit but lower cost drugs. Second, the LCA policy was applied to a larger number of multi-sourced therapeutic classes than had been used for the PIP program; the PIP applied to approximately one third of the multi-sourced therapeutic classes, while the LCA applied to virtually all multi-sourced therapeutic classes.

Table 3 displays an illustrative example of pharmacy reimbursement under LCA for 300 Mg tablets of Ranitidine. If the brandname drug Zantac was designated as a partial benefit item, its per-unit reimbursement price would be $1.42, the average of the prices of the 3 lowest priced drugs in the therapeutic class. (We assume that each of the generic drugs were given equal weights in calculating the average.) Under the LCA, there was a strong incentive to dispense Ranitidine, Novoranidine and Aporanidine because Pharmacare would fully reimburse only these drugs. Had the brandname drug Zantac been dispensed, Pharmacare’s drug reimbursement would be $23.95 (= 63.79 - 39.84) less than the pharmacy’s drug cost.

Pharmacare would reimburse the pharmacy for the full cost of partial benefit drugs if the patient could not tolerate the full benefit drugs and the patient’s physician applied for and received special authorization from Pharmacare. If such authorization was not given and the patient still wished the partial benefit drug, the patient had the option of paying the difference between the drug cost and Pharmacare’s reimbursement.

B. What were the policy objectives?

The impetus for change in Pharmacare’s drug reimbursement policy was brought about by the election of the NDP government in October 1991. The new government established the Pharmacare Review Panel whose mandate was to identify a range of issues concerning public
drug insurance in the province. One of the major foci of the Report of the Pharmacare Review Panel – released September 1993 – was to restructure Pharmacare to control costs. At the time Pharmacare continued to have rapid growth in program expenditures (Figure 2). To reduce expenditure growth, the Panel recommended encouraging the use of generic drugs by introducing financial incentives targeted at patients (introducing patient co-payments on the full prescription cost) and physicians (rewarding physicians who achieve specific targets for limiting drug costs). The Report also recommended that the proportion of savings accruing to pharmacists under the PIP be increased to encourage more generic drug dispensing. In addition, the Panel recommended that Pharmacare should change the present system of financial compensation to pharmacists to encourage the use of their professional skills in ensuring patient compliance, but did not suggest any possible alternative modes of reimbursement.

Two months after the release of the Panel’s recommendations, Michael Corbeil replaced John Greschner as Executive Director of Pharmacare. His first task in office was to consider the recommendations to control Pharmacare expenditures. The PIP was reviewed and it was concluded that although PIP had encouraged the use of generic drugs, the resulting savings were not meeting government expectations. Rather than modify the PIP program as recommended by the Panel, the PIP was replaced by the LCA, which was expected to reduce expenditures by an additional $20 million annually.

The LCA was part of a larger suite of policies designed to reduce Pharmacare expenditures, including an increase in senior’s dispensing fee co-payment from 75% to 100% and the “Therapeutics Initiative” which aimed to improve the awareness and knowledge of physicians regarding drug therapy and drug prices.

The design of the LCA policy was carried out by Pharmacare staff with help from medical consultants within the Ministry – other stakeholders were not consulted. The program, launched on April 1, 1994, was advertised in several media. A brochure explaining the LCA policy accompanied by a message from the Minister of Health was sent to physicians, pharmacists and pharmacies. Pharmacare staff held one-on-one meetings with interested stakeholder groups. In addition, Pharmacare took out advertisements in several major newspapers to explain the new program to the general public.
Analysis of the PIP and LCA Policies

To understand pharmacy’s interpretation and response to the PIP and LCA incentives, it is important to understand the structure and objectives of pharmacies and of pharmacists. Dispensing pharmacists have two sometimes competing goals. On the one hand, pharmacists are health care professionals trained to act in the best interests of their patients. On the other hand, pharmacists are either employees or owners of pharmacies, which operate to earn profits. Understanding pharmacists’ competing goals serves to explain and organize the different perceptions of and responses to the PIP and LCA signals.

A. Perception and Response to PIP – Pharmacy as a Health Care Profession

Pharmacy owners/management were informed of the PIP policy via the Pharmacare newsletter and all pharmacy owners/management interviewed were fully aware of the PIP. Interviews with front line pharmacists suggest that the vast majority of the pharmacists were aware of the program. All the BCPhA officials interviewed were fully aware of the PIP policy.

