GREAT-WEST LIFE
DRUGSOLUTIONS

5 Big Ideas
in Drug Plan Management
For 2018

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The Mearie Conference
June 21, 2018

High Cost Drugs – Private Plans

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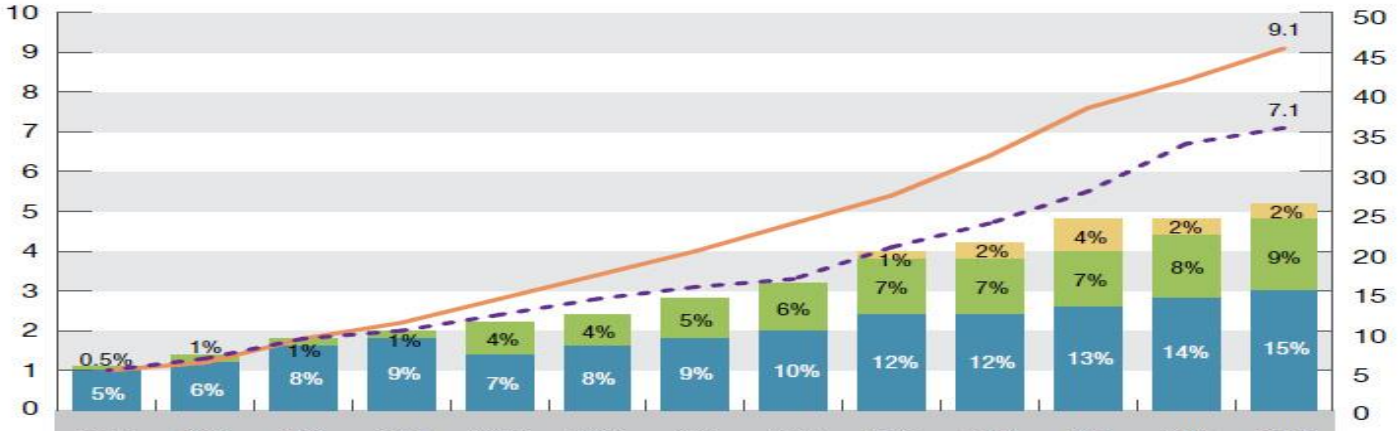
High-cost drugs represented over 25% of private drug plan costs in 2017



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Share of overall cost/ Part des coûts totaux	6%	7%	9%	10%	11%	13%	15%	17%	19%	22%	24%	25%	26%
Number of molecules/ Nombre de molécules	23	31	41	45	56	65	72	77	95	107	126	154	163

High-cost drug share of overall cost/ Part des coûts totaux attribuable aux médicaments à coûts élevés

- $50,000+
- $20,000–$49,999
- $10,000–$19,999

Index of number of molecules/ Indice du nombre de molécules

Index of drug cost/ Indice du coût des médicaments

Source: Patented Medicine Prices Review Board 2018

High Cost Beneficiaries – Private Plans

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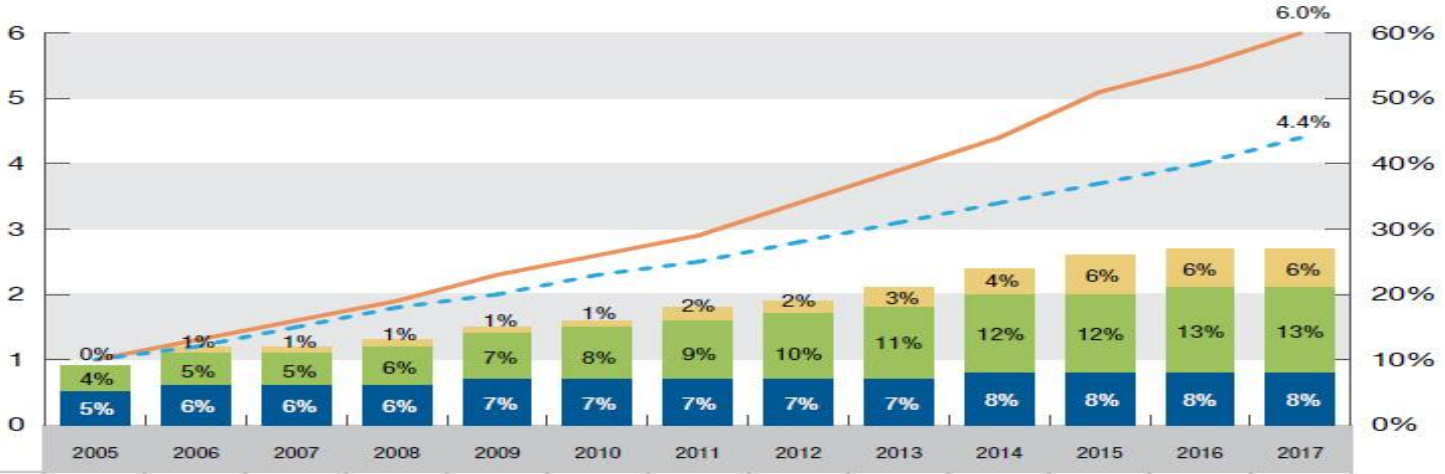
High-cost beneficiaries increased more than fourfold since 2005



