

Making a Right Turn



How better managed drug plans that engage employees are the way to a sustainable future

by Helen Stevenson

Founder + CEO, Reformulary Group

Author of "*An End to Blank Cheques*"

Former Assistant Deputy Minister of Health in Ontario
and Executive Officer, Ontario Public Drug Programs

January 2015

Introduction

Employer drug plans occupy a unique position in Canadian health care. They are a safety net under our publicly-funded system, providing peace of mind and ensuring the availability of otherwise unaffordable prescription drugs to millions of Canadians.

In 2011, I released a white paper called *An End to Blank Cheques*¹, which urged employers to consider several approaches for getting more value out of the drug plans they were offering their employees. At the time, I had just finished

Public drug plans have delivered value: Ontario was successful in delivering \$1.5 billion of savings and better access to drugs

five years as head of Ontario Public Drug Programs, during which my first and most important objective was to bring down the cost of the

drug plan that the province was funding for seniors and other program recipients. It was a challenging but successful period, delivering about \$1.5 billion of savings to the provincial government. It also left me committed to the idea that there are many things that can be done to deliver more value in the private sector, and that private drug plans really must deliver that value if those plans are to survive in the long term.

Three years after the release of *An End to Blank Cheques*, some small progress has been made. Some employers are waking up to the fact that a well-managed plan can be a competitive advantage, as well as an opportunity to share savings with employees and get them involved in managing their

Too many private plans in Canada remain high on cost, and low on value...and most patients today want to be involved in the management of their health care

health. The fact remains, however, that too many private plans in Canada remain high on cost, and low on value.

In addition, many employers and plan administrators are ignoring

what is really the burning reality of 21st century health care — the fact that most patients today want to be involved in the management of their health care. We are in the era of “on-demand” consumers, where products and information about those products is readily available to the people consuming them. The healthcare industry in general has been slow to acknowledge this reality. It may well be one of the last frontiers in this regard.

Consequently, I have chosen to write another white paper — one that expands on many of the ideas in the first, but also explores the importance of looking at drug plans through a consumer lens, because that is certainly how consumers are looking at them. My goal is to encourage employers to view things differently, and to do things differently. I believe, as the name of this paper suggests, that they need to make a right turn.

Why “Making a Right Turn”

I have been captivated by one of the stories in the book “Start-up Nation” by Dan Senor and Saul Singer. The story is about a computer chip designed by Intel’s engineering team in Israel. One of Intel Israel’s top engineers “...had been tinkering with a way to produce low-power chips, which went blatantly against the prevailing orthodoxy that the only way to make chips faster was to deliver more power to their transistors.”²

The Israeli team came up with a design that emphasized more efficient, lower-speed chips that did not have the impressive-seeming clock speed of existing chips, but actually ran software faster. “What could be better than a car that goes faster without overheating? Yet what the Israeli team saw as an asset — that the engine turned more slowly — headquarters saw as a big problem. After all, the entire industry measured the power of chips by how fast the engine turned: clock speed.”³

The team had to overcome an extraordinary amount of resistance from their US colleagues before finally convincing the company that this switch in philosophy was the way to go. The book’s author’s describe “...a historic showdown between Intel’s top executives in Santa Clara, and its Israeli team”, and the survival of Intel turned on the outcome.⁴

It turned out they were right, and the new chips fueled extraordinary market growth for Intel during the middle of the last decade. This adoption of a brand new paradigm became widely known, within Intel and throughout the broader industry, as a “right turn”.

The connection between a discovery by some Israeli microchip engineers a decade ago and the fate of employer drug plans in Canada today is a simple one.

The Americans thought that trying to convince the industry that slower clock speeds were a better metric was “...tantamount to trying to convince Ford to abandon its quest for more horsepower or telling Tiffany’s that carat size does

not matter”⁵. In other words, a massive disruption of the status quo, and one they absolutely did not want to make. The Israelis, however, understood that chips

overheating were soon going to become a serious issue in their industry, and that the path they were on was in fact the path that their competitors would soon have to adopt as well.

