

2020 SUN LIFE STOP-LOSS RESEARCH

High-cost claim condition analysis



Spring 2020
early release edition!



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Executive summary

For the past nine years, Sun Life has produced a research report with a detailed look at emerging trends in high-cost claims as well as the changing landscape of healthcare. Based on your feedback, we are delivering an expanded look into the top ten high-cost claim conditions in advance of our full 2020 report. This analysis includes data on 40,707 claimants over the past four years, representing over \$3.9 billion in stop-loss reimbursements. In this expanded analysis, we look at the top ten high-cost claim conditions, including:

- Likelihood of a stop-loss claim
- Expected cost range
- Most frequent secondary diagnoses
- Unique top 10 by deductible level, industry and case size

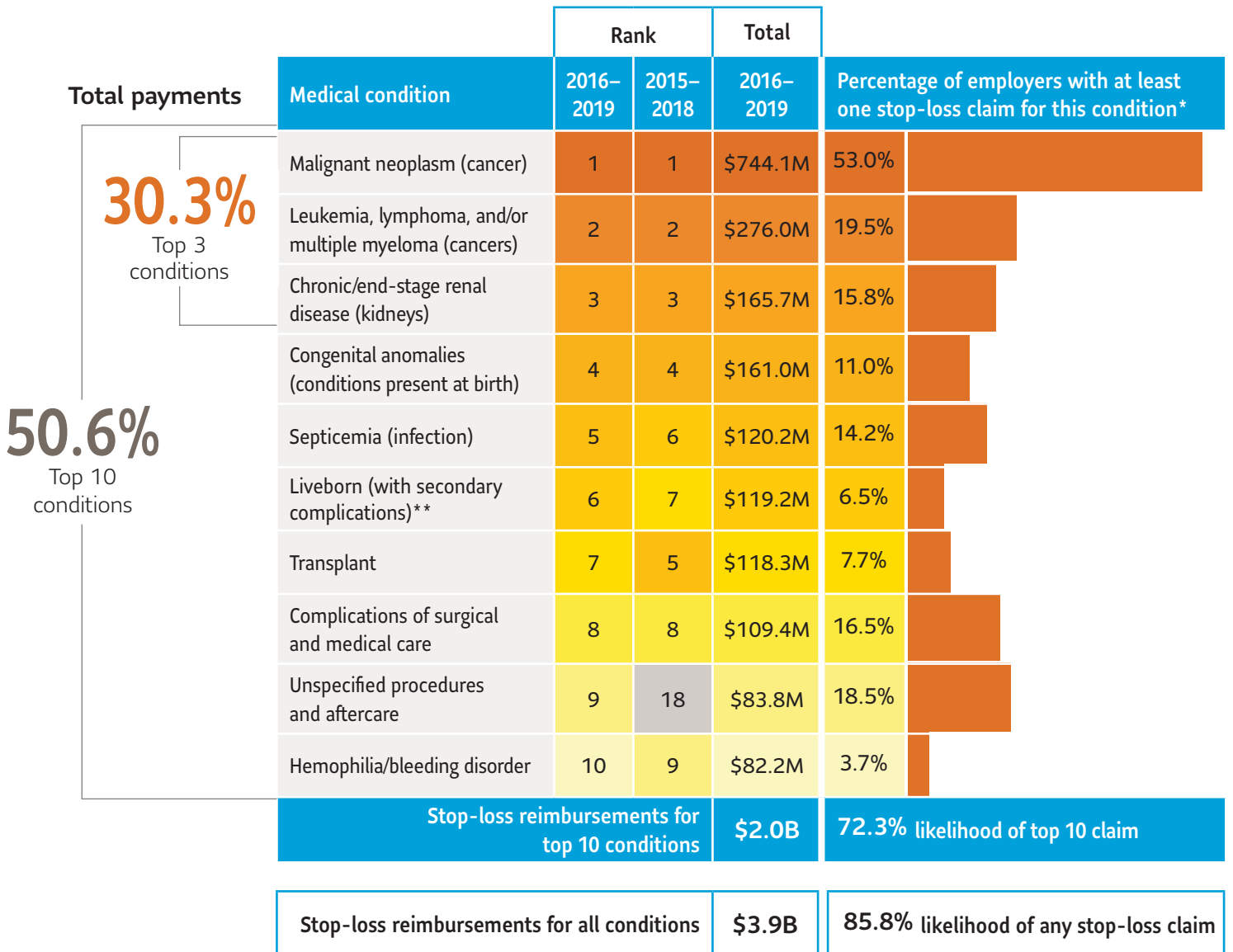
Over the past four years, Sun Life stop-loss claim reimbursements totaled over \$3.9 billion. Adding those reimbursements from 2016 to 2019 to the associated first dollar claim costs (amount paid by employers before they reach the stop-loss deductible level), they total over \$8.8 billion for high-cost conditions. In this study, data is included from Sun Life employers ranging in size from approximately 50 to 100,000 employees across the United States.

**Watch for the full
2020 High-cost claims
and injectable drug trends
report this summer!**



TOP 10 HIGH-COST CLAIM CONDITIONS

Stop-loss claim reimbursements



*Methodology note: Employer reimbursement incidence reporting requires calculating claims on a policy-year basis. Likelihood represents the probability that an employer will experience a claim in any one policy year for each policy year from 2015-2018.

**When the Liveborn diagnosis becomes a high-cost claim, it is often accompanied by additional diagnoses. Please see pages 3 and 7 for more information.

Source: Sun Life book of business data, 2016–2019.

