



Accident & Health
Market Report *2021*



**Market trends and
the impact of COVID-19**

QBE is a global insurance leader

focused on helping customers solve
unique risks, so they can focus
on what *matters most.*

  @QBENorthAmerica qbe.com/us/ah

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Introduction



Now, more than ever, employers experience new challenges in supporting their people and growing their business. The rising cost and complexity of providing affordable healthcare coverage for employees continues to be a fundamental challenge most employers face. Advancements in medical treatments and innovations in disease therapies are changing the future of healthcare, but the frequency and severity of million dollar claims are becoming more prevalent.

To help employers manage the risks associated with their healthcare plans, we're pleased to offer our inaugural QBE Accident & Health Market Report.

This report highlights key industry trends and product details presenting insights employers can consider when evaluating their self-funded healthcare plans.

As a leading provider of medical stop loss insurance, we leveraged our claims database to analyze and share indications to help employers identify and mitigate risk. Our team of technical experts detailed medical stop loss claim trends by primary diagnosis, specific deductible, frequency, and severity.

We also examine the pipeline of high-cost gene, cell, and orphan drug therapies that employers need to consider in their long-term claim financing and risk transfer planning. The growth in the number of these highly specialized therapies will have a lasting impact on employer sponsored healthcare for years to come.

Finally, this report explores the impacts of COVID-19 and how the pandemic has affected patient care for non-critical medical procedures. From telemedicine, as an ongoing solution for delivery of care, to offering a more holistic employee benefits package that connects mental and physical health, employers are looking at new ways to improve healthcare outcomes and reduce costs.

While the Affordable Care Act had accelerated growth in self-funding as employers sought better claims transparency and greater control over their healthcare spend, the COVID-19 pandemic brought new considerations to employer groups as they managed business risks and evaluated health plan financing alternatives.

Medical stop loss insurance and related products will continue to play a key role in helping employers manage evolving risks. Our goal is not only to provide insurance protection, but also to help our customers identify and plan for future risks and opportunities.

We are hopeful that our data and insights will assist our customers in navigating the ever-changing healthcare financing landscape and provide our partners with the confidence to achieve their ambitions.

A handwritten signature in black ink that reads "Tara Krauss".

Tara Krauss
Head of Accident & Health
QBE North America

2020 Global GWP
\$14.7 billion

RATED **A+** by Standard & Poor's
A (Excellent) by A.M. Best

Listed on
Forbes Global 2000
list of public companies

Our cornerstones of protecting businesses



We put the customer at the center of everything we do



Data security



Legal and regulatory



Digital



Compliance



Data & Analytics



InsurTech

Robust Business Continuity and Resiliency Plans (BCP)

Our Business Continuity and Resiliency Plans are tested quarterly by routinely revising impact assessments, performing exercises to test strategies, and ensuring our employees are equipped to perform their jobs under extenuating circumstances.



Sustainability

We give people the confidence to achieve their ambitions. QBE helps people and businesses protect themselves from risk. We have a keen focus on sustainability, and the identification of current and emerging environmental and social trends. These efforts play a role in achieving our purpose, while ensuring the sustainability of our own business.



Premiums4Good

Premiums4Good is an innovative global initiative created to turn everyday insurance spending into something extraordinary. By directing a portion of our customer's insurance premiums into socially responsible, impact investments, we are using those funds to make a difference in our communities. By 2025, QBE has committed to invest **\$2 billion globally** to impact investments.



QBE cares about the community. The QBE Foundation partners with impactful not-for-profits around the world to protect vulnerable societies, enable financial resilience, strengthen their health and well-being, and build more inclusive, sustainable communities.



Diversity and Inclusion

Diversity and Inclusion is a top priority at QBE. We are committed to building a diverse culture of collaboration, recognition, equity, accessibility and inclusiveness.

Together we are making a difference.



Following the rapid economic effect of the pandemic, and the impact this had on the non-profit sector due to the drop in charitable giving, and the deepening need because of the recession, The Ford Foundation partnered with QBE to issue a **\$1B social bond** to support charitable organizations working to improve key social justice issues, such as gender, racial and ethnic justice; natural resources and climate change; creativity and free expression.

Medical Stop Loss Market highlights

2020
GWP

\$ 25.8B¹



Medical Stop Loss

- Direct access to underwriters
- Deep technical and clinical expertise
- Focus on partner collaboration to manage risk
- Regional underwriting centers, active thought leaders in local markets




3x

In the last decade,
the stop loss market
has nearly tripled.²



Net premiums earned in the
U.S. stop loss insurance segment
have **doubled** over the
last 5 years since ACA
was implemented.³



67% of covered workers, including **23%** of covered workers
in small firms and **84%** in large firms, are enrolled in plans that
are self-funded.⁴

¹ Medical stop loss market: 2020 National Association of Insurance Commissioners (NAIC) Accident & Health Policy Experience Report

² <https://www.milliman.com/en/insight/health-plan-participation-in-the-employer-stop-loss-market>

³ AM Best

⁴ <https://www.kff.org/report-section/ehbs-2020-summary-of-findings/>

Captive Medical Stop Loss Market highlights



Employee benefit risks underwritten within a captive have grown in popularity globally.¹

Current employee benefits (including health/medical usage):

13%

Expected growth within three years:

24%



Today, there are over **7,000 captives** globally compared to roughly 1,000 in 1980 according to the AM Best Captive Center.

Approximately 90% of Fortune 500 companies have captive subsidiaries.²



Captive Medical Stop Loss

- Group and single parent captive risk assessment
- Full captive layer underwriting capability
- Clinical risk management services
- Reinsurance and insurance coverage for a variety of captive structures



Captives produce savings by retaining the insurance premium and underwriting profit that the commercial market would retain under a traditional insurance model.

