Cost-Control Mechanisms in Canadian Private Drug Plans

Mécanismes de contrôle des coûts dans les régimes privés d’assurance médicaments au Canada

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Abstract
Approximately 68% of Canadians receive prescription drug coverage through an employer-sponsored private plan. However, we have very limited data on the structure of these plans. This study aims to identify and describe the use of cost-control mechanisms in private drug plans in Canada and describe what private coverage looks like for the average Canadian.

Using 2010 data from over 113,000 different private drug plans, provided by Applied Management Consultants, we determined the overall use of key cost-control measures, and
the cost-control tools that appear to be gaining currency compared to a report on benefits coverage in 1998. We found that the use of common cost-control measures is relatively low among Canadian private benefits programs. Co-insurance is much more common in private coverage plans than co-payments. Deductibles are uncommon in Canada and, when in place, are very small. The use of annual and lifetime maximums is increasing. Canadian private benefits programs use few cost-control measures to respond to increasing costs, particularly in comparison to their public counterparts. These results suggest there are ample opportunities for greater efficiency in private sector drug coverage plans.

Résumé
Environ 68 % des Canadiens bénéficient d’une couverture pour les médicaments sur ordonnance grâce à un régime d’assurance privé offert par l’employeur. Cependant, il y a très peu de données quant à la structure de ces régimes. Cette étude vise à décrire l’utilisation des mécanismes de contrôle des coûts dans les régimes privés d’assurance médicaments au Canada et à dresser le portrait des couvertures privées pour la moyenne des Canadiens.

À l’aide de données de 2010 au sujet de plus de 113 000 régimes privés d’assurance médicaments, fournies par Applied Management Consultants, nous avons déterminé l’utilisation globale de mesures clés de contrôle des coûts ainsi que les outils de contrôle des coûts qui semblent gagner en popularité, à la lumière d’un rapport de 1998 sur la couverture par les régimes. Nous observons que l’utilisation des mesures courantes de contrôle des coûts est relativement peu fréquente dans les programmes de prestations privés au Canada. Dans les couvertures privées, la coassurance est beaucoup plus répandue que la participation aux coûts. Les franchises sont peu communes au Canada et, là où elles existent, elles sont très petites. L’utilisation de maximums annuels ou de maximums à vie est en augmentation. Au Canada, on utilise peu de mesures de contrôle des coûts pour aborder la question des coûts croissants dans les programmes privés d’assurance, particulièrement comparé à leurs équivalents du système public. Ces résultats laissent voir qu’il y a beaucoup de place pour une meilleure efficience des régimes d’assurance médicaments du secteur privé.

**Prescription drugs provided outside of hospital are not universally**
covered in Canada. Instead, these costs are paid by a blend of various public drug programs, private drug plans and out-of-pocket payments. An estimated 38% of drug expenditures in 2011 were financed through private drug plans, which are most commonly offered as part of employer-sponsored supplemental health benefits packages provided to employees and their dependents (CIHI 2012). In 2010, 23 insurance companies offered private benefits plans that provided health coverage to 68% of Canadians (Canadian Life and Health Insurance Association 2012).

As a result of a confluence of events – rising drug costs, a weak economy and reductions
in the scope of public coverage (Morgan and Yan 2006; Rovere and Bacchus 2012) – the private drug insurance market is currently facing significant pressures. For example, since 1998, drug expenditure by private insurers has tripled from $3.2 billion in 1998 to $9.6 billion in 2010 (CIHI 2012). It is unclear whether the structures of private benefits plans have changed in the face of these external cost pressures (CIHI 2012). The nature of the cost-control mechanisms used by private drug plans is important not only for expenditures, but also because it affects patient access to medicines.

There are a number of mechanisms that drug plans might use to control costs. These can be characterized broadly as either formulary management, controlling the drugs that are available, and cost-shifting, controlling the plan’s liabilities without necessarily modifying which drugs are dispensed. The best evidence on the overall use of cost-control measures in private drug plans is very dated. A Health Canada–funded analysis based on data from 1998 provides the most recent comprehensive overview on the design of private drug plans (Applied Management 2000). The analysis, which examined the benefits and structures of more than 41,000 employer plans, found only limited use of most cost-control strategies. For example, there was no use of generic substitutions or multi-tiered plans – plans that require different levels of co-payments depending on the drug (Applied Management 2000). Furthermore, only 12% of employees were required to make a fixed amount co-payment, and 58% paid co-insurance (Applied Management 2000).