I have thought about that story a lot, and frequently feel as if we are in much the same position the Israeli engineers found themselves in. We design formularies, which are the lists of drugs funded by company drug plans, and we spend a huge amount of time trying to convince potential clients that better managed plans and employee engagement do not constitute disruption.

The fate of employer drug plans in Canada lays in making a “right turn”

As Intel Inside® is to computers, Reformulary® is to drug plans. Drug plans powered by Reformulary are the way of the future. And the future belongs to the people who get there first. Employers and private drug plan administrators must consider taking the same leap of faith the Intel engineers took.

If employer drug plans are to survive, and if Canadians are to continue being able to count on the safety net that drug plans provide, then the people who run those plans must make a right turn. And that starts by understanding and acknowledging the factors at play in the world of private drug plans today.

Consumer-in-Chief

The first of these factors might be described as the “digital omnivore”, namely consumers owning and regularly using a laptop, tablet, and smartphone. Advances in electronic technology and information gathering have wrought many changes in our society, not only in how we are able to deliver services like health care, but also in the attitudes and expectations of the people receiving those services. In this regard, healthcare planners are beginning to understand that they need to regard patients as active

Patients should be regarded as active consumers...we live in an era where almost any information is available on demand

consumers, because that is how patients are beginning to regard themselves.

We live in an era where information — almost any

information — is available on demand. People use their phones to update bank balances, check flight availability, or see what a specific dress would look like when worn. There is a chocolate manufacturer who is currently testing

3D printers in consumers’ homes to allow them to personalize chocolates. And in Australia, the Commonwealth Bank has an app that enables home buyers to identify a house they like, have the listing sheet sent to their phone, and apply for a homeowners loan. Many people understand perfectly well that their health information ought to be easily available as well. As consumers, we now assume at a very basic level that when we want to know something, there is an electronic world where that information can be found. And the feeling of empowerment that accompanies that finding can change very quickly to a feeling of frustration when information is for some reason not available.



A recent Deloitte study on the evolution of consumer behaviour coined the term “Consumer-in-Chief”, and offered this advice to companies that want to inspire consumer loyalty:

“The evolution continues today, taking consumer empowerment to the next level...The Consumer-in-Chief demands choice, flexibility, and personalized attention....”⁶

What that means for drug plans is that, increasingly, employees are going to want to know more about which drugs are funded, which are not, and why. They are going to want to be able to find that information easily online, and they are going to want to be involved in making drug choices for themselves. And they are going to be frustrated if they cannot have those things. Employers are going to need to choose, and soon, between having employees who feel informed, empowered and satisfied, or frustrated and kept in the dark.

The Durability Question

The second factor that must be considered by employers and plan administrators is cost versus value. This may be particularly true when it comes to drugs, which are one of the fastest growing costs in health care today. Indeed, for much of the last two decades, drug spending has consistently grown faster than overall health spending in this country. The problem is that while we are spending more on our drug plans, we are not necessarily getting more value. And we may be getting less. That is a problem for plans today. In 10 or 20 years, it could be a disaster.

New medicines seemingly appear on the market every day. There is no denying that many are wondrous, life-saving, quality of life improving products. In those cases, the value is high. There is, for example, a new drug for hepatitis C — called Sovaldi — which has been touted by some as a potential cure. But a full treatment costs approximately \$84,000 in the U.S., and here in Canada, where the drug received regulatory approval in December 2013, treatment can cost as much as \$55,000. In some cases, patients need a second course, increasing the cost to \$168,000 and \$110,000, respectively. And, Sovaldi is given in addition to

the traditional combination of drugs for hepatitis C.

The challenge is that millions of people have hepatitis C, so some view the new drug as

The durability question: Will your drug plan be sustainable 5 to 10 to 20 years into the future?

almost a mass-market drug. “Giving every hepatitis C-positive Canadian that treatment [Sovaldi] would cost an estimated \$14 billion”⁷ — about equal to what private sector drug plans in Canada spend on all prescription medications. In the U.S. the cost is estimated at \$300 billion.⁸

This new hepatitis C drug is just one of a large number of new specialty drugs, which can offer a huge benefit to patients but at significant cost to health plans. According to Cubic Health, a staggering 63% of all new drugs approved by Health Canada in 2013 were specialty drugs, which paints an increasingly expensive picture for drug plans going forward.⁹

That picture is made even more expensive by the fact that many new drugs find their way onto the market, despite the fact they offer little additional benefit over existing drugs. And for reasons that are not entirely clear, most private plans continue to fund them, offering what is known as an open formulary. Essentially, these plans list and pay for any drug at any price, regardless of the value they offer.

