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Variation in Pharmacare Coverage Across Canada

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ABSTRACT

In 1997, the Canadian National Forum on Health recommended creation of a national pharmacare program, the key elements of which would include: (a) universal first-dollar coverage for medically necessary medications; (b) comprehensive information support tools for managers, clinicians, and consumers to guide in the optimal use of pharmaceuticals; (c) integration with primary care reform; and (d) innovative methods for management of costs. This recommendation has generated considerable controversy, position papers by various system stakeholders, and a national conference to debate alternative approaches to pharmacare.

In an attempt to clarify some of the confusion in the context of the ongoing debate, we describe the nature of existing public prescription drug insurance coverage, and review what is known about private coverage in Canada. We focus, in particular, on provincial prescription drug plans, documenting the extent of variation in coverage across the provinces, and trends in this coverage in recent years. In addition, we have assessed the impact of the various cost-sharing provisions on a typical senior residing in the different provinces, using a series of simulations to calculate what the out-of-pocket costs would have been for a high- or low-income senior in each province under alternative scenarios regarding prescription drug consumption and the senior's income.

The elderly are among the most consistently covered groups within society. Although all provincial drug benefit programs have some coverage for seniors, there is substantial variation in the amount of coverage. This study reveals a substantial burden of out-of-pocket costs associated with an average drug consumption pattern. In addition, among seniors of similar income, we see up to a ten-fold variation in out-of-pocket payments for the same drug consumption among the provinces. In most provinces, the trend in the last decade has been toward greater cost-sharing. This reverses the trend observed between the 1960's and 1990.

With the exception of Quebec, which recently introduced a universal system of coverage (accompanied by significant increases in cost-sharing for those previously covered), recent extensions of coverage have tended to be piecemeal, to individuals with specific diseases or requiring specific drugs. As a consequence of the last thirty years of pharmacare policy, the availability of prescription drug insurance depends more on such factors as employment status and the type of employment, province of residence, age, and income than it does on underlying need for such therapy.

INTRODUCTION

In 1997, the Canadian National Forum on Health recommended creation of a national pharmacare program, the key elements of which would include: (a) universal first dollar coverage for medically necessary medications; (b) comprehensive information support tools for managers, clinicians, and consumers to guide in the optimal use of pharmaceuticals; (c) integration with primary care reform; and (d) innovative methods for management of costs [1]. This recommendation has generated considerable controversy, position papers by various system stakeholders [2-5], and a national conference to debate alternative approaches to pharmacare [6].

The call for universal, first-dollar coverage was a response to both a lack of prescription drug insurance among segments of Canadian society and considerable variation in insurance coverage among those with some insurance. In the ensuing policy debate, considerable attention has been focussed (quite appropriately) on better characterizing those residents with no drug coverage. Less attention has been given to the problem of variation of coverage within either private or public plans, and there appears to be considerable confusion - even misperceptions - regarding the variation in such coverage among Canadians.

In an attempt to clarify *some* of the confusion in the context of the ongoing debate, we describe the nature of existing prescription drug insurance coverage in Canada. We focus, in particular, on provincial prescription drug plans, documenting the extent of variation in coverage across the provinces, and trends in this coverage in recent years.

Prescription Drug Coverage

The recent call for national pharmacare was not the first. In 1964, the report of the Hall Commission recommended that pharmaceutical benefits be included in a comprehensive national Medicare program [7]. This recommendation was never adopted, primarily because of concern over costs. During the 1970s, however, each province introduced its own pharmacare program, outside medicare, with differing rules for eligibility, cost sharing, pharmaceuticals covered, and remuneration methods. In addition, private insurance coverage has grown, primarily as part of employee benefit packages for full-time workers. The result is that Canada currently has a patchwork quilt of public and private insurance for prescription drugs.

One recent estimate suggests that this “quilt” provides some form of coverage to 88% of Canadians [8]. The 12% of Canadians with no coverage tend to be working poor who do not receive drug coverage as an employment benefit and who earn too much to qualify for social

assistance coverage. Lack of data precludes characterizing the uninsured in more detail. Approximately 62% of Canadians have some form of private drug insurance coverage [8]. There is no detailed information on private plans, but it is known that about 95% of plans involve relatively low levels of individual cost sharing [9].

