

Behavioral healthcare utilization changes during the COVID-19 pandemic

An analysis of claims data through August 2020 for 12.5 million individuals

Commissioned by Well Being Trust

Stoddard Davenport, MPH
Steve Melek, FSA, MAAA
T.J. Gray, FSA, MAAA



COVID-19 has impacted every corner of the healthcare sector in the United States.

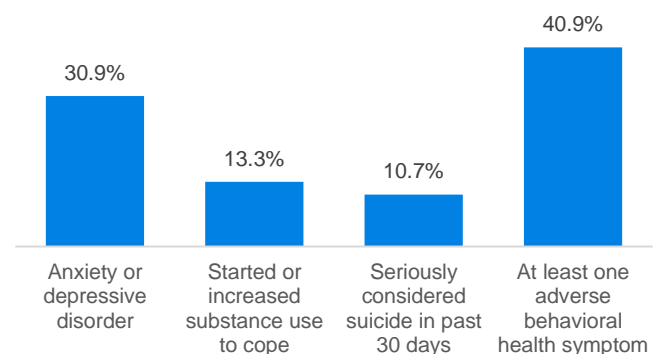
Millions of people have contracted the virus,¹ and the costs associated with treating hospitalized patients are significant.² Health insurance coverage across market segments continues to change^{3,4} as the country faces economic challenges.⁵ Care delivery models are expanding to allow expanded telehealth services.^{6,7} In the early months of the pandemic, stay-at-home orders were common in many areas; and as the pandemic has continued in waves, mask mandates, social distancing requirements, and other public health measures have been applied in various states and municipalities. Public anxiety was initially high, and many patients with acute illness, life-threatening or not, stayed home out of fear of contagion or concerns about healthcare access as COVID-19 began to overrun healthcare providers. Use of medical services declined during the spring of 2020 as many elective procedures were postponed or cancelled.⁸

Behavioral healthcare is not immune to these changes in utilization of and access to the healthcare system, and the impact of the virus on the behavioral health of individuals has been significant. Undertreatment of mental health and substance use disorders was already a concern in the United States before the pandemic. According to the 2018 National Survey on Drug Use and Health, 17% of those aged 12 or older with substance use disorders who needed treatment actually received it, and 43% of adults with any mental illness received mental health services in the prior year.⁹ Has the pandemic worsened this treatment gap by creating added stressors to mental health while also reducing the use of behavioral health services? In this paper, we look at the use of mental health and substance use disorder treatment services during the months leading up to and following the onset of the COVID-19 pandemic in the United States, based on claims data for 12.5 million individuals through August 2020.

Increased need for behavioral health services

As the pandemic and subsequent economic recession have gone on, the effects on the mental health of individuals have been noteworthy. According to a report issued by the Centers for Disease Control and Prevention (CDC), symptoms of anxiety and depressive disorders increased considerably in the United States between April and June 2020 when compared to the same period in 2019. Overall, 40.9% of the CDC survey respondents reported at least one adverse behavioral condition related to the pandemic, including symptoms of anxiety, depression, trauma, or stress-related disorder, or having started or increased substance use in order to cope with stress or emotions related to COVID-19.¹⁰ Figure 1 summarizes some key findings from this survey. In addition, the Kaiser Family Foundation reports that, in a mid-July poll, 53% of adults reported a negative impact on their mental health due to COVID-19, and 12% reported increases in alcohol consumption or substance use to cope with stress and worry.¹¹

FIGURE 1: PREVALENCE OF COVID-19-RELATED BEHAVIORAL HEALTH SYMPTOMS, AS OF JUNE 24-30, 2020¹²



One cause of the increased pressure on the behavioral health of Americans is the startling increase in the number of unemployed. Over 20 million Americans lost their jobs in April 2020, driving the unemployment rate up to 14.7%, the highest rate in the United States since the Great Depression.¹³ While we have seen a

decline in unemployment in the subsequent months, the disruption in incomes and career plans has been substantial, and the path to economic recovery remains uncertain.

Use of behavioral health services

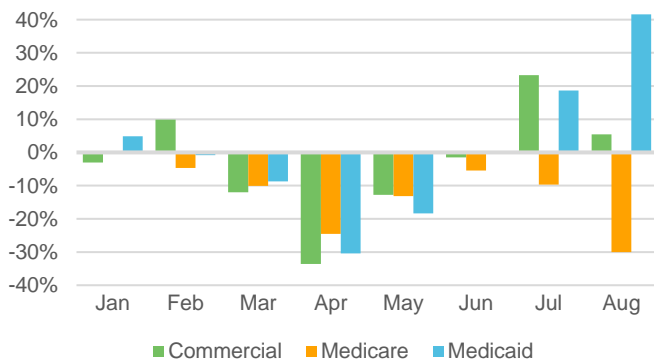
We analyzed health insurance claims data from the MedInsight® emerging experience data set for services used between January 2019 and August 2020 to identify patterns in the use of behavioral healthcare services in the commercial, Medicaid, and Medicare markets. This analysis represents the healthcare experience of 12.5 million individuals across the United States. While results for other populations may differ, the care patterns observed for this population provide a helpful view into the complex impacts of COVID-19 on behavioral healthcare.

INPATIENT SERVICES

Other studies have found that non-COVID-19 hospital admissions declined by over 42% during April 2020, which was the low point in the admission rate.¹⁴ This reflected a reduction in elective services and the desire of individuals with conditions that needed treatment to avoid the potential threat of the virus at hospitals, as well as restrictions on elective procedures imposed by some healthcare systems or local governments. Admissions rebounded through July to be just 16% lower than 2019 levels.¹⁵ How have inpatient admissions for behavioral health changed during the pandemic? Figure 2 shows the year-over-year changes between 2019 and 2020 by month for mental health and substance use disorder admissions combined based on our analysis. For ease of viewing, separate figures for each population can be found in the appendices.

FIGURE 2: CHANGE IN INPATIENT BEHAVIORAL HEALTH ADMISSIONS IN 2020 RELATIVE TO SAME MONTH IN 2019

MARKET	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
Commercial	-3%	10%	-12%	-34%	-13%	-2%	23%	5%
Medicare	0%	-5%	-10%	-25%	-13%	-5%	-10%	-30%
Medicaid	5%	-1%	-9%	-30%	-18%	0%	19%	42%



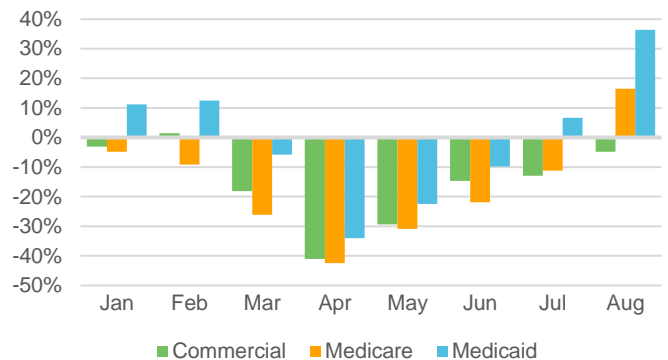
We found that inpatient admissions for mental health and substance use disorders dropped through April 2020, mirroring the decreases seen in physical healthcare admissions reported in other studies. However, subsequent behavioral health inpatient admissions increased through August 2020 at a much higher rate than what was seen for medical services, with admission rates exceeding 2019 levels in the third quarter. This increase is especially pronounced for the Medicaid population.

