Maritime Life

ESI Canada 2003 **Drug Trend** Report

"Drug costs rise 9% to $20 billion in 2003, predicted to reach $30 billion by 2010."

2003 Drug Trends... and a Glimpse into the Future

On the minds of many plan sponsors are a multitude of different factors regarding their drug plans. More often than not, cost is the first and foremost consideration. When you have a clear understanding of all the trends influencing your plan, you'll be better equipped to make informed decisions that help to optimize the value of your drug benefit.

Contents

Understanding drug trends will help you target cost drivers through effective plan management

ESI Canada, Maritime Life's pharmacy benefit manager, analyses its drug claims year to year. This year, once again ESI Canada crunched the numbers and emerged with an up-to-date picture of the 2003 trends and developments taking place in the Canadian prescription drug market.

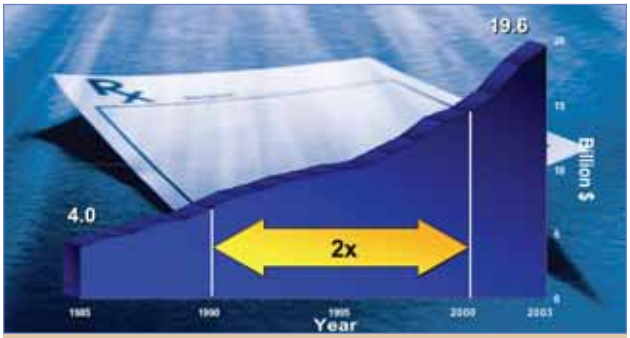
Measures:

ESI Canada analysed the following data:

Allowable Costs	=	amount payable before member contribution
Claimant	=	includes each unique person who submits a prescription(s)
Rest of Canada (ROC) Data	=	Rest of Canada not including Quebec
Days Supply	=	number of days for each prescription
Costs	=	prescription and drug ingredient costs used

According to the Canadian Institute for Health Information (CIHI), Canadian spending on prescription drugs rose from $4 billion to almost $20 billion between 1985 and 2003. Drug costs increased 9% over the last year alone and spending is predicted to reach $30 billion by the year 2010. Prescription drugs account for about 80% of the $20 billion that Canadians spend, while drugs purchased over the counter account for the rest.

Drug Spending Doubled in the Last Decade



Drug Expenditure, Canada – 1985 to 2003 Forecast

Source: CIHI, Statistics Canada

ESI Canada analysed data from their own private sector experience and looked at the trends since 2000. The trends showed that drug utilization (number of prescriptions per person per year) is up 22.8%, total annual prescription costs are up 58.9%. As well over the same time period, dispensing fees have increased 4.2%, ingredient costs have risen by 34.9% and individual prescription costs have increased by 29.6%.

ESI Canada's claimant data reflects actual usage by cardholders and their spouses up to the age of 65 and as well as the cardholder's dependants up to the age of 65. Their analysis compared 2003 Quebec data with the Rest of Canada (ROC).

Three Important Drug Cost Drivers

The three main drivers accounting for 95% of the increased drug costs are Utilization, New Drugs and Therapeutic Mix. Drug utilization is on the rise as plan members are using more prescriptions. Of these prescriptions, plan members (on the advice of their physicians) are changing their therapeutic drug mix and using newer more expensive drugs.

Therapeutic mix refers to the combination of drugs used to treat a condition. These newer drugs are more powerful treatments, which are also more expensive. Examples are Enbrel®, for Rheumatoid Arthritis and Gleevec®, and Iressa®, for Cancer.

Regional Differences in Utilization

Utilization takes into account the cost (drug ingredient cost and professional fee) and the number of prescriptions used. Allowable pharmacist professional fees varied by region in 2003, however on average, professional fees were $7.26, a marginal 4.2% increase over the 2000 professional fees at $6.97.

