


2017 CANADIAN HEALTH AND DENTAL TREND



benefits division

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TREND DEFINED?

Trend in its simplest form is a financial factor (expressed as a percentage) applied to claims to account for the changing cost of providing Health and Dental services over time. There are several components that contribute to the overall trend factors applied to Health and Dental. The most impactful of these will be discussed in the pages that follow. While it is possible to have "negative trend", the factors are usually inflationary and represent expected increases in future costs.

The trend factors developed by insurers are typically conservative, as they are concerned about protecting themselves against a financial loss. Trend also represents an opportunity for the insurer to include margin into the rate structure, thereby providing some padding to their bottom line results. Our role, as ***your*** Plan Advisor, is to ensure that the trend applied to your plan is fair and equitable for you, not for your insurance company or service provider.

When developing our Rate Models for your renewal, or when making claims projections for a self-insured client, we do not simply adopt the trend factors applied by your insurer. On the contrary, we use our experience, knowledge and expertise to determine a trend factor that is reflective of both internal and external influences. Our intent is to develop a position on trend that is reasonable and reflective of your unique situation. While we have to be mindful of what is occurring in the marketplace, we are not bound by it.

Insurers may not agree with our trend projections. We can however, negotiate a renewal position that is fair in relation to our Rate Model pricing – a methodology that includes our more aggressive position on Health and Dental trend factors.

INSURER TREND

We continually monitor the trend factors applied by the insurance industry. Information is gleaned from renewal proposals, market survey questionnaires and industry publications.

Beginning in 2012, insurers announced, with great fanfare, that Health Trends were being reduced. In 2011 and in the previous five years, the insurance industry used Health Trend of around 15%. In 2012 the average trend factor used by insurers was reduced to approximately 11.5% and has remained around that level ever since.

On the surface this was excellent news because of the impact that trend has on pricing or renewals and market quotations, but our opinion is that these factors remain overstated.

When negotiating renewals, insurers consistently tell us that their trend factors are developed by conducting an actuarial evaluation of their book of business. Despite their supposedly independent analysis, the majority of the industry develops numbers that are strikingly similar - despite significant differences in their relative size, technological / plan design capabilities and areas of geographic concentration.

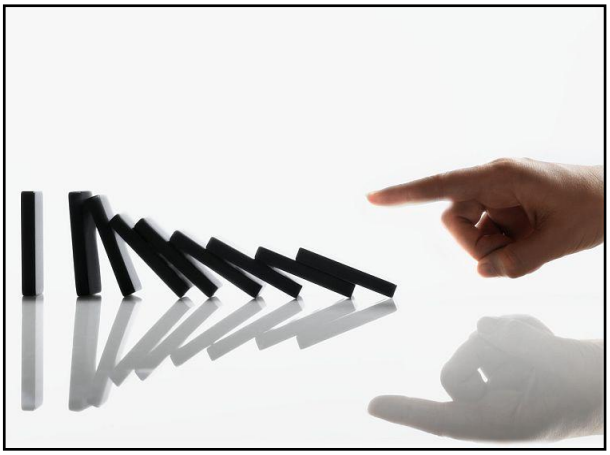
Although we would expect an insurer with a strong presence in a single province to have different results than an insurer with a truly national presence, this rarely occurs. An insurer with a robust technological platform, a wide ranging array of fraud management and cost management alternatives should have lower trend than a smaller, less sophisticated provider, but the numbers don't reflect this.

The similarity in trend factors suggests that the majority of providers are "playing it safe" and using factors that are comparable to the competition, as opposed to figures that are truly specific to their book of business.

Factors from a Recent Market Survey…

Average Trend:	***11.47%***
Most Common Trend	***11.50%***
Highest Trend:	***12.40%***

FORCES THAT AFFECT HEALTH AND DENTAL TREND



Trend is comprised of a number of components which blend together to influence the cost of providing coverage over time. The most common factors are:

- ***Utilization Patterns:*** This refers to the change in demand for a product or service over time. Influences over utilization include things like the age of the employee population, demands for new technology and social acceptance of products/services.

- ***Inflation:*** Characterized as increases in the cost of providing identical products and services over time. This is what most people think about when referencing the idea of "trend".