EMERGENCY SERVICES

The use of emergency room services mirrored that of inpatient hospital services, with rates falling through April 2020 but then rising through August to be at levels higher than 2019, as shown in Figure 3.

FIGURE 3: CHANGE IN EMERGENCY ROOM VISITS WITH BEHAVIORAL HEALTH DIAGNOSES IN 2020 RELATIVE TO SAME MONTH IN 2019

MARKET	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
Commercial	-3%	1%	-18%	-41%	-29%	-15%	-13%	-5%
Medicare	-5%	-9%	-26%	-42%	-31%	-22%	-11%	17%
Medicaid	11%	12%	-6%	-34%	-22%	-10%	7%	36%



OUTPATIENT PROFESSIONAL SERVICES

We analyzed visits to primary care and specialty care providers separately based on whether the visit included a primary or secondary diagnosis for behavioral health conditions (including suicide attempts or intentional self-harm) to determine whether there were different utilization patterns based on the health concerns involved with the visits. Figures 4 to 6 show the changes in use of primary care visits from 2019 to 2020 for the commercial, Medicare, and Medicaid populations.

FIGURE 4: CHANGE IN PRIMARY CARE VISITS WITH AND WITHOUT BEHAVIORAL HEALTH DIAGNOSES IN 2020 RELATIVE TO SAME MONTH IN 2019: COMMERCIAL MARKET

DIAGNOSES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
With BH Dx	1%	3%	-6%	-8%	-9%	13%	3%	6%
Without BH Dx	1%	4%	-17%	-37%	-30%	-3%	-3%	-6%

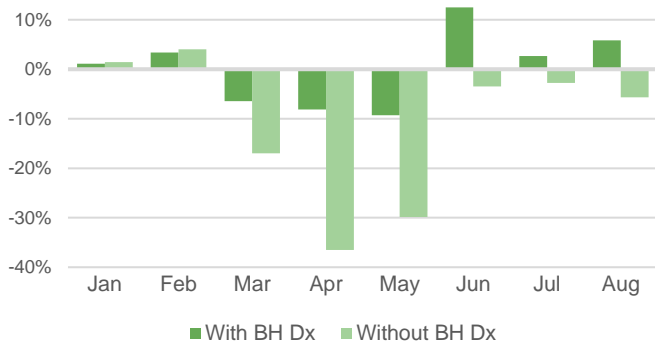


FIGURE 5: CHANGE IN PRIMARY CARE VISITS WITH AND WITHOUT BEHAVIORAL HEALTH DIAGNOSES IN 2020 RELATIVE TO SAME MONTH IN 2019: MEDICARE

DIAGNOSES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
With BH Dx	-2%	-10%	-23%	-27%	-22%	2%	-13%	-1%
Without BH Dx	-4%	-10%	-29%	-43%	-31%	-4%	-14%	-12%

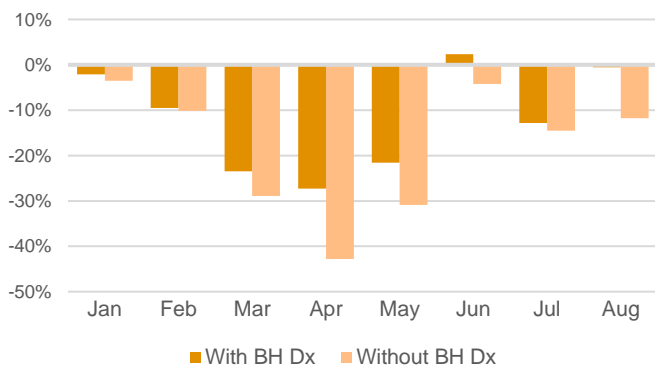
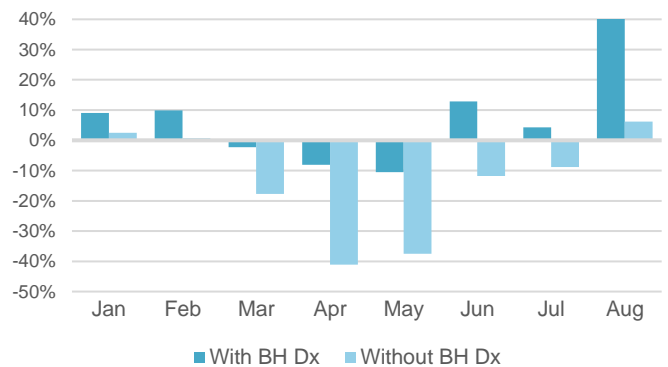


FIGURE 6: CHANGE IN PRIMARY CARE VISITS WITH AND WITHOUT BEHAVIORAL HEALTH DIAGNOSES IN 2020 RELATIVE TO SAME MONTH IN 2019: MEDICAID

DIAGNOSES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
With BH Dx	9%	10%	-2%	-8%	-11%	13%	4%	42%
Without BH Dx	2%	1%	-18%	-41%	-38%	-12%	-9%	6%



Visits to primary care providers dropped significantly in March through May 2020 across all lines of business. However, visits that included behavioral health diagnoses dropped significantly less during the same period than those without and rose above 2019 levels starting in June for the commercial and Medicaid populations. Primary care visits that included behavioral health diagnoses for the Medicare population rose somewhat less than in other markets.

Figures 7 to 9 show the changes in use from 2019 to 2020 for the commercial, Medicare, and Medicaid populations for medical/surgical specialty care office visits.