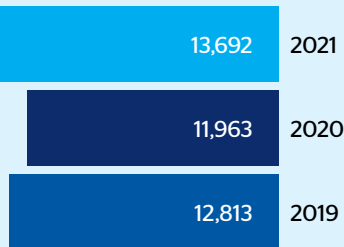
Savings between 10-30%¹

¹ Aon's 2019 Global Risk Management Survey

² https://content.naic.org/cipr_topics/topic_captive_insurance_companies.htm

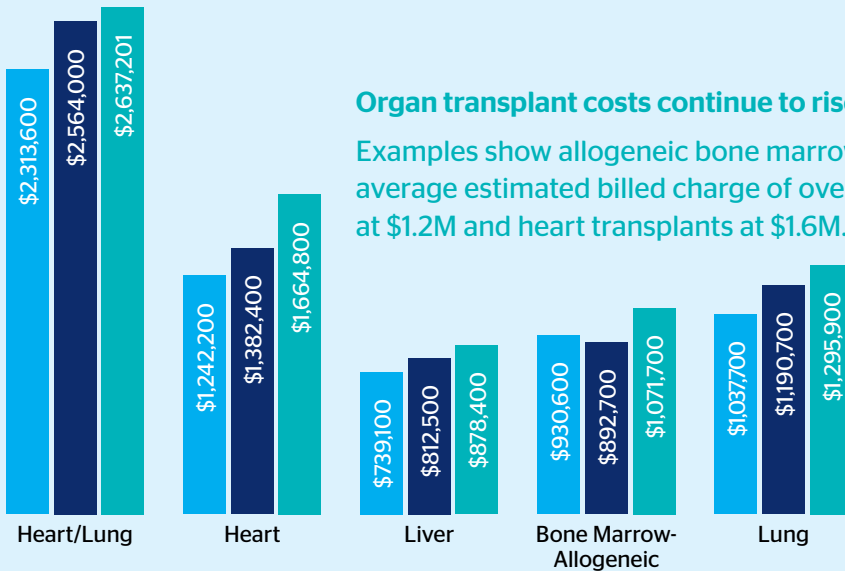
Organ Transplant Market highlights

Number of solid transplants are up **14%** compared to May 2020 and **7%** from May 2019.¹



Organ Transplant

- Covers first-dollar transplant expenses
- Covers 100% in-network with no co-pays or deductibles
- \$1M, \$2M or unlimited
- Travel and lodging expense benefits



Organ transplant costs continue to rise year-over-year.¹

Examples show allogeneic bone marrow transplants with an average estimated billed charge of over \$1M, lung transplants at \$1.2M and heart transplants at \$1.6M.



Currently **107K** people need a lifesaving organ transplant in the U.S. Of those, **65K** people are active waiting list candidates.²



The global bone marrow transplantation market is expected to exceed

US\$12B

by the end of 2028.

Over **80%** of global bone marrow transplantation demand is accounted for by North America and Europe.³

¹ <https://www.milliman.com/-/media/milliman/pdfs/articles/2020-us-organ-tissue-transplants.ashx>
Average billed charges may be higher (perhaps significantly) than the actual amount paid for transplant services due to the presence of negotiated reimbursement arrangements, with actual charges likely to vary for private insurers, Medicare, or Medicaid.

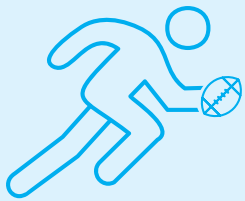
² UNOS, totals as of June 1, 2021

³ <https://www.persistencemarketresearch.com/mediarelease/bone-marrow-transplantation-market.asp>

Special Risk Accident Market highlights



Statistics reveal that **90%** of student athletes report some sort of sports-related injury. **54%** of student athletes report they have played while injured.¹



In the U.S., about
30M
youth participate in some form of organized sports, with more than
3.5M
injuries occurring each year.²

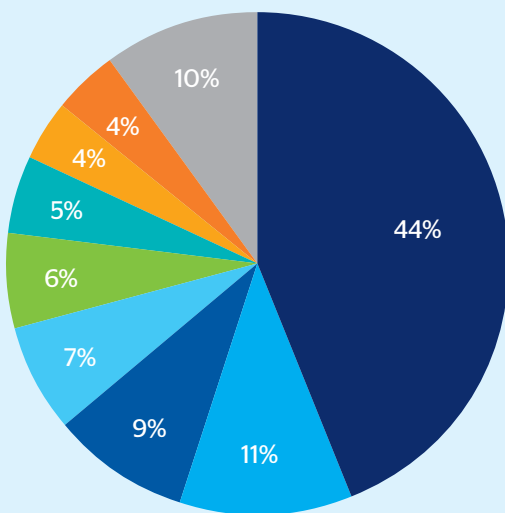


Special Risk Accident

- Covers medical expenses for injuries that occur during policyholder-supervised and sponsored activities
- Products include:
 - Participant Accident Insurance
 - Intercollegiate Accident Insurance
 - K-12 Accident Insurance



QBE's college sports claims distribution



- Mens Football
- Basketball
- Soccer
- Track/ Cross Country
- Baseball/ Softball
- Lacrosse
- Gymnastics
- Volleyball
- All other



Approximately **63M** Americans – **25% of the adult population** – volunteer their time, talents, and energy to making a difference.³