Collectively, the ten provincial pharmacare programs form the largest single piece of the “quilt”. They provide coverage to about one-quarter of Canadians. Because they are the primary insurers of seniors (who consume the most drugs), in 1996, provincial expenditures accounted for 48% of all out-patient prescription drug expenditures. This amounts to approximately \$2.8 billion annually [10].

Beyond simply being eligible for benefits, coverage is determined by the extent of cost-sharing required by the respective programs. Cost-sharing can take two basic forms: (1) deductibles, which require that the beneficiary pay the full cost of drug expenses up to some pre-specified amount; and (2) co-payments. Copayments come in two forms: a flat indemnity payment, which requires that the beneficiary pay a fixed charge per prescription; and co-insurance, which requires that the beneficiary pay a specified proportion of the cost of the prescription (applied to the cost of the drug ingredients alone, the dispensing fee alone, or both).

Table 1 summarizes prescription drug coverage provided by provincial pharmacare plans as of December 1997. All provinces provided at least some coverage for social assistance recipients and lower income seniors (i.e. those aged 65 or over). Some of the provinces provide special drug coverage to residents ineligible for social assistance but who nevertheless have low income. For example, under its universal plan, British Columbia reimburses 70% of the household drug costs in excess of a deductible. Low income households which do not receive social assistance benefits are reimbursed 100% of the household drug costs in excess of a deductible. Income-contingent drug benefits are also found in Alberta, Saskatchewan, Manitoba, Ontario, Quebec, and Nova Scotia.

Newfoundland provided no coverage for higher income seniors. In New Brunswick, seniors who did not qualify for public drug coverage had the option of purchasing drug coverage from the Blue Cross Seniors’ Health Program. Unlike other private drug insurers, coverage cannot be refused on the basis of the applicant’s health status, provided they apply for insurance within 60 days of their 65th birthday.

Though not listed in the table due to space constraints, all provinces also had special programs to cover residents of long term care facilities, those with specific medical conditions (e.g. AIDS/HIV, cancer, cystic fibrosis, diabetes, Gaucher's disease), or particular drugs (e.g. erythropoietin, interferon, beta-seron) which may have catastrophic financial consequences to the individual. Provinces west of New Brunswick also provided prescription drug coverage to the remainder of the general population to cover catastrophic costs. These various programs have evolved on an *ad hoc* basis, and generally are payers of last resort – i.e. they will pay only if other coverage does not exist.

We focus our analysis of variation in coverage on seniors and those on social assistance, as these are the groups for which coverage is most consistently provided across the provinces. As of December 31, 1997, two provinces – British Columbia and Manitoba – provided first-dollar coverage and imposed no cost-sharing for recipients of social assistance. Where cost-sharing was present, it tended to take the form of indemnity payments and the level of cost-sharing was generally lower than for seniors in general. For example, in Alberta, Saskatchewan, and Nova Scotia, seniors faced a coinsurance of 30%, 35%, and 20% of the prescription cost, respectively, while those on social assistance paid \$2 to \$3 per prescription. In Ontario, higher income seniors had a coinsurance on the dispensing fee of up to \$6.11, while those on social assistance paid a \$2 indemnity payment. In Quebec, the maximum monthly contribution of higher income seniors was \$62.50, as compared with \$16.67 for those receiving social benefits. In Prince Edward Island, a person receiving social assistance faced no cost sharing, if prescriptions were filled in a government pharmacy. Otherwise, they were required to make a \$2 indemnity payment. This compared with a combined indemnity payment and coinsurance of up to \$15 for seniors.

Among seniors, there was considerable variation across provinces in eligibility for coverage, in the design of the of the cost-sharing provisions, and in the level of cost-sharing required. British Columbia, Alberta, and PEI provided the same coverage for all seniors within their provinces, regardless of income or other characteristics. Other provinces provided more comprehensive coverage for lower income seniors, as determined by receipt of the federal Guaranteed Income Supplement (GIS) or household income reported on Revenue Canada declaration forms. Newfoundland restricted coverage to those receiving GIS and New Brunswick only for those receiving GIS or with sufficiently low income. Quebec and Nova Scotia charged premiums, although premiums were lower for lower income seniors. In Quebec, seniors without private coverage were required to purchase public coverage; in Nova Scotia, coverage was optional.

