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Executive Summary

- < Total prescription drug expenditures for 1996 are estimated to be just under \$6.8 billion with the largest portion (44%) funded by provincial drug plans.
- < Private plans account for approximately 28% of total expenditures with individuals (insured and non-insured) covering another 28% through co-payments, deductibles, and other out-of-pocket expenses.
- < The 12% of individuals with no insurance coverage account for approximately 7.6% of total drug expenditures.
- < A fully funded, comprehensive, publicly administered, national pharmacare program would increase public expenditures on prescription drugs by an estimated \$4.3 billion.
- < Other publicly administered programs would increase public expenditures by \$2.1 billion to \$2.5 billion with traditional levels of co-payments or patients paying the dispensing fee. These plans would in essence “nationalize” current private plans.
- < With a national pharmacare program similar to the drug plans that exist in Saskatchewan and Manitoba, public expenditures would fall by almost \$0.5 billion. However, expenditures by individuals would increase by \$0.9 billion.
- < The elimination of private drug plan coverage would have a significant impact on third party payers, not only because of the loss of the majority of their business but also because of the effect on extended health benefits offered by the insurance industry.
- < The impact on the public purse of the mixed public/private plans is considerably less than the public only plans. The incremental increase in expenditures range from \$0.1 billion with a plan similar to that currently in Quebec, to \$1.5 billion for a plan that provides true first dollar coverage.
- < The potential for administrative savings from a national pharmacare program is only \$118 million given that administrative costs are already fairly low in both the public and private sectors.
- < Overall, the best opportunity for a national pharmacare program is a combined public/private plan with a 25% co-payment (similar to Quebec) or with the patient paying the dispensing fee. In both cases the impact on public and private plans is an increase of less than 10%.

1.0 Introduction

The purpose of this study is to estimate the cost of funding a national pharmacare program in Canada. This research considers several models of national pharmacare but will use as its starting point a comprehensive model providing first dollar coverage to all Canadians.

2.0 Background

2.1 The Call for a National Pharmacare Program

In recent months there have been several calls for a national pharmacare program that would bring prescription medicines under the umbrella of the Canada Health Act. The report of the National Forum on Health (February 1997) recommended:

Because pharmaceuticals are medically necessary and public financing is the only reasonable way to promote universal access and to control costs, we believe Canada should take the necessary steps to include drugs as part of its publicly funded health care system.¹

That pharmaceutical payment policy in Canada be guided by the goals of:

- equity of access;
- improved prescribing appropriateness; and
- cost-containment;

and that to these ends the Canadian federal-provincial health insurance system move toward integration of prescription drugs as a fully funded component of publicly funded health care.¹

In its recent report on the review of C-91, the Standing Committee on Industry highlighted the testimony of numerous witnesses who endorse the findings of the National Forum on Health with regard to the establishment of a national pharmacare program. The Committee recommended that:

Because pharmaceutical products are medically necessary, the Committee believes steps should be taken to investigate the feasibility of a national pharmacare program. While the overwhelming majority of Canadians are presently covered by some form of public or private insurance, we must recognize the needs of those who are not. The Committee has heard the testimony of dozens of witnesses who cited the rising costs of pharmaceutical products and insisted that the Committee take action to follow the recommendations of the National Forum on Health.²

¹ National Forum on Health

² Review of Section 14 of the Patent Act Amendment 1992 (Chapter 2, Statutes of Canada, 1993); Fifth Report of the Standing Committee on Industry, April 1997.

The Government also endorses the Forum's call for a national pharmacare program. It is the Liberal Party's position that:

Public coverage of medically necessary prescription drugs, as recommended by the National Forum on Health, would not only ensure universal access to treatment, it would also reduce the amount of money that Canadians are already spending on drugs by extending the proven advantages of the single-payer system. These advantages include simplified administration, volume discounts for bulk purchasing, and improved monitoring of best practices in prescribing and dispensing.³

Appendix A summarizes a number of the views on national pharmacare expressed publicly in recent months.

While the notion of a national pharmacare program appears desirable to most Canadians, its implementation would require the cooperation of the provinces. Moreover, the private plans that exist in Canada offer a large proportion of total drug plan coverage. A public plan envisaged by the National Forum on Health (NFH) would in essence "nationalize" these private plans. Clearly, there would be resistance from the private payers to a publicly run national plan. Finally, the cost of such a program would have to be funded from somewhere. Options include tax revenues, payroll taxes, premiums, deductibles and co-payments. Presumably, the "Cadillac" plan proposed by the NFH would be completely funded by tax revenues.