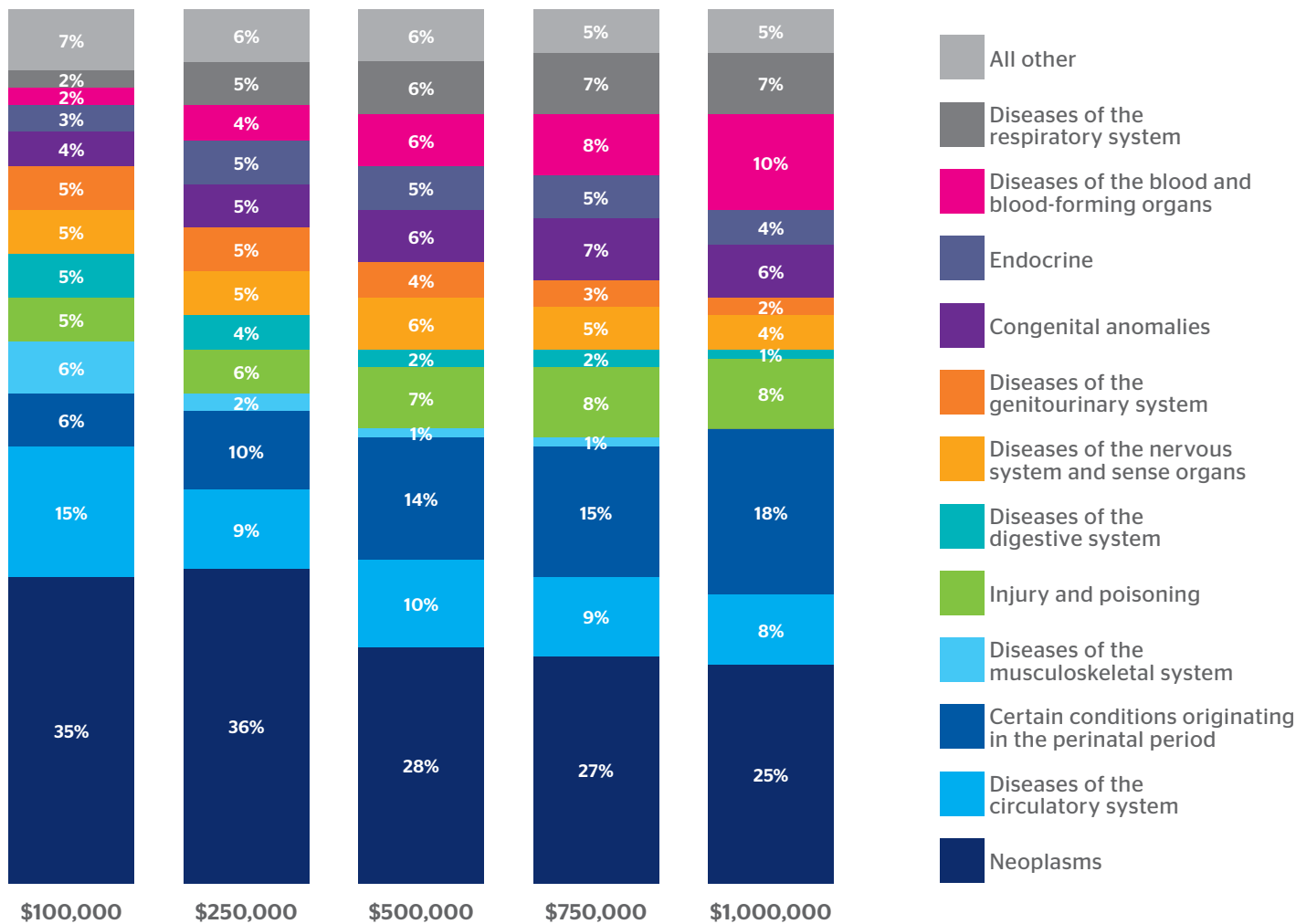
¹ <https://www.atyourownrisk.org/studentathletes/>

² <https://www.hopkinsmedicine.org/health/conditions-and-diseases/sports-injuries/sports-injury-statistics>

³ <https://nonprofitsource.com/online-giving-statistics/volunteering-statistics/>



Stop loss claims reimbursements by primary diagnosis and deductible



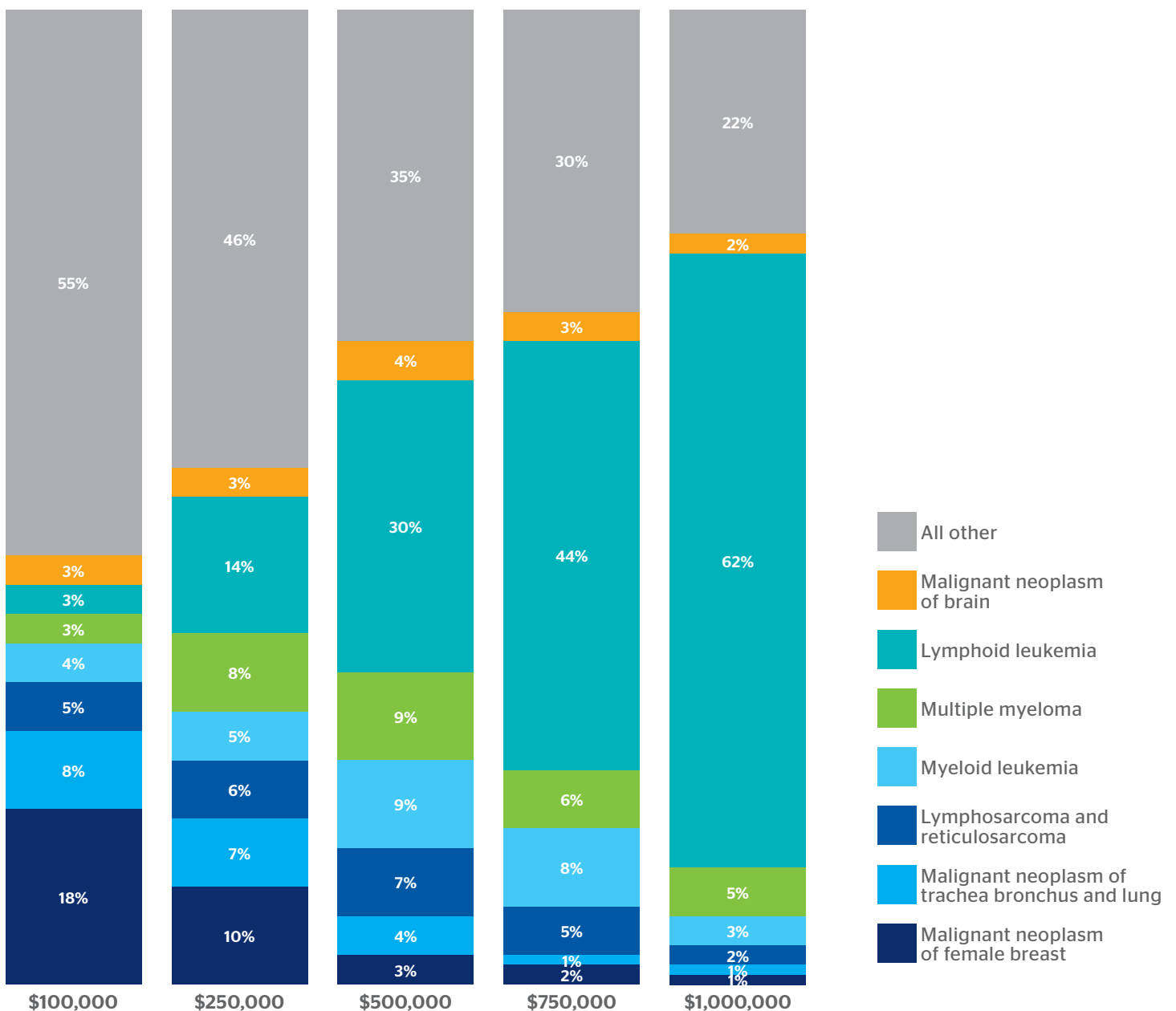
QBE's analysis of stop loss claims by primary diagnosis illustrates the mix of claims for varying deductibles. For example, neoplasms represent **36%** of stop loss claims for deductibles near \$250,000, but **27%** for a \$750,000 deductible; conversely, premature births account for just **6%** of total stop loss claims at a \$100,000 deductible, but accounts for nearly **20%** at a \$1,000,000 deductible.¹

¹ Stop loss claims include both medical and drug claims based on the member's primary diagnosis (inclusive of comorbidities); data based on policies effective 2017 through June 2020, as of April 30, 2021.