FIGURE 7: CHANGE IN SPECIALTY CARE OFFICE VISITS WITH AND WITHOUT BEHAVIORAL HEALTH DIAGNOSES IN 2020 RELATIVE TO SAME MONTH IN 2019: COMMERCIAL MARKET

DIAGNOSES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
With BH Dx	-4%	-8%	1%	8%	-4%	21%	7%	22%
Without BH Dx	-5%	-4%	-23%	-45%	-31%	0%	-5%	1%

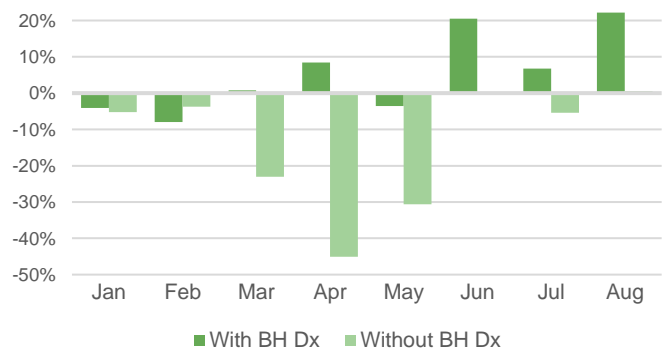


FIGURE 8: CHANGE IN SPECIALTY CARE OFFICE VISITS WITH AND WITHOUT BEHAVIORAL HEALTH DIAGNOSES IN 2020 RELATIVE TO SAME MONTH IN 2019: MEDICARE

DIAGNOSES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
With BH Dx	3%	-6%	-16%	-15%	-16%	3%	-20%	-4%
Without BH Dx	-3%	-11%	-31%	-52%	-35%	-2%	-20%	-19%

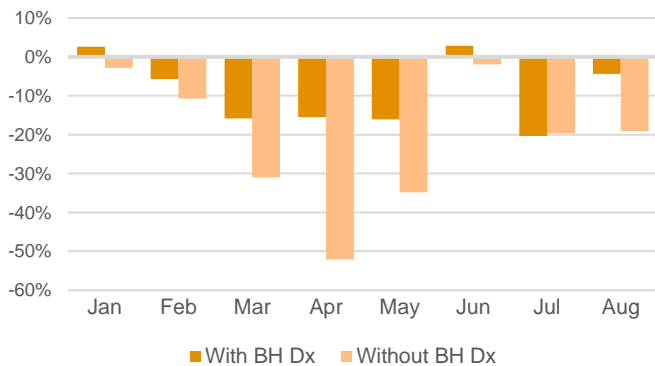
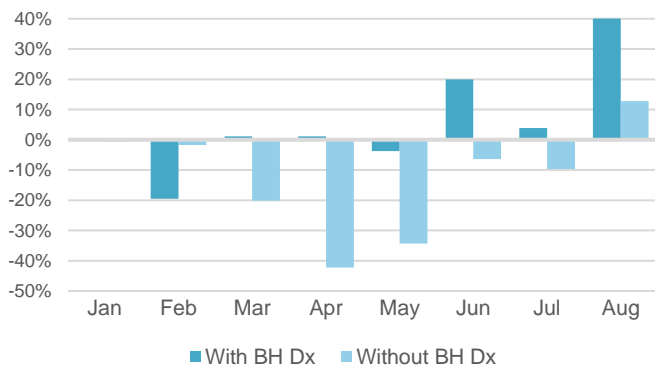


FIGURE 9: CHANGE IN SPECIALTY CARE VISITS WITH AND WITHOUT BEHAVIORAL HEALTH DIAGNOSES IN 2020 RELATIVE TO SAME MONTH IN 2019: MEDICAID

DIAGNOSES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
With BH Dx	0%	-19%	1%	1%	-4%	20%	4%	40%
Without BH Dx	-1%	-2%	-20%	-42%	-34%	-6%	-10%	13%



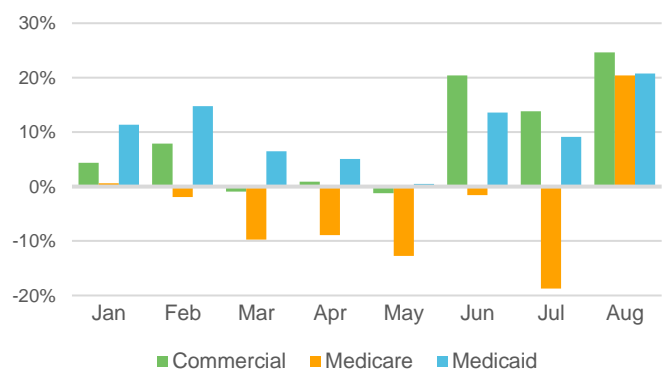
Office visits to medical/surgical specialty care providers that did not include behavioral health diagnoses tended to follow similar patterns as visits to primary care providers. However, the number of visits that included behavioral health diagnoses either hovered around the 2019 levels or increased above them during all months following the onset of the pandemic for the commercial and Medicaid populations. In the Medicare population, the number of office visits to medical/surgical specialty care providers that included behavioral health diagnoses dropped during the pandemic less than for those without behavioral health diagnoses but did not have the same level of relative service use when compared to the prior year. It is unclear whether the

observed changes in the rate of medical/surgical specialty care visits that include a behavioral health diagnosis are driven by differences in the number of people with behavioral healthcare needs or by differences in the recognition and coding of those needs by medical/surgical specialists, who may have been more attuned to behavioral health needs during the pandemic.

Figure 10 shows the utilization changes from 2019 to 2020 for the commercial, Medicare, and Medicaid populations for behavioral health professional office visits. While Figures 7 to 9 above reflect visits to medical/surgical specialists (some of which may have included evaluation or management of the patient's behavioral health conditions), Figure 10 reflects visits to behavioral health professionals for behavioral-specific treatment or services across both in-person and telehealth settings.

FIGURE 10: CHANGE IN BEHAVIORAL HEALTH PROFESSIONAL VISITS IN 2020 RELATIVE TO SAME MONTH IN 2019 (BOTH IN-PERSON AND TELEHEALTH)

MARKET	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
Commercial	4%	8%	-1%	1%	-1%	20%	14%	25%
Medicare	1%	-2%	-10%	-9%	-13%	-2%	-19%	20%
Medicaid	11%	15%	7%	5%	0%	14%	9%	21%



For the commercial and Medicaid markets, behavioral health professional visits started off the year at higher levels than 2019, but then declined to near-2019 levels from March through May during the first wave of the pandemic, before increasing to levels substantially higher than 2019 in June through August. For Medicare, behavioral health professional visits started the year at levels similar to 2019, and then fell substantially in March through May, rising to levels substantially higher than 2019 in August.

While in total, behavioral health professional visits were generally within 20% of 2019 levels through the entire study period in 2020, these results mask a substantial shift in the delivery method for behavioral healthcare. Figures 11 and 12 show how the changes in utilization of behavioral health professional visits varied between in-person and telehealth settings.