Fees Vary by Region

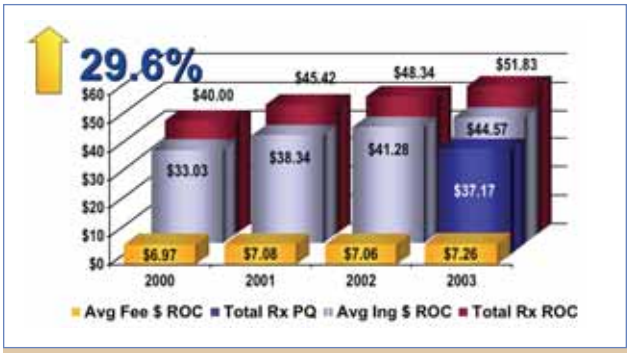
Regional Average Allowable Professional Fees Per Prescription 2003

Regionally, fees ranged from $6.87 in Western Canada to $7.42 in Ontario and were $7.02 in Atlantic Canada. It's useful to note that the allowable fee is influenced by usual and customary limits applied by the Pharmacy Benefit Manager at the provincial level. For example, the average fee allowable for Ontario was $7.42 but the average fee submitted was closer to $9.75. In Quebec, professional fees are bundled with the drug cost and therefore could not be analyzed.

Opportunities exist to manage dispensing fee costs by encouraging plan members to use lower fee pharmacies. Data shows that 20% of plan members use higher fee pharmacies (dispensing fees greater than $11), while only 15% use the lower fee pharmacies (at $6.54).

Regional practices and pricing differences influence ingredient costs amongst the provinces.

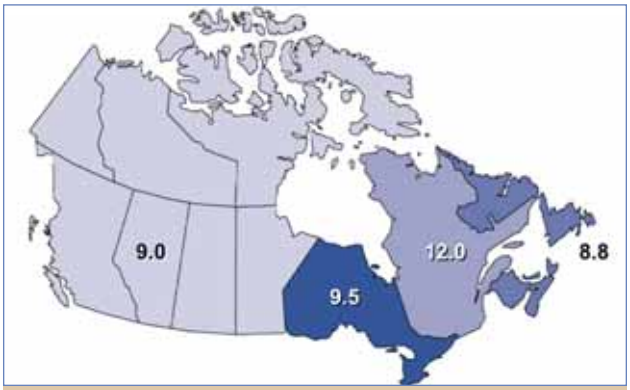
Ingredient Cost Remains Main Driver of Prescription Cost Increases



Average Allowable Cost Per Prescription 2000 - 2003

When comparing total prescription costs, there continues to be regional differences. The average days supply in Quebec is less than the Rest of Canada (ROC), which contributes to an increased number of annual prescriptions.

Dispensing Practices Main Reason for Regional Differences

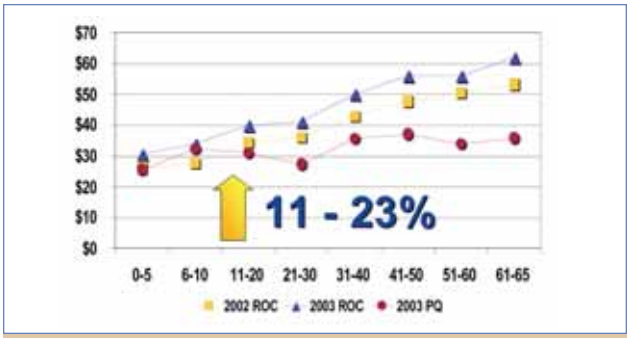


Days Supply per Prescription for 2003
ROC 44 days
Quebec 30 days

Looking at the average annual prescription cost per claimant we see that the costs are between $400 and $500 in most of the country. Overall annual prescription cost per claimant in the Rest of Canada (ROC) has increased from $304 in 2000 to $483 in 2003, an increase of almost 59% ($179). Nearly 12% of that increase occurred in the period between 2002 and 2003 (and 8% the year before). In Quebec, the annual prescription cost per claimant was $447, about 8% less than the Rest of Canada (ROC).

Next, we examine age as a sub-factor of utilization. Comparing 2002 data with 2003, for people in the age ranges from 0 to 65 years, the cost per prescription increases. In fact, cost per claimant rises about 4% for each year of age. This graph illustrates an average 11-23% increase, with the 61-65 years category being the highest.

Big Jump in Costs for all Ages



Average Prescription Cost by Age Group 2002 - 2003

It should be no surprise that as people age, their drug consumption increases. In the Rest of Canada (ROC), as well as Quebec, the number of prescriptions triple when we compare the 31-35 year age group with the 61-65 year age group.

From middle age to pre-retirement costs triple to quadruple. If we compare prescription costs between the above age groups, for the Rest of Canada (ROC) costs per claimant per year increase from $280 to $956, a 3.4 fold increase where the average is $483. For Quebec, the increase is greater, with a 3.9 fold increase where the average is $447.