2.2 Current Prescription Drug Expenditures

The figure most frequently quoted in relation to drug expenditures in Canada is \$9 billion annually. In fact, prescription drug expenditures are approximately \$6.8 billion annually. Because the level of drug expenditures in Canada is so often misunderstood, it is important that they be clearly defined. The Canadian Institute for Health Information (CIHI) in conjunction with Health Canada publish drug expenditure data that is widely used. However, the "drugs" category includes not only prescription drugs but also non-prescription drugs and personal health supplies (e.g., bandages, condoms, etc). It is the total of this category that gives rise to the often quoted \$9 billion drug bill in Canada. The CIHI figures also do not include hospital expenditures on drugs (although this will change in future reports). Detailed information is available for 1975 to 1994 with CIHI estimates for 1995 and 1996 at the aggregate level. We have used these aggregate figures to estimate the breakdowns for 1995 and 1996. It should be noted that the CIHI data reflect retail consumption of pharmaceuticals and therefore the figures presented in this study will differ from the factory gate sales published by Statistics Canada, PMPRB and IMS. In particular, the CIHI figures include dispensing fees, wholesaler and retailer mark-ups that are not included in ex-factory sales figures.

³ Preparing Canada for the 21st Century: Securing Our Future Together; The Liberal Plan - 1997

Prescription Drug Expenditures (\$ millions) in Canada, by Drug Category, 1991 -96				
Year	Prescription	Non-prescription	Health Supplies	Total
1991	5,437	1,191	1,046	7,674
1992	6,050	1,279	1,123	8,452
1993	6,337	1,359	1,201	8,897
1994	6,493	1,373	1,213	9,079
1995	6,600	1,438	1,266	9,304
1996	6,779	1,477	1,300	9,555

Note: Figures exclude hospital expenditures on drugs, 1995 and 1996 are estimates only
Source: CIHI

The balance of this report will focus on the \$6,779 million of prescription drug expenditures and the impact a national pharmacare program would have on these expenditures.

2.3 Who Pays for Drugs Now

Currently, seniors in Canada, Canadians on social assistance and those in hospital have access to publicly funded prescription medicines. Some provinces, namely BC, Alberta, Quebec, Saskatchewan and Manitoba, already have plans that offer coverage to all residents however none provide first dollar coverage and the deductibles and co-payments are set sufficiently high to limit the number of residents receiving reimbursement. Appendix B provides a detailed description of each of the provincial drug plans.

It is estimated that the provincial plans cover approximately 44% of the population. Another 44% are covered by one of the various private insurers through their employer or group. Coverage under both public and private plans vary widely and insured Canadians are nonetheless responsible for some portion of their drug expenditures because of restrictive formularies, co-payments and deductibles which limit the accessibility of prescription medicines. The remaining 12% of Canadians have no form of insurance coverage and must therefore pay for all their prescription medications.⁴ (Note that this figure will have been reduced in 1997 as a result of the new Quebec drug plan.)

⁴ National Forum on Health, *Canada Health Action: Building on the Legacy. Synthesis Reports and Issues Papers*, 1997

Distribution of Prescription Drug Expenditures, 1996		
Source of Funds	\$ million	%
Public Plans	2,976.6	43.9%
Private Plans	1,894.0	27.9%
Individuals		
Co-payments & Deductibles	1,314.5	19.4%
Uninsured Individuals	516.6	7.6%
Other out-of-pocket expenses	77.6	1.1%
Total	6,779.3	100.0%
Note: These figures are described in greater detail in section 4.		

As illustrated in the table above, 44% of the \$6,779 million prescription drug expenditures are funded by the provincial drug plans. The private plans account for approximately 28% with individuals responsible for the remaining 28% because of co-payments and deductibles, non-eligible expenses, as well as a complete lack of insurance. Co-payments and deductibles paid by individuals represent 19.4% of total prescription drug expenditures. Public plan co-payments average 15.9%⁵ of their prescription drug expenditures while those of private plans are estimated to be 28.4%⁶ on average. In addition, our estimates indicate that out of pocket costs for drugs not included on provincial or private formularies and for brand upgrades account for approximately 1.1% of the total.

We estimate that the 12% of Canadians who are not covered by an existing drug insurance plan pay for 7.6% (\$517 million) of the total prescription drug expenditures in Canada. This estimate assumes that these individuals are all under 65 years of age and therefore would have a lower than average annual per capita drug cost.

⁵ Survey of Provincial Drug Benefit Programs

⁶ CROP Conseil, *Drug Benefit Programs in Canada*, 1995

3.0 Methods

3.1 Scope

The scope of the analysis is limited to quantifying the total costs and incremental costs to government of funding a national pharmacare program. The study does not consider the political feasibility or probability of a national program, although these issues may be highlighted when appropriate. The study does consider a variety of models, some of which may be more attractive to the provinces than others. The study will also consider the impact of a national pharmacare program on private payers and what role they could play under national pharmacare.