FIGURE 11: CHANGE IN IN-PERSON BEHAVIORAL HEALTH PROFESSIONAL VISITS IN 2020 RELATIVE TO SAME MONTH IN 2019

MARKET	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
Commercial	4%	7%	-24%	-67%	-75%	-71%	-56%	-48%
Medicare	0%	-2%	-23%	-55%	-56%	-47%	-56%	-7%
Medicaid	11%	15%	-2%	-25%	-22%	-11%	-11%	-3%

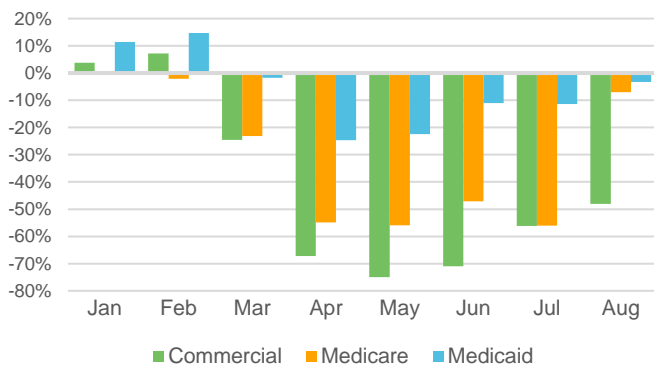
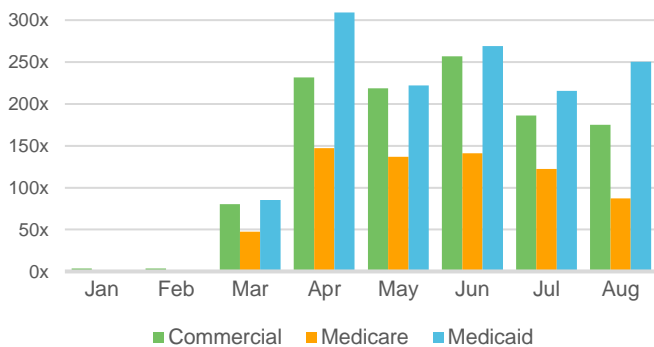


FIGURE 12: CHANGE IN BEHAVIORAL HEALTH PROFESSIONAL TELEHEALTH VISITS IN 2020 RELATIVE TO SAME MONTH IN 2019

MARKET	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
Commercial	3.4x	3.4x	80.2x	231.8x	218.8x	256.7x	186.2x	175.2x
Medicare	1.4x	1.3x	47.5x	147.3x	136.8x	141.0x	122.5x	87.3x
Medicaid	1.3x	1.7x	85.5x	309.3x	222.1x	269.0x	215.6x	250.3x

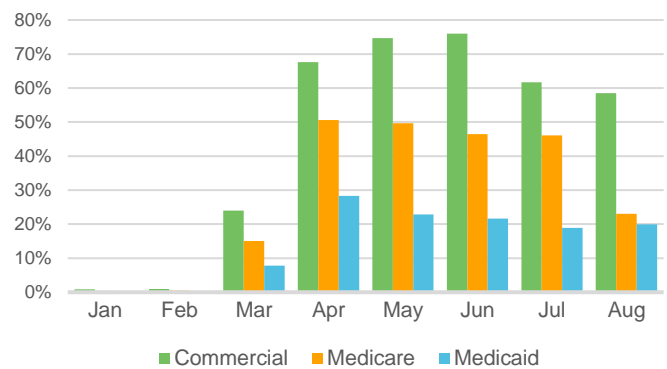


In-person behavioral health visits dropped by as much as 75% for the commercial market in May and were still nearly 50% lower than 2019 levels as of August. In-person visits dropped the least for Medicaid beneficiaries, where they were down 25% in April. In-person visits had nearly returned to 2019 levels for both Medicare and Medicaid beneficiaries as of August. Telehealth visits for behavioral health services were already higher in January and February before the pandemic led to substantial public health responses in March, but in March and April, use of telehealth for behavioral health professional visits increased

much more dramatically. In relative terms, use of telehealth visits increased the most for Medicaid beneficiaries. For this group, telehealth use was more than 300 times higher in April compared to 2019 levels and remained at least 200 times higher through the rest of the study period. Use of telehealth tapered down somewhat by August for the commercial market and Medicare beneficiaries, but remained at levels far higher than had been seen before the pandemic. Figure 13 provides the proportion of behavioral health professional visits that were provided via telehealth in 2020.

FIGURE 13: PROPORTION OF BEHAVIORAL HEALTH PROFESSIONAL VISITS PROVIDED VIA TELEHEALTH IN 2020

MARKET	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
Commercial	1%	1%	24%	68%	75%	76%	62%	58%
Medicare	0%	1%	15%	51%	50%	46%	46%	23%
Medicaid	0%	0%	8%	28%	23%	22%	19%	20%



In prior years, 1% or less of behavioral health professional visits were provided via telehealth. In 2020, as much as 75% of behavioral health visits in May and June were provided via telehealth for those with commercial insurance. For Medicare beneficiaries, nearly half of behavioral health visits were provided via telehealth in April through July. Adoption rates were the lowest for Medicaid beneficiaries, where at peak, 28% of behavioral health visits were provided via telehealth in April. While the relative increase in telehealth visits was high for the Medicaid population, the lower overall adoption rates highlight potential challenges with access to telehealth visits or technology for this group. As shown in Figure 11, the Medicaid population continued to receive in-person visits more often compared to individuals in either the commercial or Medicare market.

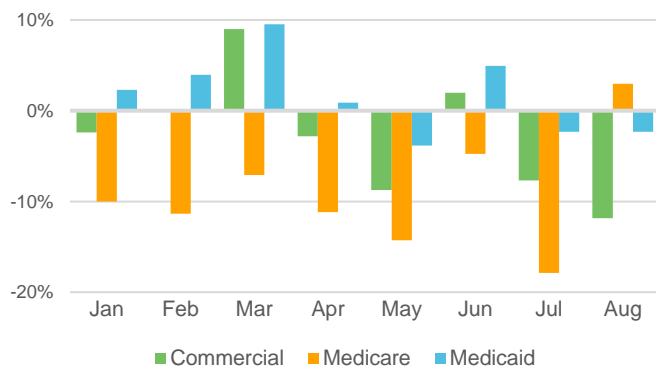
PRESCRIPTION DRUGS

We also analyzed changes in the use of antidepressants and anti-anxiety medications during the COVID-19 pandemic. We focused on these two types of medications because anxiety and depression are among the most reported behavioral symptoms

that are increasing during the pandemic. Figure 14 shows the changes in prescriptions for antidepressant and anti-anxiety medications combined.