Figure 3 illustrates the perception and response to the PIP, focusing on the professional role of pharmacists. The PIP was positively received by the pharmacy stakeholders interviewed. Prior to the PIP, there was a perception that Pharmacare did not acknowledge the financial hardship of pharmacy or the importance of the pharmacy profession in the health care system. The introduction of PIP was interpreted by pharmacy profession as meaning that the government was listening to some of its concerns and was attempting to work together with them. One BCPhA executive indicated that the PIP was the “first good thing to come along in a long time”. One pharmacy owner viewed the PIP as a “sensible” policy and added “the pharmacy profession was happy to support it”.

The PIP addressed several professional concerns facing pharmacy. First, the PIP signaled that Pharmacare wished to work together with the pharmacy profession to achieve policy goals. The program would only succeed in reducing Pharmacare program expenditures – one of the government’s policy goals – if pharmacists changed dispensing patterns. This was interpreted as meaning that the government recognized pharmacy as a partner in making the PIP work, adding further credibility to their perception as an important health care profession. As one BCPhA executive put it: “... everyone’s going to win – you’re going to win, we’re going to win, the taxpayer’s going to win.” Second, pharmacies were no worse off financially if they chose not to participate in the program; participation was rewarded but non-participation was not penalized.
PIP allowed pharmacists to exercise their professional judgment when deciding to substitute drugs.

Certain professional considerations may have inhibited substitution under PIP. Many patients question changes in the pills they receive. Under PIP, the pharmacist would have had to explain that generics were substituted so that the pharmacy could receive a bonus payment, a behavior in conflict with their professional image as acting only in the patient’s interest, and certainly not an image they would want cultivated in the public’s eye.

While the PIP signaled a new era of cooperation between government and pharmacy, there was nevertheless some dissatisfaction with the policy among the stakeholders interviewed. One BCPhA executive explained how the pharmacy profession has been attempting to play a greater role in the delivery of health care. One particular aim of the profession is to receive remuneration for the delivery of discretionary cognitive services to patients such as patient medication assessments, rather than being paid to merely “count pills.” While the PIP preserved pharmacist’s discretion over choice of brand to dispense, with no penalties, it did not supplant the fee-for-item dispensed mode of remuneration. One pharmacist believed that pharmacists could probably save the government a lot more money than the PIP could if they just had 10 minutes to assess the patient because “the patient probably didn’t need the medication to begin with.” The BCPhA executive was hopeful, however, that the government would consider alternative modes of remuneration.

B. Utilization response

Despite the PIP’s positive reception, the program did not have a large overall impact on pharmacy dispensing patterns. The Pharmacare claims data we analyzed suggests that there was an increase in the dispensing of generic drugs, but the increase was not large. One measure of the savings associated with generic drug dispensing is the difference between the cost of drug dispensed and the highest-cost bio-equivalent drug in the therapeutic class. Savings are greater the cheaper is the drug dispensed relative to the highest priced drug. In Figure 4, this measure of monthly savings arising from drug substitutions in PIP-eligible therapeutic classes is displayed for the period January 1988 to March 1994. The distribution of these savings between Pharmacare and pharmacies is also identified. Note that some savings were being achieved even before the PIP was introduced—savings which accrued solely to Pharmacare. Under the PIP, Pharmacare relinquished 20% of savings to pharmacists in the expectation that PIP would increase overall savings by inducing additional generic prescribing. The graph indicates that the overall level of
savings did not grow substantially from the pre-PIP trend, although there did appear to be an increase after April 1993. Indeed, until 1993 the PIP was generally not self-funding because the additional savings generated by the PIP were insufficient to cover the incentive payments to pharmacists.

Figure 5 expresses the monthly savings displayed in Figure 4 as a fraction of the potential savings possible from generic substitution in the PIP-eligible therapeutic classes. The potential savings from generic substitution is the difference between the total cost of drugs had the brandname cost drug always been dispensed and the total cost of the drugs had the cheapest generic drug always been dispensed. If the cheapest generic drugs are always dispensed, the savings equals 100% of the potential; as the proportion of instances in which a generic drug is dispensed decrease, the percentage of potential savings realized also decreases. Figure 5 indicates that after the PIP, there was not a large increase in the potential savings actually realized. Both graphs therefore indicate that the PIP was at best only partially successful in encouraging the dispensing of generic drugs and containing Pharmacare costs.