3.2 Assumptions

To begin, it is assumed that a national pharmacare program would meet all the criteria of the Canada Health Act (i.e. universal, accessible, comprehensive, portable, publicly administered). These criteria are consistent with the recent reports that justify a national pharmacare program covering medically necessary drugs on the basis of the Canada Health Act.

For purposes of the analysis, it has been assumed that all prescription drugs are “medically necessary” although in practice some are not (e.g., products for cosmetic use). Similarly, it is assumed that non-prescription drugs are not “medically necessary” although some clearly are (e.g., insulin, pre-natal vitamins, iron therapy for anemia). These inconsistencies should not alter the overall conclusions of the study at the global level and, to a large extent, the inclusion of medically unnecessary prescription drugs should offset the exclusion of medically necessary non-prescription drugs.

It is anticipated that individuals who currently pay for their medicines will increase their consumption of drugs once they are covered by a drug plan. Similarly, the presence or absence of co-payments and deductibles will affect levels of consumption. Therefore, estimates of these effects are built into the various pharmacare models presented.

It is assumed that a formulary system would be in place under national pharmacare - either the existing individual provincial formularies or a national formulary. The choice of one or the other will not have a significant impact on the pharmacare models. Generic substitution would continue to be mandated under national pharmacare for products that are considered interchangeable. It is assumed that reference based pricing would not be employed in a national program since it restricts access to medically necessary drugs. Expenditures by hospitals on drugs are already covered under provincial health insurance programs and, as such, are not included in the analysis.

3.3 Information Sources

A brief one page questionnaire was sent to all provinces requesting basic cost information related to their drug plans. The provincial data is important for determining the level of coverage in each province. The information collected included number of beneficiaries, total drug cost, deductibles & co-payments. All provinces either completed the questionnaire or provided information in another format (such as an annual report). Estimates were employed in some cases where the information provided was incomplete.

Drug cost data was requested from the Canadian Institute of Health Information (CIHI) who are in the process of updating the information previously published as Canadian Health Expenditures 1975-94. The updated information includes global estimates for 1995 and 1996. Other information sources include Statistics Canada, Health Canada, Merck Frosst Canada Inc. and the Canadian Life and Health Insurance Association.

4.0 Formulation of the Model

The first step was to build a complete-coverage model for Canada. The CIHI data for prescription drug expenditures was used to establish the basic breakdown between public and private expenditures. The provincial drug plans were surveyed to provide detailed information on prescription drug expenditures in the most recent year. This information was used to develop estimates for the breakdowns of dispensing fees, co-payments and deductibles. For Canada, the following formula was developed:

$$\begin{aligned} \text{Public Plan Expenditures} &= \text{Drug Cost} + \text{Dispensing Fee} - \text{Co-payments} \\ \text{Private Plan Expenditures} &= \text{Drug Cost} + \text{Dispensing Fee} - \text{Co-payments} \\ \text{Individuals' Expenditures} &= \text{Co-payments and Deductibles} \\ &+ \text{Drug Cost} + \text{Dispensing Fee (Non Insured Individuals)} \\ &+ \text{Drug Cost} + \text{Dispensing Fee (Other out-of-pocket expenses)} \end{aligned}$$

Complete information was not available from all provinces and as such certain assumptions have been made. Moreover, it is anticipated that individuals who currently pay for their medication will increase their consumption of drugs once they are covered by a drug plan. Similarly, the presence or absence of co-payments and deductibles will affect levels of consumption. Estimates of these effects are built into the various models.

It should be noted that the figures are for 1996 and do not reflect the new universal plan in Quebec which only began in 1997. Data for this new plan are not yet available. However, the new plan is expected to be expenditure neutral with respect to public expenditures. Private plans that had to upgrade to the new standard and individuals who are paying significant deductibles and co-payments are likely paying more, although these increases are difficult to quantify without

data.

In all the models, the public portion could be federally administered, provincially administered or both. While it is likely that any increase in public expenditures would be funded by the federal government regardless of who administers the plans, the level of government funding for administering the plan is not an important factor for the models per se. However, there may be economies of scale with respect to administration costs. (See section 6) The basic quantitative model containing each of the elements described above is outlined in the following table using prescription drug expenditures for 1996.

