

INSIDE STORY®

JUNE 2015



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EVER SEE THE MOVIE GROUNDHOG DAY? HERE'S THE HEALTH STUDY VERSION...

As you may recall (and for those of you who haven't yet seen this classic 1993 movie complete with cult following), in the movie *Groundhog Day*¹ the main character (Bill Murray) relives the same day over and over and over again. Fortunately, he finally realizes that if he does things differently, he will get unstuck. So he does things differently, lives happily ever after, and of course he gets the girl.

So what do the movie *Groundhog Day* and the GSC 2014 Health Study have in common? Just like the movie's main character is stuck, the results of the 2014 Study suggest that we may also be stuck when it comes to drug consumption. Year after year, we see similar drug usage and drug costs. As a result of unhealthy lifestyle behaviours, plan members continue to develop a range of chronic conditions—which for the most part are preventable—and which represent high costs.

But the good news is, just like in the movie, we can break the cycle and get unstuck. We can do things differently and have our own version of a happy ending: healthier plan members, less drug usage, and lower costs. Let us show you by running through the age bands...

By the way, the GSC 2014 Health Study was done in partnership with IMS Brogan Inc., all data was provided by GSC representing our entire book of business, and the study period was July 1, 2013–June 30, 2014.

So here goes...



0-10 YEAR OLDS:

Like 2013—and not surprising where kids are concerned—in the 2014 study, antibiotics for colds, coughs, ear infections, and nasty respiratory issues dominate drug usage. And as we've also seen before, drug volume doesn't necessarily correlate with drug costs; despite only placing third in terms of claims volumes, ADHD is number one in terms of costs simply because ADHD drugs are more expensive than antibiotics.

Rank	Category	Disease State	Volume
1	PENICILLINS	INFECTION	18.34%
2	ADRENERGIC AGENTS	ASTHMA/COPD	9.47%
3	CNS STIMULANT AGENTS	ADHD	7.53%
4	ANTI-INFLAMMATORY AGENTS (SMMP)	DERMATOLOGY	6.41%
5	RESPIRATORY ANTI-INFLAMMATORY AGENTS	ASTHMA/COPD	6.37%

Rank	Category	Disease State	Cost
1	CNS STIMULANT AGENTS	ADHD	15.62%
2	ADRENERGIC AGENTS	ASTHMA/COPD	9.83%
3	PENICILLINS	INFECTION	8.13%
4	RESPIRATORY ANTI-INFLAMMATORY AGENTS	ASTHMA/COPD	7.61%
5	ERYTHROMYCINS	INFECTION	4.35%

11-20 YEAR OLDS:

Again no surprises here; contraception takes the lead and like in 2013, we see the full-blown emergence of mental health drug claims. Interestingly (and worryingly), when the mental health drugs are combined, mental health claims climb to the number one positon, even above contraception. Regarding costs, although drugs for ADHD continue to lead the way, biologics have already entered the scene: not for rheumatoid arthritis but Crohn's and colitis. And it's not really a spoiler alert because as you may have predicted, biologics now continue throughout the age bands.

Rank	Category	Disease State	Volume
1	ORAL CONTRACEPTIVES	CONTRACEPTION	11.89%
2	CNS STIMULANT AGENTS	ADHD	9.29%
3	ANTIDEPRESSANT AGENTS	DEPRESSION/ ANXIETY/SLEEP DISORDERS	8.90%
4	ANTIPSYCHOTIC AGENTS	PSYCHIATRIC	6.73%
5	PENICILLINS	INFECTIONS	4.70%

Rank	Category	Disease State	Cost
1	CNS STIMULANT AGENTS	ADHD	16.70%
2	ORAL CONTRACEPTIVES	CONTRACEPTION	8.32%
3	ANTIDEPRESSANT AGENTS	DEPRESSION/ ANXIETY/SLEEP DISORDERS	6.64%
4	ANTIPSYCHOTIC AGENTS	PSYCHIATRIC	6.17%
5	INJECTABLE BIOTECHNOLOGY AGENTS	RA & OTHER AUTOIMMUNE	6.02%

21-30 YEAR OLDS:

Like 2013, contraception-use is alive and well. And fear not, although methadone for substance abuse appears in the third spot of drug usage, as explained in the spring 2015 *Follow the Script*TM, it is dispensed daily, resulting in an artificially high volume of claims. Fortunately it is inexpensive, so it doesn't even appear in the cost breakdown. Biologics are now number three on the cost side as Crohn's and colitis continue to have an impact, and rheumatoid arthritis sets in.