Quebec Uses Fewer Generics

Since 2000 for the Rest of Canada (ROC), generic utilization has stayed relatively constant at about 32% to 34%. Multi-source brands are used for 14% to 17% of prescriptions, while single-source brands have ranged between 50 and 52%. In Quebec, the trend is similar; however, due to differing rules for generic drug entry into the market and generic substitution policies, single-source brand use is over 12% higher, while the generic use is 5% lower than the Rest of Canada (ROC). This is a result of different generic drug entry rules in Quebec.

Generic drugs

Generic drugs are exactly the same as the brand name drug; however, are allowed to be produced and marketed after the brand name drug's patent has expired. Generic drugs are products that contain the same medicinal ingredients as the original brand name drug, but which are generally cheaper in price, sold without an indicated brand name and are not protected by a trademark. These drugs have the same active ingredients as brand name drugs, but differ by their inactive ingredients, i.e. binders, fillers or dyes. These differences have no effect on the active drug or its effectiveness.

Single source drug products are defined as drugs containing unique chemicals, strengths, dosage formats and methods of administration that are currently only available from one manufacturer. Single source drugs have no interchangeable generic or brand name drugs that are less expensive.

Multi source drugs are those which are manufactured or distributed by more than one company. Some multi-source drugs don't have generic equivalents, only competitive "me-too" brand drugs. A multi-source brand is a brand name that has a therapeutically equivalent generic drug.

New drugs

Introduction of New Drugs...

New drug introduction peaked in 1999 and has continued at a somewhat slower rate.

The Number of New Drugs Approved by Health Canada from 1998 to 2003 were:

However, not all drugs approved for sale are marketed. In 2003, out of the 20 new drug entities approved only 11 were available on the market in 2003.

Some examples of drugs approved for sale in 2003 are:

- Fuzeon™ and Iressa®, for cancer
- Crestor®, and Ezetrol®, for high cholesterol
- Cialis®, for Erectile Dysfunction

As new drugs are introduced into the market, they take the place of existing drugs. These new drugs sometimes have advantages over existing drugs by reducing side effects, increasing compliance, and/or slowing or stopping the progression of disease. Drugs introduced into the market since 1997 now take up over a quarter of the total 2003 drug cost. This reality continues to have a cumulative effect. Last year new drugs comprised 23% of the market (an increase of 4%).

Newer Drugs Cost More than Older Drugs

In 2003, the average ingredient cost per prescription for all drugs in Rest of Canada (ROC) was approximately $45, versus $130 for only the 165 new drugs introduced since

1998. The difference between the two costs is almost three-fold! In Quebec, these costs were about $37 and $107 respectively. Why is this so high? New drugs that exhibit a higher utilization are single-sourced (no generic alternative) and generally priced higher.

There are currently 350 new biologic drugs in the pipeline for approval, which could change the drug cost matrix for the future. Eight of these drugs could be introduced into the market in the next 2-3 years and their costs are projected to be in the thousands of dollars. Examples of drugs to be introduced in 2004/2005 are Amevive™ (psoriasis), Forteo™ (osteoporosis) and Xolair®, (asthma and hay fever).

A **biological drug** is a preparation (a drug, vaccine, antitoxin, globulin, antigen or serum) that is synthesized from living organisms or their products and used medically as a diagnostic, preventive, or therapeutic agent.

Changes in Therapeutic Mix

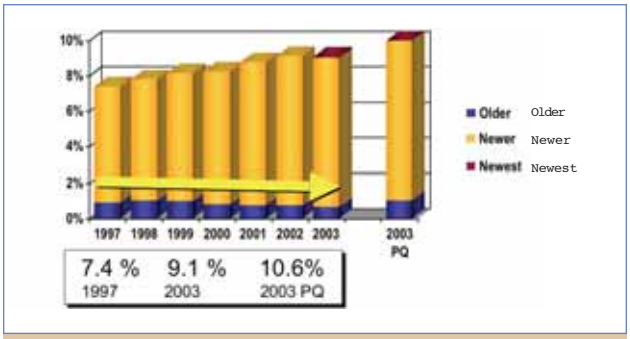
Therapeutic mix is when new drugs, or a combination of drugs, are used in place of older therapies. As a result, the average prescription cost increases which will subsequently affect the annual prescription cost per claimant. Last year the top five therapy classes had a 67% increase (in Quebec, the increase was 42.5%).