The result: a constantly upward pressure on the costs of drug plans, and no corresponding rise in value. The drug spend in Canada for 2013 is estimated at \$34.5 billion, of which 63% is absorbed by the private sector.¹⁰ If we estimate a conservative growth in drug spend of 2.4%, the private sector is facing more than a half billion dollar increase in drug spending this year, and more than that the year after that.

“The inability to contain drug costs in Canada has led to increased labour costs, making Canadian enterprises less competitive”

Nobody wins in that situation. Not employers, not employees, and not the economy. Marc-Andre Gagnon put it this way in the *Toronto Star* in August 2014: “The inability to contain

drug costs in Canada has led to increased labour costs, making Canadian enterprises less competitive. The possibility of losing drug coverage also reduces labour mobility for employees.”¹¹

Hence, the durability question: will your drug plan be sustainable 10 and 20 years into the future?



Two households, both alike in dignity

"In the world of business, Shakespeare proves the superior guide...people lose sight of what matters and focus on their rivals instead," notes Peter Thiel in the book "Zero to One".¹²

Thiel, and Shakespeare, might very well have been thinking specifically about the pharmaceutical business, where dust from the battle for market supremacy between the makers of brand name drugs and generics constantly threatens to obscure the more important goal of delivering effective, affordable drugs to people who need them.

The battle for market supremacy between brand and generic drugs threatens to obscure the goal of delivering effective, affordable drugs to Canadians

The fact is, whatever changes might occur in the way employers manage their drug plans, they are happening in the face of resistance and rivalry from within the

pharmaceutical industry. It is an understandable fact that some pharmaceutical companies don't want to see drug plans beginning to manage their formularies, because that would mean certain drugs — usually the more expensive "me-too" ones — may be funded at a lower reimbursement level.

The most notable recent approach being used by brand name pharmaceutical manufacturers involves what are called co-pay, coupon, or pharmacy benefit cards. These cards are exclusively for brand name drugs that are off-patent and have generic versions on the market, or for drugs that are about to come off patent. The cards are intended to encourage patients to request brand name medications instead of lower-cost generics, in exchange for which the brand name drug company will make up the difference in price or patient co-pay.

The problem here is that these cards circumvent good formulary practice and provide incentives for patients to choose a medication that is often more costly for their employer or health plan. Coupon cards also run dramatically counter to a well-established trend in Canada, which is that for the past 60 years, every province has required that generic drugs be substituted for brands in the provincial drug programs. This is called generic substitution, and by all accounts, it has been a true success story in bringing lower cost versions of brand name drugs to Canadians.

Furthermore, in an article titled, "Prescription-Drug Coupons – No Such Thing as a Free Lunch", the *New England Journal of Medicine* had this to say about coupon cards: "Despite the short-term savings achievable with coupons, they do not offset higher long-term costs... The more that patients use drug coupons to obtain brand-name medications when lower-cost alternatives are available, the more expenses will rise for their insurers. A predictable response from the insurers would be to raise premiums for all plans and individuals."¹³

Coupon cards appear to be part of a strategy to undermine the success of generics. Tom Blackwell of the *National Post* sums it up: “As the brand-name industry confronts unprecedented competition, some companies are — through sponsored talks by physicians and pharmacists...and visits by drug reps — increasingly implying that generic versions of their products may be inferior, or even less safe, despite being considered interchangeable by regulators...The attacks, however, have little or no basis in empirical evidence, and are belied by 50 years of almost trouble-free use of generic drugs.”¹⁴

“The industry-funded critiques also threaten to undermine the billions of dollars in savings generics provide to governments and individuals, needed more than ever to subsidize hugely expensive new specialty medicines”, noted Johanne Brosseau, formerly of the consulting firm Mercer.¹⁵