Distribution of Prescription Drug Costs, 1996		
	\$ millions	% of Total Expenditures
Public Plan Rx Drug Costs		
Rx Drug Cost	2,771.5	40.9%
Dispensing Fee	768.3	11.3%
Private Plan Rx Drug Costs		
Rx Drug Cost	1,962.8	29.0%
Dispensing Fee	682.5	10.1%
Individuals with no coverage		
Rx Drug Cost	383.3	5.7%
Dispensing Fee	133.3	2.0%
Other Out-of-Pocket Expenses		
Rx Drug Cost	57.6	0.9%
Dispensing Fee	20.0	0.3%
Total	6,779.3	100.0%
Co-payments & Deductibles		
Public Plans	563.3	8.3%
Private Plans	751.3	11.1%
Total	1,314.6	19.4%
Total Expenditures		
Total Rx Drug Costs	5,175.2	76.3%
Total Dispensing Fees	1,604.1	23.7%
Source of Funds		
Public Plans	2,976.5	43.9%
Private Plans	1,894.0	27.9%
Individuals	1,908.8	28.2%
Source: Provincial Drug Plans, CIHI, Statistics Canada		

From this basic quantitative model, seven national pharmacare models have been developed

and their impact on payers compared to the current situation. These models provide variations of three main factors:

1. Public only (models 1-4) vs Public/Private (models 5-7)
2. Co-payments and deductibles (models 3 - 5) vs No co-payment (models 1& 6)
3. Patient paying the prescription fee (models 2 & 6)

Given the expectation that a fully funded public system (model 1) may be unaffordable, the other six models have been developed in an effort to identify an affordable means of addressing the need for universal coverage.

It is assumed through out the models that the removal of co-payments and deductibles will result in a 10% increase in consumption. Similarly, offering insurance to those with no insurance will result in a 10% increase in their consumption. There are several studies that indicate that consumption decreases with the introduction of co-payments and deductibles and it is reasonable to assume that the reverse is true. Indeed, co-payments and deductibles are introduced by drug plans specifically to contain costs. While it is readily acknowledged that the co-payment effect exists, quantifying it is more difficult. One study indicated that the introduction of co-payments reduced the number of prescriptions by 5% and expenditures by 10%.⁷ In practice, of course, the actual effect will depend on the level of the co-payment and other features of the benefit plan.

From the basic model it is evident that dispensing fees are lower in public plans than in private plans. The dispensing fee represents 21.7% of prescription costs for public plans and 25.8% of private plans. These proportions are maintained throughout the various models.

Some private plans offer supplemental health benefits that cover some of the co-payments and deductibles of the public plans. This complexity is not reflected in the basic model as there is no reliable information upon which to make meaningful estimates. However, in the public-only models that follow, we have assumed that the 44% of Canadians that currently have private drug plan coverage would continue to have similar extended health coverage after the implementation of a national pharmacare program. These benefits would cover the public co-payments and deductibles at current levels of co-insurance for private plans. For example, a person with an annual \$1000 deductible under the public plan would be able to claim \$716 as an extended health care benefit from the private plan.

Tax revenues and expenditures have not been considered in any of the models (nor are they considered in any of the CIHI data). Currently taxes are paid by individuals and employers on premiums for private drug plans. These taxes are not reflected as an expenditure for the private plans and individuals nor are they reflected as revenues that offset expenditures by

⁷Smith DG, "The effect of co-payments and generic substitution on the use and costs of prescription drugs", *Inquiry*, Summer 1993

governments. Similarly, there are income tax deductions for individuals with large expenditures on drugs (and other health care items and services) relative to income.

4.1 Model 1. Comprehensive Pharmacare

This model is the comprehensive, universal pharmacare model proposed by the NFH and envisaged in the Liberal Red Book.

- Assumptions:
- < universal coverage
 - < federally administered
 - < first dollar coverage (no deductibles or co-payments)
 - < removal of co-pays and deductibles increase consumption by 10% for those previously insured
 - < those previously uninsured increase consumption 20%

Model 1. Comprehensive Pharmacare, 1996		
	\$ millions	% of Total Expenditures
Public Plan Rx Drug Costs		
Rx Drug Cost	5,706.0	77.5%
Dispensing Fee	1,581.9	21.5%
Private Plan Rx Drug Costs		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Individuals with no coverage		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Other Out-of-Pocket Expenses		
Rx Drug Cost	57.6	0.8%
Dispensing Fee	20.0	0.3%
Total	7,365.5	100.0%
Co-payments & Deductibles		
Public Plans	0.0	0.0%
Private Plans	0.0	0.0%
Total	0.0	0.0%
Total Expenditures		
Total Rx Drug Costs	5,763.6	78.3%
Total Dispensing Fees	1,601.9	21.7%
Source of Funds		
Public Plans	7,287.9	98.9%
Private Plans	0.0	0.0%
Individuals	77.6	1.1%
Source: Provincial Drug Plans, CIHI, Statistics Canada		

4.2 Model 2. Public Only, Patient Pays the Dispensing Fee

This model is the same comprehensive, universal pharmacare model presented in Model 1 except in this scenario, the patient pays the dispensing fee. Such a plan would allow the government to claim that it is offering first dollar coverage for drugs while maintaining the cost containment benefits of a co-payment.