C. Explaining the Perception and Response to PIP - Pharmacy as a Business

Figure 6 summarizes the perception and responses to PIP this time treating pharmacy as a business. PIP was welcomed as a positive first step by government to address the revenue concerns facing the pharmacy business. Data assembled in Table 4 show the amount of income transferred to the pharmacies under the PIP and expresses this as a proportion of the dispensing fee income from Pharmacare scripts. The average annual PIP payments per pharmacy was on the order of $6,000 (pre-tax nominal dollars), which was roughly 18% of the annual dispensing fee income provided by Pharmacare. There was, however, considerable variation across pharmacies in the amount of money transferred to pharmacies; one pharmacy owner reported earning about $12,000 annually with the PIP.

While PIP was viewed as a first step towards addressing the profession’s financial concerns, the BCPhA wanted the share of savings accruing to pharmacies to be higher than 20%. First, a 20% share was deemed to be insufficient given the additional costs in participating in the program including the time required to explain substitutions to patients. In addition, the PIP base price was revised only once during the program (March, 1991 which was nine months after the start of the PIP); inflation in the cost of drugs therefore tended to reduce the value of the PIP bonus over time. Second, there was some opposition to the 20% sharing rule on equity grounds; because the PIP revenues came from savings resulting from the dispensing activities of pharma-
cists (i.e. they were not directly paid for by government) there was an expectation that pharmacy’s share should be larger. After PIP was implemented, the BCPhA continued to call for higher incomes (Canadian Pharmaceutical Journal, 1991) and asked government to increase the pharmacies share of savings from 20% to 50%. In exchange for a higher share of savings, the BCPhA offered to lower the base price used to calculate the PIP bonus to the price of the highest price drug in the therapeutic class. Pharmacare, on the other hand, held the view that pharmacies should be content with their share, and were in no position to argue.

Although the 20% sharing rule appears to have been an important reason why the PIP failed to have a large impact on generic dispensing, several other features of the incentive that may have contributed to the low overall response. First, because it was a bonus payment scheme, failure to dispense generic drugs would not result in financial penalties; the pharmacy simply forwent possible gains. Second, there were large windfall gains to those who did not change behavior. Because the base price was initially set relatively high, a pharmacy did not need to change its current dispensing behaviour to receive bonus payments. In addition, pharmacies which were already dispensing a significant proportion of generic drugs prior to the PIP received bonus payments for generic prescribing without changing dispensing behavior. Third, it was technically possible, but we do not know how frequently used, for a prescriber to prevent substitution by specifying “no substitution” on the prescription form or for a patient to insist on the brandname drug.

D. Explaining the Perception and Response to LCA - Pharmacy as a Health Care Profession

Figure 7 illustrates the perception and responses to the LCA again focusing on its effects on the professional objectives of pharmacists. The LCA was negatively received by all stakeholders interviewed. Even though the program had obvious implications for pharmacy revenue, several non-pecuniary features of the LCA served to disenfranchise stakeholders. LCA was viewed as a regulatory model that had been imposed upon the pharmacy profession without any prior consultation. Interestingly, both PIP and LCA were designed without the input of affected organizations and both policies were imposed on the pharmacy profession. The imposition of PIP was not an issue; in fact, as we already presented, PIP was interpreted by the affected organizations as symbolic of the government wanting a cooperative relationship with the pharmacy profession. The lack of affected organizations’ input into the initial design of PIP was easily overlooked. The imposition of LCA without prior consultation on the other hand, was interpreted quite negatively. BCPhA interpreted the introduction of LCA without their input as
meaning that the BCPhA and the pharmacy profession was not politically important. One BCPhA executive, for example, remarked that the government seemed to be saying to BCPhA that we don’t want to work with you, we don’t trust you, we know better, we’ll take control. This difference in interpretation probably had a lot to do with PIP being a bonus-based policy, LCA being a penalty-based policy and the fact that LCA followed PIP.

Second, the LCA *de facto* removed significant pharmacist discretion over the choice of drug brand to dispense and some pharmacists we interviewed viewed this as a reduction in professional autonomy that could be detrimental to patient care.

Third, BCPhA executives and pharmacists interpreted the LCA as a message that the skills of pharmacists were not valued by government. This further stifled hopes of receiving remuneration on the basis of providing discretionary cognitive services to patients. One BCPhA executive felt that the introduction of LCA indicated that government now saw pharmacists as merely “mechanisms for moving drugs into the mouths of patients.”