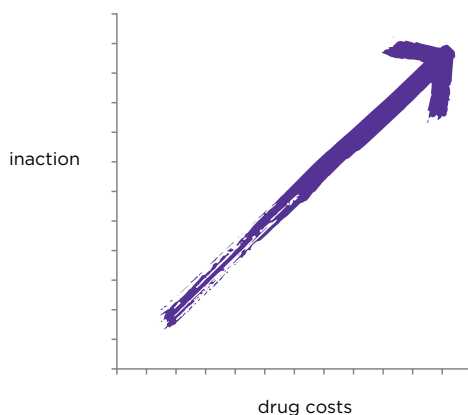
Most passive; some frozen

So how does that relate to business, and more specifically, to drug plans? In a competitive job marketplace, the quality of a company's drug plan can be one of the factors that attracts employees. It can also be a factor in a company

Drug plans are an extraordinary investment that companies make. So why are employers so passive?

retaining, or failing to retain, the best workers. Drug plans are in fact an extraordinarily important investment that companies make in their own futures. Given that, and given also how expensive these plans can be, it seems

astonishing that employers have historically been as passive as they have about managing these plans to ensure they provide good value to employees and are sustainable.



And yet, passive is just what they have been. There are stories within the industry about formularies that have been frozen — meaning that no new drugs have been added — for decades. These companies may be sparing themselves the cost of expensive new drugs, but this approach may be costing them the benefit of lower cost generic equivalents, and arguably, they are limiting access to the many critically important new medications that come onto the scene literally every year.

At the other end of the spectrum, as mentioned above, are the drug plans that fund any drug at any price. This is an entirely different form of passivity, and one that certainly sees employees getting any drug. I would argue, however, that it will be a temporary advantage at best. It is difficult to imagine how any drug plan could afford to keep funding the most expensive products, despite lower cost alternatives being available, without eventually finding ways of recouping their costs from either employees through higher co-payments, from customers through higher prices, or from both.

There are also those employers who seek to lower the cost of their plans solely through strategies like capping dispensing fees and deductibles. To them we would suggest that the formulary, or list of drugs, is the most important part of an employee drug plan. It is the drugs that improve employees' health, and help people get back to work or be more productive — not dispensing fees and out-of-pocket maximums.

It really is an interesting system. Employers provide benefit plans to their employees. Plan administrators — typically insurance companies — offer and administer those benefit plans for employers. And claims processing companies, or pharmacy benefit managers, process the claims on behalf of their own clients and/or insurance companies. They are all experts in their respective businesses, but arguably none of them are experts in formularies. And employers leave themselves at the mercy of a market in which prices rise higher and higher, without the expert advice and support they need to obtain better value for the money they are spending.

We — Reformulary Group — do one thing really well. We manage formularies really well.

A Right Turn

This, then, is the landscape facing employers and plan administrators today. Their employees/consumers are restless. Costs are rising and the value

obtained for those costs is questionable and/or diminishing. And historically, drug plans are something that have just been left alone.

On-demand consumers.
Rising costs. Questionable value.
What constitutes a right turn?

The question now is, if we accept that the road we are now on is one that leads inexorably to a

day when employer drug plans are no longer sustainable, how do we get off? What exactly constitutes a right turn? The answer, I would argue, is neither complicated nor particularly difficult. In 2011, shortly after releasing my first white paper, I launched the Reformulary Group, the first company in Canada devoted to the formulary — the heart of any drug plan. The elements of a right

turn that I will now describe are based on the successes we have enjoyed over the past three years helping employers introduce a formulary that provides value to the employer and employees. We have encouraged employers to stop being hesitant, to remember that cost without value is the perfect definition of waste, and to put the "benefit" in employee benefit plans.

Cost without value = perfect definition of waste

There isn't a successful business person anywhere who doesn't believe that both obtaining and providing value for money is critical to the running of a business. The fact is, a drug plan is a business. And it needs to both obtain and provide value for money. Too often today, that is not happening.