Top 10 high-cost claim conditions at a glance

<p>1 Malignant neoplasm Solid tumors often caused by cancerous cells invading other tissue. These cells can occur in different areas in the body and can spread to other areas even after extraction. Treatments often include surgery, chemotherapy, radiation, and accompanying medications.</p>	<p>6 Liveborn (with secondary complications) Liveborn is a term used to describe an infant that is born successfully. Due to changes in ICD-10 coding, it has become industry standard to include this as the primary diagnosis alongside other codes for complications that arise around the time of birth.</p> 
<p>2 Leukemia, lymphoma and/or multiple myeloma All of these are blood cancers: leukemia affects the blood and bone marrow, lymphomas typically affect the lymph nodes, and multiple myeloma forms in the white blood cells (plasma). Treatments often include surgery, chemotherapy, radiation, and accompanying medications.</p> 	<p>7 Transplant Transplants by ICD-10 code include the transplantation of both solid organs as well as blood and stem cells. In 2019 alone, there were nearly 40,000 solid organ transplants performed in the U.S. with most recipients being between the ages of 50-64.²</p>
<p>3 Chronic/end stage renal disease If kidneys start to lose the ability to function normally, that is known as chronic renal disease. Without proper kidney function, waste can build up in the body. End stage renal disease occurs when only a small fraction of kidney function remains. Treatments can include transplants or dialysis.</p>	<p>8 Complications of surgical and medical care A broad category of diagnosis for medical challenges directly related to the receipt of medical care and/or surgery. High-cost patients often have complications that result in extended hospital stays and overlapping conditions.</p> 
<p>4 Congenital anomalies Congenital anomalies are typically caused by gene and chromosomal disorders that are either inherited or are caused by environmental factors. They are commonly referred to as birth defects, as they are present at birth. However, they can contribute to longer term disabilities and health concerns.</p> 	<p>9 Unspecified procedures and aftercare ★ New to the top 10, this is an extremely large category within the ICD-10 coding system that includes any care that is received after a significant diagnosis or treatment, such as ongoing chemotherapy, wound care after surgery, or dehydration treatment associated with other diagnosed complications.</p>
<p>5 Septicemia Septicemia occurs when an infection enters the bloodstream and has an adverse effect on the entire body. Septicemia usually occurs alongside another health condition. This condition can be fatal for anywhere between 28-50% of patients.¹</p>	<p>10 Hemophilia/bleeding disorder Rare genetic disorders where blood does not clot as it normally should. These can result in extensive internal and external bleeding. Hemophilia affects approximately 1 in every 5,000 men (currently about 20,000 in the U.S), with about half being the more severe form.³</p> 

1. Healthline.com, 2020 What is Septicemia, <https://www.healthline.com/health/septicemia#symptoms>

2. United Network for Organ Sharing, 2020. <https://unos.org/transplant/>

3. Center for Disease Control and Prevention, June 3rd, 2019. What is Hemophilia? <https://www.cdc.gov/ncbddd/hemophilia/facts.html>

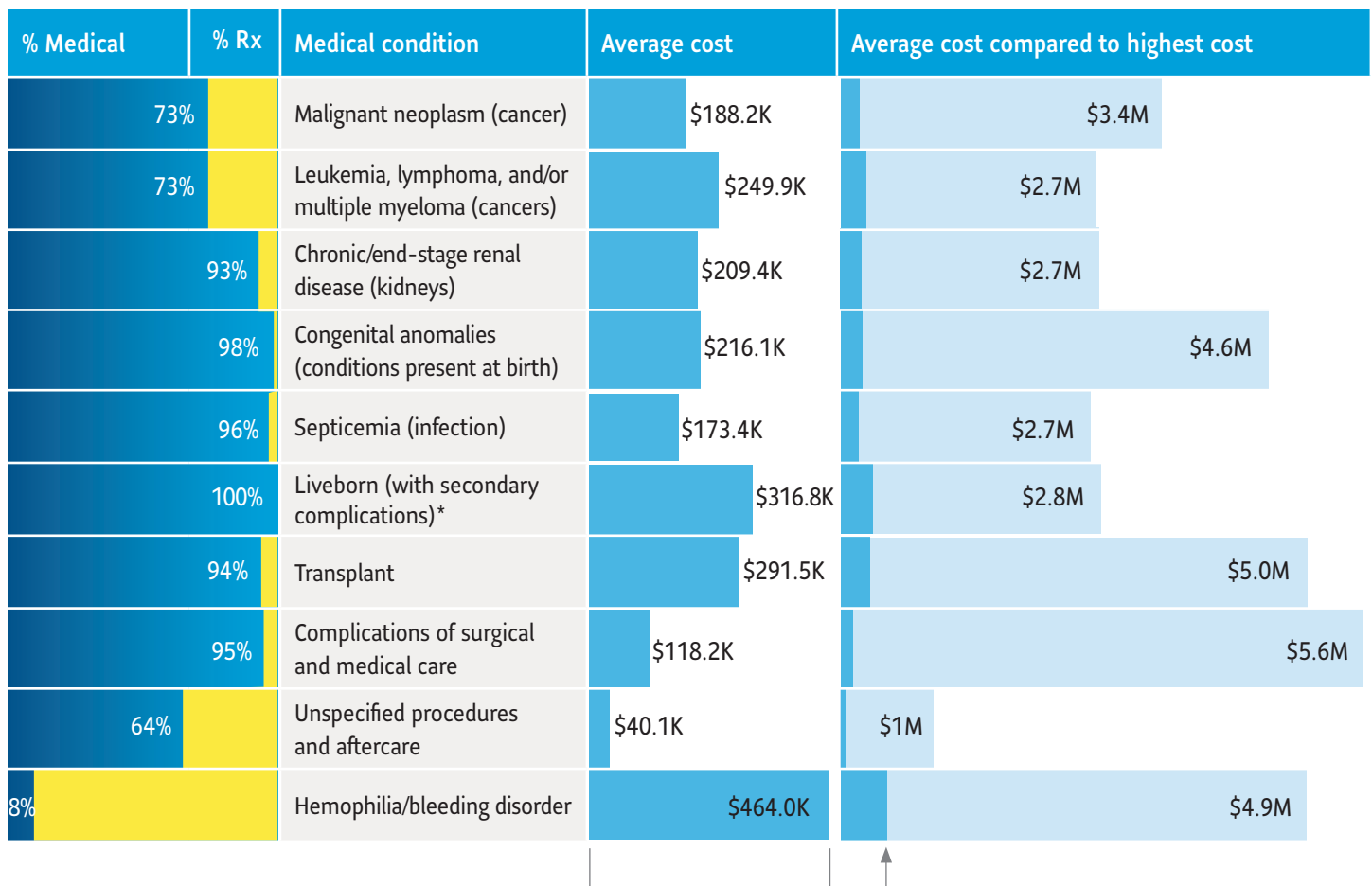
Expected cost range

Costs can vary widely within a condition category based on the complexity and duration of treatment.