Rank	Category	Disease State	Volume
1	ORAL CONTRACEPTIVES	CONTRACEPTION	16.73%
2	ANTIDEPRESSANT AGENTS	DEPRESSION/ ANXIETY/SLEEP DISORDERS	8.92%
3	METHADONE POWDER FOR COMPOUNDING	SUBSTANCE ABUSE THERAPY	6.35%
4	PENICILLINS	INFECTION	3.61%
5	NSAID AGENTS	PAIN	3.08%

Rank	Category	Disease State	Cost
1	ORAL CONTRACEPTIVES	CONTRACEPTION	12.97%
2	ANTIDEPRESSANT AGENTS	DEPRESSION/ ANXIETY/SLEEP DISORDERS	9.80%
3	INJECTABLE BIOTECHNOLOGY AGENTS	RA & OTHER AUTOIMMUNE	9.78%
4	CNS STIMULANT AGENTS	ADHD	4.64%
5	CONTRACEPTIVES OTHER	CONTRACEPTION	3.22%

31-40 YEAR OLDS:

Like 2013, antidepressants are now number one and drugs to treat ulcers and GERD (gastroesophageal reflux disease) enter the scene. From here on in, GERD is reflected in every age band. As for costs, by the 30s, biologics have risen to the top due to rheumatoid arthritis. Although biologics are in the number one spot, this actually represents a very small number of plan members. GSC plans cover over a million plan members and less than a thousand are taking what meets our criteria of a high-cost drug of \$40 a day or about \$15,000 a year.

Rank	Category	Disease State	Volume
1	ANTIDEPRESSANT AGENTS	DEPRESSION/ ANXIETY/SLEEP DISORDERS	9.93%
2	METHADONE POWDER FOR COMPOUNDING	SUBSTANCE ABUSE THERAPY	6.98%
3	ORAL CONTRACEPTIVES	CONTRACEPTION	5.58%
4	NSAID AGENTS	PAIN	3.90%
5	PROTON PUMP INHIBITORS	ULCERS/GERD	3.76%

Rank	Category	Disease State	Cost
1	INJECTABLE BIOTECHNOLOGY AGENTS	RA & OTHER AUTOIMMUNE	14.87%
2	ANTIDEPRESSANT AGENTS	DEPRESSION/ ANXIETY/SLEEP DISORDERS	9.58%
3	MULTIPLE SCLEROSIS AGENTS	MULTIPLE SCLEROSIS	4.41%
4	ORAL CONTRACEPTIVES	CONTRACEPTION	3.80%
5	PROTON PUMP INHIBITORS	ULCERS/GERD	3.77%

41-50 YEAR OLDS:

Now the health study version of *Groundhog Day* swings into high gear as we see the same shift in drug usage as in 2013 into the world of chronic diseases—mainly due to plan members' unhealthy lifestyles. Another interesting development in this age band is that it becomes clear that plan members taking antidepressants are also often taking pain medications. Drugs for mental health issues top the list and cholesterol drugs enter the scene—and where there is one chronic condition, we know there are likely more on the horizon. On the cost side, as we've seen before, biologics are now trailed by a range of drugs with a common thread—they treat chronic conditions.

Rank	Category	Disease State	Volume
1	ANTIDEPRESSANT AGENTS	DEPRESSION/ANXIETY/ SLEEP DISORDERS	9.23%
2	PROTON PUMP INHIBITORS	ULCERS/GERD	4.89%
3	NSAID AGENTS	PAIN	4.20%
4	NARCOTIC ANALGESICS – SHORT ACTING	PAIN	4.14%
5	HMG-COA REDUCTASE INHIBITORS	CHOLESTEROL	3.74%
6	METHADONE POWDER FOR COMPOUNDING	SUBSTANCE ABUSE THERAPY	3.31%
7	THYROID AGENTS	THYROID	3.28%
8	ANTICONVULSANT AGENTS	ANTICONVULSANTS	3.16%

Rank	Category	Disease State	Cost
1	INJECTABLE BIOTECHNOLOGY AGENTS	RA & OTHER AUTOIMMUNE	13.35%
2	ANTIDEPRESSANT AGENTS	DEPRESSION/ANXIETY/ SLEEP DISORDERS	8.68%
3	PROTON PUMP INHIBITORS	ULCERS/GERD	4.83%
4	MULTIPLE SCLEROSIS AGENTS	MULTIPLE SCLEROSIS	3.86%
5	ANTIVIRAL AGENTS	INFECTION	3.45%
6	NARCOTIC ANALGESICS – LONG ACTING	PAIN	2.76%
7	ANTINEOPLASTIC	CANCER	2.70%
8	LONG ACTING BRONCHODILATORS	ASTHMA/COPD	2.68%

51-70 YEAR OLDS:

Like 2013, the 50s and 60s can be summed up in a word: Impactables—the plan members taking a range of drugs for chronic diseases that accounts for the majority of costs. Just like the movie, we relive the impact of the Impactables from one year to the next through the rising incidence of chronic conditions. Regarding costs, although biologics are number one, drugs to treat chronic conditions really add up: 89.27% for the 50s and 94.54% for the 60s.