FIGURE 14: CHANGE IN PRESCRIPTIONS FOR ANTIDEPRESSANTS AND ANTI-ANXIETY MEDICATIONS IN 2020 RELATIVE TO SAME MONTH IN 2019

MARKET	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
Commercial	-2%	0%	9%	-3%	-9%	2%	-8%	-12%
Medicare	-10%	-11%	-7%	-11%	-14%	-5%	-18%	3%
Medicaid	2%	4%	10%	1%	-4%	5%	-2%	-2%



Prescriptions for these medications started the year at lower levels than 2019 for Medicare and remained lower for nearly the entire time period examined. Prescriptions increased substantially in March compared to February, then dropped in April and May, before rising again in June. This pattern suggests the possibility that many individuals filled 90-day supplies in March as the pandemic (and associated public health responses) accelerated, and then were due for refills again in June, but filled fewer prescriptions in other months during the pandemic.

Conclusions

Utilization of behavioral healthcare services generally dropped significantly when COVID-19 took hold in the United States in early 2020, following the utilization patterns for physical healthcare services. However, in general we found that use of care involving behavioral health conditions fell less than other care, began to increase quickly starting in June 2020, and in subsequent months approached or exceeded comparable levels from 2019.

This suggests that, as behavioral health stressors and needs have increased during the pandemic, many people have continued to seek out and receive behavioral health treatment. However, it is not clear whether the use of behavioral health services has risen sufficiently to match increased needs created by the pandemic. It may be the case that individuals with

behavioral health needs also experienced more complicated health circumstances overall, and as a result were less able to defer care than those without behavioral health conditions.

Specifically, telehealth services have played an increased role in management of behavioral health conditions during the pandemic. It will be important to monitor trends in this area in the future as telehealth offers an alternative to traditional in-office care that could be utilized by people who have less access to traditional visits.

We hope to see continued increases in the use of behavioral health services through 2021 as individuals deal with the stress and challenges of living in a world where COVID-19 is an everyday reality.

Data sources and methodology

This analysis is based on MedInsight's emerging experience research data set, consisting of encrypted de-identified claims for healthcare services incurred from January 2019 to August 2020 by over 12.5 million individuals nationwide, enrolled in commercial insurance plans, Medicaid Managed Care, Medicare fee-for-service (MSSP), and Medicare Advantage plans, including dual eligible members. The data set includes membership and pharmacy claims files to obtain utilization trends. The claims data was summarized using the Milliman Health Cost Guidelines™ (HCG) grouper, an industry standard method of categorizing healthcare cost and utilization service categories. We chose service categories that were specific to mental health and substance use disorders in each healthcare setting. They have not been adjusted for age, sex, or area.

We also included certain service categories that apply to both physical healthcare and behavioral healthcare: emergency room use, primary care professional visits, and specialty care professional visits. We identified whether or not these services included primary or secondary behavioral health diagnoses using ICD-10 diagnostic codes. We considered any codes in the F series, as well as any codes for attempted suicide or intentional self-harm,¹⁶ as behavioral.

Lastly, we relied on therapeutic class (as defined by the IBM Micromedex® RED BOOK® database) to identify certain classes of psychiatric medications in this analysis, including antidepressants (including the class Psychother, Antidepressants) and anti-anxiety agents (including the classes ASH, Benzodiazepines, and Anxiolytic/Sedative/Hypnot NEC). Note that these classes do not include all drugs that can be used to treat depression or anxiety, and some of the drugs in these classes may also be used for other diagnoses.

Caveats and Limitations

The utilization data used here do not represent full national results or any specific geographic area. They are a sample of near-real-time emerging data, useful for comparisons, or observations on emerging experience. The data are not a random sample, and instead reflect Milliman clients who purchased Milliman software to assess their own beneficiaries' healthcare utilization, spending, and quality. We relied on these data without audit, and to the extent the data are inaccurate or incomplete, our results will also be in error. The study sample does not include information about uninsured individuals.

Measures do not include patient outcomes and reflect only the measures amenable to claims-based measurement. Claims-based measures have the advantage of providing a more comprehensive look at all the healthcare utilization incurred across different provider entities and care settings, including inpatient, outpatient, professional, ancillary, and pharmacy care, and can identify diagnostic and procedural codes. However, administrative data lack clinical details, such as lab values, clinical notes, and plans of care.

Estimation of claims incurred but not paid (IBNP) is a consideration when analyzing claims data. We have addressed this by using claims runout patterns from 2019 to estimate 2020 claims runout for matching months and service categories. We recognize this is not precisely accurate, but we consider it to be reasonable for the purposes of the high-level observations presented.

This report was commissioned by Well Being Trust and was completed subject to the Consulting Services Agreement between Milliman and Well Being Trust dated November 25, 2020. This work is not intended to benefit or create a legal duty to any other recipients. The findings reflect the research and opinions of the authors.

The authors would like to thank Anne Jackson for her helpful input and peer review of this material.



Employing industry-leading data analytics and solutions, we work with clients across the healthcare spectrum to control costs, expand coverage, and untangle regulatory complexity to improve the health and well-being of people everywhere.

[milliman.com](https://www.milliman.com)

CONTACT

Stoddard Davenport
stoddard.davenport@milliman.com

Steve Melek
steve.melek@milliman.com

T.J Gray
travis.gray@milliman.com

© 2021 Milliman, Inc. All Rights Reserved. The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.

APPENDIX A

For ease of viewing, we have included an alternate version of certain figures with separate charts for each population below. Figure numbering corresponds to the figure numbering used in the main body of the report.