As of December 31, 1997, all of the provinces required that seniors contribute some portion of the cost of prescription drugs [12]. Four provinces – Saskatchewan, Manitoba, Ontario (higher income seniors only) and Quebec – had deductibles. Of these, Manitoba was alone in not combining its deductible with some form of co-payment or co-insurance. Lower-income seniors in Ontario and New Brunswick faced indemnity payments of \$2.00 and \$9.05, respectively. Prince Edward Island combined its indemnity payment of \$7.00 with a coinsurance tied to the dispensing fee. British Columbia, Prince Edward Island, and Ontario (for higher income seniors) applied the co-insurance to the dispensing fee alone; Alberta, Saskatchewan, Quebec, Nova Scotia and Newfoundland, applied it to both the dispensing fee and drug ingredient cost.

Six provincial plans (British Columbia, Saskatchewan, Manitoba, Quebec, New Brunswick and Nova Scotia) limited the total out-of-pocket expenses of their senior beneficiaries. British Columbia and Nova Scotia applied an annual limit of \$200 to all seniors, regardless of income, whereas the others set lower limits for seniors with lower levels of income. Saskatchewan and Manitoba set annual limits of 3.4% and 2% of pre-tax household income, respectively. In Quebec, monthly maximum out-of-pocket contributions varied from \$16.67 per month for seniors on full GIS to \$62.50 per month for seniors receiving no GIS. In New Brunswick, seniors receiving at least some GIS faced a maximum of \$250 per year in out-of-pocket expenditures.

The complexity of the plans makes it difficult to describe concisely the impact of the various cost-sharing provisions on a typical senior residing in the different provinces. In an attempt to assess this impact, we carried out a series of simulations to calculate what the out-of-pocket costs would have been for a high- or low-income senior in each province under alternative scenarios regarding prescription drug consumption and the senior's income. We focused on seniors because they are the largest beneficiary group, they consume by far the largest proportion of drugs, and the inter-provincial variation in coverage is large. We did this for the policies in place as of December 31, 1997 and those in place as of December 31, 1990, in order to examine trends in coverage during the 1990s. We assumed that the policies in place during these periods were in effect for the entire year.

METHODS

Expenditure Simulations

We considered four scenarios resulting from combining two assumed levels of annual expenditure on prescription drug for each of a high- and low-income senior. The most recent statistics indicate that the average annual value of drugs consumed by seniors, as of December 1997, was approximately \$500, with ingredient costs per prescription of \$435 [12]. Therefore, for the average expenditure scenario we assumed the senior faced \$450 in annual drug costs, made up of 18 prescriptions each with drug costs valued at \$25.00. For the high consumption scenario, we assumed \$900 in annual drug costs, made up of 36 prescriptions valued at \$25.00 each. (This is equivalent to an individual consuming monthly supplies of three chronic medications, a consumption level still within the range observed for many seniors.) In each case, the expenditures were assumed to refer to drugs covered under the provincial formulary (excluding drugs eligible for special subsidy, such as those covered under special disease-specific programs). Annual premiums and province-specific pharmacist fees charged for each prescription dispensed were added to the ingredient cost to arrive at a total annual drug cost.

To capture the effect of income on out-of-pocket drug costs, we simulated the costs incurred for seniors with two different pre-tax annual income levels. The lower income level – \$15,000 – was chosen to represent the senior which would be eligible for the maximum GIS benefit [14]. The higher income level – \$25,000 – represented a senior who would not be eligible for any GIS benefit. This figure also reflects average annual pre-tax household income, in 1995, for single person households [15].

Sensitivity Analysis

Several features of the simulation affect the level of beneficiary cost sharing. First, we assumed that the prescriptions were dispensed evenly throughout the year. Quebec's monthly deductible and Saskatchewan's semi-annual deductible, however, gave seniors an incentive to "lump" purchases into a given month or 6-month period, so as to pay less out-of-pocket than would have been the case if the drug purchases were uniformly distributed over the year.