Given the dearth of recent data and the important role of private benefits plans for Canadians, we felt it time to investigate the use of cost-control mechanisms in private drug plans using the most comprehensive data set available.

Methods

Data set

We analyzed 2010 data from employer-sponsored private benefits plans collected by Applied Management Consultants (AMC). These data came from two sources. First, AMC obtained plan design data from third-party claims administrators who act on behalf of several major insurance companies. Second, AMC conducted a purposive survey of large employers who self-administer their drug benefits. This data set included information on 113,121 drug plans, which covered 4,138,297 employees. These plans were sponsored by 72,688 different companies – many companies offered different plans to different employee groups.

This database has two key advantages for investigating the coverage of private drug plans in Canada. First of all, it is the most expansive and comprehensive private benefits data currently available. Secondly, it is from the same company that provided that database used to produce the last comprehensive evaluation of this topic in 1998 (Applied Management 2000).

Analysis

We classified the common cost-control mechanisms into two major approaches: those based
on (a) formulary management, and (b) shifting costs to patients. Our analysis was descriptive in nature, and focused on the number and proportion of plans using different types of common cost-control mechanisms. Further, where comparable data were available from the report based on 1998 data, we compared our results to investigate changes over time.

Formulary management mechanisms control costs by guiding formulary decisions, without necessarily shifting costs to the patient or to the public plan. The two formulary management mechanisms detailed in our data were as follows:

1. Mandatory generic substitution refers to a plan feature that limits reimbursement to the cost of the equivalent generic version, if available. Beneficiaries who choose to fill a brand name version instead are responsible for paying the difference.

2. Multi-tier drug plans use formularies with coverage that differs based on the drug in question. Multi-tier plans create an incentive for patients to use specific drugs by allocating drugs into different tiers – typically two to three tiers, but sometimes as many as five – based on the availability of therapeutically equivalent alternatives. Each plan determines its own formulary structure and allocates drugs into tiers. The first tier requires the lowest co-payment, and will typically include most generic drugs. The second tier requires a greater co-payment by the plan beneficiary, and often includes brand-name drugs.

Second, cost-shifting mechanisms reduce expenditures to plan sponsors by shifting costs to other payers, including out-of-pocket payments by enrollees. Our data included information on a number of cost-shifting mechanisms, including the following:

1. Deductibles are a cost-sharing measure that requires plan beneficiaries to pay a yearly fixed amount before coverage begins.

2. Co-payments and co-insurance are a form of cost-sharing that require the plan beneficiary to pay a portion of each prescription. They come in two forms, either a percentage amount (co-insurance) or fixed-dollar amount (co-payment). In some cases, employees must pay both: a fixed amount per prescription, and then co-insurance on the remainder.

3. Dispensing fee policies require plan enrollees to pay all or a portion of the dispensing fee charged by the pharmacy on each claimed prescription. In Canada, these fees typically range from $4 to $12 (Telus Health 2011).

4. Annual and lifetime maximums refer to a maximum benefit the insurer will provide in any given year (annual) or over the entire enrolment of an individual in the plan (lifetime).

Results
Overall, we found low levels of usage of cost-control mechanisms among private plans (Table 1). Further, while there were some changes, in half of the cost-shifting mechanisms measured the use of cost-control mechanisms was substantively similar to the previously reported rates from 1998.
Cost-Control Mechanisms in Canadian Private Drug Plans

**TABLE 1. Use of cost-control mechanisms by private benefits plans in Canada**

<table>
<thead>
<tr>
<th>% of Employees</th>
<th>1998</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formulary Management Mechanisms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generic substitutions mandatory</td>
<td>N/A</td>
<td>67%</td>
</tr>
<tr>
<td>Multi-tiered</td>
<td>N/A</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Cost-Shifting Mechanisms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient maximum (Annual and/or Lifetime)</td>
<td>N/A</td>
<td>16%</td>
</tr>
<tr>
<td>Annual maximum</td>
<td>3%</td>
<td>12%</td>
</tr>
<tr>
<td>Lifetime maximum</td>
<td>&lt;3%</td>
<td>6%</td>
</tr>
<tr>
<td>Deductible</td>
<td>48%</td>
<td>12%</td>
</tr>
<tr>
<td>Co-payment (Fixed and/or Percentage)</td>
<td>71%</td>
<td>79%</td>
</tr>
<tr>
<td>Fixed amount</td>
<td>12%</td>
<td>13%</td>
</tr>
<tr>
<td>Percentage amount</td>
<td>58%</td>
<td>61%</td>
</tr>
<tr>
<td>Combination (fixed and percentage)</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Dispensing fee</td>
<td>3%</td>
<td>27%</td>
</tr>
</tbody>
</table>

*Numbers have been rounded.