The Top 5 Therapy Classes:

#1	Cholesterol lowering: e.g. Lipitor®
#2	Ulcer/reflux: e.g. Losec®
#3	Depression: e.g. Prozac®, Paxil™
#4	High Blood Pressure: e.g. Vasotec™
#5	Arthritis: e.g. Vioxx®, Enbrel®

The cholesterol drug class illustrates the relative increases in therapeutic mix for new drugs.

Newer Drugs Make Inroads



Cholesterol Lowering Drugs by Percent of Total Drug Costs 1997-2003

We see that, newer cholesterol drugs (Lipitor-statins: yellow) have been increasing in place of the older ones (fibrates: blue). Statins and fibrates are both types of drugs used in lowering cholesterol. In 2003, the newest drug (Ezetrol®: maroon) is already beginning to show increased usage.

Drug inflation has not played a major factor in previous trend increases, however in 2003 eleven drug companies increased prices by about 1.05% nationally. In late 2003 and early 2004, pharmaceutical companies increased prices 3-5 % for approximately 379 DINs; ESI Canada believes that Canadian Internet pharmacy practices (selling drugs to US customers at lower than retail US prices) had an influence in the price increases. The pharmaceutical industry has tried to curb this practice by limiting supply to Canadian pharmacies that export prescription drugs to American customers and by increasing Canadian prices to Canadian pharmacies for many of the drugs commonly sold across the border. Applying these price increases to 2003 utilization figures indicates a potential increase of 1.05% in costs to drug plans, representing over $10.6 million in ingredient costs.

Deferred Payment and Pay-Direct Drug Plans

Are there differences?

Many drug plans in Quebec are of a plan design known as 'Deferred Payment.' While Deferred Payment plans are a familiar concept in Quebec, the plan design is not found outside of this province.

The Process for Deferred Payment Plans:

1st	Patient shows his or her card at the point of the pharmacy purchase.
2nd	Pharmacist sends the claim electronically to the pharmacy benefit manager or insurance carrier.
3rd	Patient pays pharmacist for the total cost of the claim.
4th	The insurance carrier will reimburse the plan member for the eligible portion by cheque.

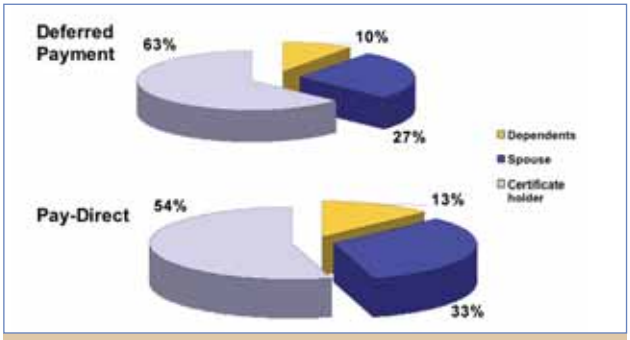
The Process for Pay Direct Plans:

1st	Patient shows his or her card at the point of the pharmacy purchase.
2nd	Pharmacist will send the claim electronically for adjudication. The patient and the drug eligibility are verified.
3rd	If the claim is accepted, the amount the plan covers is paid to the pharmacist by the pharmacy benefit manager or insurance carrier.
4th	The plan member pays the pharmacist for the uncovered balance.

Deferred Payment plans are a compromise between Pay-Direct and Reimbursement plans. Deferred Payment plans represent the majority of ESI Canada's claims originating in Quebec. Of the 14.5 million Quebec claims incurred in ESI Canada's 2003 study, 70% were Deferred Payment plan claims.

ESI Canada used its 2003 data to compare Deferred Payment plans to plans using Pay-Direct cards. The data originated from EDI Deferred Payment claims only and did not include the paper submitted Deferred Payment claims; therefore this could have an influence on the results. The analysis provides an interesting insight into the advantages and disadvantages of each option. It further reveals how plan design provokes different behaviours in the plan members using the benefit.

More Spouses and Dependants on Pay-Direct Plans



Percentage of Prescriptions by Relationship

Results show that a larger proportion of spouses and dependants claim in Pay-Direct plans. There are 6% more claimants per certificate in Pay-Direct plans compared to Deferred Payment plans.

Pay-Direct plans are more generous

Pay-Direct plans are more generous; 25% of them have a 100% co-insurance compared to only 11% of the Deferred Payment plans. The majority of Deferred Payment plans (62%) are more likely to be designed with an 80% co-insurance versus just half of the Pay-Direct plans.