The LCA was instituted shortly after a change in the leadership and the mandate of Pharmacare. This served to channel the frustrations and muster the solidarity of the BCPhA membership. The BCPhA with the support of its members quickly protested the new policy. Protest-responses to the LCA program ranged from the token (e.g. pharmacies returned the information packages sent by the Ministry of Health) to the more concerted. The BCPhA commenced a multi-media public relations campaign predicting that the LCA and other policies would be detrimental to patient health status. The BCPhA also considered litigation against Pharmacare on the grounds that it did not have the authority to institute these changes but did not pursue this. During the time the LCA was introduced, Pharmacare was attempting to develop an computerized provincial pharmacy network called “PharmaNet” which would facilitate both submission of claims by pharmacies and monitoring of medicines used by all residents of the province. As a protest against LCA, the BCPhA organized pharmacies to halt the development of the network.

Pharmacare responded by offering several concessions. First, the maximum dispensing fee that Pharmacare would reimburse for scripts dispensed to Pharmacare beneficiaries was increased from $7.13 to $7.50. Second, the LCA program was delayed for three weeks so as to allow pharmacies to exhaust inventories of brandname drugs (the demand for which would be reduced under the LCA). Third a multi-stakeholder Committee was struck to review the LCA. The Committee included representatives of the BCPhA and the British Columbia College of Pharmacy.
Despite the protests by the BCPhA and its membership, the LCA resulted in a significant increase in the use of generic medicines, thereby reducing Pharmacare expenditures. The increase in pharmacy compliance is probably due to two reasons. First, the pharmacy’s reimbursement from Pharmacare would not cover the full costs of partial-benefit drugs. The financial penalty for dispensing brandname drugs was high – generic drug prices are often less than half the price of bio-equivalent brandname drugs. Under PIP, the pharmacy simply forwent possible gains by not changing behavior. Second, the LCA may have been easier to “sell” to patients than the PIP because generic drug substitution was now government policy, rather than a means for the pharmacy to generate bonuses.

E. Explaining the Perception and Response to LCA - Pharmacy as a Business

Figure 8 summarizes the perception and responses to the LCA, this time focusing on its effects on the pharmacies as a business. BCPhA executive, pharmacy owners/management and dispensing pharmacists alike expressed concern about the effects of the LCA on the profitability of pharmacy. Under the LCA, Pharmacare effectively increased their share of savings from generic substitution from 80% to 100%, and ensured that savings would grow by only fully reimbursing generic drugs. The loss of PIP bonus entitlements reduced pharmacy remuneration by approximately $5 million annually.

One BCPhA executive saw this as greed on the part of Pharmacare. One pharmacist remarked “the government now sees pharmacists as wimps who are willing to do things for no reimbursement.” A pharmacy owner said that “its hard to be supportive of these policies when you’re not going to make any money and its going to cost you.” Pharmacies also incurred costs in adapting to the LCA, including the modification of patient billing programs, and the time costs of explaining the policy to patients and physicians. An additional cost incurred by pharmacies was the cost of holding inventories of brandname drugs. Under the LCA, Pharmacare would reimburse the full cost of brandname medicines only if the patient’s physician obtained Pharmacare approval. The demand for brandname medicines would therefore decline under the LCA.

While Pharmacare delayed the onset of the program by three weeks to allow pharmacies to exhaust their supplies of brandname drugs, a number of interviewees remarked that more time was required. The LCA program was also introduced in conjunction with the increase to the seniors’ dispensing fee co-payment, which itself was also expected to reduce pharmacy dispensing fee income given the experience with the 1987 dispensing fee increase.
As Figure 5 demonstrates, the LCA was successful in realizing a substantially higher proportion of the potential savings from drug substitutions than did the PIP. During the three and a half years of the PIP, the proportion of potential savings realized increased from 54.2% to 63.1%. In the half year after the LCA, this proportion rose to 93.1%. In addition, many more scripts were subject to the LCA policy, because the LCA applied to most multi-sourced therapeutic classes. Unlike the PIP, under LCA patients and physicians could refuse to use interchangeable medicines only if it could be demonstrated to be medically warranted. Even if substitutions were medically inappropriate, the onus was on the physician to take the time of requesting permission to use the brandname medicine. Pharmacare staff estimate that the policy reduced drug expenditures by $18 million in its first year of operation, compared to what expenditures would have been under the PIP.