- ***Technological advances:*** This represents changes in cost that result from the emergence of new medical procedures, equipment and medications that replace existing technology. Although technology will typically result in an immediate increase in Health and Dental costs, it is possible to have advances that will reduce costs in the long term.

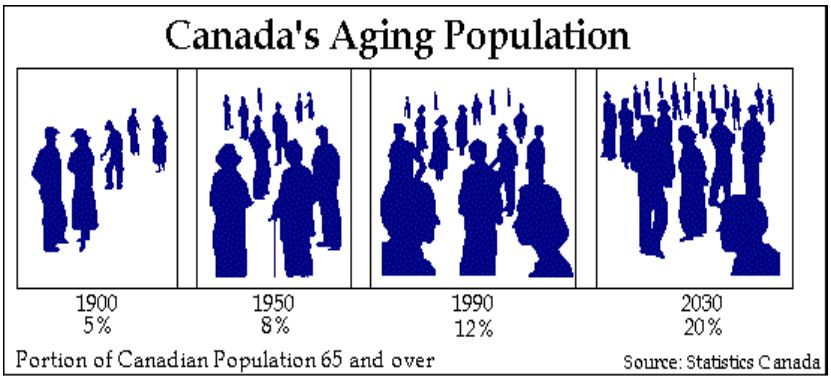
- ***Deductible leveraging:*** This refers to the reduced effectiveness of a fixed deductible over time. Unless deductibles are increased to keep some type of pace with inflation, they are less and less effective at placing a drag on claims as they represent a declining percentage of the claims value. Most plans have not increased deductibles since they first implemented them, in some cases going back as far as the 1970's. Plan design elements such as coinsurance, generic substitution on drugs, managed formularies and strict adjudication requirements are far more effective at reducing costs and modifying claiming patterns.

- ***Legislative Changes:*** These can have both an inflationary and deflationary impact on private health plans. Reductions in coverage in the public medicare system typically result in higher claims for private plans, which are often required to fill in the gaps that are formed. Deflation is less common, but the generic drug price controls implemented over the last few years are examples of a legislative change that has had a positive impact on drug claims.

HEALTH TREND – PULLING BACK THE CURTAIN

Although we can't review every one of the root causes and influences that work together to shape employee claiming patterns, we can provide additional information on some of the broader causes for your perusal.

An Aging Population



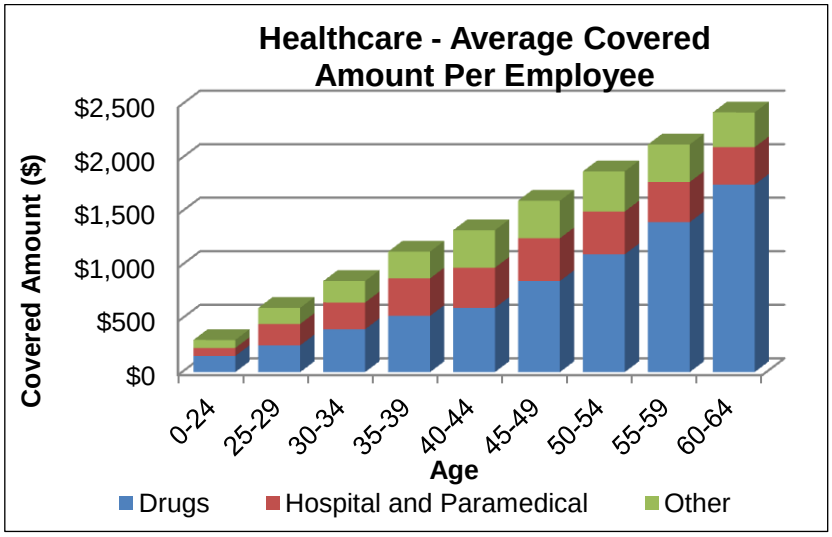
It is a fact of life – we all get older! In fact Canadians are living and working longer than ever as demonstrated by the graphic in the insert. It is estimated that by 2030 one in five Canadians will be over the age of 65. Many of these people will stay active in the workforce because they have the drive, motivation and health to do so. In some cases people will work longer out of necessity, if their personal financial situation requires them to keep working in order to avoid outliving their resources.

It is an intuitive statement that many of us can personally relate to – "the older we get, the more things start to break down". As we age our need to access the Healthcare system increases and the treatments that we require become more and more costly. Hip and knee replacements, hospital stays, the use of maintenance medications, therapy and medical equipment become more commonplace as we age.