Second, for a given level of annual drug expenditure, the number of prescriptions dispensed would also affect out-of-pocket expenditure. In most provinces at least a portion of the cost sharing was linked to the dispensing of a prescription. Therefore, seniors could reduce out-of-pocket costs by reducing the number of prescriptions required to get the same amount of medication. (Indeed, the average prescription size dispensed to seniors tended to be larger in provinces with a copayment [12].)

To assess the effect of strategic purchasing to minimize out-of-pocket costs, we conducted a sensitivity analysis in which we assumed fewer prescriptions were purchased with larger quantities of medication per prescription. For the average total expenditure scenario, the annual number of prescriptions was reduced from 18 to 6 and in the high expenditure case it was reduced from 36 to 12. This represents a switch from a one-month to a 3-month supply of medication, which is not unusual and which represents the usual upper-limit on prescription size allowed by most plans.

Additional Assumptions

We assumed that seniors did not have supplemental drug insurance coverage to augment gaps in provincial coverage. Although it is difficult for individual seniors to purchase such supplemental drug coverage to cover all or part of out-of-pocket expenditures, some receive it as a retirement benefit from their (or their spouse's) former employer.

The analysis considers only out-of-pocket expenses directly related to cost-sharing. It does not consider other costs, such as differences in opportunity costs which may exist between urban and rural patients in obtaining prescriptions from their physicians and pharmacies.

Finally, the cost-sharing provisions apply exclusively to non-institutionalized elderly. Drugs consumed within hospitals are free of charge to the patient, and residents of long-term care facilities typically face lower drug costs than non-institutionalized seniors.

RESULTS

Provincial Variation in Out-of-pocket Expenditures in 1997

Figures 1 and 2 summarize the 1997 out-of-pocket expenditures for seniors in each province under our two expenditures scenarios for low-income individuals receiving GIS and those with income above the GIS cut-off. These figures highlight the considerable variation in out-of-pocket costs a senior would face for the same prescriptions across the provinces. For example, among those on GIS, out-of-pocket costs for the average expenditure scenario varied ten-fold (approximately \$40 in Ontario vs. \$450 in Saskatchewan). Among those not on GIS, the corresponding out-of-pocket expenses varied six-fold (approximately \$100 in British Columbia vs. approximately \$600 in Newfoundland). New Brunswick, Newfoundland and Saskatchewan provided little to no subsidy to non-GIS seniors.

Figure 1b presents the results for the high-expenditure scenario. Again, there was considerable variation across the provinces, but we now begin to see the effect of the maximum expenditure provisions in some provinces. In Manitoba, for instance, the out-of-pocket expenditures for a senior on GIS remained the same as in the previous scenario (\$300) even though drug consumption had doubled. As in the average consumption scenario, among low-income seniors receiving GIS, out-of-pocket costs were lowest in Ontario and Nova Scotia – about one-fifth the out-of-pocket costs faced by similar seniors in Saskatchewan and PEI. Non-GIS seniors in Newfoundland and New Brunswick continued to receive no subsidy for either the drug ingredient or dispensing fee costs.

Figures 2a and 2b show how these estimates were affected by purchasing the same amount of medication in fewer, larger prescriptions. In some provinces, the effects were quite important. For example, in the high drug consumption scenario, strategic purchasing of larger quantities of medications reduced out-of-pocket costs by \$126 and \$356, respectively, for seniors in British Columbia and Prince Edward Island, regardless of income. It virtually eliminated out-of-pocket costs for seniors in Ontario and Nova Scotia who have an average consumption level.

Two observations follow from these findings. First, the simulations presented in Figures 1a and 1b may understate somewhat the actual variation across provinces. Out-of-pocket expenditures were particularly sensitive to the assumption regarding the number of prescriptions filled in those provinces in which cost-sharing was linked to the dispensing fee or a fixed amount per prescription. In these cases, out-of-pocket costs for the same medications diminished by as much as two-thirds simply by strategically altering the number and size of prescriptions pur-

chased. The greatest impact of strategic purchasing was seen in those provinces that provided relatively generous coverage under the baseline assumptions. Therefore, strategic purchasing actually increased the variation across provinces in out-of-pocket expenses between those provinces with a relatively low out-of-pocket expense in the baseline scenario (e.g. British Columbia) and those with relatively high costs (e.g. Saskatchewan, Manitoba).