The LCA did not exact reactions from the Pharmaceutical Manufacturer’s Association of Canada (PMAC), the association of manufacturers of brand name – and typically more costly – medications. This was somewhat surprising because they had potentially much to lose over the policy, as LCA no longer reimbursed brand name medications.
CONCLUSIONS

While this case study focuses on the use of financial incentives to change the practice patterns of pharmacies and pharmacists, the lessons learned may illuminate the design of policies which use financial incentives to change behaviour of health care providers more generally. Pharmacists, like other health professionals, are motivated not only by pecuniary incentives, but also have professional objectives, such as providing high quality patient care and professional autonomy. Financial incentives have the potential to reinforce or detract from these goals and will therefore modify both interpretations of and responses to financial incentives.

The form of the financial signal appears to have a dramatic effect on the behaviour of stakeholders. Penalty-based schemes such as the LCA lead to a larger behaviour change than do bonus-based schemes such as the PIP. The difference in responses to these incentives stems primarily from their different financial ramifications on the pharmacy: on one hand, the LCA affected virtually all multi-sourced drugs and failure to switch to generic dispensing would result in substantial losses. The PIP, on the other hand, applied to fewer multi-sourced drugs and was based on bonus payments – failure to switch to generic dispensing imposed no penalties, it merely meant forgoing a potential gain. Certain professional considerations may also have inhibited substitution under PIP. Under PIP, the motivation for generic drug substitutions were pecuniary; whereas under LCA, the substitutions were due to Pharmacare policy. The LCA may therefore have been easier to sell to patients than PIP.

Penalty based policies not only lead to larger behavioural responses, but are also cheaper to administer. The cost to government for a “unit” of behaviour change under penalty-based schemes are therefore smaller than under bonus-based schemes. The use of penalty-based schemes does, however, come at the cost of disenfranchising stakeholders, and not only because of the loss of bonus entitlements. Pharmacists interpreted the LCA as suggesting that government did not value the role of the pharmacy profession in the health care system. The LCA eliminated the role of cooperation between pharmacy and Pharmacare which was required for the PIP to reduce Pharmacare expenditures. LCA also, de facto, removed significant dispensing discretion from pharmacists and was viewed as constricting their professional autonomy in the delivery of patient care. The PIP also indicated to some interviewees that Pharmacare might consider implementing alternative modes of pharmacy remuneration. The LCA dashed these hopes.

Experience with the PIP and LCA programs yields some insights into the role of alternative policies designed to control expenditures in the prescription drug market. Drug expendi-
tures are the product of drug price and quantity. Policies such as the LCA attempt to lower expenditures by regulating allowable reimbursement (i.e. price) and are not intended to influence the volume of drugs utilized. This is attractive to policy makers for several reasons. First, there can be very large savings by utilizing cheaper multi-sourced drugs. Second, substitutions of inter-changeable medicines should not deteriorate quality of care because these drugs are certified by the Health Protection Board of Health Canada to be bio-equivalent. Third, policies such as LCA are relatively easy to administer – all that is required is a change in the reimbursement criteria of the provincial drug insurance program. There are some outstanding difficulties, however, with the regulation of prices of single-sourced drugs (and in some cases multi-sourced drugs), which falls outside of provincial jurisdiction, and which constitute a significant share of provincial drug budgets.

Controlling drug expenditures by price regulation (i.e., allowable reimbursement) is only one tool for cost-containment. Anderson et al. (1993) have shown that growth in drug expenditures is due to several factors (e.g. introductions of new medicines, demographic change and increased per capita utilization of medicines). Given that the reasons for expenditure growth are multi-factorial, the problem should be addressed in a number of policy fronts, not solely through reimbursement controls. For example, initiatives to inform physicians about appropriate prescribing and education of consumers are part of an integrated policy towards management of drug expenditures.
REFERENCES


Table 1 Manufacturers and prices of 300 Mg Ranitidine Tablets

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Drug Name</th>
<th>Per Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLAXO CANADA INC</td>
<td>ZANTAC TAB 300 MG</td>
<td>$2.28</td>
</tr>
<tr>
<td>NOVOPHARM LTD</td>
<td>NOVORANIDINE TAB 300 MG</td>
<td>$1.46</td>
</tr>
<tr>
<td>APOTEX INC</td>
<td>APS RANTIDINE TAB 300 MG</td>
<td>$1.44</td>
</tr>
<tr>
<td>KENRAL INC.</td>
<td>RANITIDINE TAB 300 MG</td>
<td>$1.37</td>
</tr>
</tbody>
</table>