What do high blood pressure, high cholesterol, and depression have in common?

Plan members suffering from any one of these conditions have three times the claims volume and three times the claims costs as plan members who don't have one of these conditions.

And even higher is...diabetes

Plan members with diabetes have the highest volume of claims and the second highest claim costs, behind only biologics users. They have four times the claims volume and four times the claims costs versus non-diabetics.

THE 50s

Rank	Category	Disease State	Volume
1	ANTIDEPRESSANT AGENTS	DEPRESSION/ANXIETY/ SLEEP DISORDERS	7.31%
2	HMG – COA REDUCTASE INHIBITOR	CHOLESTEROL	7.07%
3	PROTON PUMP INHIBITORS	ULCERS/GERD	5.24%
4	ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	HYPERTENSION	4.55%
5	ANGIOTENSIN II RECEPTOR ANTAGONISTS	HYPERTENSION	3.54%
6	NSAID AGENTS	PAIN	3.52%
7	NARCOTIC ANALGESICS – SHORT ACTING	PAIN	3.30%
8	THYROID AGENTS	THYROID	2.97%
9	ANTICONVULSANT AGENTS	ANTICONVULSANTS	2.87%
10	B-ADRENERGIC BLOCKING AGENTS	HYPERTENSION	2.67%

Rank	Category	Disease State	Cost
1	INJECTABLE BIOTECHNOLOGY AGENTS	RA & OTHER AUTOIMMUNE	10.73%
2	ANTIDEPRESSANT AGENTS	DEPRESSION/ANXIETY/ SLEEP DISORDERS	6.53%
3	PROTON PUMP INHIBITORS	ULCERS/GERD	5.32%
4	HMG – COA REDUCTASE INHIBITOR	CHOLESTEROL	4.24%
5	MISCELLANEOUS ANTIDIABETIC AGENTS	DIABETES	3.89%
6	ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	HYPERTENSION	3.30%
7	ANTINEOPLASTIC	CANCER	3.19%
8	GENERALLY INCLUDED INSULIN – ALL TYPES	DIABETES	3.08%
9	NARCOTIC ANALGESICS – LONG ACTING	PAIN	2.75%
10	NSAID AGENTS	PAIN	2.60%

71 TO INFINITY:

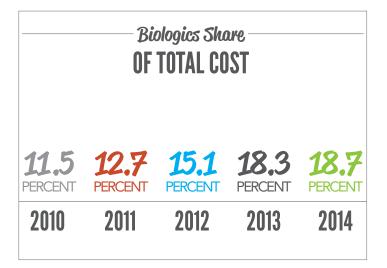
As in previous years, the 70s are basically a roll call for chronic disease in terms of both drug volume and drug costs. In addition, interestingly, the 70s represent the first generation of "more mature" biologic-users. We won't call them old!

Rank	Category	Disease State	Volume
1	HMG – COA REDUCTASE INHIBITOR	CHOLESTEROL	8.07%
2	ANTIDEPRESSANT AGENTS	DEPRESSION/ANXIETY/ SLEEP DISORDERS	6.54%
3	PROTON PUMP INHIBITORS	ULCERS/GERD	6.07%
4	DIURETICS	HYPERTENSION	5.48%
5	B–ADRENERGIC BLOCKING AGENTS	HYPERTENSION	5.41%
6	ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	HYPERTENSION	4.91%
7	CALCIUM CHANNEL BLOCKING AGENTS	HYPERTENSION	4.60%
8	ANGIOTENSIN II RECEPTOR ANTAGONISTS	HYPERTENSION	3.44%
9	THYROID AGENTS	THYROID	3.43%
10	COAGULANTS AND ANTICOAGULANTS	THROMBOSIS	2.70%

Rank	Category	Disease State	Cost
1	PROTON PUMP INHIBITORS	ULCERS/GERD	6.96%
2	HMG – COA REDUCTASE INHIBITOR	CHOLESTEROL	5.85%
3	INJECTABLE BIOTECHNOLOGY AGENTS	RA & OTHER AUTOIMMUNE	4.91%
4	ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	HYPERTENSION	3.18%
5	ANTIDEPRESSANT AGENTS	DEPRESSION/ANXIETY/ SLEEP DISORDERS	3.18%
6	ANTINEOPLASTIC	CANCER	3.08%
7	B-ADRENERGIC BLOCKING AGENTS	HYPERTENSION	3.01%
8	CALCIUM CHANNEL BLOCKING AGENTS	HYPERTENSION	2.99%
9	CHOLINERGIC AGENTS	ALZHEIMER'S DISEASE	2.94%
10	COAGULANTS AND ANTICOAGULANTS	THROMBOSIS	2.64%

LET'S GET UNSTUCK!