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Share of overall cost/ Part des coûts	9%	11%	12%	13%	15%	16%	18%	19%	22%	24%	26%	26%	27%
High-cost beneficiaries per 100,000/ Bénéficiaires à coûts élevés sur 100 000	263	310	359	406	461	506	542	559	620	663	705	745	785

High-cost beneficiary share of overall cost/ Part des coûts totaux attribuable aux bénéficiaires à coûts élevés

- $50,000+
- $20,000–$49,999
- $10,000–$19,999

Index of number of active beneficiaries/ Indice du nombre de bénéficiaires actifs

Index of drug cost/ Indice du coût des médicaments

Source: Patented Medicine Prices Review Board 2018

Drug plan management

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- Drug spending is rising dramatically, we all know that. But what is NEW that may help SOLVE the challenges of rising drug spend?

Drug plan management

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5 NEW things to talk about in Drug Plan Management in 2018

1. Pharmacoeconomics
2. Data mining
3. Biosimilar drugs
4. Pharmacogenetics
5. Medical Cannabis

Pharmacoeconomics

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- 2018 marks a change in the marketplace with all of the major carriers eliminating "prescription by law" plans
- At GWL we call this SMART – Sustainable Managed And Reasonable Treatment
- This marks a dramatic change, gone are the days of open plans that add drugs based solely on Health Canada approval
- Pharmacoeconomics is a word you should know and be able to discuss