*Price data based on Canadian CompuScript, December 1992; IMS America.*

*BC Pharmacare price data may differ.*
Table 2 Example of Product Incentive Plan Payments for 28 day regimen of 300 Mg Ranitidine

<table>
<thead>
<tr>
<th>Brand</th>
<th>Script Size</th>
<th>Per Unit Price</th>
<th>Reimbursement for Drug Cost</th>
<th>PIP Bonus Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZANTAC</td>
<td>28</td>
<td>$2.28</td>
<td>$63.79</td>
<td>$1.28</td>
</tr>
<tr>
<td>NOVORANIDINE</td>
<td>28</td>
<td>$1.46</td>
<td>$40.48</td>
<td>$5.87</td>
</tr>
<tr>
<td>APO RANITIDINE</td>
<td>28</td>
<td>$1.44</td>
<td>$40.25</td>
<td>$5.98</td>
</tr>
<tr>
<td>RANITIDINE</td>
<td>28</td>
<td>$1.37</td>
<td>$38.44</td>
<td>$6.35</td>
</tr>
</tbody>
</table>

\( a \) PIP bonus = 0.20 \times (base price - unit price) \times unit dispensed

base price = price set by Pharmacare for therapeutic class = 10% above highest priced drug in class = $2.51

Price data based on Canadian CompuScript, December 1992; IMS America.

BC Pharmacare price data may differ.
Table 3 Example of Reimbursement for 28 tablets of 300 mg Ranitidine under the LCA

<table>
<thead>
<tr>
<th>Brand</th>
<th>Unit Price</th>
<th>Benefit Status under LCA</th>
<th>Pharmacy Drug Cost</th>
<th>PIP Bonus</th>
<th>LCA Reimbursement for Drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZANTAC</td>
<td>$2.28</td>
<td>Partial</td>
<td>$63.79</td>
<td>none</td>
<td>$39.84</td>
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<tr>
<td>NOVORANIDINE</td>
<td>$1.46</td>
<td>Full</td>
<td>$40.84</td>
<td>none</td>
<td>$40.84</td>
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<tr>
<td>APO TANITIDINE</td>
<td>$1.44</td>
<td>Full</td>
<td>$40.25</td>
<td>none</td>
<td>$40.25</td>
</tr>
<tr>
<td>RANITIDINE</td>
<td>$1.37</td>
<td>Full</td>
<td>$38.44</td>
<td>none</td>
<td>$38.44</td>
</tr>
</tbody>
</table>

*Price data based on: Canadian CompuScript, December 1992; IMS America*

*BC Pharmacare price data may differ*
Table 4  Income Transferred from Pharmacare to Pharmacies: 1990/91 - 1993/94

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Total PIP Payments Pharmacare</th>
<th>Total Dispensing Fee Income from Pharmacare*†</th>
<th>No. Pharmacies</th>
<th>Average PIP per Pharmacy</th>
<th>Pharmacare Dispensing Fee Income per Pharmacy</th>
<th>PIP Income / Dispensing Fee Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990/91</td>
<td>$3,621,046</td>
<td>$23,025,000</td>
<td>756</td>
<td>$4,790</td>
<td>$30,456</td>
<td>16%</td>
</tr>
<tr>
<td>1991/92</td>
<td>$4,727,846</td>
<td>$24,278,000</td>
<td>762</td>
<td>$6,205</td>
<td>$31,861</td>
<td>20%</td>
</tr>
<tr>
<td>1992/93</td>
<td>$4,584,002</td>
<td>$26,337,000</td>
<td>762</td>
<td>$6,016</td>
<td>$34,563</td>
<td>17%</td>
</tr>
<tr>
<td>1993/94</td>
<td>$5,717,403</td>
<td>$29,428,850</td>
<td>779</td>
<td>$7,339</td>
<td>$37,778</td>
<td>19%</td>
</tr>
</tbody>
</table>

* Pharmacare Plan "E" Dispensing Fee Income excluded.

† Does not include portion of Plan A dispensing fee paid by patient.