Many of these expenses are currently paid for in the public domain for people age 65 and over, so this is not a complete "doomsday" scenario for employers. Employers will still have to contend with some expenses however, as private plans will still cover a portion of drug costs, hospital stays, medical equipment, etcetera.

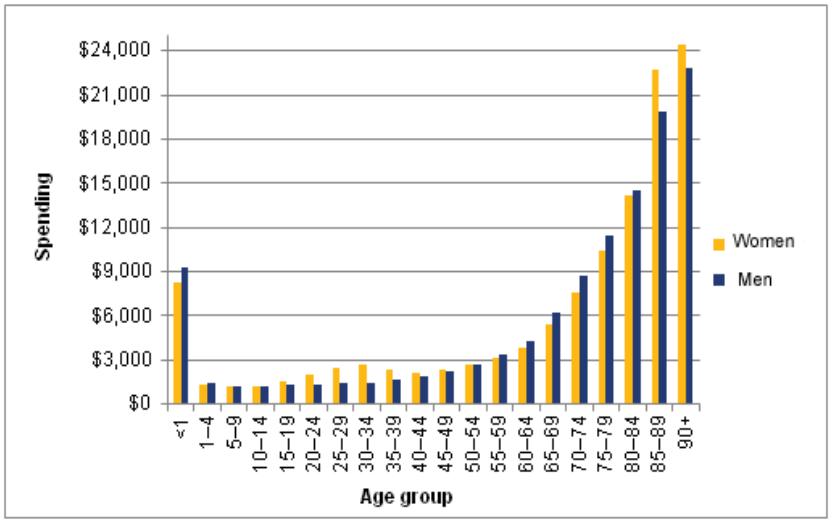
An Aging Population (cont'd)

A graphic illustration of the impact of aging on claims is contained in the table below which measures the average claim payments per insured employee at various age brackets under the age of 65. The largest percentage of privately paid Health costs is made up of drugs and this is the area where we see the most significant increases as people age.



Source: Canadian Insurance Industry

The table above does not demonstrate the claims impact of those over 65, but if we look at the per capita public sector spending on Healthcare in this country (see table below, Government of Canada Data), there is clearly an exponential increase in cost associated with aging.



We can conclude that the increase in public sector spending on Healthcare will be mirrored by age-related increases in per capita spending for covered employees for hospital accommodation, paramedical practitioners, durable medical equipment & prescription drugs not covered by public Healthcare. Private sector liability will dip at age 65 due to the uploading of some drug expenses from the private sector to the public system, but the exponential climb will continue after the age of 65.

Hospitalization

The majority of employee benefit plans provide coverage for semi-private hospital accommodation. Some plans take this a step further and extend coverage to both semi-private and private rooms, although this is less common. What is really being covered is the individual's preference or choice to stay in a semi-private or private room as opposed to a ward.

There are three factors that drive the cost of providing this element of coverage. These are:

Frequency

Of the top five most expensive conditions requiring admission to hospital as an in-patient; Palliative Care, Chronic Obstructive Pulmonary Disorder, Heart Failure, Knee Replacement and Childbirth; the likelihood of an occurrence of all but one (childbirth) increases with age.

Duration

Data provided by the Canadian Institute for Health Information indicates that the average duration of a hospital stay has remained relatively stable at between 7.0 and 7.3 days. There is, however, a marked difference in the length of stay by type of condition, with longer stays being attributed to Palliative Care, Chronic Obstructive Pulmonary Disease (COPD) and Heart Failure. As noted above, the frequency of these events increases with age.

Daily Surcharge

The table below illustrates the cost to upgrade from ward to semi-private accommodation in the Greater Toronto Area, with similar increases applying across the province and the country.