Claims insights

Neoplasms (cancers) make up the largest percentage of stop loss claims. As detailed in the chart below, the prevalence of types of cancer claims have varied along with deductible size. Female breast cancer accounts for **18%** of cancer related claims with a \$100,000 deductible, but only **3%** for a \$500,000 deductible. Conversely, lymphoid leukemia accounts for only **3%** at a \$100,000 deductible but **30%** of cancer claims at a \$500,000 deductible.¹

Stop loss claims reimbursements by cancer type and deductible

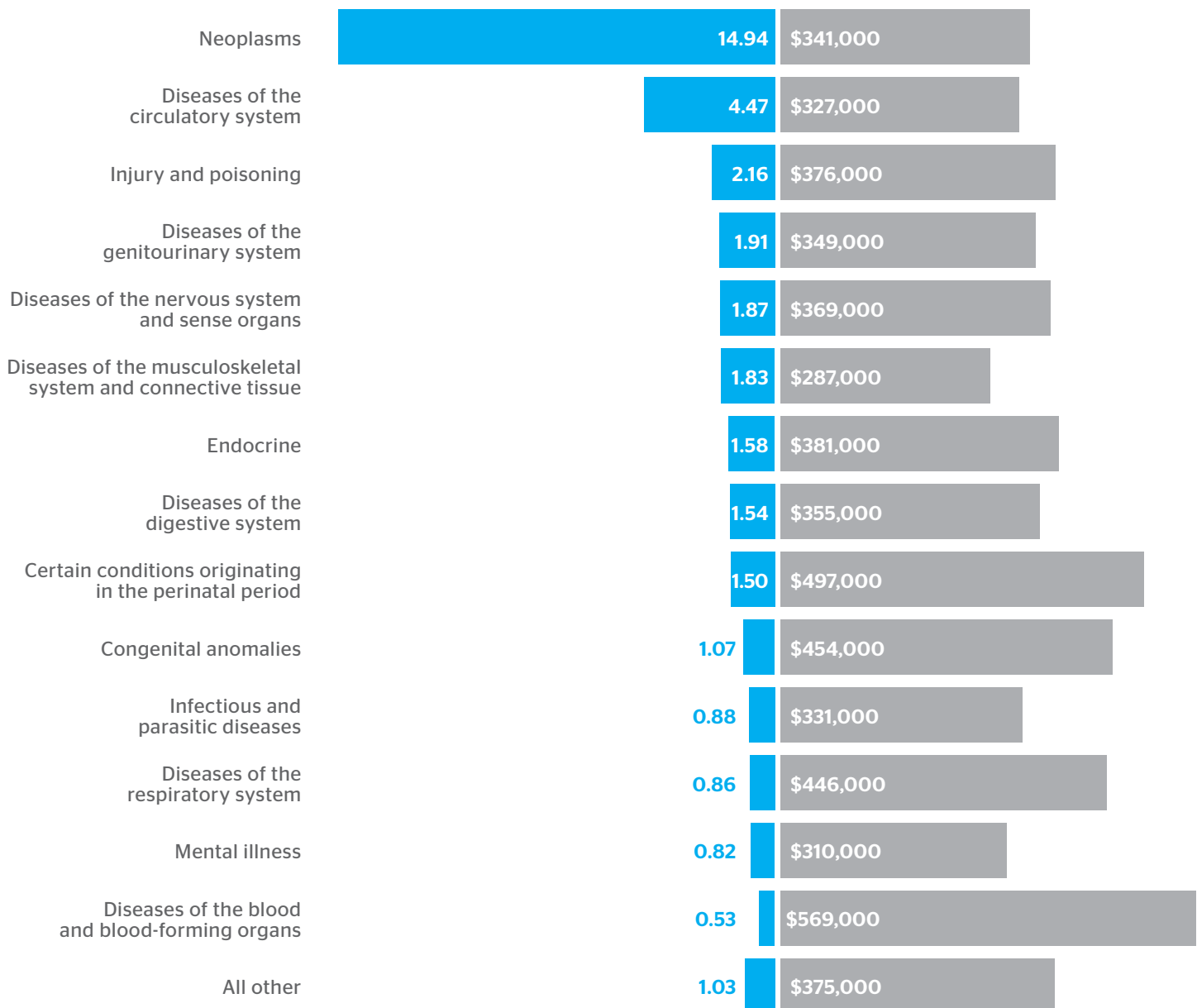


¹ Stop loss claims include both medical and drug claims based on the member's primary diagnosis (inclusive of comorbidities); data based on policies effective 2017 through June 2020, as of April 30, 2021.

Analyzing stop loss claims by frequency and severity provides further insight into the composition of claims by deductible size. Based upon a \$200,000 deductible, the number of members with stop loss claims per 10,000 employees (including dependents) and average associated ground-up claims are provided below.

Claim frequency and cost for a \$200,000 deductible¹

Claim frequency (per 10,000 employees) Total average claim size



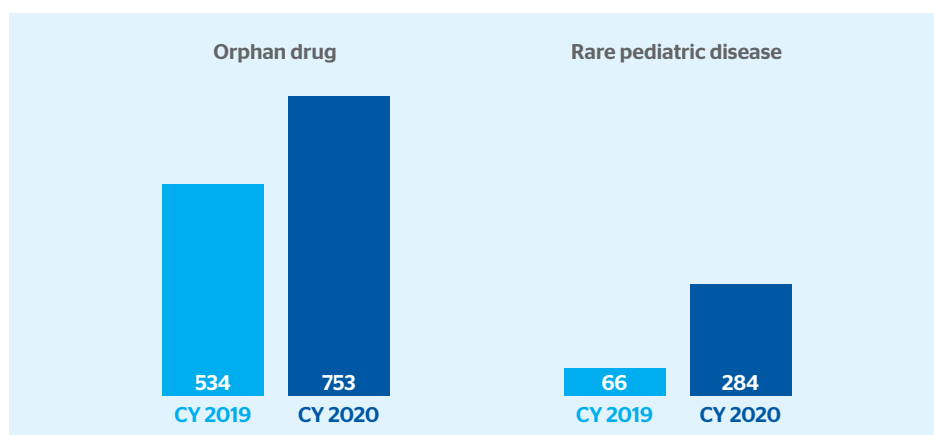
¹ Stop loss claim reimbursements include both medical and drug claims based on the member's primary diagnosis. Data based on policies effective 2017 through June 2020, as of April 30, 2021.