Average cost associated with a stop-loss claim varied from a high of \$464.0K (Hemophilia/blood disorder) to a low of \$40.1K (Unspecified procedures and aftercare). Looking at the data for the highest cost claim associated with each top ten condition, it is important to note how widely they can vary from the average cost. For example, while congenital anomalies has an average cost of \$216.1K, the most expensive claim was \$4.6M. This speaks to the amount of variation that exists from one circumstance to another.

Prescription drug costs vary in terms of how much they contribute to the overall cost of a claim. When looking at total cost, all but one of the top ten conditions are more heavily weighted towards medical rather than Rx. Within our top ten, Rx makes up a high of 92% of the cost associated with hemophilia/blood disorder claims and a low of less than 1% for liveborn* birth claims.

Cost range and Medical/Rx split within each condition



Methodology note: For our analysis, percent Medical includes all non-drug costs, and percent Rx includes J-Code and other drug charges.

*When the Liveborn diagnosis becomes a high-cost claim, it is often accompanied by additional diagnoses. Please see pages 3 and 7 for more information.

Source: Sun Life book of business data including first dollar claims and stop-loss reimbursements from 2016-2019.

Ten years of high-cost claim conditions

Medical condition	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2016–2019
Malignant neoplasm (cancer)	1	1	1	1	1	1	1	1	1	1	1
Leukemia, lymphoma, and/or multiple myeloma (cancers)	3	3	3	2	2	2	2	2	2	2	2
Chronic/end-stage renal disease (kidneys)	2	2	2	3	3	3	3	3	4	4	3
Congenital anomalies (conditions present at birth)	5	4	4	4	4	5	4	4	3	3	4
Septicemia (infection)	9	12	10	11	7	7	6	6	6	8	5
Liveborn (with secondary complications)*	18	9	9	20	14	13	7	8	5	6	6
Transplant	11	15	17	10	5	4	5	5	7	9	7
Complications of surgical and medical care	6	6	13	13	9	12	8	7	9	7	8
Unspecified procedures and aftercare	39	41	52	84	71	43	23	22	8	5	9
Hemophilia/bleeding disorder	21	13	12	17	15	9	9	9	15	11	10
Cerebrovascular disease (brain blood vessels)	8	7	7	7	10	8	10	14	11	12	11
Diseases of the blood and blood-forming organs	12	16	11	8	17	14	15	13	10	14	12
Dorsopathies (spine)	10	10	14	14	13	17	11	15	13	13	13
Other metabolic and immunity disorders	22	22	27	18	16	16	12	12	14	15	14
Pulmonary collapse/respiratory failure (lungs)	7	11	8	9	8	10	14	10	17	17	15
Other	30	45	30	55	28	31	16	18	12	10	16
Disorders relating to short gestation and low birthweight	4	5	6	5	6	6	13	11	25	18	17
Mental disorders	69	65	43	38	20	25	20	16	20	19	18
Congestive heart failure	15	8	5	6	11	11	17	20	18	24	19
Cystic fibrosis	28	18	20	15	12	15	19	28	16	21	20

Conditions over time

Based on stop-loss reimbursement, most conditions in the current top 10 list have appeared in the top 20 high-cost claim conditions over the past ten years. Our data from past reports helps compare how some conditions remain more constant, while others move over time.

*When the Liveborn diagnosis becomes a high-cost claim, it is often accompanied by additional diagnoses. Please see pages 3 and 7 for more information.

Source: Sun Life book of business data, 2016–2019.

Secondary diagnoses for the top 10 high-cost conditions

 Top 10 condition

 Non-top 10 condition

Our high-cost claim analysis is typically based on primary diagnosis. This year, we also wanted to explore what secondary diagnoses occur with each of our top 10 conditions. The below graphic shows the top 10 secondary diagnoses associated

with the primary conditions, based on total cost. In this case, we organized the top ten according to how much overlap each condition has with the other conditions included in the top ten. Beginning on the left are conditions with the

most overlap with other top 10 conditions

Primary conditions					
	Leukemia, lymphoma and/ or multiple myeloma	Transplant	Unspecified procedures and aftercare	Complications of surgical and medical care	Chronic/end-stage renal disease
Associated secondary diagnoses (based on total cost)					
1	Leukemia, lymphoma, and/ or multiple myeloma	Leukemia, lymphoma, and/ or multiple myeloma	Malignant neoplasm	Complications of surgical and medical care	Chronic/ end-stage renal disease
2	Unspecified procedures and aftercare	Complications of surgical and medical care	Unspecified procedures and aftercare	Septicemia	Diabetes
3	Diseases of the blood and blood-forming organs	Malignant neoplasm	Leukemia, lymphoma, and/ or multiple myeloma	Transplant	Complications of surgical and medical care
4	Malignant neoplasm	Chronic/end-stage renal disease	Diseases of the blood and blood-forming organs	Congestive heart failure	Hypertensive Chronic Kidney Disease
5	Septicemia	Congestive heart failure	Other	Chronic/end-stage renal disease	Diseases of the blood and blood-forming organs
6	Transplant	Liver diseases and cirrhosis	Septicemia	Dorsopathies (spine)	Septicemia
7	Complications of surgical and medical care	Transplant	Congestive heart failure	Malignant neoplasm	Other
8	Other metabolic and immunity disorders	Other Diseases of respiratory system	Transplant	Other	Transplant
9	Neoplasms of uncertain behavior	Cardiomyopathy	Symptoms, signs and abnormal clinical and laboratory findings	Other metabolic and immunity disorders	Coronary Atherosclerosis
10	Chronic/ end-stage renal disease	Diseases of the blood and blood-forming organs	Liver diseases and cirrhosis	Pulmonary collapse/ respiratory failure	Malignant neoplasm

A common long-term complication of diabetes is kidney damage. In our analysis, diabetes was the second most costly related condition associated with chronic and end-stage renal disease. Having diabetes can harm kidneys by causing the blood vessels within them to become clogged or narrow. About 30% of patients with Type 1 (juvenile onset) diabetes and 10 to 40% of those with Type 2 (adult onset) diabetes will eventually experience kidney failure.⁴

4. Heart.org, Kidney Disease and Diabetes, 2020. <https://unos.org/transplant/>

Source: Sun Life book of business data including first dollar claims and stop-loss reimbursements from 2016-2019.