Hospital Name	Jun. 1/13	Jun. 1/14	Jun. 1/15	Jun. 1/16	Jun. 1/17
Mount Sinai	$280.00	$280.00	$280.00	$280.00	$310.00
St. Michael's	240.00	240.00	250.00	250.00	285.00
Toronto East	240.00	240.00	240.00	240.00	250.00
Toronto General	225.00	250.00	250.00	275.00	280.00
Toronto Western	250.00	250.00	250.00	275.00	280.00
Rouge Valley Centenary	245.00	245.00	245.00	245.00	245.00
Scarborough General	235.00	235.00	235.00	235.00	235.00
Scarborough Grace	235.00	235.00	235.00	235.00	235.00
Trillium Health Network	240.00	240.00	240.00	240.00	250.00
Humber River Regional	250.00	250.00	250.00	250.00	250.00
North York	240.00	240.00	240.00	250.00	250.00
Average	$243.64	$245.91	$246.82	$252.27	$260.91
% Increase	**2.1%**	**0.9%**	**0.4%**	**2.2%**	**3.4%**

Prescription Drugs

For the majority of employer sponsored plans, prescription drugs are the single largest category of Healthcare expenditures, representing 65% or more of their total Health claims. As a result, the increase in per capita health claims over time (i.e., Trend) is most significantly impacted by prescription drugs.

Insurers continue to point to high-cost specialty medications, an aging population and an increase in the use of drugs for maintenance conditions as a primary cause of trend. While these are true statements, the reality is that Health Trend has benefited in recent years from both legislative change and a phenomenon referred to as "The Patent Cliff".

Legislative Changes

The last few years has seen provincial governments across Canada place strict limits on the pricing of generic drugs. Not only were these restrictions applied to public sector pricing, but they were also extended to the private sector. Presently, the cost of generic drugs has been limited to between 20% and 35% of the brand name price, depending of the jurisdiction. In addition, the cost of the fourteen most common generic molecules was limited to 18% of the brand price in most Canadian jurisdictions.

The fourteen (14) molecules, along with the brand name and the most common condition treated are:

1. ***Atorvastatin {Lipitor – cholesterol}***
2. ***Ramipril {Altace – blood pressure}***
3. ***Venlafaxine {Effexor – depression}***
4. ***Amlodipine {Norvasc – blood pressure}***
5. ***Omeprazole {Losec – ulcers, reflux)***
6. ***Rabeprazole {Acifix – ulcers, reflux}***
7. ***Citalopram {Cipralex – depression)***
8. ***Pantoprazole {Protonix– ulcers, reflux***
9. ***Rosuvastatin {Crestor – cholesterol)***
10. ***Simvastatin {Zocor – cholesterol}***
11. ***Clopidogrel {Plavix – heart disease, stroke}***
12. ***Gabapentin {Neurontin – seizures, neuropathic pain)***
13. ***Metformin {Glucophage – type 2 diabetes}***
14. ***Olanzapine {Zyprexa – schizophrenia, bipolar disease***

Prescription Drugs (cont'd)

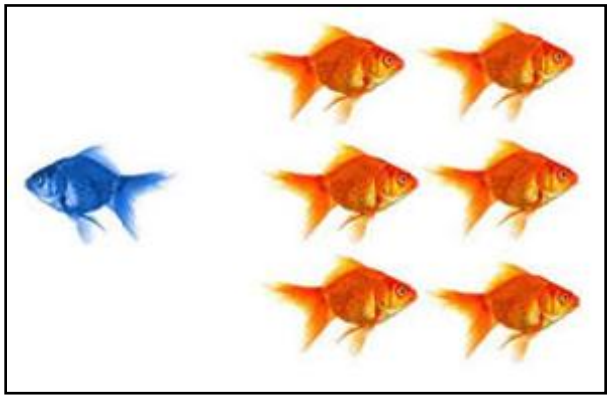
The "Patent Cliff"

More than 30 key brand name drugs have lost their patent protection between 2009 and 2014. At the beginning, these drugs represented almost 30% of total drug cost under plans administered by ESI Canada Inc., a major pharmacy benefit manager.

Combine the impact of the patent cliff with the legislated changes to generic drug pricing and we have had winning conditions for consumers and plan sponsors. Insurers now advocate that this suppression of expenses is a short term "resetting of the bar" and not indicative of the long term trend in drug expenses, which will continue to rise at historical levels.

A Contrarian Viewpoint

In contrast to the insurers' position, a study done by IMS Brogan has forecast drug trend at 2.8% or less per year through to 2017. While their methodology appears to be sound, the research was also commissioned by the Canadian Brand Name Pharmaceutical industry. The purpose of the study was to demonstrate that drug costs are not the problem in Healthcare so some level of skepticism towards the results is warranted.