Co-insurance is the percentage of eligible expenses paid by the plan design coverage. The co-insurance percentage provides another way of reducing insurance costs by encouraging the insured person to incur only those expenses that are necessary, since he/she is required to pay a percentage of all eligible expenses.

Cost containment through positive enrolment

Comparisons of the enrolment methods indicate that only 20% of Deferred Payment plans use positive enrolment, compared to 55% of Pay-Direct plans.

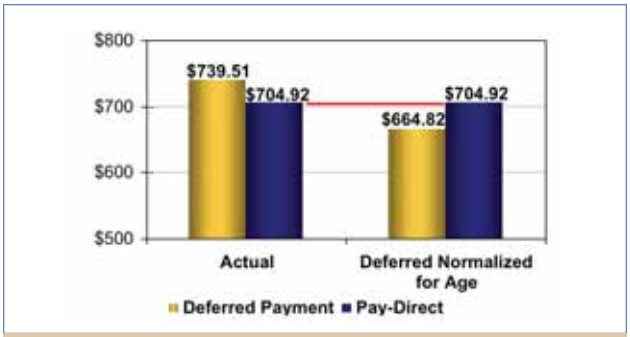
Positive enrolment is when the cardholders must enrol their dependants and provide information about their spouses' coverage at time of enrolment. This ensures that the drug plan is only paying for the claims it should.

Non-positive enrolment (also known as "add-on the fly") is when the dependant is added at the time of the claim and no information is collected about the spouse's coverage. Non-positive enrolment is easier to administer but has the potential to increase the number of claims that should not have been paid by the plan and can reduce the rate of Coordination of Benefits.

The annual cost per claimant is higher for Deferred Payment plans than for Pay-Direct plans. The difference is $47.50 or 10.4%. Further analysis found that the average age for Deferred Payment plans was 3 years older than for Pay-Direct plans. The average age is 46 years in the Deferred Payment plans' population and 43 years for Pay-Direct plans'. Further analysis indicated that the Pay-Direct plans' population is systematically higher for all the age groups between 0 and 45 years while Deferred Payment plans have a higher percentage of claimants between 50 and 65 years. In light of the fact that drug costs increase with age, Deferred Payment plans will experience higher drug costs overall. When ESI Canada normalized the age for both sets of age-related data, annual prescription costs were actually similar for both groups at around $409 per claimant per year.

ESI Canada also compared the average annual costs per utilized card and the average cost per claim. In order to be included in the study, there had to be at least one claim in the family in 2003.

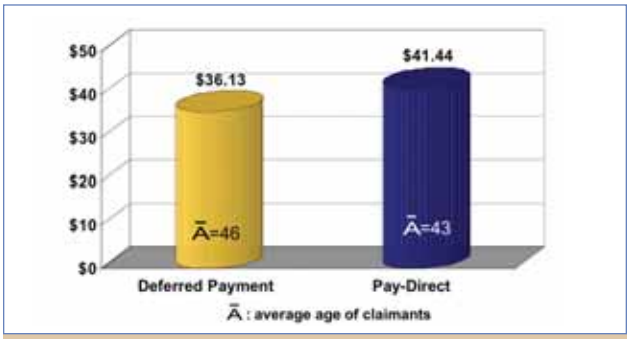
Pay Direct Costs Higher per Utilized Card



Average Annual Cost per Utilized Card

There appear to be higher costs in Deferred Payment plans than in Pay-Direct plans. Since age has an important influence on the results, both populations were normalized for age. What we see is that the average annual cost per utilized certificate is higher in Pay-Direct plans, a difference of $40 or 6% per year.

Pay-Direct Prescription Costs More…



Average Prescription Cost

Average cost per claim is higher in Pay-Direct plans than Deferred Payment plans. The average cost per claim is $36.13 in Deferred Payment plans and $41.44 in Pay-Direct plans, which represents a difference of $5.30 or 13%. ESI Canada also compared what types of drugs were utilized by Pay-Direct plans versus Deferred Payment plans.

Lower Utilization of Generics in Pay-Direct

Utilization of Generics and Brands

There are 2.5% more expenses for brand drugs in Pay-Direct plans. The two main cost drivers that influence the cost of a drug card are age and number of claimants per card. The population is significantly older in drug plans with a Deferred Payment card and this had an important influence on the annual average cost per claimant and the average annual cost per certificate.