Funding every new drug that comes along is certainly not obtaining value for money — not when you could instead be paying for a much lower cost drug that works the same way as the original brand-name drug. One landmark study showed that 84 percent of all new drugs, which are frequently more expensive, have minimal value or no new advantages.¹⁶

In fact, funding every new drug isn't delivering good value for money to employees either, even if it might seem that way on the surface. Not when the practice results in employers finding other ways of recouping their losses from employees, or when it might one day result in there not being a drug plan at all. The simple fact is this: everything does not work; everything is not affordable; and everything does not provide value. Formularies need to be managed in a way that reflects that basic reality.

The approach I am advocating involves putting in place better managed formularies. Employers and plan administrators must ensure that the drugs covered by their plans offer the best healthcare value, by which I mean they provide the best clinical value combined with cost-effectiveness, combined with real-world benefits. Real-world benefits refer to outcomes such as people getting back to work sooner, or improved productivity or mobility. This is

seldom a hard determination to make. If drug A effectively treats heartburn and costs \$25, and drug B effectively treats heartburn and costs \$75, clearly drug A provides the better healthcare value. And to those who would

Why a well-managed formulary is a right turn

protest that it isn't that simple, my response would be that an extraordinary amount of the time, it is exactly that simple.

Generic drugs have been around for almost 60 years, and while the manufacturers of brand-name drugs might wish it were otherwise, they are not going away. The coupon card strategy described above employs the subtle suggestion that generic drugs are not as good, and brand name drugs are

more desirable. It is at best an inappropriate suggestion. Generics are proven to be bioequivalent with the brand name drug — a fact confirmed by Health Canada. In almost every case, they do exactly the same thing, and provide exactly the same health outcome. For that reason, employers should ensure that their plan mandates the substitution of generic equivalents whenever they are available. There is no medical reason not to do this, and almost always a compelling cost reason.

It is not, however, simply a question of looking for generic equivalents. What is needed is an expert assessment of the thousands upon thousands of drugs that are available, with an eye to determining which provide the best healthcare value.

The Reformulary Group takes exactly that approach, using an independent expert committee of physicians and pharmacists who determine which available drugs are best for every conceivable condition. They are an independent, arms' length and highly qualified group of clinical experts. That same group also reviews new drugs that are launched in the market, ensuring that the formulary we are proposing for employer drug plans provides the best healthcare value.

What is critical to understand about this approach is that it does not only offer one drug per condition. It does not tell employees that they only have one option. What it does, instead, is establish a 'preferred' list of drugs, which are the ones most fully paid for by the plan. This, I believe, is the approach

The Reformulary is a formulary that provides the best healthcare value while retaining an element of consumer choice

that all employers and plan administrators should be considering, because it combines providing the best healthcare value with retaining an element of choice.

The preferred list contains the drugs that are covered at the highest reimbursement level. These are the drugs — whether brand name or generic — which provide the best value. Other drugs, which do the same thing but cost more, can also get onto the formulary, but if people choose them, their co-pay will be higher. In other words, they can pick and choose the drug they want, but if they choose a drug that provides less value, they may have to absorb some of that cost.

Pharmaceutical companies would be well advised to keep an eye on this trend, as it seems almost certain to take hold in Canada in the same way that it has taken hold south of the border. As Andrew Pollack of the *New York Times* infers, smart formulary management is forcing manufacturers to compete on price if clinically equivalent, more affordable alternatives exist.¹⁷

Meet tomorrow's healthcare consumer

"Members vote for control over benefits" — headline in The 2014 Sanofi Canada Healthcare Survey.

Members vote for control over benefits

The preferred list approach is a very clear right turn away from the way things have always been done, in large measure because it involves employees in the decision-making process. Historically, plan members got a prescription from their doctor, got it filled at a drugstore, and took the drug as prescribed. As noted earlier, however, patients are less and less inclined to accept such a passive role in their health care. It may make it awkward for plan administrators to have employees paying attention to commercials for new drugs, or insisting on a particular product simply because someone they know told them it worked, but at the end of the day employee participation can be a good thing. It is simply a question of making them understand that they have a stake in things.

There is a trend in health care today towards "nudging" patients. Policies are designed to nudge people in a direction that will be supportive of healthier lifestyles and better health outcomes. Employers should consider approaches that will nudge employees towards their formulary's preferred list.