Second, the findings highlight that, within provinces, seniors with identical total annual expenditures on drugs may face quite different levels of out-of-pocket expenditures depending upon the pattern of their drug purchases.

Change Between 1990 and 1997 (Figures 3 and 4)

Figures 3a and 3b show how out-of-pocket costs for a senior under the scenarios would have changed between 1990 and 1997 as a result of increased cost-sharing provisions within the provincial drug plans. Except for the case of a GIS recipient in Nova Scotia with average annual drug consumption (Figure 3a), in every instance the out-of-pocket costs increased between 1990 and 1997 for the same total drug costs. The average increase in out-of-pocket costs was as follows for the provinces as a whole: for the average consumption scenario, \$101 for seniors on GIS and \$183 for non-GIS seniors; for the high consumption scenario, \$119 for seniors on GIS and \$257 for non-GIS seniors. These average figures, however, mask considerable variation in the changes among the provinces, some of which imposed quite dramatic increases during the 1990s. In Quebec, for instance, in 1990 both seniors receiving GIS and non-GIS seniors faced no out-of-pocket costs whatsoever under either the average or high consumption scenarios; in 1997 they each paid the equivalent of over three-quarters of the drug ingredient costs. Similarly, in Saskatchewan annual out-of-pocket costs for \$450 of drugs tripled from \$153 to \$456 for seniors receiving GIS and almost quadrupled from \$153 to \$559 for seniors not receiving GIS.

In British Columbia, Alberta, Prince Edward Island, and Newfoundland, increases in out-of-pocket expenditures were approximately equal among seniors receiving GIS and those not receiving GIS. In all the remaining provinces except New Brunswick, increases were proportionately greater among seniors not receiving GIS.

DISCUSSION

Since the early 1960s, when Justice Hall issued the first call for a national, publicly funded prescription drug program, prescription medicines have come to occupy an even more central place among modern medical therapies. In the past 3 decades, pharmaceuticals have substituted for some surgical procedures, facilitated reduced length of acute hospitalization, and allowed many psychiatric patients to be managed in the community. For many diseases they are the only effective therapies and, for others, first-line therapies. Accordingly, they consume an increasing share of our health care expenditures, both because of their increasing utilization and because of their increasing prices. Hence, prescription drugs have become both essential medical treatment and increasingly financially burdensome to those whose need them.

The call by the National Forum on Health for national principles to guide access to needed prescription drugs is timely. Ten to 15 percent of Canadians have no coverage at all – mostly working poor who do not receive drug coverage as an employment benefit and who earn too much to qualify for coverage as part of social assistance. In addition, there is considerable variation in coverage among those with some insurance. The elderly are among the most consistently covered groups within society. This study reveals, among seniors, a substantial burden of out-of-pocket costs associated with an average drug consumption pattern. In addition, among seniors of similar income, we see up to a ten-fold variation in out-of-pocket payments for the same drug consumption among the provinces. In most provinces, the trend in the last decade has been toward decreased coverage, in the form of greater cost-sharing. This reverses the trend observed between the 1960's and 1990 [17].

With the exception of Quebec, which recently introduced a universal system of coverage (accompanied by significant increases in cost-sharing for those previously covered), recent extensions of coverage have tended to be piecemeal, to individuals with specific diseases or requiring specific drugs. As a consequence of the last thirty years of pharmacare policy, the availability of prescription drug insurance depends more on such factors as employment status and the type of employment, province of residence, age, income, or the particular disease from which they suffer than it does on underlying need for such therapy. Perhaps it is time for new principles to guide access to pharmaceuticals.