FIGURE 2: CHANGE IN INPATIENT BEHAVIORAL HEALTH ADMISSIONS IN 2020 RELATIVE TO SAME MONTH IN 2019

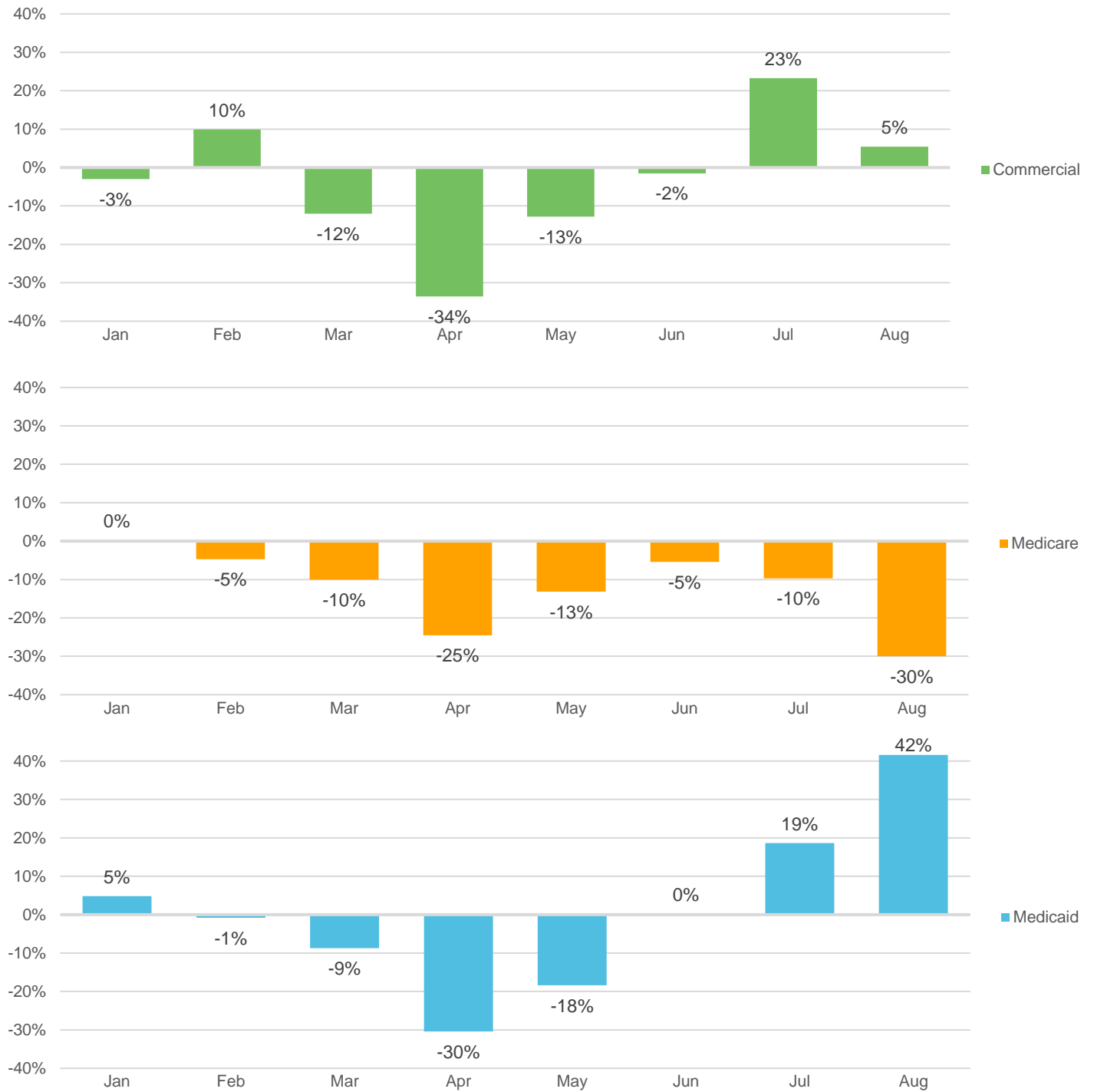


FIGURE 3: CHANGE IN EMERGENCY ROOM VISITS WITH BEHAVIORAL HEALTH DIAGNOSES IN 2020 RELATIVE TO SAME MONTH IN 2019

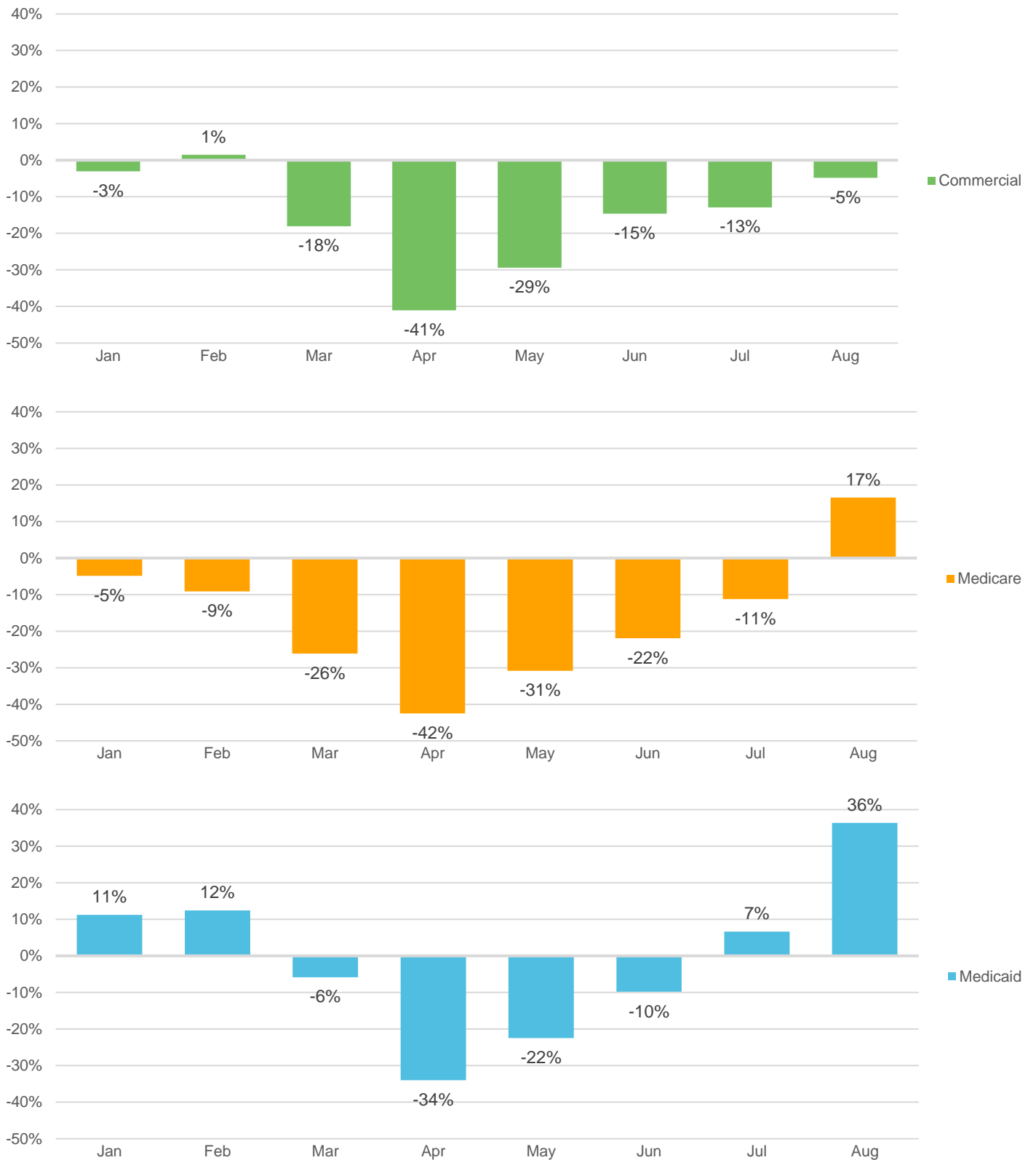


FIGURE 10: CHANGE IN BEHAVIORAL HEALTH PROFESSIONAL VISITS IN 2020 RELATIVE TO SAME MONTH IN 2019 (BOTH IN-PERSON AND TELEHEALTH)