Nudge your employees in a direction that will be supportive of better health outcomes

employees understand that the drug on that list helps them just as much as the other drug, that it will cost them less and also help make their plan more sustainable, most will begin choosing the preferred drug. Our formulary is transparent – plan members who join the Reformulary can see exactly what drugs are covered, at what co-pay, and what alternatives are available. And they do not need to be at their desk, or work site, to get an answer about drugs on the Reformulary.

There are a great many ways in which employees can be brought into the fold. The Reformulary approach is to provide employers with tools to help them engage their employees in the efficient running of the plan. In particular, employees get access to what is called DrugFinder, an online tool that explains which drugs are available, what the co-pay is for each, and suggests appropriate alternatives. In this way, they are able to understand not only that there is a preferred list, but why there is such a list, and why it makes sense for them to use it.

My experience over the past few years has left me convinced that employees must be educated and engaged when it comes to drug plans, and specifically when it comes to their formularies. If

We also recognize the pharmacist as an essential partner in ensuring a positive patient experience. We communicate updates to them on a regular basis, have a Pharmacist's Tool Box on our website, and provide full access to the DrugFinder tool, which allows pharmacists to assist their patients in making the best choices for themselves.

Companies should engage with the ever-evolving, ever-demanding consumer... so that employees understand how drug choices affect their own health, their own wallets, and also the sustainability of the plans they depend on

There was a time when employees asking questions about the drugs covered by their plans was discouraged. In a great many companies, that may still be the case. That era, however, is surely coming to an end. Employers should encourage their employees to ask questions, to talk to their doctors,

and to research available drugs. An informed employee is an engaged employee, and engaged employees understand how the drug selections they make affect not only their health, not only their wallets, but also the sustainability of the plans on which they depend. And that level of awareness and involvement is critical to the future of private drug plans in this country.

"What is certain...is that to survive, companies must continue to listen to and engage with the ever-evolving, ever-demanding Consumer-in-Chief."¹⁸

Data payoff

"Whether you think that health benefit plans are a huge cost or a small cost, why would you have any cost that you don't understand?" is the trenchant question asked by Paula Allen, vice-president of research and integrative solutions at Morneau Shepell.¹⁹

You can't fix what you can't measure, and you can't manage costs if you don't understand them. That is as true in the management of drug plans as it is anywhere. It has been said that data is power. We agree. There is a lot of data out there, and we can help turn that data into information that can be used to help evaluate benefit plans and provide the most value to both employees and employers.

In the future, the best, most successful and most sustainable drug plans are those that employ experts to analyze data. This is because data is a key enabler of value. It is necessary to help plan administrators integrate and exploit extraordinary volumes of information to mine fresh insights, and to help build analytic models that predict health outcomes. By integrating a wide range of patient and demographic information, as well as data on drug efficacy, cost data from drug plan as well as disability providers, plan administrators can provide even greater value to both employees and employers.

The best data collection involves the use of different lenses. For example, a telescope is needed to get a clear view on broad trends in the market, in the pharmacy benefit area, and within drug plans. Binoculars should be used to examine actual claims data from employers subscribed to specific drug plans, such as the Reformulary, to provide insight into what has happened, such as how many plan members are changing behaviour. In other words, are employees being nudged in the proper direction?

Finally, a microscope's view is required in order to monitor adherence and link drugs with improved productivity, return-to-work, etc., or predict the probability that taking certain drugs will lead to disability.

"There's very little line of sight between what we're paying in the health benefit plan and what's actually happening as far as productivity and people at work," noted Carol Craig, director of HR, benefits and pensions at TELUS.²⁰

Conclusion

Cost allocation is always a zero sum game. With respect to drug plans, we know that somebody, somewhere, is paying. It is either the employer, which down the road will make the plan unsustainable, or the employee, which will in short order make the plan undesirable. Or, the consumer will pay through the increased cost of goods that the employer sells. I strongly believe that the road ahead for employer drug plans in Canada is a very rocky one, unless it comes to a right turn — and by the way, fast is better than slow. So to employers I say three things:

- 1. Implement a better-managed formulary in your plan.**
- 2. Empower your employees: Make them Consumers-in-Chief**
- 3. Think of claims data as a key enabler of value. Healthcare value for your employees, and predictive value for your plan**

These three recommendations are only some of what employers and administrators should be considering. There are many other avenues — avenues my company and others are beginning to explore.