Gene, cell and orphan therapies

Gene therapy is a type of treatment that uses genetic material with the goal of changing the course of a disease. Gene therapy can potentially treat a wide range of diseases by improving the ability to fight off disease and may offer a potential cure, but at an extraordinary cost to employer-sponsored health plans. Gene therapy has been studied for over 40 years, and now with remarkable advances in molecular genetics, there is an increased focus on the impact. The daunting one-time costs of these transformative therapies disrupts the traditional fee-for-service model that is rooted in volume-based discount contracting.

Rare diseases and oncology are often the focus of gene and cell therapy. These high dollar therapies are designed to address the concerns of a very small subset of the U.S. population, but at a very high research and development capital outlay for manufacturers. 2020 saw an increase in FDA approval requests from 2019 (see chart below) with 55% of drugs approved. These novel therapies are changing the landscape of clinical trials from standard double-blinded four phase studies, which have been the gold standard for decades, to new frameworks that attempt to balance increased access to therapeutic options with safe product administration and identification of side effects over a long period of time. The clinical review of these products frequently poses more challenging questions to regulators than reviews of more conventional drugs, such as the durability of response. These questions often can't be fully answered in pre-market trials of reasonable size and duration.¹

Orphan drug and rare pediatric disease designation requests received: 2019 vs. 2020²



Therapies are on a trajectory to grow over **45%** in the next five years for cancer treatments and **38%** for rare inherited genetic disorders such as hemophilia, muscular dystrophies, and retinal disorders with costs for individual treatment upwards of **\$1M-\$3M.**³

¹ <https://www.fda.gov/news-events/press-announcements/fda-continues-strong-support-innovation-development-gene-therapy-products>

² <https://www.fda.gov/news-events/fda-voices/rare-disease-day-2021-fda-shows-sustained-support-rare-disease-product-development-during-public>

³ Gene therapy research comes of age: Opportunities and challenges to getting ahead | McKinsey, Delivering innovation: 2020 oncology market outlook | McKinsey

The current industry-wide gene therapy pipeline can be organized by stage and therapeutic area.

| Gene therapy (in vivo), number of assets | | RNA-directed therapies | DNA-directed therapies | mAbs ³ | Total by stage |
|---|--------------------------------|---------------------------|---------------------------|-------------------|----------------|
| Phase 1 | Hematology | 3 | 6 | 7 | 574 |
| | Oncology | 17 | 8 | 338 | |
| | Sensory organs | 0 | 8 | 12 | |
| | Internal medicine ¹ | 10 | 5 | 26 | |
| | Others ² | 12 | 15 | 107 | |
| Phase 2 | Hematology | 3 | 11 | 13 | 520 |
| | Oncology | 13 | 23 | 187 | |
| | Sensory organs | 3 | 21 | 8 | |
| | Internal medicine | 15 | 13 | 25 | |
| | Others | 29 | 41 | 115 | |
| Phase 3 | Hematology | 1 | 4 | 5 | 205 |
| | Oncology | 2 | 4 | 75 | |
| | Sensory organs | 4 | 3 | 7 | |
| | Internal medicine | 6 | 4 | 10 | |
| | Others | 11 | 9 | 60 | |
| Phase 4 | Hematology | 0 | 1 | 13 | 237 |
| | Oncology | 0 | 1 | 104 | |
| | Sensory organs | 1 | 2 | 4 | |
| | Internal medicine | 2 | 2 | 8 | |
| | Others | 9 | 5 | 85 | |

Total number of assets by therapy type

141

186

1,209

1,536

¹ Includes respiratory, endocrine, gastro-intestinal and cardiovascular.

² Includes dermatology, systemic anti-infectives, genito-urinary, CNS, immunomodulators, musculoskeletal, and other.

³ Monoclonal antibodies.

Source: Evaluate Pharma, September 2019, McKinsey analysis

Challenges across sectors stand in the way of realizing potential of gene therapy.

Gene therapy challenges by degree of difficulty to overcome

●●● High ●● Medium ● Low

| | Description | Difficulty to overcome |
|--|---|--|
| Market access | Therapies are costly, and health systems – especially in the US – are not set up for one-time large payments. | ●●● Requires significant changes to the healthcare ecosystem; multiple stakeholders involved. |
| Clinical | Long-term safety and efficacy have yet to be established. | ●●● Requires time and further research to ensure long-term safety and efficacy; common issue in new modalities. |
| Provider and hospital economic disruption | One-time therapies disrupt current healthcare economics (buy-and-bill). | ●● Can be mitigated by selectively choosing providers but challenging to implement more broadly. |
| Manufacturing | COGS ¹ remain high partially due to low and variable yields, with limited manufacturing capacity. | ● Significant investment required to expand capacity; yields will increase as more therapies reach clinical scale. |
| Customer journey | Finding patients is challenging, especially for rare diseases that were previously untreatable. | ● Challenge expected to expand beyond rare diseases. |