Secondary diagnoses for the top 10 high-cost conditions (continued)

most amount of overlap and, to the right, are the conditions with the least. Under each condition are the secondary diagnoses that appeared in our data as a comorbidity, or a condition occurring at the same time. Note that some conditions

are listed as both the primary and secondary diagnosis. This occurs because of the broad nature of the categories and the fact that an individual can have costs associated with more than one specific diagnosis code within that same category.

least overlap with other top 10 conditions

Primary conditions					
Malignant neoplasm	Septicemia	Congenital anomalies	Liveborn (with secondary complications)	Hemophilia/bleeding disorder	
Associated secondary diagnoses (based on total cost)					
Malignant neoplasm	Pulmonary collapse/ respiratory failure	Congenital anomalies	Disorders relating to short gestation and low birthweight	Hemophilia/ bleeding disorder	1
Unspecified procedures and aftercare	Malignant neoplasm	Other respiratory conditions of fetus and newborn	Congenital anomalies	Arthropathies and related disorders	2
Leukemia, lymphoma, and/ or multiple myeloma	Acute Renal Failure	Perinatal/newborn conditions	Respiratory distress syndrome, fetus or newborn	HIV Infection	3
Other	Leukemia, lymphoma, and/ or multiple myeloma	Liveborn (with secondary complications)	Other respiratory conditions of fetus and newborn	Other	4
Diseases of the blood and blood-forming organs	Complications of surgical and medical care	Other Diseases of respiratory system	Perinatal/ newborn conditions	Infectious and Parasitic Diseases	5
Septicemia	Other	Congestive heart failure	Liveborn (with secondary complications)	Mental Disorders	6
Symptoms, signs and abnormal clinical and laboratory findings	Septicemia	Disorders relating to short gestation and low birthweight	Other	Osteoarthritis and allied disorders	7
Complications of surgical and medical care	Pneumonia	Respiratory distress syndrome, fetus or newborn	Disorders of the eye and adnexa	Diseases of the blood and blood-forming organs	8
General symptoms	Chronic Pancreatitis	Chronic Pulmonary Heart Disease	Liver diseases and cirrhosis	General symptoms	9
Benign Neoplasms	Diseases of the blood and blood-forming organs	Complications of surgical and medical care	Symptoms, signs and abnormal clinical and laboratory findings	Suicide and self inflicted-injury	10

While the other nine high-cost claim conditions had at least one of the other top 10 conditions as a secondary diagnosis, Hemophilia showed no overlap with any of the other conditions. Hemophilia was also the only condition to have mental health related conditions (Mental Disorders and Suicide and self-inflicted injury) appear as related conditions.

Top 10 high-cost conditions by deductible level

Deductible selection tends to be closely tied to the number of employees in a group.

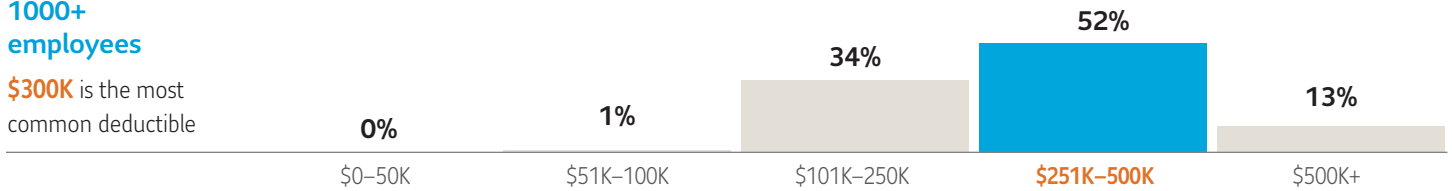
One of the most important decisions an employer has to make on stop-loss coverage is the amount of the specific stop-loss deductible, or the threshold above which an individuals' claims are reimbursed. Specific deductible options vary widely by employer based on their size and the amount of risk they are comfortable taking on. Typically, smaller employers have lower deductible levels because they offer less risk, but at a higher premium. Larger employers tend to choose larger deductibles because they can absorb more risk in exchange for smaller premiums. There isn't a right or wrong choice for deductible level, it

all depends on the right balance of risk versus premium costs for a particular employer.

An important observation here is that the conditions most likely to result in a stop-loss claim vary by deductible level. When employers are evaluating which deductible level makes the most sense for them, understanding what conditions are most likely to result in a stop-loss claim can help them determine what they might expect, or select programs they may want to put in place to help manage the cost of those claims. On the following page, we will take a look at which claims are the biggest cost drivers at varying deductible levels.