The SMART drug plan: overall process

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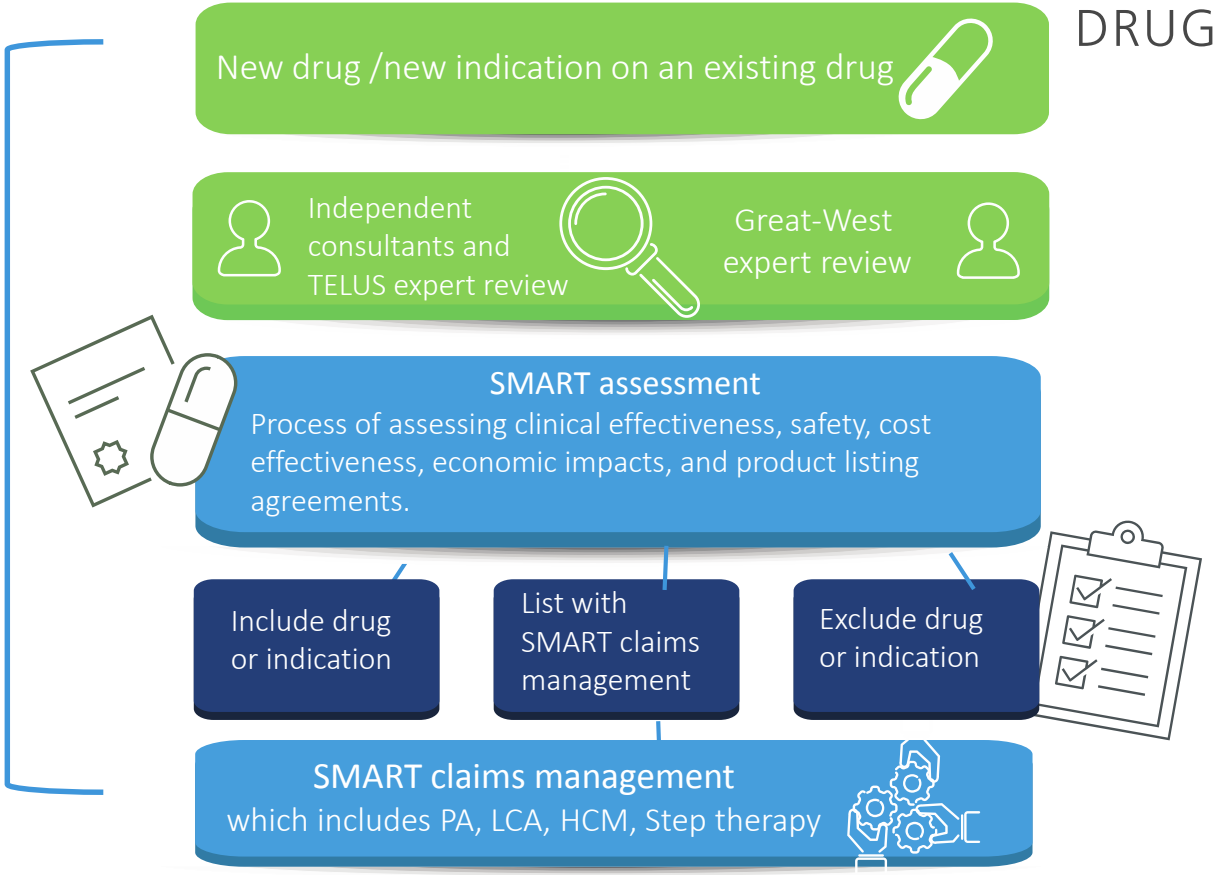
Review period of 6-9 months



Pharmacoeconomics

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Pharmacoeconomics:

- A branch of economics that uses globally accepted standards to determine the value of a drug by bringing numerous factors into the equation, in addition to cost
- The goal is to translate the drugs expected outcomes into mathematical variables, for example impact on hospitalization, disability, quality of life, safety, absenteeism and presenteeism
- Especially useful when multiple drugs with different price points are available to treat one condition
- Allows decision makers to assess differences is cost with differences in safety and effectiveness

Health Canada Drug Review Process:

- **Is it safe?**
- **Does it work better than nothing?**

Pharmacoeconomics

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Level of therapeutic improvement

- Health Canada approves drugs based on whether they are safe and work better than nothing, a placebo. They do not compare new drugs to old drugs
- The PMPRB compares new drugs to old drugs:

Category	Type	2010	2011	2012	2013	2014	2015	2016	2010-2016 Summary	2010-2016 Summary % split	2010-2016 Summary Revenue Share
1	Breakthrough	3	1	1	5	3	1	3	17	2%	3%
2	Substantial improvement	0	5	3	2	7	3	0	20	3%	7%
3	Moderate improvement	14	27	8	17	7	8	9	90	13%	23%
4	Slight/no improvement	51	76	70	91	87	73	116	564	82%	67%
		68	109	82	115	104	85	128	691	100%	100%

Dr. Mike Evans

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- Your doctor is making prescription choices based on:
  - Research they have read
  - What's advertised
  - Their own experience
  - What others prescribe