- Assumptions:
- < universal coverage, publicly administered
 - < first dollar coverage for drug cost only
 - < patient pays the dispensing fee
 - < the dispensing fee becomes a defacto co-payment
 - < those previously uninsured increase consumption 10%

Model 2. Public Only, Patient Pays the Dispensing Fee 1996		
	\$ millions	% of Total Expenditures
Public Plan Rx Drug Costs		
Rx Drug Cost	5,155.9	77.4%
Dispensing Fee	1,429.4	21.5%
Private Plan Rx Drug Costs		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Individuals with no coverage		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Other Out-of-Pocket Expenses		
Rx Drug Cost	57.6	0.9%
Dispensing Fee	20.0	0.3%
Total	6,662.9	100.0%
Co-payments & Deductibles		
Public Plans	1,429.4	21.5%
Less: Private Plan Supplemental Benefit	629.0	9.4%
Plus: Private Plan Co-payment	178.6	2.7%
Total	979.0	14.7%
Total Expenditures		
Total Rx Drug Costs	5,213.5	78.2%
Total Dispensing Fees	1,449.4	21.8%
Source of Funds		
Public Plans	5,155.9	77.4%
Private Plans	450.4	6.8%
Individuals	1,056.6	15.9%
Source: Provincial Drug Plans, CIHI, Statistics Canada		

4.3 Model 3. Public Only, Co-payment of 15.9%

This model is similar to existing provincial plans in that there are co-payments and deductibles. The levels of co-payments under public plans vary considerably across Canada and the national average is used for this model.

- Assumptions
- < universal coverage, publically administered
 - < deductibles and co-payments of 15.9% (the national average for public plans)
 - < those previously uninsured increase consumption 10%

Model 3. Public Only, Co-payment of 15.9%		
	\$ millions	% of Total Expenditures
Public Plan Rx Drug Costs		
Rx Drug Cost	5,155.9	77.4%
Dispensing Fee	1,429.4	21.5%
Private Plan Rx Drug Costs		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Individuals with no coverage		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Other Out-of-Pocket Expenses		
Rx Drug Cost	57.6	0.9%
Dispensing Fee	20.0	0.3%
Total	6,662.9	100.0%
Co-payments & Deductibles		
Public Plans	1,047.1	15.7%
Less: Private Plan Supplemental Benefit	460.7	6.9%
Plus: Private Plan Co-payment	130.8	2.0%
Total	717.2	10.8%
Total Expenditures		
Total Rx Drug Costs	5,213.5	78.2%
Total Dispensing Fees	1,449.4	21.8%
Source of Funds		
Public Plans	5,538.2	83.1%
Private Plans	329.9	5.0%
Individuals	794.8	11.9%
Source: Provincial Drug Plans, CIHI, Statistics Canada		

4.4 Model 4. Public Only, Income Based Co-payment of 61.9%

This model is similar to existing provincial plans in Saskatchewan and Manitoba in that there is province wide coverage but high deductibles and co-payments that are tied to income. The effective co-payments represent 63.2% and 61.9% of prescription costs for Manitoba and Saskatchewan respectively. For purposes of this model we have used 61.9%.

Assumptions:

- < universal coverage, publically administered
- < deductibles and co-payments of 61.9% (the Saskatchewan average)
- < those previously uninsured increase consumption 10%

Model 4. Public Only, Co-payment of 61.9%		
	\$ millions	% of Total Expenditures
Public Plan Rx Drug Costs		
Rx Drug Cost	5,117.6	77.4%
Dispensing Fee	1,418.7	21.5%
Private Plan Rx Drug Costs		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Individuals with no coverage		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Other Out-of-Pocket Expenses		
Rx Drug Cost	57.6	0.9%
Dispensing Fee	20.0	0.3%
Total	6,613.9	100.0%
Co-payments & Deductibles		
Public Plans	4,046.0	61.2%
Less: Private Plan Supplemental Benefit	1,780.2	26.9%
Plus: Private Plan Co-payment	505.6	7.6%
Total	2,771.4	41.9%
Total Expenditures		
Total Rx Drug Costs	5,175.2	78.2%
Total Dispensing Fees	1,438.7	21.8%
Source of Funds		
Public Plans	2,490.3	37.7%
Private Plans	1,274.6	19.3%
Individuals	2,849.0	43.1%
Source: Provincial Drug Plans, CIHI, Statistics Canada		

4.5 Model 5. Public & Private, Co-payment of 25%

This model is similar to the current plan in Quebec in that universal coverage is achieved by combining public and private plans. In addition, the model includes a 25% co-payment requirement.