Our conclusion is that the IMS Brogan number at 2.8% is likely too low and the insurers' number of approximately 11.5% too high. Based on the results we have been seeing for our clients and the historical overestimation from insurers, the drug trend factor that we are using in modeling is typically in the range of 4% to 7%.

Health Pooling and Biologic Drugs

Regardless of the funding method in place – Refund, Non-Refund or Administrative Service Only (ASO), virtually all benefit plans contain an element of Health pooling designed to protect against catastrophic expenses. The decision on how much and what type of financial risk a plan can absorb is very much dependent on each individual client.

In some cases, specific types of expenses are pooled from first dollar (e.g., out-of-country emergency medical), while other types of claims are pooled above an attachment point. These claims are therefore excluded from the rating process. The most common arrangement provided by insurers as a standard offering is first dollar pooling for out-of-country emergency medical/travel assistance and a $10,000 pooling level per person or per certificate for all in-Canada Health or Drug claims.

The most common type of expense that will cause a plan member to exceed the in-Canada pooling threshold is biologic drugs. This class of drug provides treatment options for serious or rare illnesses where no effective treatments were previously available, such as cancer, rheumatoid arthritis, multiple sclerosis and diabetes. Even familiar drugs like vaccines and insulin are, in fact, biologics. The chart below shows how biologics differ from traditional drugs.

Traditional Drugs	Biologic Drugs
Produced through chemical synthesis	Produced using living micro-organisms (e.g., bacteria)
Smaller, less complex molecules	Large, complicated molecules
Low cost generics readily available after patent expiration	Subsequent entry biologics (SEBs) may offer some cost relief, but the role and impact of SEBs is still being explored

While biologics represent a significant development in treating serious illnesses, they can be extremely expensive compared to traditional drugs. Overall, specialty biologic drugs are used by a small proportion of patients in Canada, but their total cost is becoming increasingly significant. ***Specialty biologic spending represents only 1.3% of claims but continues to grow as a percentage of total drug spending; increasing from 13.2% in 2007 to 24.2% in 2013.*** This increase is primarily driven by high treatment costs and an increase in utilization.

Paramedical Services

This category of coverage usually represents between 15% and 25% of total Healthcare claims, the next largest category after prescription drugs. It is also often one of the fastest growing categories and includes service providers such as massage therapists, acupuncturists, speech therapists, physiotherapists, psychologists, chiropractors, osteopaths and podiatrists.

Coverage for paramedical services varies from employer to employer in terms of the actual practitioners covered and the annual maximum reimbursed per practitioner category (or for all combined). Many employers struggle with this category of coverage, in particular when faced with large increases in utilization year over year. Some of the reasons for these increases include:

- *A greater acceptance of the validity of various paramedical treatments.*
- *The availability of different types of service providers, particularly within our ethnically diverse society.*
- *Access to much more varied health and wellness information.*
- *Wait times in the public healthcare system.*
- *A desire from some to try non-pharmaceutical alternatives.*
- *Aggressive marketing of services by practitioners and wellness centers, some of which could include questionable billing or service provision practices.*

The inclusion or exclusion of some or all paramedical practitioners is an individual decision that must be made by each employer. One perspective is that paramedical coverage will help reduce absences and “presenteeism” by improving overall health and may even reduce the cost of prescription drugs. A contrarian view is that that some practitioners represent a “feel good” opportunity and do not result in long term benefits to health and wellness. Insurers try to manage the medical necessity aspect of claims and there are plan design changes that can be made to limit the potential for abuse.

In many cases, it is a matter of corporate priorities and philosophy around how benefit dollars will be spent.

DENTAL TREND – DRILLING BENEATH THE SURFACE

We live in a society where private dental coverage is common, but not pervasive. Health Canada indicates that 62% of Canadians have private dental insurance, 6% have public coverage and 32% have no coverage at all. 74% of Canadians have visited a dentist in the last year and 17% avoided going to the dentist because of the cost.

Although there is no proven link between the presence of coverage and visiting the dentist, the numbers seem to indicate that people with coverage are more likely to go to the dentist because the complete cost is not coming solely out of their pocket.

Provincial Fee Guides

A Fee Guide is a list of suggested fees for dental services published by the various provincial dental associations across Canada. The notable exception is Alberta, where a fee guide has not been published since 1997. There is usually a Fee Guide for General Practitioners, as well as separate Fee Guides for Specialists who charge more for their specialization and expertise.