- Cost is not part of the decision making process

Source: https://www.youtube.com/watch?v=DRCsCiRTFHQ&feature=youtu.be

Data mining

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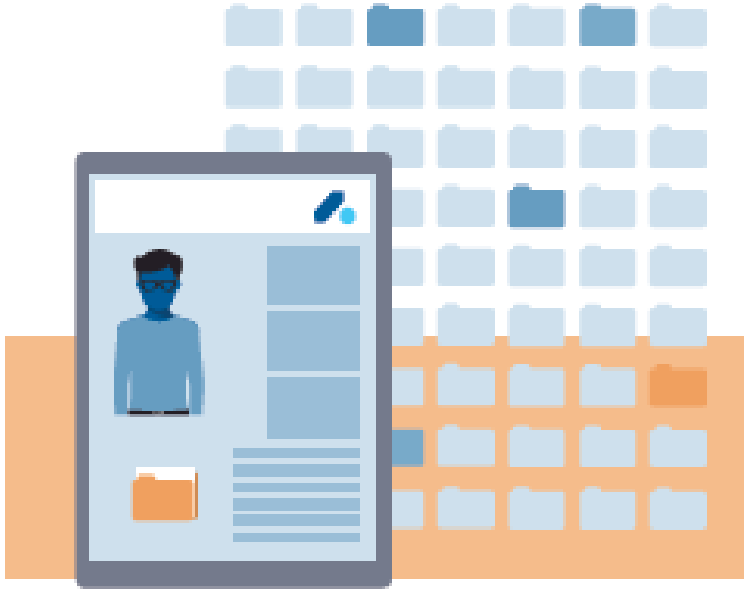
- Data mining harnesses the power of transactional data, creating “meta data” that can be mined to search for patterns of risk so that specific members can be targeted for an appropriate intervention



Data mining

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- In Q1 2018 Great-West Life began the first phase of a pilot project with Best Doctors and select clients

- The pilot is a cost containment project focused on improving plan member health outcomes while reducing prescription drug spending by identifying at risk members based on their drug utilization patterns

Data mining

1. Files go through Script Analytics

2. Appropriate candidates are selected

3. Outreach to plan members for full intake

4. Physician/pharmacist case review

8. Member advocate follows up with member to ensure adherence and coaching

7. Member advocate and pharmacist deliver final report to member

6. Expert report and pharmaceutical recommendations built

5. Case Manager and Nurse review progress

Biosimilar Drugs

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- Biosimilars are chemically comparable to their brand-name biologic counterparts but are not considered equivalent
- When a new biosimilar comes to market, it undergoes a comprehensive review by our team of experts
- Our pharmacy and physician teams review from a medical perspective and our accountants and financial analysts review from a cost containment perspective. The process includes safety considerations and clinical indications, market research, and financial factors

Biosimilar Drugs

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Many different strategies with respect to Biosimilars in the private payer market:

- Entering into a listing agreement with the manufacturer of the brand-name biologic to attain a lower price;
- Limiting the reimbursement level of the brand-name biologic to the price of the less-expensive biosimilar;
- Considering a preferential listing for a biosimilar;
- Applying a combination of these approaches

Pharmacogenetics

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What is it?

- Pharmacogenetics involves laboratory testing of a person's DNA to determine gene variations that can predict how a person will respond to medications

- For example, if a person is a fast metabolizer, they may need more of a given drug or more frequent doses. If they are slow metabolizer, lower doses may be necessary to avoid an overdose or drug reaction

- Test results can also identify which medications will be most effective, avoiding the use of medications that will have little or no effect or will have many side-effects for that individual

Pharmacogenetics

pillcheck

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- Great-West Life has partnered with GeneYouIn Inc. (Pillcheck®) to provide a pilot project that delivers pharmacogenetic testing beginning December 2017

- Pillcheck is a pharmacogenetics based drug response test to review the DNA responsible for creating liver enzymes needed to metabolize medications – check them out at: https://www.pillcheck.ca/

- The Pillcheck medication response test uncovers how effectively medications work for a specific person based on their DNA and helps plan members achieve better health outcomes and limit potential adverse side effects

Pharmacogenetics

pillcheck

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Example of Pillcheck results:

Considerations for Future Therapy:

Intermediate metabolizer at UGT1A1

- May require dose reductions of medications metabolized through UGT1A1 – mostly applies to specialty chemotherapeutic agents
- Higher risk of developing atazanavir induced hyperbilirubinemia – if medication is required in the future, it should be monitored more frequently

Ultrafast Metabolizer at CYP2C19

- May require increased doses of proton pump inhibitors for control of GERD if indicated in the future as well as higher doses for H.pylori eradication
- May require increased doses of SSRIs such as sertraline, and citalopram for optimal effect as they are metabolized extensively through CYP2C19