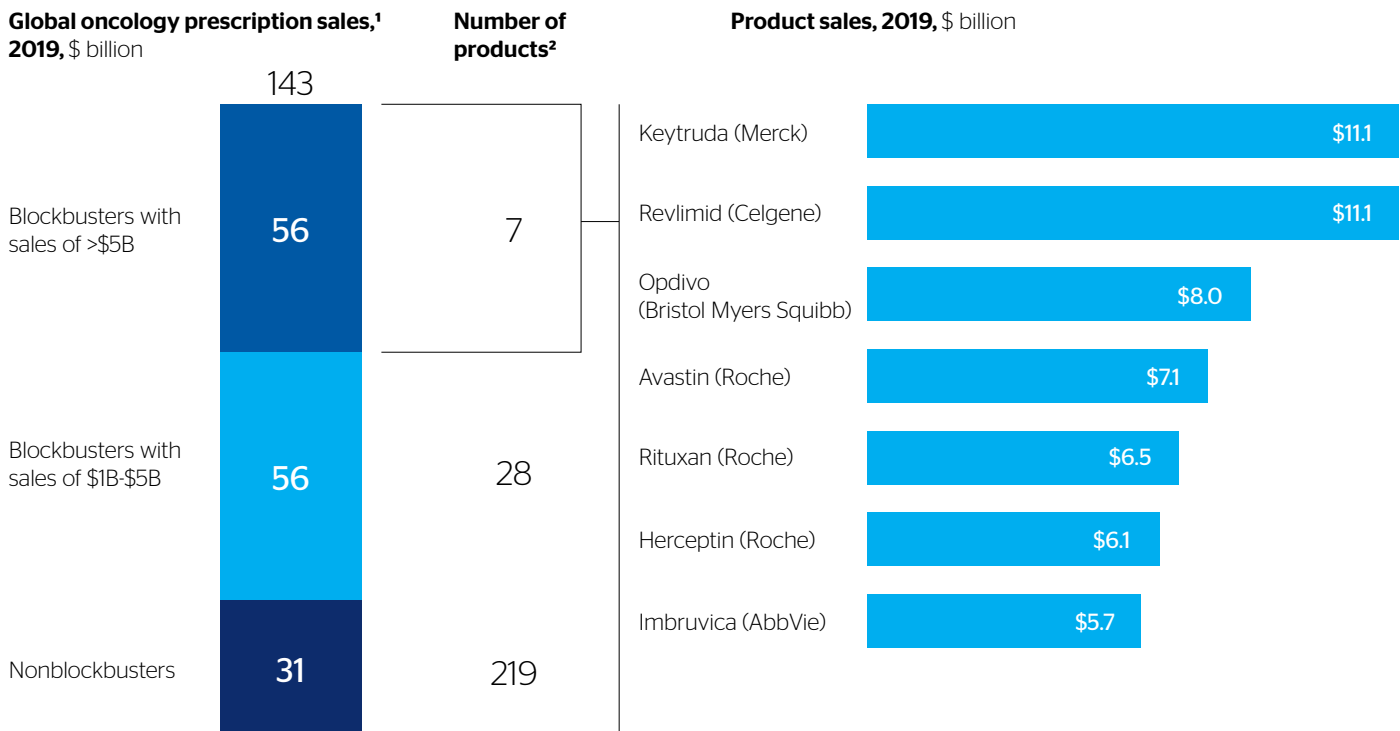
¹ Cost of goods sold.
Source: McKinsey & Company

Specialty pharmacy

Specialty pharmacy has become the fastest growing area of pharmacy spend and is an issue health plans should be discussing. The explosion in availability of these high cost oral or injectable medications has outpaced medical inflation over the last three years at an estimated 10% Compounded Annual Growth Rate (CAGR). These drugs are used to treat biological disorders and are designed to closely resemble or emulate naturally occurring chemicals within the human body. The 2020 Milliman Medical Index has pegged the average annual prescription spend per person at \$1,321, largely driven by the popularity and availability of these drugs. Specialty pharmacy represents over 44% of total drug spend in the \$400B U.S. drug market.

We have observed a large number of multi-billion-dollar oncology-focused therapy acquisitions in quick succession over the last two years. A relatively small number of specific oncology drug therapies, referenced below as “blockbusters” with sales over \$5B and sales between \$1B and \$5B, represent a significant share of total prescription sales. The top 10 pharmaceutical companies produce nearly 90% of the leading commercial cancer drugs.

A small number of very successful products represent a disproportionate share of the oncology market.



¹ For branded and generic drugs, where data is reported.

² Only products with oncology prescriptions; excludes cancer prophylactic vaccines.
Source: EvaluatePharma® July 2020, Evaluate Ltd.
Source: McKinsey & Company

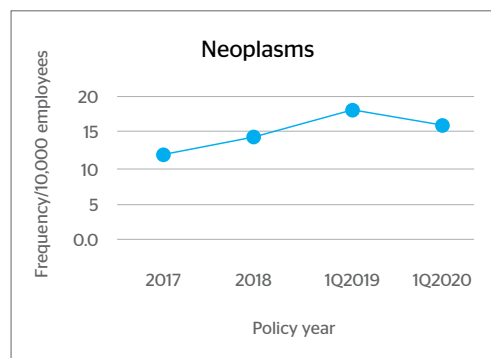
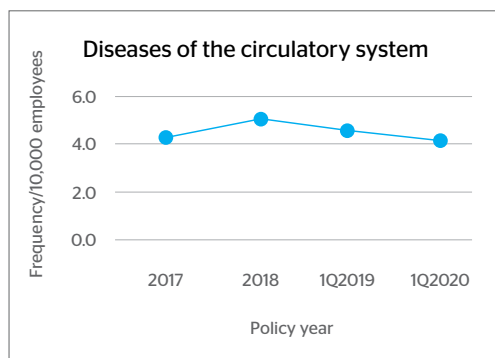
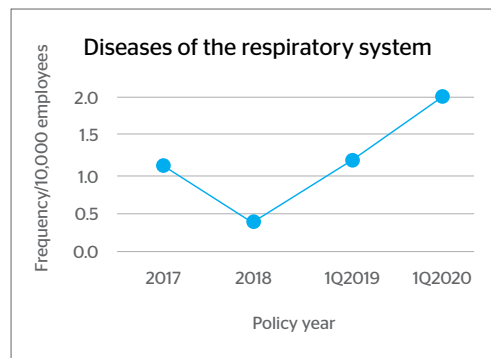
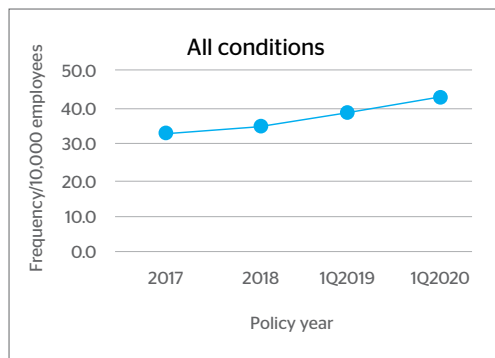
• Top ten oncology players produce 31 of 35 blockbusters
• All top ten players have at least one blockbuster, and eight have two or more

Impacts of COVID-19

Total large reimbursed claim frequency within QBE's medical stop loss portfolio continues to rise in line with trend assumptions, despite the evident reduction in elective-based services and screenings due to the COVID-19 pandemic. Based on an average deductible size of \$200,000, we have seen an increase in claims with mental illnesses and respiratory disease (driven primarily by COVID-19 claims) and conversely, a decrease in cancer and circulatory-related conditions.