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Tables and Figures

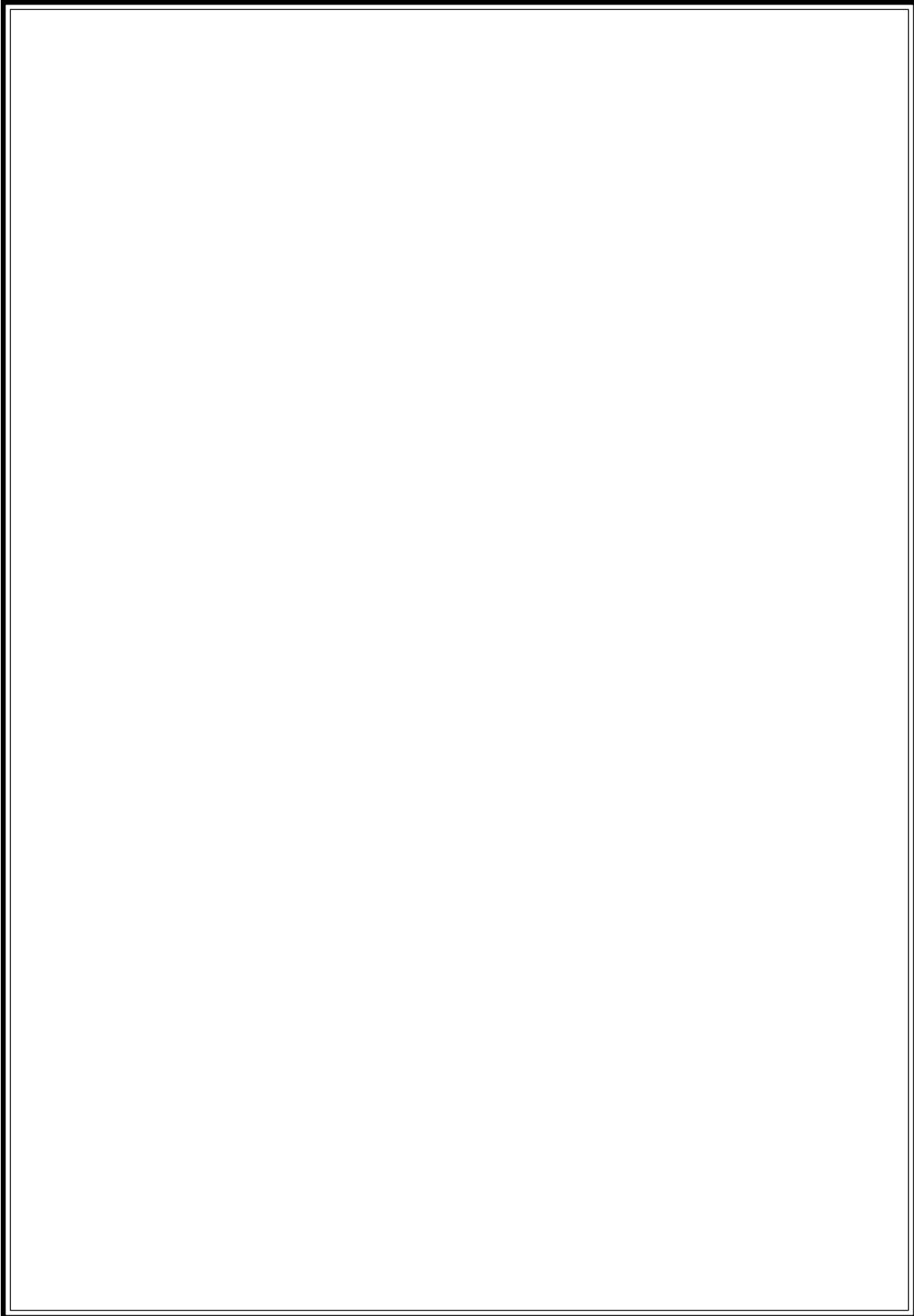


Figure 1a

Out-of-pocket cost (\$ Cdn./ per year)
to senior with average annual drug consumption,
by GIS recipiency status and province, as of December 31, 1997¹

Figure 1b

Out-of-pocket cost (\$ Cdn./ per year)
to senior with high annual drug consumption,
by GIS reciprocity status and province, as of December 31, 1997²

Figure 2a

Sensitivity analysis - Cost (\$ Cdn./ per year)
to senior with average annual drug consumption,
assuming monthly prescriptions and "strategic purchasing", as of December 31, 1997³

Figure 2b

Sensitivity analysis - Cost (\$ Cdn./ per year)
to senior with high annual drug consumption,
assuming monthly prescriptions and "strategic purchasing", as of December 31, 1997⁴

Figure 3a

Change in the cost to senior, between December 1997 and December 1990,
assuming average annual drug consumption⁵

Figure 3b

Change in the cost to senior, between December 1997 and December 1990,
assuming high annual drug consumption⁶

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