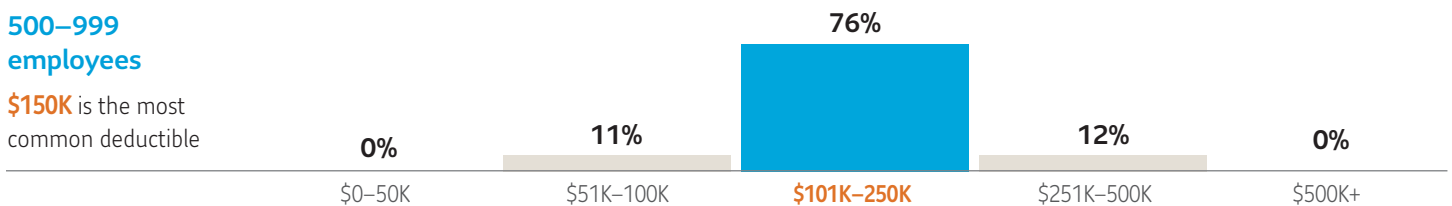
1000+ employees

\$300K is the most common deductible



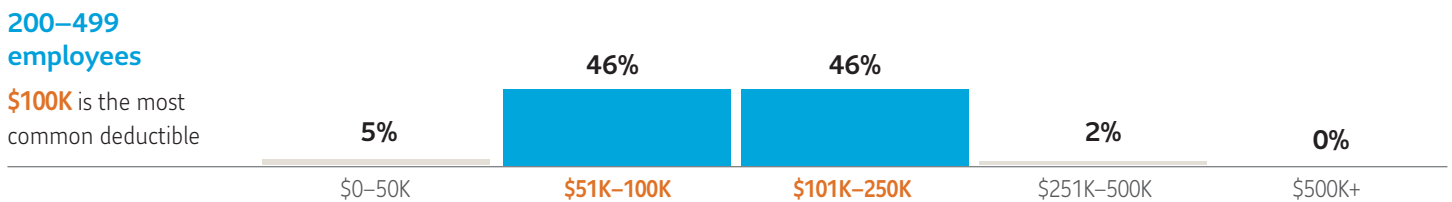
500-999 employees

\$150K is the most common deductible



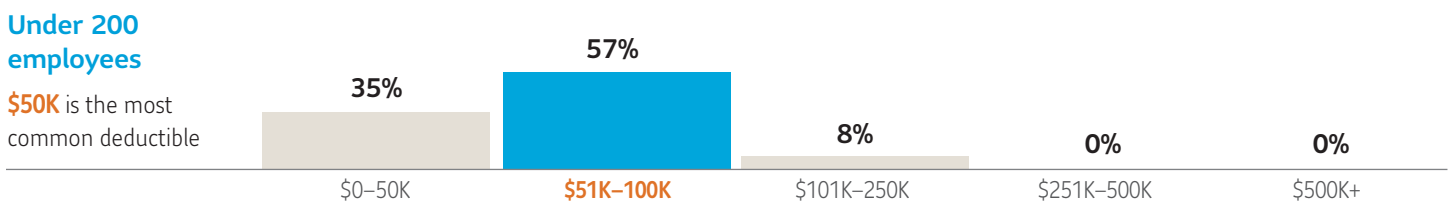
200-499 employees

\$100K is the most common deductible



Under 200 employees

\$50K is the most common deductible



Source: Sun Life book of business data from 2016-2019.

Top 10 high-cost claim conditions by deductible level

Rank	Overall	\$0–50K	\$51K–100K	\$101K–250K	\$251K–500K	Over \$500K
1	Malignant neoplasm	Malignant neoplasm	Malignant neoplasm	Malignant neoplasm	Malignant neoplasm	Transplant
2	Leukemia, lymphoma and/or multiple myeloma	Dorsopathies (spine)	Leukemia, lymphoma and/or multiple myeloma	Leukemia, lymphoma and/or multiple myeloma	Leukemia, lymphoma, and/or multiple myeloma	Congenital anomalies
3	Chronic/end-stage renal disease	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Chronic/end-stage renal disease	Transplant	Malignant neoplasm
4	Congenital anomalies	Chronic/end-stage renal disease	Congenital anomalies	Congenital anomalies	Congenital anomalies	Leukemia, lymphoma and/or multiple myeloma
5	Septicemia	Mental disorders	Dorsopathies (spine)	Septicemia	Chronic/end-stage renal disease	Hemophilia/bleeding disorder
6	Liveborn*	Septicemia	Septicemia	Liveborn*	Liveborn*	Congestive heart failure
7	Transplant	Other	Liveborn*	Complications of surgical and medical care	Complications of surgical and medical care	Pulmonary collapse/respiratory failure
8	Complications of surgical and medical care	Liveborn*	Unspecified procedures and aftercare	Unspecified procedures and aftercare	Hemophilia/bleeding disorder	Septicemia
9	Unspecified procedures and aftercare	Congenital anomalies	Complications of surgical and medical care	Transplant	Septicemia	Liveborn*
10	Hemophilia/bleeding disorder	Unspecified procedures and aftercare	Other	Cerebrovascular disease	Diseases of the blood and blood-forming organs	Heredity and degenerative diseases of the CNS

Notable deductible level differences

- **Mental disorders** only appear in the top 10 for groups with a deductible level under \$50K
- **Dorsopathies (spine)** claims only appear in the lower deductible levels, \$100K and below
- **Cerebrovascular disease** is unique to deductibles between \$101K–\$250K
- **Disease of the blood and blood forming organs** only appears in the \$251K–\$500K deductible range.
- It is also notable that **transplants** jump from the #9 spot for deductibles between \$101K–\$250k to the #3 slot, above **Chronic/end-stage renal disease**, for deductibles between \$251–\$500k.
- The greatest amount of variation appears when deductibles are over \$500K.
 - **Transplant** claims are the top claim condition here (compared to **malignant neoplasm** in all other categories) and, in fact, **congenital anomalies** appears above **malignant neoplasm** in the second spot.
 - Three conditions (**congestive heart failure, pulmonary collapse/respiratory failure** and **hereditary and degenerative diseases of the central nervous system**) are unique to this category.

*Liveborn (with secondary complications)

CNS = Central nervous system

Top high-cost claims conditions by industry for groups with under 1000 employees (1–5)

Industry	Rank by industry				
	1	2	3	4	5
Agriculture	Malignant neoplasm	General symptoms	Leukemia, lymphoma and/or multiple myeloma	Septicemia	Complications of surgical and medical care
Education	Malignant neoplasm	Chronic/end-stage renal disease	Leukemia, lymphoma and/or multiple myeloma	Congenital anomalies	Septicemia
Finance, Insurance, and Real Estate	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Liveborn (with secondary complications)	Dorsopathies (spine)	Chronic/end-stage renal disease
Health (including Hospitals)	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Dorsopathies (spine)	Cerebrovascular disease
Legal	Malignant neoplasm	Chronic/end-stage renal disease	General symptoms	Leukemia, lymphoma and/or multiple myeloma	Mental disorders
Management Services	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Dorsopathies (spine)	Congenital anomalies	Complications of surgical and medical care
Manufacturing	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Dorsopathies (spine)	Septicemia
Membership and Religious	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Pulmonary collapse/respiratory failure	Cerebral degenerations
Mining/Construction	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Dorsopathies (spine)	Congenital anomalies	Hemophilia/bleeding disorder
Public/Government	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Dorsopathies (spine)	Congenital anomalies	Chronic/end-stage renal disease
Services	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Dorsopathies (spine)	Septicemia
Social Services	Malignant neoplasm	Chronic/end-stage renal disease	Dorsopathies (spine)	Cerebrovascular disease	Fractures
Transp., Commun., and Utilities	Malignant neoplasm	Chronic/end-stage renal disease	Dorsopathies (spine)	Leukemia, lymphoma and/or multiple myeloma	Liveborn (with secondary complications)
Wholesale and Retail Trade	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Septicemia	Dorsopathies (spine)

CNS = Central nervous system

Source: Sun Life book of business data including first dollar claims and stop-loss reimbursements from 2016-2019.