- Assumptions:
- < universal coverage, publicly and privately administered
 - < private plans would meet minimum standards
 - < deductibles and co-payments of 25% (similar to Quebec)
 - < those previously uninsured increase consumption 10%

Model 5. Public & Private, Co-payment of 25%		
	\$ millions	% of Total Expenditures
Public Plan Rx Drug Costs		
Rx Drug Cost	3,193.1	46.9%
Dispensing Fee	885.2	13.0%
Private Plan Rx Drug Costs		
Rx Drug Cost	1,962.8	28.9%
Dispensing Fee	682.5	10.0%
Individuals with no coverage		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Other Out-of-Pocket Expenses		
Rx Drug Cost	57.6	0.8%
Dispensing Fee	20.0	0.3%
Total	6,801.2	100.0%
Co-payments & Deductibles		
Public Plans	1,019.6	15.0%
Private Plans	661.3	9.7%
Total	1,680.9	24.7%
Total Expenditures		
Total Rx Drug Costs	5,213.5	76.7%
Total Dispensing Fees	1,587.7	23.3%
Source of Funds		
Public Plans	3,058.7	45.0%
Private Plans	1,984.0	29.2%
Individuals	1,758.5	25.9%
Source: Provincial Drug Plans, CIHI, Statistics Canada		

4.6 Model 6. Public & Private, No Co-Payments

This model is similar to the current plan in Quebec in that universal coverage is achieved by combining public and private plans. However, unlike Quebec, the model does not include a patient co-payment.

- Assumptions:
- < universal coverage, publicly and privately administered
 - < no deductibles or co-payments
 - < private plans would meet minimum standards
 - < removal of co-pays and deductibles increase consumption by 10% for those previously insured
 - < those previously uninsured increase consumption 20%

Model 6. Public & Private, No Co-payments		
	\$ millions	% of Total Expenditures
Public Plan Rx Drug Costs		
Rx Drug Cost	3,547.0	47.2%
Dispensing Fee	983.3	13.1%
Private Plan Rx Drug Costs		
Rx Drug Cost	2,159.1	28.7%
Dispensing Fee	750.7	10.0%
Individuals with no coverage		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Other Out-of-Pocket Expenses		
Rx Drug Cost	57.6	0.8%
Dispensing Fee	20.0	0.3%
Total	7,517.7	100.0%
Co-payments & Deductibles		
Public Plans	0.0	0.0%
Private Plans	0.0	0.0%
Total	0.0	0.0%
Total Expenditures		
Total Rx Drug Costs	5,763.7	76.7%
Total Dispensing Fees	1,754.0	23.3%
Source of Funds		
Public Plans	4,530.3	60.3%
Private Plans	2,909.8	38.7%
Individuals	77.6	1.0%
Source: Provincial Drug Plans, CIHI, Statistics Canada		

4.7 Model 7. Public & Private, Patient pays Dispensing Fee

This model also achieves universal coverage by combining public and private plans. Under this model, insurers pay first dollar coverage for drugs but patients are required to pay the dispensing fees.

- Assumptions
- < universal coverage, publicly and privately administered
 - < private plans would meet minimum standards
 - < patient pays dispensing fee
 - < those previously uninsured increase consumption 10%

Model 7. Public & Private, Patient Pays Dispensing Fee		
	\$ millions	% of Total Expenditures
Public Plan Rx Drug Costs		
Rx Drug Cost	3,193.1	46.9%
Dispensing Fee	885.2	13.0%
Private Plan Rx Drug Costs		
Rx Drug Cost	1,962.8	28.9%
Dispensing Fee	682.5	10.0%
Individuals with no coverage		
Rx Drug Cost	0.0	0.0%
Dispensing Fee	0.0	0.0%
Other Out-of-Pocket Expenses		
Rx Drug Cost	57.6	0.8%
Dispensing Fee	20.0	0.3%
Total	6,801.2	100.0%
Co-payments & Deductibles		
Public Plans	885.2	13.0%
Private Plans	682.5	10.0%
Total	1,567.7	23.1%
Total Expenditures		
Total Rx Drug Costs	5,213.5	76.7%
Total Dispensing Fees	1,587.7	23.3%
Source of Funds		
Public Plans	3,193.1	46.9%
Private Plans	1,962.8	28.9%
Individuals	1,645.3	24.2%
Source: Provincial Drug Plans, CIHI, Statistics Canada		