Claim frequency was analyzed by policy period, based on the number of stop loss claimants exceeding \$200,000, per 10,000 employees (including dependents). To have a clear distinction of the COVID-19 impact on claim frequency, policies effective 1Q2019 reflect the pre-pandemic period and policies effective 1Q2020 reflect the post-pandemic period.

Claim frequency for members exceeding \$200,000 in annual claims



The total number of cancer screening tests received by women through CDC's National Breast and Cervical Cancer Early Detection Program declined by 87% for breast cancer and 84% for cervical cancer during April 2020, as compared with the previous 5-year averages for that month.¹

Our data shows a decrease in neoplasms. However, missed and delayed screenings may lead to an increase of treatment costs and complications in the future.

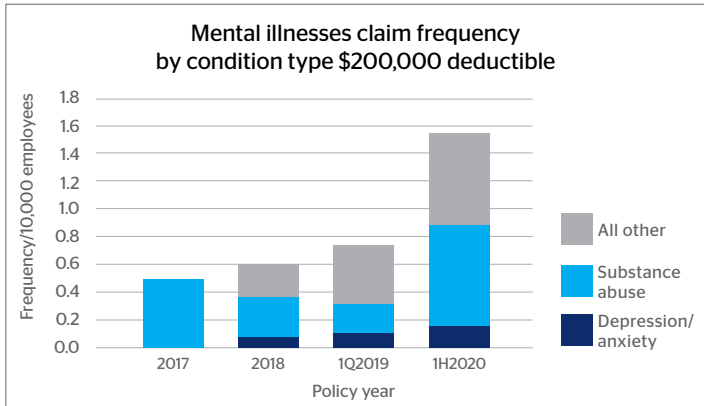
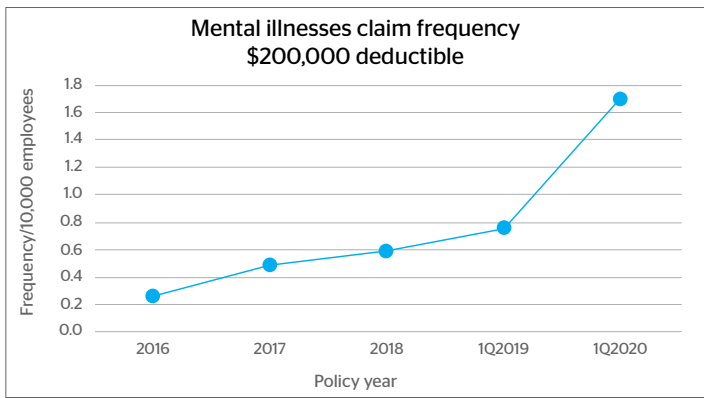
* Data as of April 30, 2021.



We are committed to supporting our communities.

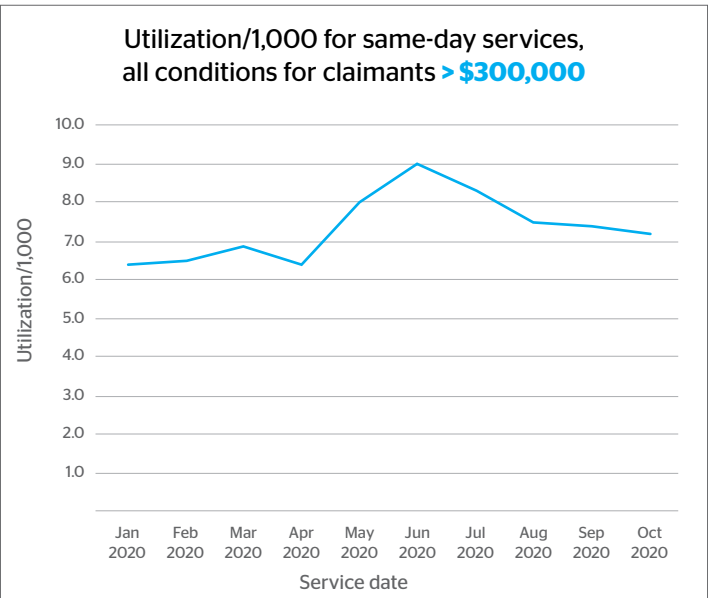
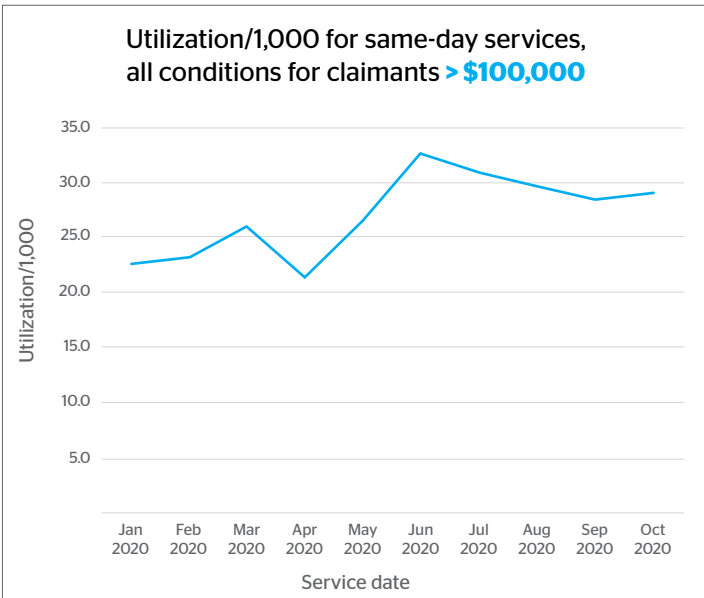
QBE North America was pleased to **donate 100,000 surgical masks** to help healthcare workers on the front lines in the battle against COVID-19 to hospitals in New York City, Boston, Hartford, Atlanta and Madison.