Top high-cost claims conditions by industry for groups with under 1000 employees (6–10)

Rank by industry					Industry
6	7	8	9	10	
Chronic/end-stage renal disease	Dorsopathies (spine)	Acute and subacute endocarditis	Other	Other respiratory conditions of fetus and newborn	Agriculture
Complications of surgical and medical care	Mental disorders	Dorsopathies (spine)	Liveborn (with secondary complications)	Transplant	Education
Mental disorders	Cerebrovascular disease	Disorders relating to short gestation and low birthweight	Regional enteritis (Chron's Disease)	Septicemia	Finance, Insurance, and Real Estate
Congenital anomalies	Septicemia	Complications of surgical and medical care	Liveborn (with secondary complications)	Coronary Atherosclerosis	Health (including Hospitals)
Hereditary and degen. diseases of the CNS	Cerebrovascular disease	Curvature of spine	Multiple Sclerosis	Osteoarthritis and allied disorders	Legal
Liveborn (with secondary complications)	Septicemia	Multiple Sclerosis	Chronic/end-stage renal disease	Mental disorders	Management Services
Complications of surgical and medical care	Cerebrovascular disease	Coronary Atherosclerosis	Congenital anomalies	Acute Myocardial Infarction	Manufacturing
Other metabolic and immunity disorders	Cerebrovascular disease	Hemophilia/bleeding disorder	Septicemia	Congenital anomalies	Membership and Religious
Septicemia	Chronic/end-stage renal disease	Mental disorders	Liveborn (with secondary complications)	Coronary Atherosclerosis	Mining/Construction
Complications of surgical and medical care	Septicemia	Other metabolic and immunity disorders	Cerebrovascular disease	Disorders of the PNS	Public/Government
Congenital anomalies	Mental disorders	Liveborn (with secondary complications)	Complications of surgical and medical care	Regional enteritis (Chron's Disease)	Services
Perinatal/newborn conditions	Other respiratory conditions of fetus and newborn	Complications of surgical and medical care	Leukemia, lymphoma and/or multiple myeloma	Pulmonary collapse/respiratory failure	Social Services
Mental disorders	Septicemia	Coronary Atherosclerosis	Cardiac Dysrhythmias	Multiple Sclerosis	Transp., Commun., and Utilities
Mental disorders	Liveborn (with secondary complications)	Cerebrovascular disease	Complications of surgical and medical care	Acute Myocardial Infarction	Wholesale and Retail Trade

CNS = Central nervous system

PNS = Peripheral nervous system

Source: Sun Life book of business data including first dollar claims and stop-loss reimbursements from 2016-2019.

Top high-cost claims conditions by industry for groups with 1,000+ employees (1–5)

Industry	Rank by industry				
	1	2	3	4	5
Agriculture	Malignant neoplasm	Burns	Pulmonary collapse/ respiratory failure	Hemophilia/bleeding disorder	Transplant
Education	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Septicemia	Chronic/end-stage renal disease	Transplant
Finance, Insurance, and Real Estate	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Transplant	Chronic/end-stage renal disease	Congenital anomalies
Health (including Hospitals)	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Congenital anomalies	Transplant
Legal	Malignant neoplasm	Transplant	Leukemia, lymphoma and/or multiple myeloma	Disorders relating to short gestation and low birthweight	Congenital anomalies
Management Services	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Hemophilia/bleeding disorder	Complications of surgical and medical care
Manufacturing	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Transplant	Septicemia
Membership and Religious	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Other metabolic and immunity disorders	Cystic fibrosis	Septicemia
Mining/Construction	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Congenital anomalies	Cystic fibrosis
Public/Government	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Transplant	Congenital anomalies
Services	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Chronic/end-stage renal disease	Congenital anomalies	Transplant
Social Services	Other metabolic and immunity disorders	Disorders relating to short gestation and low birthweight	Other respiratory conditions of fetus and newborn	Chronic/end-stage renal disease	Malignant neoplasm
Transp., Commun., and Utilities	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Congenital anomalies	Liveborn (with secondary complications)	Chronic/end-stage renal disease
Wholesale and Retail Trade	Malignant neoplasm	Leukemia, lymphoma and/or multiple myeloma	Congenital anomalies	Septicemia	Transplant

Source: Sun Life book of business data including first dollar claims and stop-loss reimbursements from 2016-2019.

Top high-cost claims conditions by industry for groups with 1,000+ employees (6–10)

Rank by industry					Industry
1	2	3	4	5	
Complications of surgical and medical care	Intestinal obstruction	Liveborn (with secondary complications)	Cerebrovascular disease	Hereditary and degen. diseases of the CNS	Agriculture
Liveborn (with secondary complications)	Congenital anomalies	Other metabolic and immunity disorders	Hemophilia/bleeding disorder	Complications of surgical and medical care	Education
Complications of surgical and medical care	Hemophilia/bleeding disorder	Disorders relating to short gestation and low birthweight	Septicemia	Liveborn (with secondary complications)	Finance, Insurance, and Real Estate
Liveborn (with secondary complications)	Septicemia	Hemophilia/bleeding disorder	Disorders relating to short gestation and low birthweight	Other metabolic and immunity disorders	Health (including Hospitals)
Cerebrovascular disease	Fracture of vertebral column and/ or spinal cord injury	Liveborn (with secondary complications)	Thyroid gland	Cerebral degenerations	Legal
Congenital anomalies	Septicemia	Diseases of blood and blood-forming organs	Dorsopathies (spine)	Liveborn (with secondary complications)	Management Services
Congenital anomalies	Liveborn (with secondary complications)	Other metabolic and immunity disorders	Diseases of blood and blood-forming organs	Hemophilia/bleeding disorder	Manufacturing
Chronic/end-stage renal disease	Congenital anomalies	Liveborn (with secondary complications)	Valve disorders	Hereditary and degen. diseases of the CNS	Membership and Religious
Liveborn (with secondary complications)	Pulmonary collapse/ respiratory failure	Diseases of blood and blood-forming organs	Intracranial Injury, excluding skull fracture	Septicemia	Mining/Construction
Complications of surgical and medical care	Septicemia	Congestive heart failure	Liveborn (with secondary complications)	Cerebrovascular disease	Public/Government
Hemophilia/bleeding disorder	Cerebrovascular disease	Liveborn (with secondary complications)	Septicemia	Complications of surgical and medical care	Services
Symptoms, signs and abnormal clinical and laboratory findings	Congenital anomalies	Transplant	Congestive heart failure	Respiratory distress syndrome, fetus or newborn	Social Services
Septicemia	Cystic fibrosis	Pulmonary collapse/ respiratory failure	Disorders relating to short gestation and low birthweight	Cerebrovascular disease	Transp., Commun., and Utilities
Hemophilia/bleeding disorder	Complications of surgical and medical care	Liveborn (with secondary complications)	Congenital anomalies	Congestive heart failure	Wholesale and Retail Trade

CNS = Central nervous system

Source: Sun Life book of business data including first dollar claims and stop-loss reimbursements from 2016-2019.