5.0 Cost Impact of the Pharmacare Models

Cost Impact of Various models of National Pharmacare					
Pharmacare Model		Source of Funds			Total Impact
		Public	Private	Individual	
1. Public, No Co-Pay	\$M	\$4,311	(\$1,894)	(\$1,831)	\$586
	%	144.8%	-100.0%	-95.9%	8.6%
2. Public, Patient pays Rx Fee	\$M	\$2,179	(\$1,444)	(\$852)	(\$116)
	%	73.2%	-76.2	-44.6	-1.7%
3. Public, CoPay (15.9%)	\$M	\$2,562	(\$1,564)	(\$1,114)	(\$116)
	%	86.1%	-82.6%	-58.4%	-1.7%
4. Public, CoPay (61.9%)	\$M	(\$486)	(\$619)	\$940	(\$165)
	%	-16.3%	-32.7%	49.3%	-2.4%
5. Public/Private, CoPay (25%)	\$M	\$82	\$90	(\$150)	\$22
	%	2.8%	4.7%	-7.9%	0.3%
6. Public/Private, No CoPay	\$M	\$1,554	\$1,016	(\$1,831)	\$738
	%	52.2%	53.6%	-95.9%	10.9%
7. Public/Private, Patient pays Rx Fee	\$M	\$217	\$69	(\$263)	\$22
	%	7.3%	3.6%	-13.8%	0.3%

5.1 Impact of Public Only Plans (Models 1 - 3)

The primary impact of the public only plans is on the public purse. For the first three plans the increase (above what the provinces are paying now) in publicly funded expenditures would range from \$2.1 billion to \$4.3 billion. Given the current environment of fiscal restraint it is unlikely that the federal government would be willing to offer such a significant increase in funding on an ongoing basis. Moreover, the provinces, who are actively trying to reduce drug plan expenditures are unlikely to increase spending as part of a “national plan”.

The elimination of private drug plan coverage would also have a significant effect on third party payers, not only because of the loss of most of their business but also because of other impacts. The Canadian Life and Health Insurance Association (CLHIA) has indicated that the elimination of private drug plans could have a negative impact on all extended health care benefits as it is the drug plan portion that represents the lion’s share of these benefits. Representatives of the CLHIA suggest that many of the current extended health care benefit plans would no longer be viable or premiums would have to be increased dramatically to make them viable.

5.2 Impact of Public Only, High Co-payment Plan (Model 4)

This model (similar to the existing Saskatchewan plan) would decrease public expenditures by approximately \$0.5 billion but increase expenditures by individuals by more than \$0.9 billion. Of the public only models this has the least impact on the private plans as the very high public plan co-payments would provide a market opportunity for the private plans in terms of supplementary health care benefits. Clearly, if accessibility and true universality are the issues, this plan is the least attractive.

5.3 Impact of Public/Private Plans (Models 5 - 7)

The impact on the public purse of the mixed plans is considerably less than that of the public only plans. The incremental public costs for these models range from \$82 million for a plan similar to that currently in Quebec to \$1.5 billion for one that provides true first dollar coverage. In the latter case however, there would be an impact on private payers and employers. Third party payers would be forced to increase their premiums by more than 50% to offset the removal of co-payments and deductibles. This would likely be unpopular with employers and employees who would see the increased premiums as a payroll tax.

5.4 Impact of Plans with No Co-Payments (Models 1 & 5)

In the models with no co-payment, total expenditures increase by about 11% because of first dollar coverage. The removal of co-pays and deductibles effectively decreases costs to all consumers who accordingly will increase their consumption. Specifically, it represents the additional prescriptions that were either not written or not filled because the co-pay, deductible or overall cost was sufficiently high to deter the patient. The increase is modest however given that the demand for pharmaceuticals is fairly inelastic. (Ordinarily, patients do not consume more of a prescription drug because it is cheaper.)

5.5 Impact of Patient Paying the Dispensing Fee (Models 2 & 6)

The benefit of the patient paying the prescription fee is that it has the cost containment effect of a co-payment yet allows the government to claim it is offering first dollar coverage for drugs. In the public model the patient paying the prescription fee would contribute more funds than a public plan using the Canadian average co-payment of 15.9% (\$1.4 billion vs \$1.0 billion). In the public/private plan using the Quebec co-pay of 25% paid by the patient, the prescription fee would raise \$0.8 billion versus \$1.0 billion for the co-payment. At \$6.00 per prescription a person on 10 medications would pay \$60 per month or \$720 per year - less than the maximum co-

payment in Quebec of \$750. However, such a measure may be too onerous for patients on social assistance or low income elderly patients with a significant number of prescriptions per year.