Although in 2014, there is only a slight increase in biologics' share of overall costs and little movement in the top ten high-cost DINs list, these high-cost drugs are making an impact. For instance, keep an eye out for Sovaldi and Harvoni—the new and expensive drugs for hepatitis C—which are sure to be high up in next year's most costly DINs list.



Top Ten DINS By Cost – GSC			
2013	2014		
REMICADE 100MG INJ	REMICADE 100MG INJ		
HUMIRA 40MG/0.8ML INJ	HUMIRA 40MG/0.8ML INJ		
ENBREL 50MG/ML PRE-FILLED SYRINGE	ENBREL 50MG/ML PRE-FILLED SYRINGE		
APO-ESOMEPRAZOLE 40MG TABLET	CIPRALEX 10MG TABLET		
CIPRALEX 10MG TABLET	APO-ESOMEPRAZOLE 40MG TABLET		
NEULASTA 6MG (10MG/ML) INJ	CYMBALTA 60MG CAPSULE		
EZETROL 10MG TABLET	EZETROL 10MG TABLET		
SYMBICORT 200 TURBUHALER	NEULASTA 6MG (10MG/ML) INJ		
CYMBALTA 60MG CAPSULE	SYMBICORT 200 TURBUHALER		
NEXIUM 40MG TABLET	VICTOZA MULTIDOSE PEN 6MG/ML INJ		

While new high-cost drugs are definitely now on the scene, what the health study version of *Groundhog Day* really hits home is that overall drug usage and drug costs are similar year over year. And remember, close to 70% of the costs of the combined age bands in the 2014 study are generated by plan members between the ages of 35 and 65.

Fortunately, like in the movie, we *can* get unstuck... by impacting the Impactables. But how? By helping our plan members to bust out of the chronic disease loop by supporting them to change their lifestyles. In case you haven't heard yet, the Change4Life™ health portal is live; it is a targeted, incentive-based health management solution that provides plan members with interactive online tools and resources that support and encourage them to live healthier lives. And it's available to all plan members through GSC's Online Services. Convenient, eh?

Medication Non-Adherence: Another Groundhog Day Scenario				
Take a look at the disease states—all chronic conditions—and then take a look at the ongoing level of non-adherence. It's déjà vu.				
	2013	2014		
Hypertension drugs	36 %	37 %		
High cholesterol drugs	42 %	43 %		
Depression drugs	54 %	55 %		
Diabetes drugs	45 %	45 %		

We can also break the cycle by improving medication adherence. With so many plan members taking drugs for chronic conditions, non-adherence makes matters even worse as their conditions don't improve, get worse, or morph into other issues. By the way, Change4Life also includes the Stick2lt™ medication reminder service, which helps plan members remember to take their medications as they are prescribed.

So back to the movie, although it's not clear how long it takes Bill Murray to get unstuck, some aficionados estimate as long as 30 years. Fortunately, in terms of the health study version of *Groundhog Day*, we can start helping our plan members with chronic conditions get unstuck right now!



A CATALYST FOR CHANGE...

Whether dental services, vision care, prescription drugs, disease management, or mental health support, frontline care can act as a catalyst for a brighter future. Accordingly, through our granting programs we support organizations and initiatives that provide frontline care for uninsured populations like the homeless, the working poor, and those on social assistance. Here's a firsthand look at one of our grant recipients...

Responsive to vulnerable populations' need by providing innovative connections

For 25 years, Access Alliance Multicultural Health and Community Services (Access Alliance) has been improving health outcomes for immigrants and refugees who are marginalized and experiencing complex health and social issues. Access Alliance's vision is that Toronto's diverse communities achieve health with dignity, which is precisely the goal—and the name—of their new program called Health With Dignity (HWD). The HWD Team increases access to basic health care through three main strategies:

- → Health care service delivery: The HWD Team will conduct health assessments, initiate care plans, and provide primary care services and chronic disease management, as well as link clients to Access Alliance's other primary care providers as needed.
- → Health care coordination and system navigation: The HWD Team will coordinate referrals for support in areas like employment and housing, as well as dental and vision care.
- → Client self-management: The HWD Team will help clients develop knowledge, skills, and confidence to improve their self-navigation abilities.