The number of claimants per card is 6% higher in Pay-Direct plans, which can be driven by the convenience of a Pay-Direct card but also by the generosity of the drug plan. The higher number of claimants per certificate explains the difference of $40 per certificate per year between both groups studied.

The study resulted in four key observations:

1	**Cost difference between Deferred Payment plans and Pay-Direct plans is not significant as expected.**
2	**Age distribution is an important cost driver with the annual cost per claimant and the annual cost per card.**
3	**Pay-Direct plans are very prevalent in usage by spouses and dependants. This could be due to the convenience of the card and/or the plan design features.**
4	**Pay-Direct plans are more generous and this may be another explanation for a higher percentage of dependants using the card and for higher average costs per claim in Pay-Direct plans.**

Navigating the Benefit Landscape

Over the last few years, ESI Canada's plan sponsors have taken greater measures to mitigate trend; however, there are several easy-to-use tools that are not being used to the fullest extent. The best trend management strategy includes using a combination of tools in order to address the various factors driving the increasing cost of the prescription drug benefit.

For the purposes of this study ESI Canada weighted groups by the number of eligible cardholders (employees) and focused on cardholders residing outside Quebec since plans in Quebec are bound by a unique set of legislative requirements [(1)].

Plan tools can be divided into four main categories – adjudication, administration, plan design, and member payment.

Adjudication

- Virtually all ESI Canada Pay-Direct plans use adjudication tools including **drug pricing, usual and customary fee and mark-up limits, days supply limits, drug utilization review,** and **audits**. Previous ESI Canada studies have looked at the impact that several of these tools can have on managing trend. Together, these features can help control drug costs; however, plan sponsors need to use additional tools to optimize the value of the drug benefit.

Administration

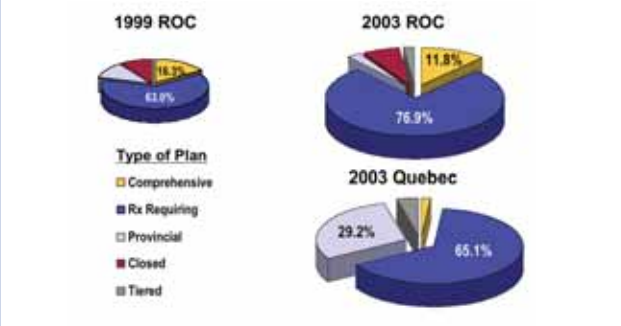
- 59.7% of groups use **positive enrolment** (cardholders must enrol dependants prior to claiming), which reduces the likelihood of paying claims for ineligible dependants. The other 40.3% of groups allow dependants to be added at the time of their first claim. Little has changed in the use of positive enrolment in the last few years.
- 72.6% of groups collect coordination of benefits **(COB)** information for their eligible dependants. COB ensures that claims are first sent to the appropriate primary payor before they are considered for reimbursement by the plan. A greater number of plan sponsors have been collecting COB information since 1999 when only 42.5% of groups had COB information on file. The increase in drug plan costs that we have seen over the past four years could have been higher if it weren't for greater use of this highly effective tool. COB information must be kept up to date – and that's the challenge for plan sponsors. Using both positive enrolment and COB together can help manage increasing drug cost.

(1) Number of ESI Canada cardholders has increased threefold during this period.

Plan Design

- 76.9% of groups use prescription-requiring plans and 11.8% use comprehensive plans that cover all prescribed drugs (including over-the-counter items prescribed by a physician). The chart below shows the percentage of groups using prescription-requiring plans has increased since 1999 and that comprehensive plans have become less popular. Plans that mimic a provincial formulary have decreased to 2.5%. In addition, only 8.8% of groups use other types of managed formularies.

Drug Coverage...



Percentage of Groups in each Plan Design

- 49.4% of groups have a generic substitution component in their drug plans and an additional 5.2% use mandatory generic plans. A standard generic substitution plan pays for the lowest cost interchangeable drug unless the physician indicates "no substitution" or "dispense as written." Mandatory generic plans pay for the generic regardless of physician indication. The use of both types of generic plans has increased since 1999 from 43.2% and 2.6%, respectively. Generic substitution can be effective in controlling costs, as generic items are typically 30% to 40% less expensive than their brand equivalents.
- 61.7% of groups have a prior authorization requirement on several medications, up from 34.2% of groups in 1999. Prior authorization programs can help reduce drug costs as long as the savings generated outweigh the cost to administer the program. These programs can also provide plan sponsors with the reassurance that plan members are receiving the most appropriate and cost effective treatment. The popularity of prior authorization has likely increased due to the introduction of new high cost drugs which may have multiple indications, may be prescribed for "off label" use, and have the potential to be administered in a hospital setting.
- 31.5% of groups use professional fee caps to encourage the use of low fee pharmacies. The two most common fee caps are $6.50 and $8.00. Use of fee caps has decreased slightly since 1999.