FIGURE 11: CHANGE IN IN-PERSON BEHAVIORAL HEALTH PROFESSIONAL VISITS IN 2020 RELATIVE TO SAME MONTH IN 2019



FIGURE 12: CHANGE IN BEHAVIORAL HEALTH PROFESSIONAL TELEHEALTH VISITS IN 2020 RELATIVE TO SAME MONTH IN 2019

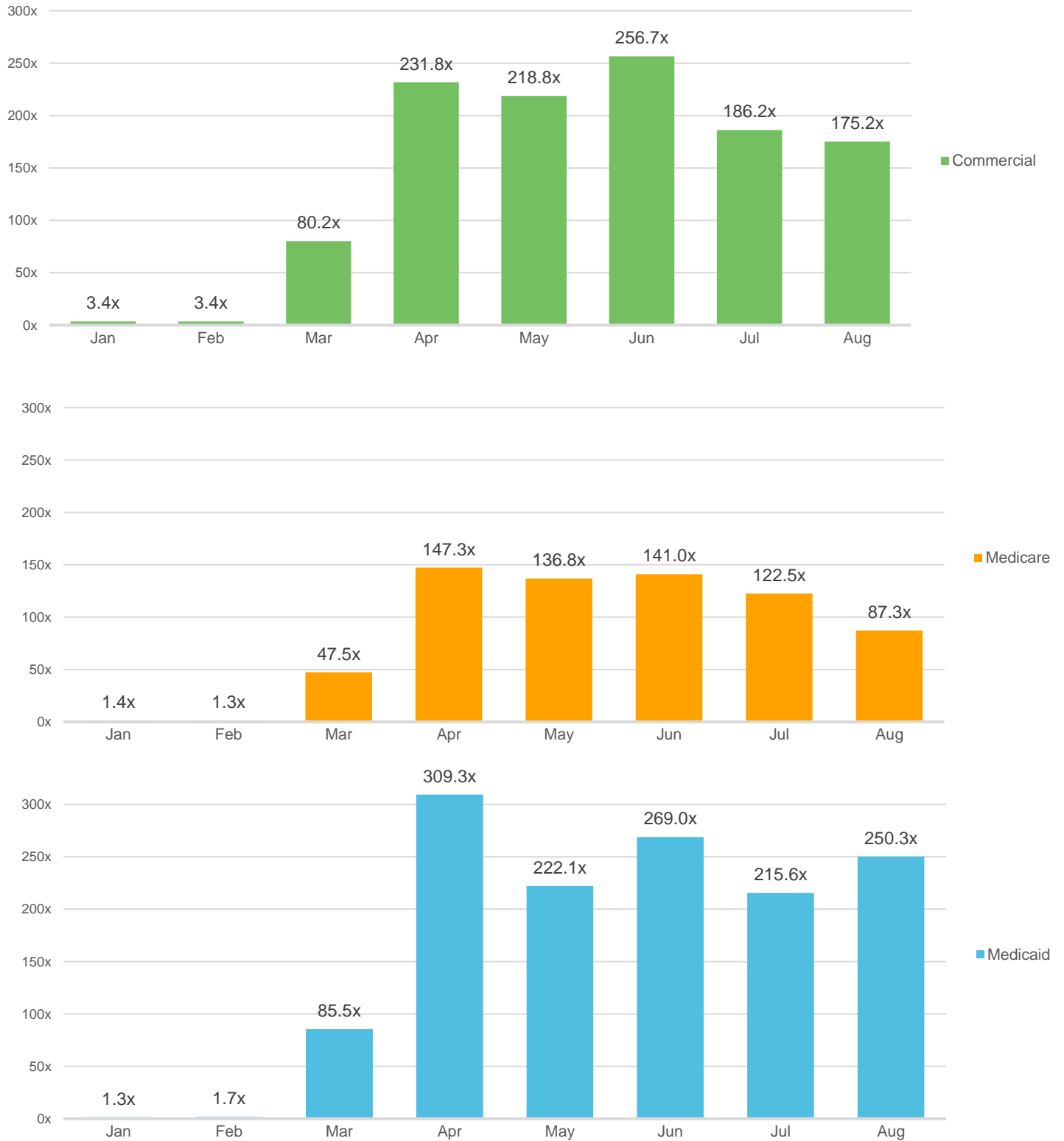
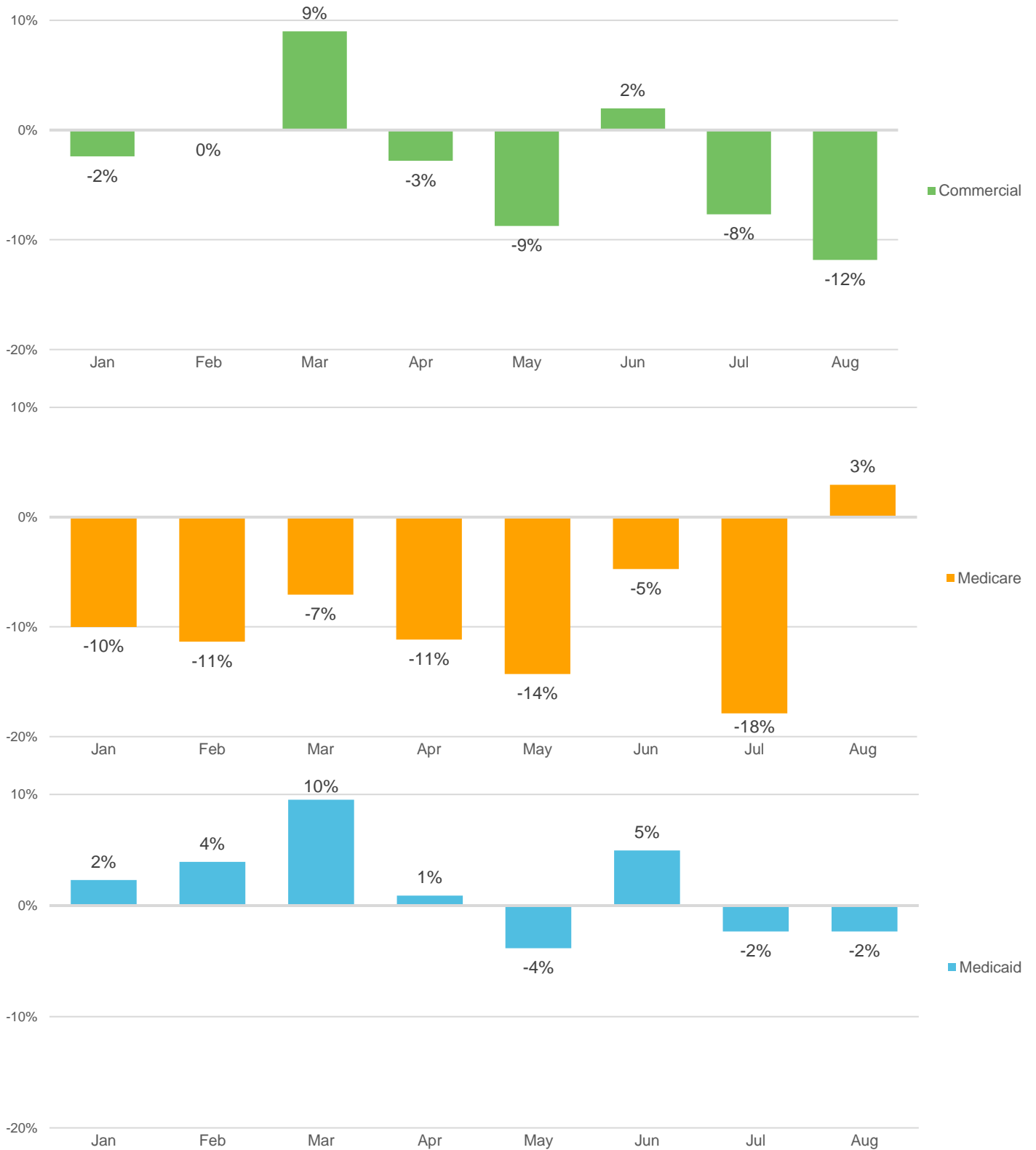