Insurance companies and third-party administrators use the Fee Guides as a “reasonable and customary” guideline for the purpose of calculating eligible reimbursement amounts under a plan. While most plans pay according to the “Current General Practitioner Fee Guide in the Province of Residence”, some plans will also pay for Specialists Fee Guides and others may pay according to a historical Fee Guide (e.g., Current minus two years or fixed 2013).

Each year a new list of suggested (typically higher) fees is published. One key thing to remember is that the published list is a Fee Guide, not a Fee Schedule. Dentists are allowed to charge whatever they wish for the provision of their services. The insurers will reimburse according to the Fee Guide specified under a plan and any excess amount is the responsibility of the patient.

Provincial Fee Guides (cont'd)

The following increases are noted for 2015, 2016 and 2017.

Province	2015	2016	2017
Newfoundland	1.8%	1.5%	3.0%
Prince Edward Island	2.3%	2.5%	1.5%
Nova Scotia	2.2%	3.5%	1.8%
New Brunswick	2.0%	2.0%	2.0%
Quebec	2.1%	2.6%	2.5%
Ontario	1.5%	2.0%	1.7%
Manitoba	2.9%	2.4%	2.9%
Saskatchewan	2.0%	1.9%	2.2%
Alberta*	3.2%	2.9%	1.8%
British Columbia	2.0%	3.2%	4.5%

* As previously noted, the Alberta Dental Association does not publish a formal Fee Guide.

We note that insurers do not all use the same adjustment for dental Fee Guides. Some will use the average announced by the provincial association while others will calculate a factor (typically higher) that is specific to their book of business. Our Rate Model calculations use the average increase announced by the provincial dental association(s).

Technology

Technology is advancing in almost every aspect of society and the field of dentistry is no exception. New technologies may offer additional convenience and better treatment but they do come at an added cost. Some new treatments and technologies are quickly adopted by the insurers as part of standard reimbursement, while others are rejected – either because the value they bring is purely cosmetic or because they have not yet been proven over an extended period of time. The more popular new technologies include:

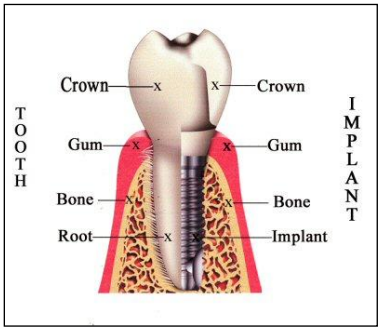
- ***CAD/CAM:*** CAD/CAM (computer assisted design, computer assisted manufacture) technology allows for the fabrication of dental restorations through computerized technology.

- ***Digital X-rays:*** Digital radiographs capture dental images and processes the image onto a computer screen.

- ***Cavity Detection Solution:*** A liquid dye is applied over a tooth to confirm that all decay has been removed from a treated area. The solution is similar to the plaque disclosing tablets or mouthwash that is used to highlight areas missed during brushing.

- ***CAT Scans:*** A 3-D image CAT scan is used to help implant specialists view and work on bone structure. This technology has become increasingly specialized for dentistry as implants, rather than dentures.

- ***Composite Materials:*** Composite resins are being used as part of veneers and/or restorations. These resins provide a tooth-like look and feel and have grown in popularity. They are continually being improved and refined to produce more natural looking results, typically at an increased cost.



- ***Dental Implants:*** Implant technology continues to improve, although most plans do not cover them unless there is an alternative treatment clause.

- ***Desensitizers:*** Desensitizers can be used to increase comfort during treatment if you have sensitive teeth.

- ***Optical Scanners:*** Optical Scanners provide a digital map of the tooth and create a 3-D replica model of the dental structure. This helps in accurate color analysis for cosmetic restorations made in a dental laboratory such as porcelain veneers, crowns and bridges.