Source: Pharmacare Trends
Figure 1 Average Pharmacare Plan A and Plan C Dispensing Fees, by Year

Source: Pharmacare Trends
Figure 2 Drug Ingredient Cost Reimbursed by Pharmacare: 1985-1994

Plan E Ingredient Cost excluded

Source: Pharmacare Trends
Figure 3. Financial incentives as a communication process: PIP: Pharmacy as a Health Care Profession

Affected Organizations
Interpretations with regard to: Pharmacy as a Health Care Profession:
- government wants to work cooperatively with profession
- profession has important role to play in health care system
- professional autonomy: pharmacist could choose to not participate with no patient care implications and no adverse financial implications

The Financial Incentive Signal PIP
- pharmacy reimbursed for cost of script (no change from status quo)
- bonus also paid to pharmacy if price of drug dispensed is less than base price (originally set at 10% higher than highest priced drug in class)
- bonus equals 20% of difference between base price and price of drug dispensed

Policy Making
Pharmacare
Intentions:
- To ensure the long-term viability of Pharmacare program
- To increase pharmacy's incomes
Beliefs:
- Financial viability is key to overall viability of Pharmacare program
- Large scale generic substitution will lower costs
- Financial incentives will influence the types of drugs that pharmacists dispense
Means:
- bonus mechanism
- only across selected therapeutic classes

The Response
- more satisfaction with government relations
Figure 4 Distribution of Savings from Generic Drug Substitution between Pharmacare and Pharmacists:
Jan '88 - April '94

"Savings" defined as the difference between the cost of the drugs dispensed, had the brandname drug in the therapeutic class been dispensed, and the actual cost of the drugs dispensed. Savings calculated using PIP-eligible drugs only.

Source: Pharmacare
"Relative Savings" defined as the ratio of actual savings relative to maximum savings. Actual savings is the difference between the cost of the drugs, had the highest price in the therapeutic class been charged, and the actual cost of the drugs dispensed. Maximum savings is the difference between the cost of the drugs, had the highest price in the therapeutic class been charged, and the cost of the drugs, had the lowest price in the therapeutic class been charged. Savings calculated using PIP-eligible drugs only.

Source: Pharmacare
Figure 6. Financial incentives as a communication process: PIP: Pharmacy as a Business

Affected Organizations
Interpretations with regard to: Pharmacy as a Business:
- recognition of economic hardship facing profession
- government wants to work cooperatively with profession, if generic drug dispensing increases, both sides can benefit financially

The Financial Incentive Signal PIP
- pharmacy reimbursed for cost of script (no change from status quo)
- bonus also paid to pharmacy if price of drug dispensed is less than base price (originally set at 10% higher than highest priced drug in class)
- bonus equals 20% of difference between base price and price of drug dispensed

Policy Making
Pharmacare
Intentions:
- To ensure the long term viability of Pharmacare program
- To increase pharmacy's incomes

Beliefs:
- Financial viability is key to overall viability of Pharmacare program
- Large scale generic substitution will lower costs
- Financial incentives will influence the types of drugs that pharmacists dispense

Means:
- bonus mechanism
- only across selected therapeutic classes

The Response
- some pharmacies intentionally increased generic substitution, others kept previous practice
- overall, a slight increase in generic substitution rates
- request for larger cut of the savings because of (1) costs incurred in participating (such as the time required to explain generic substitution to patient) and (2) equity reasons
- savings were generated by pharmacists and were not paid for by Pharmacare
Figure 7. Financial incentives as a communication process: LCA: Pharmacy as a Health Care Profession

**Affected Organizations**

Interpretations with regard to: Pharmacy as a Health Care Profession:

- Government does not want to work cooperatively with the profession
- Loss of professional autonomy: effectively given no choice but to dispense generic drugs
- Profession does not play an important role in the health care system

**The Financial Incentives Signal LCA**

- for full-benefit drugs (lower cost), pharmacy reimbursed for cost of script
- for partial-benefit drugs (higher cost), pharmacy reimbursed for cost of script only up to a ceiling set using the average cost of full-benefit (lower cost) drugs
- no bonus

**Policy Making**

Pharmacare

Intention:
- to ensure the long term viability of Pharmacare program
Beliefs:
- Financial viability is key to overall viability of Pharmacare program
- Large scale generic substitution will lower costs
- Financial incentives will influence the types of drugs that pharmacists dispense
- Costs associated with undertaking policy will be outweighed by savings achieved

Means:
- placing a ceiling on reimbursement of cost of higher cost drugs dispensed
- no bonus

**The Response**

- BCPhA convinced its members to boycott Pharmacare network
- Less satisfaction with relationship with Pharmacare
- Some pharmacies sent back the LCA information packages given by Pharmacare
Figure 8. Financial incentives as a communication process: LCA: Pharmacy as Business

**Affected Organizations**

Interpretations with regard to: Pharmacy as a Business:

- Government directly decreasing profession's income through:
  (i) removing $5 million allocated to PIP;
  (ii) starting LCA before pharmacies could get rid of stock on shelves;
  (iii) no direct compensation for additional time that pharmacist must spend explaining the policy to patients and doctors

- Government does not want to work cooperatively with profession; does not recognize pharmacy as a business

- Government got greedy—they want 100% of savings now

**The Financial Incentive Signal LCA**

- for full-benefit drug (lower cost), pharmacy reimbursed for cost of script
- for partial-benefit drugs (higher cost), pharmacy reimbursed for cost of script only up to a ceiling set using the average cost of full-benefit (lower cost) drugs
- no bonus

**Policy Making**

- Pharmacare

  **Intention:**
  - to ensure the long term viability of Pharmacare program

  **Beliefs:**
  - Financial viability is key to overall viability of Pharmacare program
  - Large scale generic substitution will lower costs
  - Financial incentives will influence the types of drugs that pharmacists dispense
  - Costs associated with undertaking policy will be outweighed by savings achieved

  **Means:**
  - placing a ceiling on reimbursement of cost of higher cost drugs dispensed
  - no bonus

**The Response**

- Large increase in rate of generic substitution
APPENDIX 1: OVERVIEW OF STUDY METHODS

Data Collection

(1) Pharmacare Expenditure Data

British Columbia Pharmacare provided the following monthly data over the period 1988-1994: (1) Pharmacare expenditures on PIP-eligible drugs, (2) expenditures on PIP-eligible drugs, evaluated at the prices of the lowest-priced interchangeable drugs in the therapeutic classes, and (3) expenditures on PIP-eligible drugs, evaluated at the prices of the highest-priced interchangeable drugs in the therapeutic classes. These data were used to evaluate the effect of the PIP on Pharmacare expenditures.

(2) Media Reports

The Canadian Index and the Canadian News Index were searched from 1990 to 1995 using the following keywords: Product Incentive Plan, PIP, Pharmacists, Drug Industry, Drug Stores, Low Cost Alternative, LCA, Pharmacare, and British Columbia Pharmacy Association. A search of the Canadian Pharmaceutical Journal was also undertaken using the same time period. The Vancouver Sun was examined for key dates in the chronology of the case (e.g., introduction of LCA), specifically to look for advertisements that were recounted as being published. Other researchers also gave us media reports from their personal files. Overall, the media search resulted in very little information.

(3) Unpublished Reports

A number of unpublished reports and press releases were obtained through contacts at Pharmacare and the British Columbia Pharmacy Association. Some of these reports were accessed through Freedom of Information requests.

(4) Semi-structured interviews

Policy Makers: All three individuals who had been Executive Directors of Pharmacare during the time of PIP and LCA were contacted. Two of the three agreed to participate in an interview.

Affected Organizations: Based on the media review and the researchers’ knowledge of the
subject area, a list of possible affected organizations and possible key individuals was drawn up. We initially contacted representatives of the British Columbia College of Pharmacists and the British Columbia Pharmacy Association. They agreed to participate in an interview and also suggested other key stakeholders that should be interviewed. The sampling for those involved in affected organizations continued using this snowball approach, with an attempt to cover off different types of pharmacies and pharmacy organizations. Pharmaceutical companies were not included in our sample as our key stakeholders did not feel that such companies’ input would be important to understanding PIP or LCA. Indeed, we could find no evidence of response to these policies from pharmaceutical companies.

Two individual pharmacists and a physician, all practicing in British Columbia, were contacted through personal contacts of one of the researchers (LD for the pharmacists, PG for the physician).

*Interview guide:* The initial interview guide was drafted using the generic interview guide for the overall project, along with the addition of PIP and LCA specific details. As we undertook interviews, the interview guide was refined based on our informational needs.

**Analysis**

Three of the researchers (PG, LD, and LG) undertook the initial analysis as a group, using the interviews, media reports and unpublished reports. The claims and expenditure data was analyzed separately. A draft case report was written up after this initial analysis. The entire study team reviewed the case report and gave input into subsequent analysis and interpretation. The study team held a number of meetings and composed a number of subsequent drafts as this process unfolded. Any discrepancies that resulted through this process were resolved through discussion among the research team.

Once the case report was considered to accurately represent the information the research team had collected, the case report was sent to all that we had interviewed for comment. These stakeholders were asked to review the report for correctness, completeness and reasonable interpretation. The manuscript was then edited to incorporate feedback from reviewers.