Using a managed formulary that includes a mandatory generic component plus a prior authorization program may help a plan sponsor manage future drug costs since these tools can address the utilization, new drug, and therapeutic mix components of trend. Professional fee caps may also be introduced to help control inflation and can help make plan members more conscientious shoppers.

Member Payment

- 76.9% of groups have a member payment requirement. This has remained relatively constant since 1999; however, the mix of member payment types has changed slightly.
- 9.3% of groups have a deductible that is typically $25 per year. This amount has remained relatively constant since 1999 and is typically satisfied with the first claim of the year since the average prescription is now over $50 [2].

- 20.4% of groups require a member co-payment per prescription as seen in Table 1. The member portion typically varies from 20 cents to $15 but is rarely more than $5. The most common co-payment is a fixed $2 per prescription. For the majority of groups, this dollar amount is unchanged since 1999 even though drug costs have been rising each year. As a result, a $2 co-payment now represents less than 4% of the cost of a typical prescription [2].

Table 1: Member Portion - Co-payment

Member Payment	1999	2003
< $2.50 per prescription	12.7%	8.6%
$2.50 - $5.00 per prescription	7.1%	6.2%
> $5.00 per prescription	0.6%	0.9%
Copay = Dispensing Fee	2.6%	4.1%
Tiered Copay (i.e., $2/generic; $5/brand)	0.6%	0.6%
	23.6%	20.4%

- 55.5% of groups use co-insurance (members pay a percentage of each prescription) as seen in Table 2. The member portion is typically from 10% to 30%, with 20% being the most common. Co-insurance can be effective since it ensures that the member portion keeps pace with increasing drug costs and dispensing fees and it can encourage members to be conscientious shoppers. 7.8 % of groups use tiering to further encourage conscientious shopping and 7.9% use sliding co-insurance in order to cap the member's out of pocket payment. Overall, use of this effective cost containment tool has increased since 1999.

Table 2: Member Portion – Co-insurance

Member Payment	1999	2003
10% or less	5.0%	9.0%
11%-29%	23.9%	28.6%
30% +	3.2%	2.3%
Tiering (i.e., 20% formulary; 30% non-formulary)	11.1%	7.8%
Sliding (i.e., 20% of first $2500; 0% thereafter)	5.9%	7.9%
	49.1%	55.5%

Having plan members pay a portion of their prescription costs is an important aspect of managing drug trend. The most effective strategy includes using co-insurance which keeps pace with changes in drug costs and dispensing fees more effectively than an annual deductible or fixed dollar co-payment per prescription.

Conclusion

To mitigate future trend, plan sponsors should use several tools in conjunction with one another since each tool has its own attributes. Plan sponsors should also periodically review their plan design choices in order to ensure they remain effective including re-enrolment of COB and updating of member payment tools as required. Furthermore, there are other, more advanced strategies such as managed formularies and tiering that plan sponsors should consider using to preserve the pharmacy benefit in an era of rising drug costs and increasing consumer demand for prescription drugs.

(2) Based on ESI Canada average cost allowable per prescription outside Quebec in 2003 of $51.83.

2003
ESI CANADA DRUG TREND REPORT

ESI CANADA®

ESI Canada is a leading health benefits management company. Serving 5 million members, we help insurance carriers, third party administrators, and the public sector optimize the value of drug and dental benefits by linking the talent and professional expertise of our people with leading-edge information management systems and technology. ESI Canada is a wholly-owned subsidiary of Express Scripts Inc., one of the largest pharmacy benefit management (PBM) companies in North America (Nasdaq: ESRX).

About Maritime Life

Maritime Life, a subsidiary of Manulife Financial as of April 28, 2004, offers financial security through a selection of personal insurance, disability and critical illness insurance, investment products, pensions, and group life and health products and services. Based in Halifax, Nova Scotia, Maritime Life provides benefits to nearly three million Canadians through offices in Halifax, Montreal, Markham, Toronto, Kitchener, Calgary and Vancouver.

Maritime Life