Extensive/Normal metabolizer at enzymes: CYP2C9, SLCO1B1, CYP2D6

- Common medications can be used without any adjustment or increased monitoring
- This includes commonly prescribed classes such as Beta blockers, statins, and opioids

Pharmacogenetics

pillcheck

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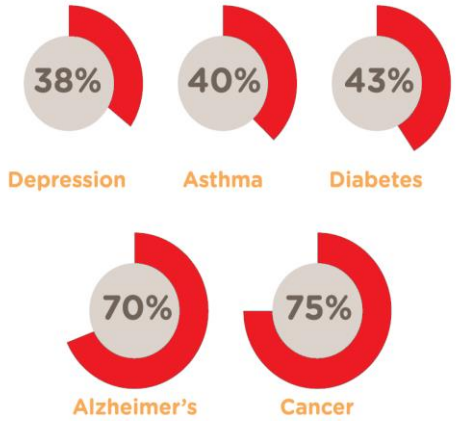
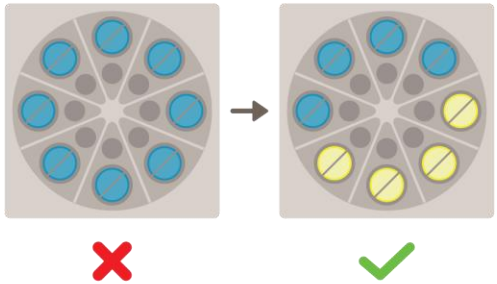
90% of the population have at least one genetic variation in enzymes responsible for drug metabolism:

Percentage of patients for whom medications are not effective:



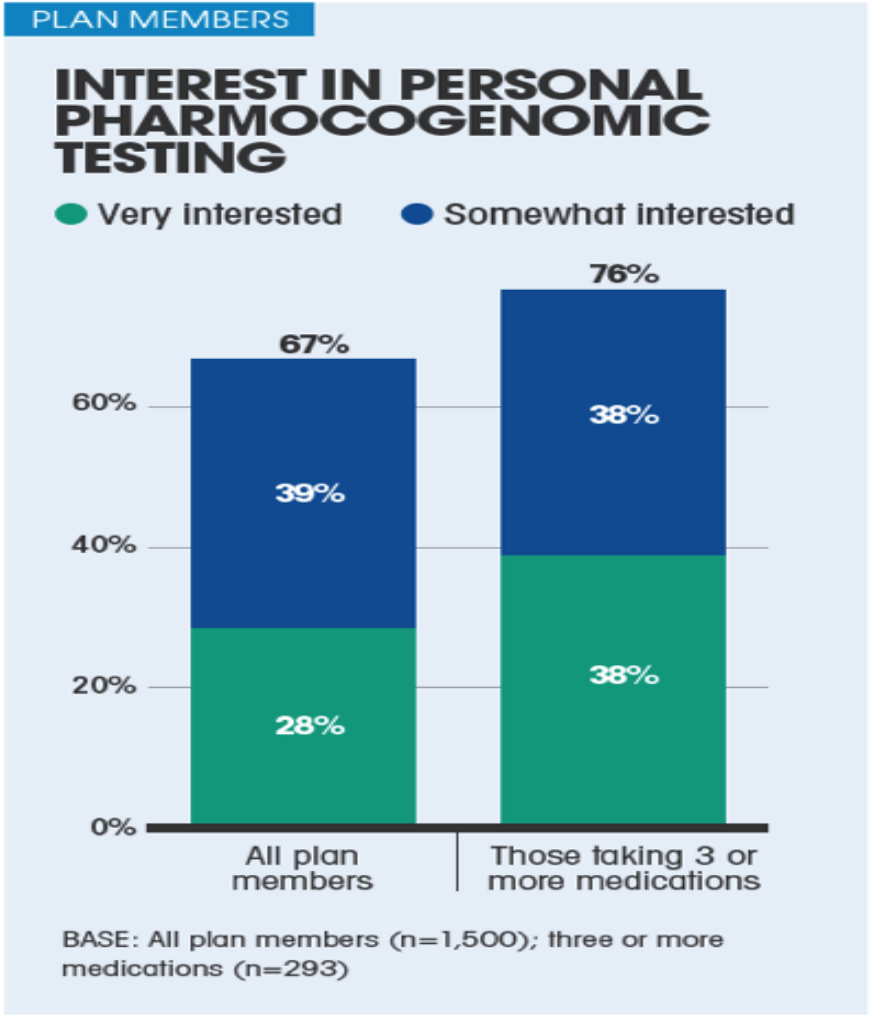
Over 50% of Pillcheck users have had their prescriptions modified based on their test results:



Pharmacogenetics

What do plan members think?

- 2017 Sanofi Canada Healthcare Survey shows high interest, particularly for those taking 3 or more medications – 76% of members are somewhat or very interested



Medical cannabis

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Background

- Prescribed medical cannabis has been legal in Canada since 1999
- Recreational cannabis is expected to be legal in Canada July 1, 2018
- Very high risk of diversion from medical to recreational use!

Medical cannabis

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Background

- The total number of Canadians registered for medical cannabis use has grown from under 20,000 in 2014 to over 200,000 in 2017. It is expected to reach 450,000 by 2024*

- Estimated number of Canadians who will use cannabis at least once for medical or recreational purposes**:
  - 4.6 million in 2018
  - 5.2 million in 2021

*Source: Collage MedReleaf | Medical Cannabis at Work
**IFEBP Medical Marijuana: Coverage Considerations for Canadian Plan Sponsors, Jan 23, 2018

Medical cannabis

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Medical Cannabis – GWL handling today:

- Medical cannabis is an eligible medical expense according to Revenue Canada
- Our HCSA plans cover medicinal Marijuana

- All inquiries/claims for medical marijuana under HCSA require authorization and are referred to Medical & Dental Services for review. When reviewing these, the medical marijuana should be:
  - prescribed by a medical practitioner;
  - used by an individual who is authorized to possess or use the drug for medical purposes under current legislation (identified by the CRA as the Marihuana Medical Access Regulations or section 56 of the Controlled Drugs and Substances Act;) and
  - purchased from either Health Canada or an authorized licensed producer

- Claims for medical marijuana purchased through a source not included on Health Canada's list of authorized licensed producers, are declined

Medical cannabis

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Medical Cannabis – Potential GWL handling in the future:

- GWL is looking at an option to cover medical cannabis on extended health care plans in 2018
- Very strict controls would be required to ensure appropriate use
- Given the high cost and potential high volume, coverage maximums are a must
- Coverage would be optional for plan sponsors – not automatically added
- Coverage would only be approved for very specific conditions – still being determined
- More details to come as we work through this in 2018

Medical cannabis

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What does this mean to advisors and plan sponsors?

- Medical cannabis is largely unproven except in certain and very specific circumstances
- Many new players touting the benefits, don't believe everything you hear!
    - For example, there is not sufficient evidence to support a reduction in opioid use – current treatment guidelines suggest prescribing medical cannabis as an add-on to opioid treatment, not a replacement

Medical cannabis

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What does this mean to advisors and plan sponsors?

- It is very expensive. Medical cannabis is expected to range anywhere from $500 to $20,000 or more per year, depending on the condition, dosage and frequency of use

- There could be significant cost implications to plans that add this, caution is advised!

Veterans Affairs Canada**

• 2013/14	112 claimants	$408,809	$3,650/claimant
• 2014/15	628 claimants	$5,160,747	$8,218/claimant
• 2015/16	1,762 claimants	$20,538,163	$11,656/claimant

**IFEBP Medical Marijuana: Coverage Considerations for Canadian Plan Sponsors, Jan 23, 2018

Summary

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1. Pharmacoeconomics will help to determine which drugs have the most value – important that plan sponsors understand and accept
2. Data mining will target high risk members in advance of a major health event to prevent it in the first place
3. Sophisticated Biosimilar drug strategies are required, not a one size fits all
4. Pharmacogenetics can end "trial and error' prescribing but still in its infancy, more research is necessary
5. Medical Cannabis holds promise but is yet unproven except for very specific conditions. Caution is advised.