*Patient maximums (annual and/or lifetime) were not discussed in the report on 1998 data; however, looking at the use of annual and lifetime maximums separately, we are confident that less than 16% of employees had some sort of limit on their plan.

Sources: Applied Management Consultants in association with Fraser Group and Triset Resources 2000, and the authors’ calculations using data provided by Applied Management, from their private plan data set, 2010.

**Formulary management mechanisms**

In 2010, 67% of employees in the data belonged to plans that required generic substitution. Multi-tiered plans were introduced to Canada in recent years, and 19% of employees in our data set belonged to such plans (see Table 1). In contrast, the majority of plans are single-tiered, meaning they use the same co-payment for all the drugs they cover. There is no mention of either of these formulary management mechanisms in the data from 1998, and we contend that these mechanisms were seldom used, if at all, in Canada at that time. Furthermore, 85% of plans provided coverage for all prescriptions, while a small proportion adopted formularies from a provincial government formulary (2%) or an insurer-designed list (6%), with the remainder being unknown.

**Cost-shifting mechanisms**

In 2010, 16% of employees had an annual maximum benefit, a lifetime maximum or both. Compared to 1998, the use of lifetime maximums has doubled: less than 3% of enrollees had this type of limit in 1998 (Applied Management 2000), compared to 6% of enrollees in 2010. Annual maximums increased more dramatically, more than doubling from 3% (Applied Management 2000) of employees in 1998 to 12% in 2010.
We found a decrease in the percentage of employees required to pay a deductible, from 48% in 1998 (Applied Management 2000) to just 12% in 2010 (Table 1). Of the employees who paid a deductible in 2010, 65% paid $25 or less and 91% paid $50 or less. This finding was juxtaposed with the increase in the percentage of employees who were required to pay the dispensing fee, from 3% in 1998 to 27% in 2010. The overall usage of co-payments also grew, from 71% of employees in 1998 (Applied Management 2000) required to make a co-payment to 79% in 2010 (Table 1). Specifically analyzing fixed-amount co-payments, we found that only 12% of employees in 1998 paid a fixed-amount co-payment (Applied Management 2000); this figure increased to only 13% in 2010 (Table 1). The remainder of plans using cost-sharing mechanisms used co-insurance. The 1998 data show that 58% of employees were required to pay co-insurance (Applied Management 2000), a figure similar to that in 2010, at 61% of employees. A small number of employees were enrolled in plans that required both types of payments (4% in 2010).

Discussion
Despite a threefold increase in expenditures and an economic downturn, we found that private benefits plans in Canada continue to employ many cost-control measures at fairly low rates. Where cost-control measures are being used, they tend to be more passive forms of managing costs. Active measures that steer patients to more cost-effective medicines for the same condition are relatively underused when compared to their role in public plans (Pomey et al. 2010). Decisions about the use of particular cost-control measures may have direct impacts on access to medicines for the enrollees in these plans.

Formulary management mechanisms aim to lower costs while retaining the same levels of drug coverage. Mandatory generic substitution significantly reduces the cost of prescription drugs while retaining the same level of coverage of different, therapeutically equal, drugs. Notably, after the data for this paper were collected, Sun Life and Great West Life – two of the largest private health insurers in Canada – initiated a mandatory generic substitution policy for all claimants, unless companies explicitly opt out (Blackwell 2012). Whether this approach will lead to wider use of generic substitution remains to be seen.

Managed formularies are another mechanism that can lower expenditures through encouraging the use of less expensive therapeutic alternatives. Multi-tiered plans are the standard in the United States (Goldman 2006), with 89% of covered workers in 2010 belonging to a plan with a tiered cost-sharing formula for prescription drugs (Kaiser Family Foundation 2012). In contrast, only 19% of Canadian employees with drug benefit plans appear to have managed formularies, suggesting this might be a major opportunity for reducing private sector drug costs, again without limiting patients’ access to medicines.