6.0 Administrative Costs

The program administration costs are not included in the models described above. There is a view that a single national pharmacare program would achieve administrative savings through economies of scale. For example a single national formulary could replace the myriad of formularies and therapeutics committees that exist currently. Moreover, a single agency would likely have lower administrative costs than the combined administration costs of the existing plans. However, much of the administrative overhead of provincial drug plans is already shared with other areas of the respective ministries of health and therefore may reduce the actual administrative savings of a national drug plan. The major administrative expense is in the processing and the adjudicating of claims. While there may be some savings in this area for the small provincial plans it is unlikely that there would be significant savings beyond what is already achieved in Ontario and Quebec. Some of the smaller provinces have already addressed this issue by contracting out the processing of claims to private firms (e.g., Atlantic Blue Cross).

Based on the limited data on administration costs received from the survey of provincial drug plans and our review of provincial public accounts, it is estimated that administrative costs range between 2% (Ontario and Quebec) and 13% (Atlantic Provinces) of drug plan payments with the national average at 3.5%. Assuming that maximum efficiencies from economies of scale have already been achieved in Ontario and Quebec, 2% of drug plan payments represents the ideal that could be achieved in a national pharmacare program. Accordingly, a single public system would reduce public administration costs from 3.5% of drug plan payments to 2%.

For private plans, data from the Canadian Life and Health Insurance Association (CLHIA) suggest that the administration costs for private drug plans are in the order of 8%. The administrative costs for comprehensive extended health care benefit plans that include hospital, travel, dental care, vision care, etc are as high as 28%. CLHIA also provides figures for Administrative Service Only (ASO) plans. These plans are offered by insurance companies that manage the claims and adjudication of drug benefit plans on behalf of employers. However, it is the employers who are responsible for funding the plan (ie, absorbing the insurance risk) and accordingly the administration costs are lower, typically in the order of 5% according to the CLHIA.

The following table outlines the possible administrative savings from the various models of pharmacare outlined earlier in the report. The table assumes that current public and private administration costs are 3.5% and 8% of plan payments respectively. It is further assumed that

the establishment of a national pharmacare program would lower public administration costs to 2% of plan payments and that private administrative costs would remain at current levels.

Administrative Costs (private admin costs =8% of plan payments)				
	Public	Private	Total	Net Change
Current	104.2	151.5	255.7	
1. Public No Co-pay	145.8	0.0	145.8	(109.9)
2. Public, Patient Pay Rx Fee	103.1	36.0	139.1	(116.6)
3. Public, CoPay (15.9%)	110.8	26.4	137.2	(118.5)
4. Public CoPay (61.9%)	49.8	<i>102.0</i>	151.8	(103.9)
5. Public Private CoPay (25%)	61.2	158.7	219.9	(35.8)
6. Public/Private No CoPay	90.6	232.8	323.4	67.7
7. Public/Private, Patient pays Rx Fee	63.9	157.0	220.9	(34.8)
Note: Figures in italics represent private plan coverage of public plan co-payments				

The table illustrates that a national pharmacare program could provide administrative savings of up to \$118 million although these savings represent only 1.8% of prescription drug expenditures. It is clear from the table above that it is the public only plans models that generate the greatest potential administrative savings. However, this analysis does not take into account the economic costs (job losses etc) to the insurance industry nor the reduction of tax revenues that private plans generate directly and indirectly.

7.0 Conclusion

Only the comprehensive public model with no co-payments (model 1) would meet the five criteria of the Canada Health Act. However, its incremental cost of \$4.3 billion would be prohibitive. Moreover, the impact on private payers and, by extension, on extended health care benefits could be severe.

Overall, the best opportunity for a national pharmacare program is a combined public/private plan with a 25% co-payment (similar to Quebec) or the patient paying the dispensing fee. In both cases the impact on public and private plans is an increase of less than 10%. And individuals could see a reduction in their out-of-pocket costs of between 8% and 14%. Of the public/private models, model 7 comes closest to meeting the Canada Health Act criteria as it offers first dollar coverage for drugs but requires the patient to pay the dispensing fee.

This paper has focused on alternatives of traditional models of drug benefit plans. However, one of the factors contributing to the call for a pharmacare program is that 12% of Canadians have no coverage. There may be other approaches to ensuring that these Canadians have better access to a drug benefit program. For example, the tax system could be used by the federal government to offer a tax credit to self employed individuals and small businesses who purchase private drug plan coverage. Similarly, the federal government could offer a national drug plan that offers inexpensive coverage to individuals and families that do not qualify for existing programs.