The importance of stop-loss coverage



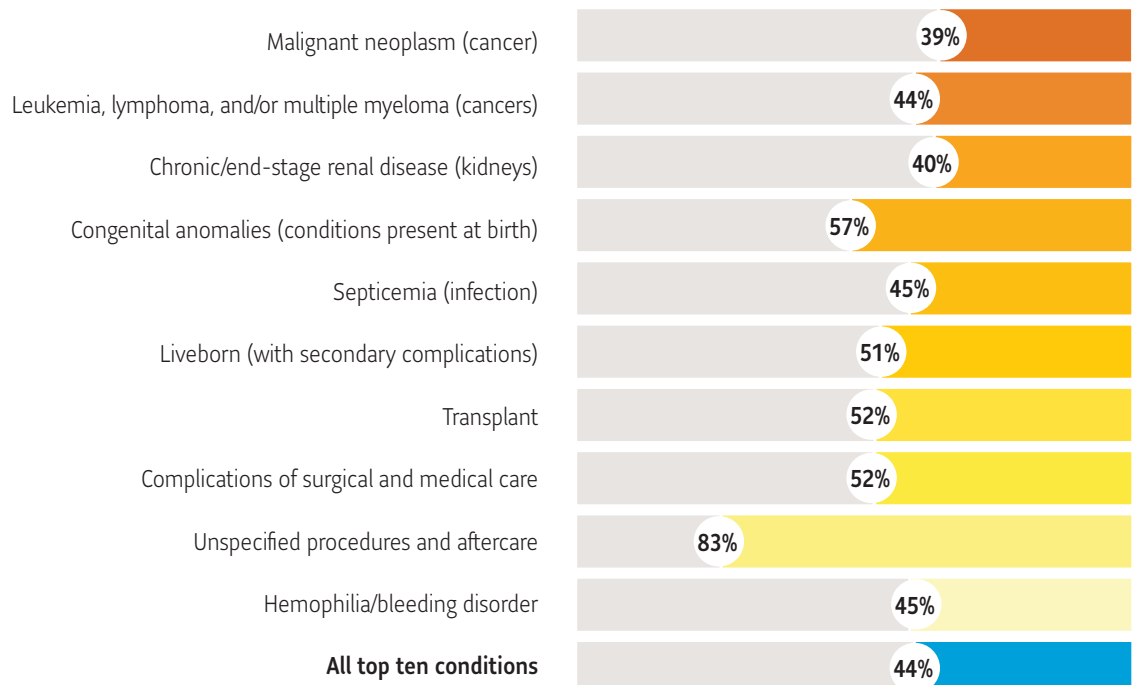
86% of employers have a stop-loss claim in a given year

High-cost claims are not always predictable. Whether covering claims above a certain dollar amount on individuals on the medical plan with Specific stop-loss or also covering unexpected costs across a group of employees with Aggregate coverage, stop-loss insurance reimburses the employer for the portion of the claim that exceeds the stop-loss deductible. It is a critical consideration for self-funded employers that want to limit the risk associated with their medical plan and create a self-funding strategy that works for their business.

When looking into stop-loss options, consider the following:

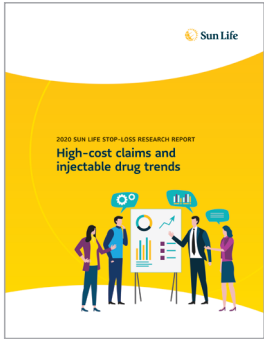
- **Evaluate** the stop-loss coverage and decide if the right coverage is in place. Consider risk tolerance, claims experience, and peer benchmarks when selecting or changing the stop-loss deductible level.
- **Include** pharmacy claims in your stop-loss coverage.
- **Ask** about additional options to increase renewal rate predictability.
- **Ensure** your stop-loss carrier has clinical resources available to work with claims administrators and cost-containment vendors in order to identify opportunities for cost savings.
- **Consider** adding stop-loss coverage for large self-funded employers who have not purchased it in the past.
- **Evaluate** adding Aggregate stop-loss coverage for self-funded employers who have previously purchased Specific coverage only.
- **Choose** the right partner. Select a stop-loss carrier that has the experience, stability, and reputation to be there when you need them.

Percent of total claim cost reimbursed by stop-loss



Source: Sun Life Financial book of business data, 2016–2019.

Coming soon



Watch for the full 2020 Sun Life Stop-Loss high-cost claim and injectable drug trends report coming this summer.

- **Report** our latest findings on the continued rise of million-dollar+ claims
- **Explore** the conditions most likely to result in the highest cost claims
- **Discuss** the latest legislative news impacting self-funded employers
- **Provide** a comprehensive list of medical and Rx recommendations, and more.