There are, for example, arguments to be made for doing away with paper claims, which are really not subject to any pricing controls, and making pay-direct cards mandatory. Employers may also want to consider preferred networks of pharmacies, in which all pharmacies can participate, but only if

they provide a certain level of service and fee structure. Certainly, all plans should consider the benefits of working together. There is significant leverage to be gained by combining purchasing power, and lower drug costs would almost certainly ensue.

Whichever approaches employers settle on, the pressure to settle on something is certain to mount. Sustainability is the single biggest issue in health care today, and that is true in drug plans as well. Reformulary clients have achieved actual full-year savings of 9% to 27%, and they have done this in large measure because approximately 85% of their plan members are now taking preferred drugs. Our generic penetration rates are close to 85% compared to the private sector average of 55%. This has happened, we contend, because employees who are our plan members have been engaged, empowered and

entrusted to contribute in a positive manner to the managing of the plan.

The importance of private drug plans in Canada is beyond dispute. Neither, it seems to me, is the threat to these plans posed by rising drug costs, change, and

Reformulary clients have made a right turn, and the rest of the industry would be wise to follow

the historically passive approach taken by the people who manage the plans. The threat, however, is a manageable one. Reformulary clients and others in this country are demonstrating that this is so. They are making a right turn, and the rest of the industry would be wise to follow.

References

- ¹ Helen Stevenson, "An End to Blank Cheques," (White paper, May 2011).
- ² Dan Senor and Saul Singer, *Start-up Nation: The Story of Israel's Economic Miracle* (Toronto: McClelland & Stewart Ltd, 2011), p. 35.
- ³ Senor, et al, *Start-up Nation*, p. 35.
- ⁴ Senor, et al, *Start-up Nation*, p. 32.
- ⁵ Senor, et al, *Start-up Nation*, p. 35.
- ⁶ Deloitte Canada, "The consumer evolution – Changing behaviours trigger new business models," September 2014, p. 3.
- ⁷ Genna Buck, "A cure for hepatitis C," *Macleans* July 28, 2014.
- ⁸ Steve Miller, "The Sovaldi Tax: Gilead Can't Justify The Price It's Asking For Hepatitis C Therapy," *Forbes*, June 17, 2014.
- ⁹ Cubic Health Canadian Drug Database, 2014.
- ¹⁰ Canadian Institute for Health Information, *National Health Expenditure Trends, 1975 to 2013*, p. xi.
- ¹¹ Marc-Andre Gagnon, "A national drug plan in Canada could boost the economy," *The Toronto Star*, August 18, 2014.
- ¹² Peter Thiel, with Blake Masters, *Zero to One* (Crown Business New York, 2014), p. 38.
- ¹³ Joseph S. Ross and Aaron S. Kesselheim, "Prescription-Drug Coupons: No Such Thing as a Free Lunch," *N Engl J Med* 2013; 369:1188-1189, September 26, 2013.
- ¹⁴ Tom Blackwell, "The new drug wars: Brand-name pharma giants attack generic firms as competition grows" *National Post*, September 14, 2014, accessed at <http://news.nationalpost.com/2014/09/14/brand-name-pharma-giants-attack-generic-firms-as-competition-grows/>
- ¹⁵ Blackwell, "The new drug wars: Brand-name pharma giants attack generic firms as competition grows".
- ¹⁶ International Society of Drug Bulletins, "Increasing Drug Costs: Are we getting good value?" (Therapeutics Letter, issue 59, April – July, 2006), accessed at <http://www.ti.ubc.ca/pages/letter59.htm>
- ¹⁷ Andrew Pollack, "Health Insurers Pressing Down on Drug Prices", *The New York Times*, June 20, 2104.
- ¹⁸ Deloitte, "The consumer evolution — Changing behaviours trigger new business models", p. 19.
- ¹⁹ Sanofi Canada, "Philosophy before design", *The Sanofi Canada Healthcare Survey 2014*, June 2014, p. 24.
- ²⁰ Sanofi, *Sanofi Canada Healthcare Survey*, p. 25.