¹ <https://www.cdc.gov/media/releases/2021/p0630-cancer-screenings.html>



According to the Kaiser Family Foundation, **4 in 10 adults**, up from 1 in 10 adults in 2019, have **reported symptoms of anxiety or depression.**

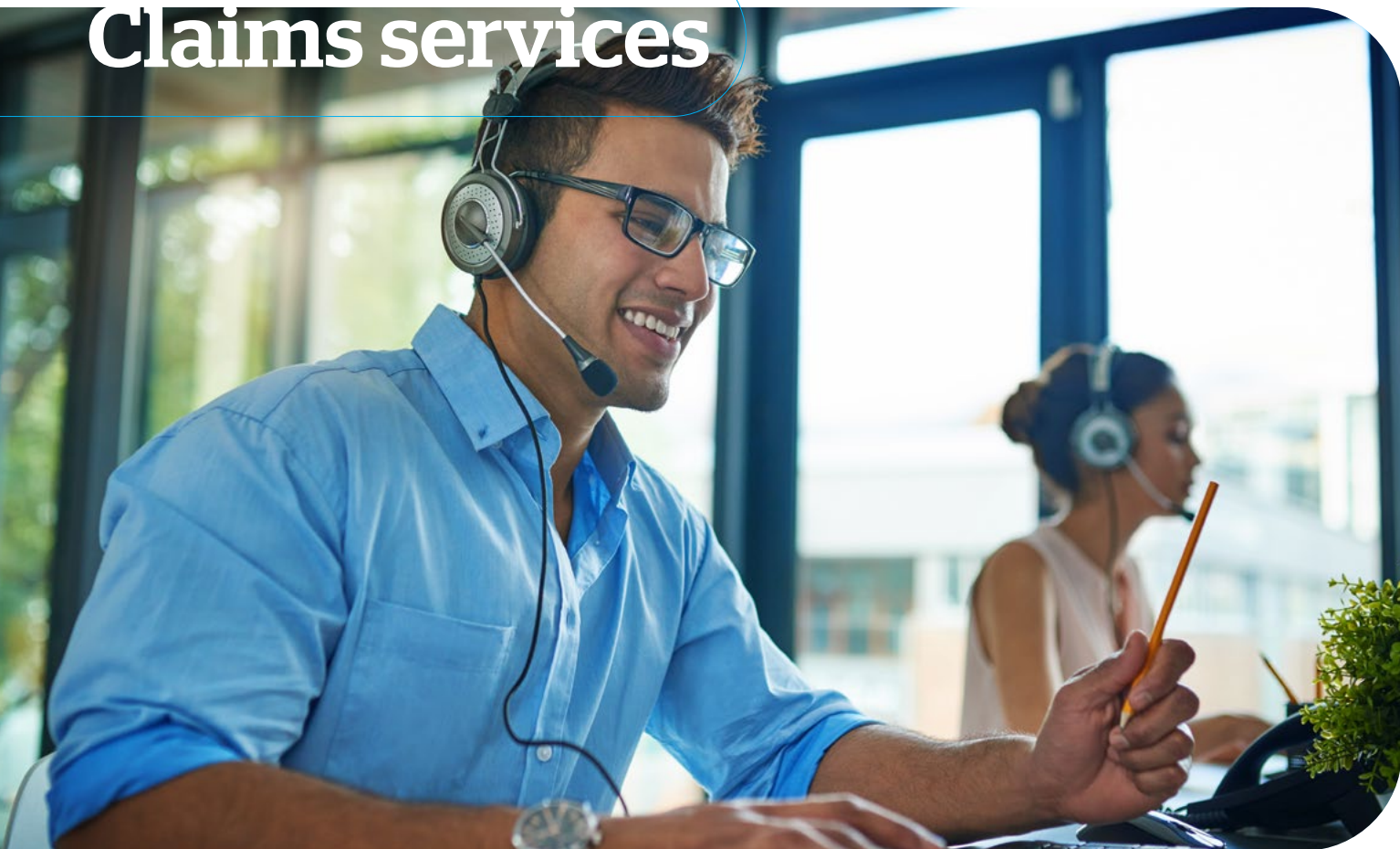
Utilization of same-day medical services (e.g., office visits, outpatient visits, exams, etc.) decreased in April 2020 for QBE’s smaller sized deductibles (e.g., \$100,000). However, for larger deductible levels (e.g., \$300,000), the reduction in services was relatively level compared to prior month service dates. May and June 2020 utilization increased at a much quicker rate, potentially driven by postponement of elective care that would have taken place in April 2020. Utilization of services for these claimants stabilized throughout August and September 2020.¹



* Data as of April 30, 2021.

¹ Based on policies effective January 2020 only; Utilization/1,000 based on the number of services rendered within the same-day for members who exceeded either \$100,000 or \$300,000 in annual first-dollar claims, divided by the total number of employees, per 1,000.

Claims services







Advancing claims services through digital innovation

As healthcare innovation evolves, claim severity and complexity continue to increase. Advancements made in the treatment of disease through durable and potentially curative therapies are creating financial challenges for plan sponsors. QBE is well prepared to support our customers with market ready claim processes and cost containment activities, including QBE Initiated Claims (QIC), which was developed to enhance the speed of reimbursements.

In 2021, QBE also launched multiple artificial intelligence automations for managing potential claims notifications and reimbursement requests, providing our customers with best-in class turnaround times.

Benefits of QIC reimbursements:

-  **Value-added service with no additional fee**
-  **Immediate claims initiation removes delay in QBE receiving the claim**
-  **Simplified claim filing with no request forms required**
-  **Assists with identifying stop loss claims; we do the work for you**

For more information

Our team of sales, underwriting and claims professionals have extensive backgrounds in the complexities of Accident & Health insurance. But more importantly, we know that listening to your customers and addressing their unique challenges are the keys to developing a long-term, trusted partnership.

Because we're not here just to sell insurance. We're here to help your customers solve problems. We're here to help you and your customers succeed.

We would be pleased to share additional industry perspectives, discuss the data in this report and how QBE's Accident & Health practice can help your customers strategically mitigate risk. For more information, please contact us:

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Why choose QBE

We know that employee engagement drives customer satisfaction, and our team is proud of our top-tier engagement results. QBE is focused on risk solutions and accountability with an unwavering commitment to serving our customers.

We offer:

- Dedicated account teams
- Proactive medical risk management
- Comprehensive claims services
- Limited and preferred distribution
- Products available in all 50 states

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