SPOTLIGHT ON 'The snowball effect'.

Each GSCF Frontline Care™ grant recipient must also include a navigator or coach—a concept that can trigger ongoing positive change by connecting vulnerable people to additional services to help improve their specific situation.

Ease of navigation is a fundamental operating principle of the HWD. As "system navigators," the case managers are focused on improving coordination of care, reducing barriers to accessing services, and enhancing timely access to care.

They are able to effectively advocate for clients due to their in-depth understanding of the how the health care system works at both the local and system levels. Overall, their expertise enables them to find creative solutions for vulnerable clients, even those who have unique or complex needs or experience barriers to service.

GSC funding makes things happen

Support from the GSC Foundation helped make HWD a reality. As a result, HWD outreach activities mean that more immigrants and refugees are receiving the assistance they need. In addition, by learning to navigate the maze of services, HWD is helping these vulnerable populations gain the confidence and independence to thrive.



RECENT SMOKING STUDIES PROVIDE INTRIGUING INSIGHTS

New research into smoking provides insight into its true impact on smokers' health and how to help smokers become non-smokers.

→ The Cost of Smoking: A Manitoba Study: This study linked 45,000 survey responses about smoking to health services records from 1989 to 2012 to measure the cost of smoking in Manitoba. It found that smoking costs Manitoba's publicly-funded health care system an extra \$244 million a year. The study also found a reduction in life expectancy of only 1.5 years for those who ever smoked and only two years for those who smoke every day. This contrasts other research that estimates a reduction in life expectancy of five to ten years. Although smokers may live almost as long as non-smokers, the study also found that smokers are sicker and use more health care than non-smokers. These findings suggest that the cost of smoking isn't necessarily offset by premature death.

For more information, the study is available at http://mchp-appserv.cpe.umanitoba.ca/reference/Cost_Smoking_final.pdf

→ Nudging Smokers: This study assigned 2,538 employees and their family members and friends to different smoking cessation programs to assess what is more likely to motivate a smoker to enter a program and to quit. People who were assigned to a cessation program that included a reward for quitting were more likely to agree to participate. However, only a small number who participated actually quit. By contrast, not as many people agreed to participate in a cessation program that included a penalty if they didn't quit. However, these participants were twice as likely to quit. These findings suggest that risking some of their own money provided added motivation to quit.

For more information, the study is available at www.nejm.org/doi/full/10.1056/NEJMe1503200

→ Increased Functional Connectivity in an Insula-Based Network is Associated with Improved Smoking Cessation Outcomes: This study did MRI scans of 85 smokers and studied activity in the insula—the area of the brain that regulates cravings—to determine whether some smokers' brains are hardwired to make quitting easier. After being assigned to different study groups, all participants had to stop smoking and take nicotine replacement. The MRI scans of those who successfully quit showed more insula activity than those who relapsed. These findings suggest that it may be possible to identify smokers who have a harder time quitting and then tailor cessation support. However, further research is necessary because the insula is very complex.

For more information, the study is available at www.nature.com/npp/journal/vaop/ncurrent/full/npp2015114a.html

If you have plan members struggling to quit smoking, ask your account executive about the GSC Smoking Cessation program.

MANITOBA ADDS 69 NEW DRUGS TO PHARMACARE

Sixty-nine new drugs are now available via Manitoba Pharmacare of which 49 are generic drugs. Some of the additions include:

- → **Adempas** for inoperable chronic thromboembolic pulmonary hypertension
- → Breo Ellipta and Combivent Respimat for chronic obstructive pulmonary disease
- → Dovobet gel for psoriasis
- → **Innohep** (in three new strengths) for thromboembolism disorders
- → **Jetrea** for symptomatic vitreomacular adhesion
- → Pomalyst for multiple myeloma
- → Sovaldi, Harvoni, and Ibavyr for hepatitis C

What does this mean for your plan?

If you have plan members in Manitoba, their prescriptions for these drugs may now be covered by Manitoba Pharmacare once their Pharmacare deductible is met. For more information, please visit the government of Manitoba at news.gov.mb.ca/news/index.html?item=34634&posted=2015-04-23

June Haiku Groundhog Day redux
The same old same old story
Change4Life can help

Winner of the draw for an iPad mini

Congratulations to M.Petrie, of London, Ontario, the winner of our monthly draw for an iPad mini. Through this contest, one name will be drawn each month from plan members who have registered for Plan Member Online Services for that month.



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London	1.800.265.4429	Vancouver	1.800.665.1494
Toronto	1.800.268.6613	Windsor	1.800.265.5615
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	Customer Service	1.888.711.11	19