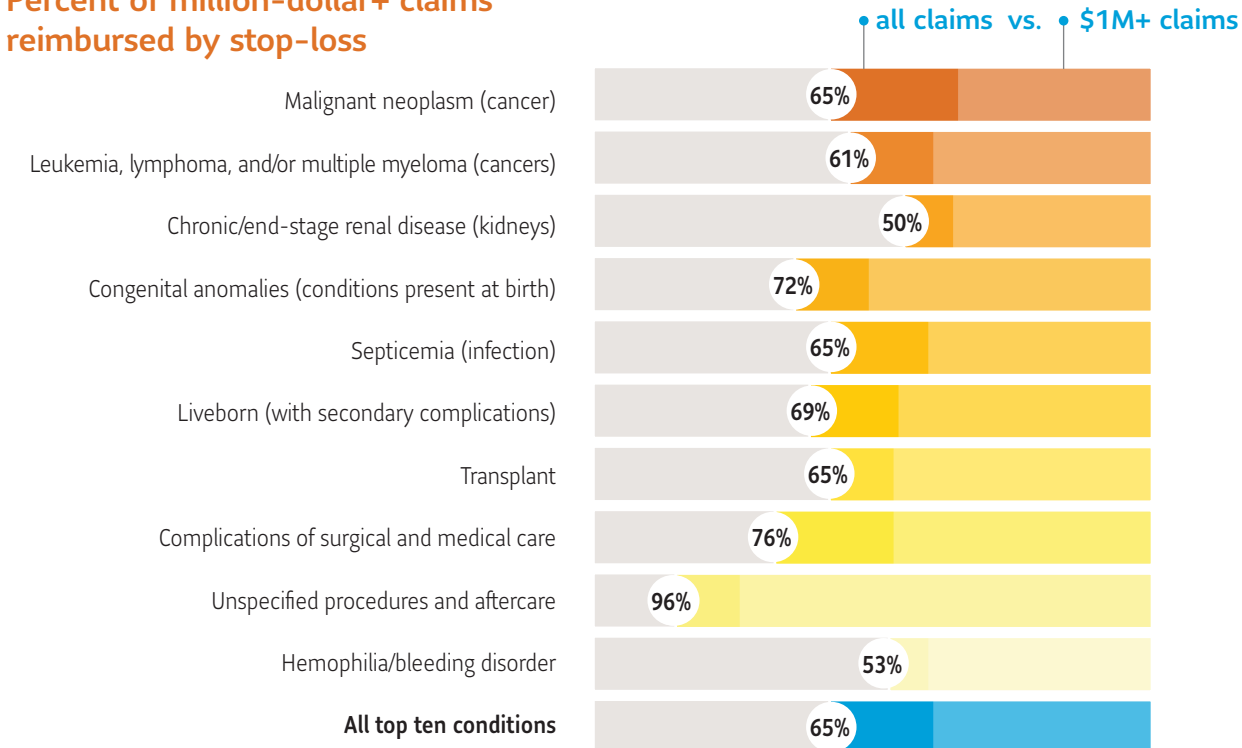
We know that COVID-19 is the issue that is top of mind right now in the U.S. and around the world. While our claim and condition analysis typically contains data through the end of the prior calendar year, we are committed to providing an update on the financial impact of COVID-19 to whatever extent we can based on data that is available at the time of publication.

From all of us here at Sun Life, please stay safe and healthy.

In this year's full report we will:

- **Cover** the new top 20 high-cost injectable drugs
- **Analyze** specific notable drugs, such as those with large year-over-year increases or those that reached our top 20 list for the first time
- **Provide** a gene therapy update, including an update on Zolgensma claims

Percent of million-dollar+ claims reimbursed by stop-loss



Source: Sun Life Financial book of business data, 2016–2019.

About the study

Sun Life conducted an internal aggregate analysis of its stop-loss claim conditions and associated costs from 2016 to 2019.

Methodology

For all reporting, except employer reimbursement incidence, the claims data included specific stop-loss claims paid as of December 31 for each year from 2016 to 2019. From a data perspective, the impact on the analysis due to policy reimbursement caps or lasering was not significant. Because employer reimbursement reporting requires calculating claims on a policy-year basis, the claims data for employer reimbursement incidence were derived from stop-loss claims reimbursements that applied to the stop-loss policy years beginning with 2015 and ending with 2018. Members who breached the \$1 million threshold were determined using all paid claims dollars (below and above the stop-loss deductible) attributable to that claim during

the calendar year – January 1 to December 31 for each year from 2016 to 2019. Rounding was done on a “to nearest” basis.

Claim conditions categories.

To create conditions categories, Sun Life reviewed all claim conditions and combined similar conditions and billing categories.

Data demographics

The claims data were from Sun Life stop-loss policyholders with approximately 50 to over 100,000 employees across the United States. The case size of these policyholders was determined by counting the number of employees covered by the stop-loss policy.

2,600+



policyholders

(as of year end 2019)

\$1.9B



in premium

(as of year end 2019)

\$3.9B



total claim reimbursements

(2016 through 2019)

4.7M



covered lives

(as of year end 2019)

\$8.8B

total spent on high-cost claim conditions:

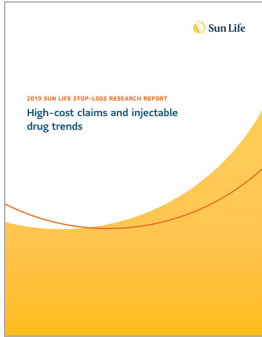
first-dollar stop-loss claims payments and stop-loss claims reimbursements

(2016 through 2019)



A library of resources

For additional insights, take a look at some of our other reports in our library.



2019 Stop-Loss Research Report



2018 Stop-Loss Research Report



Self-funded playbook



Captives white paper



Broker education library flyer



Clinical 360 flyer



Product feature flyer



Stop-Loss Benchmark Report

Reach out to your Sun Life stop-loss specialist to request a customized benchmark report today.



For the latest information about stop-loss, please visit www.sunlife.com/stoploss or contact your Sun Life Stop-Loss Specialist.



Here for you

**To learn more, contact
your broker or Sun Life
Stop-Loss Specialist.**

Group stop-loss insurance policies are underwritten by Sun Life Assurance Company of Canada (Wellesley Hills, MA) in all states, except New York, under Policy Form Series 07-SL REV 7-12. In New York, group stop-loss insurance policies are underwritten by Sun Life and Health Insurance Company (U.S.) (Lansing, MI) under Policy Form Series 07-NYSL REV 7-12. Product offerings may not be available in all states and may vary depending on state laws and regulations. The following services are not insurance and carry a separate charge included with the price of coverage: SunResources®, owned by Sun Life; SunExcel®, owned by Sun Life; and SunEliteSM, owned by Sun Life with services provided by third-party The Phia Group, LLC. Sun Life is not responsible or liable for the services or advice provided by any third-party vendor. Sun Life reserves the right to discontinue any service at any time. All products, brands, and names are the property of their respective owners.

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