FIGURE 13: PROPORTION OF BEHAVIORAL HEALTH PROFESSIONAL VISITS PROVIDED VIA TELEHEALTH IN 2020



FIGURE 14: CHANGE IN PRESCRIPTIONS FOR ANTIDEPRESSANTS AND ANTI-ANXIETY MEDICATIONS IN 2020 RELATIVE TO SAME MONTH IN 2019



ENDNOTES

- ¹ Centers for Disease Control and Prevention (CDC). CDC COVID Data Tracker. Retrieved January 14, 2021, from <https://covid.cdc.gov/covid-data-tracker>.
- ² Bazell, C., Kramer, M., Mraz, M., & Silseth, S. (June 2020). How Much Are Hospitals Paid for Inpatient COVID-19 Treatment? Milliman Report. Retrieved January 14, 2021, from <https://us.milliman.com/-/media/milliman/pdfs/articles/how-much-hospitals-paid-for-inpatient-covid19-treatment.ashx>.
- ³ Kartchner, L. & Pritchett, T. (April 2020). COVID-19, Unemployment, and Healthcare Coverage. Milliman White Paper. Retrieved January 14, 2021, from https://us.milliman.com/-/media/milliman/pdfs/articles/3120hdp_covid-19-unemployment-and-healthcare-coverage_20200429-lfk.ashx.
- ⁴ Busch, F., Kotecki, L., & Milton-Hall, J. (October 2020). The COVID-19 Recession and Healthcare Coverage in the U.S. Milliman Report. Retrieved January 14, 2021, from <https://us.milliman.com/-/media/milliman/pdfs/2020-articles/articles/10-8-20-the-covid-19-recession-and-healthcare-v1.ashx>.
- ⁵ U.S. Bureau of Economic Analysis (September 2020). Gross Domestic Product (Third Estimate), Corporate Profits (Revised), and GDP by Industry, Second Quarter 2020. Retrieved January 14, 2021, from <https://www.bea.gov/news/2020/gross-domestic-product-third-estimate-corporate-profits-revised-and-gdp-industry-annual>.
- ⁶ Melek, S., Davenport, S., & Gray, T. (September 2020). The Emerging Need for Telehealth Approaches for the Treatment of Mental Illnesses and Substance Use Disorders During the COVID-19 Pandemic. Milliman White Paper. Retrieved January 14, 2021, from <https://us.milliman.com/-/media/milliman/pdfs/2020-articles/articles/9-24-20-telehealth-mental-illness-v1.ashx>.
- ⁷ Philip, S. & Pantely, S. (March 2020). Medicare's Telehealth Coverage Expansion During the COVID-19 Pandemic. Milliman White Paper. Retrieved January 14, 2021, from <https://us.milliman.com/-/media/milliman/pdfs/articles/medicare-telehealth-coverage-expansion.ashx>.
- ⁸ Rogers, H., Mills, C., & Kramer, M. (April 2020). Estimating the Impact of COVID-19 on Healthcare Costs in 2020. Milliman White Paper. Retrieved January 14, 2021, from <https://www.milliman.com/-/media/milliman/pdfs/articles/estimating-the-financial-impact-covid19.ashx>.
- ⁹ Substance Abuse and Mental Health Services Administration (August 2019). Key Substance Use and Mental Health Indicators in the United States: Results From the 2018 National Survey on Drug Use and Health. Retrieved January 14, 2021, from <https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHNationalFindingsReport2018/NSDUHNationalFindingsReport2018.pdf>.
- ¹⁰ CDC. Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic – United States, June 24-30, 2020. *Morbidity and Mortality Weekly Report*, August 14, 2020. Vol. 69 No. 32. Retrieved January 14, 2021, from <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6932a1-H.pdf>.
- ¹¹ Panchal, N., Kamal, R., Orgera, K. et al. (August 21, 2020). The Implications of COVID-19 for Mental Health and Substance Use. Retrieved January 14, 2021, from <https://www.kff.org/health-reform/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use>.
- ¹² CDC (August 2020), op cit.
- ¹³ U.S. Bureau of Labor Statistics (October 2020). The Employment Situation – September 2020. U.S. Department of Labor. Retrieved January 14, 2021, from <https://www.bls.gov/news.release/pdf/empsit.pdf>.
- ¹⁴ Birkmeyer et al. (September 24, 2020). The Impact of the COVID-19 Pandemic on Hospital Admissions in the United States. *Health Affairs*.
- ¹⁵ Ibid.
- ¹⁶ Hedegaard, H., Schoenbaum, M., Claassen C. et al. (February 2018). Issues in developing a surveillance case definition for nonfatal suicide attempt and intentional self-harm using International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) coded data. *National Health Statistics Reports*, Number 108. Retrieved January 14, 2021, from <https://www.ncbi.nlm.nih.gov/pubmed/29616901>.