Marketing

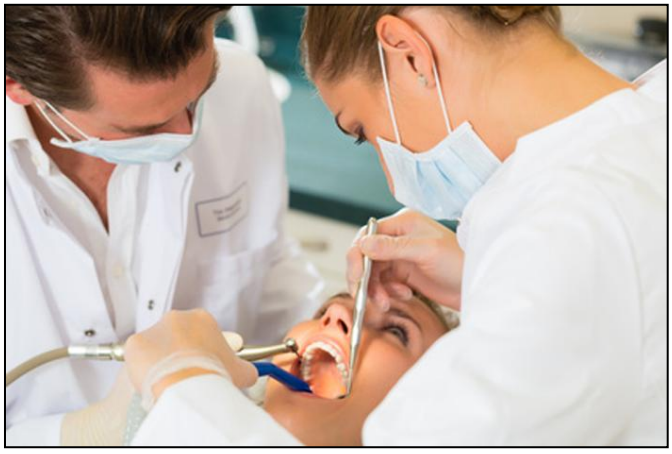
As a profession, dentists are among the most trusted in Canada (according to a Reader's Digest poll) with 63% of respondents considering their dentist trustworthy. As a result, when their dental office recommends a procedure or treatment it is usually followed without question. What people often forget is that dentists are independent businesspeople and they have a financial motivation to get you into the chair as often as possible and perform procedures on you once you are there.

The frequency of recall exams or check-ups is a prime example. The Canadian Dental Association website has this to say about recall visits:

> ***"Examinations are an important part of maintaining healthy teeth and gums and the frequency should be determined in consultation with your dentist. Some people need more frequent examinations while others can have a yearly exam."***

The reality is that most dental offices schedule recall exams according to coverage availability rather than having a consultation with their patients. If we extrapolate this simple example to other services – how much of the recommended treatment is absolutely necessary and how much is because it is covered?

This isn't to say that patients are being harmed, but as consumers we put more thought into the purchase of a flat screen television than we do into what the dentist is doing in our mouths.



HEALTH AND DENTAL FRAUD AND ABUSE

Fraud and abuse can be significant contributors to a benefit plan's claim experience and, thus, to renewal costs. Fraud and abuse siphon dollars away from the payment of legitimate claims and result in a drain on valuable and finite benefit dollars.

"Abuse" is a situation where a service or supply is provided to a covered person even though it was not "medically necessary."

Abuse is a "Wellness Clinic" that refers a patient from a chiropractor to a massage therapist for treatment simply because the patient has exhausted their annual chiropractor maximum.

Abuse is an individual who views their benefit plan maximums as an entitlement and obtains massage therapy simply because they saw a sign encouraging patients to use up their massage benefits before the end of the year, rather than because it was warranted.

"Fraud" can come in many forms, but usually involves a claim being submitted for a service that wasn't actually preformed; a supply that wasn't actually provided; or a charge that was inflated above what was actually paid by the patient.

Fraud can be as simple as an employee or a provider submitting a claim for acupuncture when massage therapy was performed, a clinic submitting a claim to an insurer for orthotics that were not requested by or supplied to the patient, or a dentist billing for dental procedures not actually performed or indicating a higher number of time units than was performed.

Health fraud in Canada is a serious problem, estimated to have a multi-billion dollar price tag. Fraud against employee benefit plans can be perpetrated by claimants or service providers independently, or the two can work together for mutual gain.

The problem with insurance fraud is that it is difficult to detect, and even harder to prove. It is seldom reported, either because employees don't pay sufficient attention to receipts or, in some cases, the employee is an active participant. In looking at the Fraud Triangle to the right, a benefits plan presents an attractive target:

Opportunity: The claims submission process is partially based on trust and self-reporting, involving third-party reimbursement of funds for the goods or services purchased. This presents an excellent opportunity for someone predisposed to fraudulent behavior.

Rationalization: Insurance fraud is often seen as a victimless crime. The perpetrators view the victim as a large, faceless insurance company with deep pockets. There is no thought given to the employer and/or employees who pay the cost of the benefit plan. There are often ready-made excuses, such as "I don't get paid enough", "My manager upset me" or "I don't really use the plan, even though I pay for it, so I might as well get something out of it."

Motivation: The opportunity for "easy money" or to have something you want paid for on your behalf can be a significant motivation for some individuals.

Health insurers and third party benefit payors have formed the Canadian Health Care Anti-fraud Association to pool resources, share information and address the problem head-on. Identifying and proving fraud is a significant challenge, but there are education and plan design elements that can be helpful. In addition, we review claims data for any anomalies or trends that could be of concern. Where appropriate, we engage the services of the insurer's fraud detection unit if we feel there are claims or areas that should be investigated.