Cost-shifting mechanisms, including deductibles, co-payments and fixed dispensing fees, are more widely used, and their use has increased over time, with one major exception. One important consideration with these measures is that they can form barriers to access, because not everyone is able to afford their prescribed drug regimen. There is strong international
evidence that cost influences adherence (Goldman et al. 2007). A wealth of literature demonstrates the adverse effects of prescription drug non-adherence, such as increased emergency room visits, morbidities and mortalities (Blackburn et al. 2005; Heisler et al. 2010; Mojtabai and Olfson 2003; Tamblyn et al. 2001). The heavy reliance of Canada’s universal health insurance coverage system on private prescription drug plans also means that significant use of cost-shifting mechanisms may have important equity implications.

While annual and lifetime maximums are still used by only a small number of plans, their rapid growth might present issues for both patients and public drug plans. Specialty drugs are becoming increasingly popular, including some that can cost hundreds of thousands of dollars every year (Goldman 2006; Kim et al. 2011). If this trend continues, it is likely that many Canadians, including those with chronic conditions, will hit these benefits limits. This may result in large out-of-pocket expenditures, or patients’ drug cost becoming the responsibility of the catastrophic public drug plans found in nearly every province (Daw and Morgan 2012).

There are three major possible explanations for the limited use of cost-control measures seen in most private drug plans. First, there are few to no incentives facing Canadian insurers to control costs. Insurance companies typically earn income based on administration charges that are levied as a percentage of total plan expenditures (Silversides 2009). On average, estimates suggest that Canadian private insurance plans charged 13.2% for administration (Woolhandler et al. 2003). This reduces the incentive for insurers to actively promote cost-saving measures to clients, because any resulting reduction in drug expenditures would proportionately decrease the administrative charges the plan would earn. Second, because private drug benefits plans are a mechanism used by employers to attract and retain employees, employers might be reticent to reduce their generosity in a competitive labour market. Further, as the average cost of insuring any particular employee is comparatively low when considered in terms of overall compensation, many employers may be reluctant to initiate changes in plan design, an approach that might lead to conflict with employees and unions. Third, part of the lack of more sophisticated private benefits plans in Canada can be attributed to plans competing with administrative charges and not with design features (Gagnon 2010).

The two mechanisms that saw a great deal of change from 1998 to 2010 were deductibles and dispensing fees. It is unclear why these changes have taken place. One explanation could be that the decrease in the use of deductibles – a relatively low, one-off cost – may have been offset by the increased percentage of employees required to pay the dispensing fee. However, these changes might also be the result of negotiations with benefits providers to avoid discord with beneficiaries.

Limitations
While the AMC data set is the most comprehensive plan design data available in Canada, there are some limitations worth noting. While our data were assembled by the same company that collected the data from 1998, collection was not longitudinal; therefore, we could not compare the same companies over time. Further, as some of the variables were different, we
could not compare all the indicators provided from the earlier report. Finally, while we have no reason to believe the AMC data differ from those of other private plans in Canada, it is possible that our data may not be completely representative.

Another limitation of the data set was that it did not provide any data on premiums, and thus premium sharing as a cost-shifting mechanism. In addition, the data set did not identify the geographic origin of plans, only the province where the company’s head office is located. Thus, the data are not necessarily representative of the site of the plans’ administration and were left out of our analysis.

Conclusion
As drug costs continue to rise, increasing pressure will continue to push employers to consider the design of their drug benefits programs. These pressures will likely be particularly acute in the face of specialty drugs that are very expensive. Our data indicate that the changes over the past few years have involved both measures that will not unduly influence access to medicines (formularies, generic substitution), but also those that limit plan liability and might lead to an increasing burden on individuals’ out-of-pocket payments (in particular, annual and lifetime maximums). There appear to be significant opportunities for the use of effective cost-control measures in Canadian private drug plans. Continued research to investigate private plan design and coverage in Canada is needed, and should identify the types of plans that are most cost-efficient, while still providing comprehensive coverage to beneficiaries.

At some point, escalating prescription drug costs will demand private plans to respond. If plans fail to react, many employers will cease to be able to afford the same level of coverage for their employees, restricting more Canadians from access to their needed prescription medicines. Both employers and employees must ensure that their response maintains access to necessary medicines for plan beneficiaries.

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REFERENCES
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