StrataSphere®
Research Report:

National Patient and Procedure Volume Tracker™

Monthly Update 4/30/2023

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After a rise in volumes across the board last month, counts across all patient types and census regions dropped in comparison to March 2023 levels this month (section 1). The same swing was seen in children's hospitals as well (section 5.1). From a year-to-date perspective, inpatient (IP), observation (OBS), and emergency (ED) volumes are up compared to 2021 and 2022 but down compared to 2019. Conversely, outpatient (OP) year-to-date case trends are reversed for each comparison year (sections 2.2-2.5).

The coded service line encounters in this report lag by one month and therefore reflect the same increase in raw volumes presented in last month's release. Specifically, all service lines increased by at least 6.8% compared to February 2023. Interestingly, although the Infectious Disease service line was directionally aligned with all other service lines, it did represent the lowest percentage increase from the prior month (sections 3.1-3.3).

Consistent with the service line trend, the majority of procedures within the report also increased compared to the prior month. The only exception is SARS-CoV-2 testing, which continues to reach new lows each month. Colonoscopies, OP primary knee replacements, and OP primary hip replacements are three of the four procedures that increased versus March 2022 as well. The increase in colonoscopies may be an indication that people are more inclined to schedule their regular health screenings compared to the same time last year, whereas the increase in OP joint replacements illustrates the continued shift in the site of care for these types of procedures (section 4).

This report includes data from 109 health systems and 512 hospitals. Compared to last month, we have added 2 health systems and 13 hospitals (including 1 children's hospital). We also removed 2 health systems and 13 hospitals. The breakdown by U.S. Census Region is shown on the next page.

Section 1

Monthly National and Regional Volume Changes

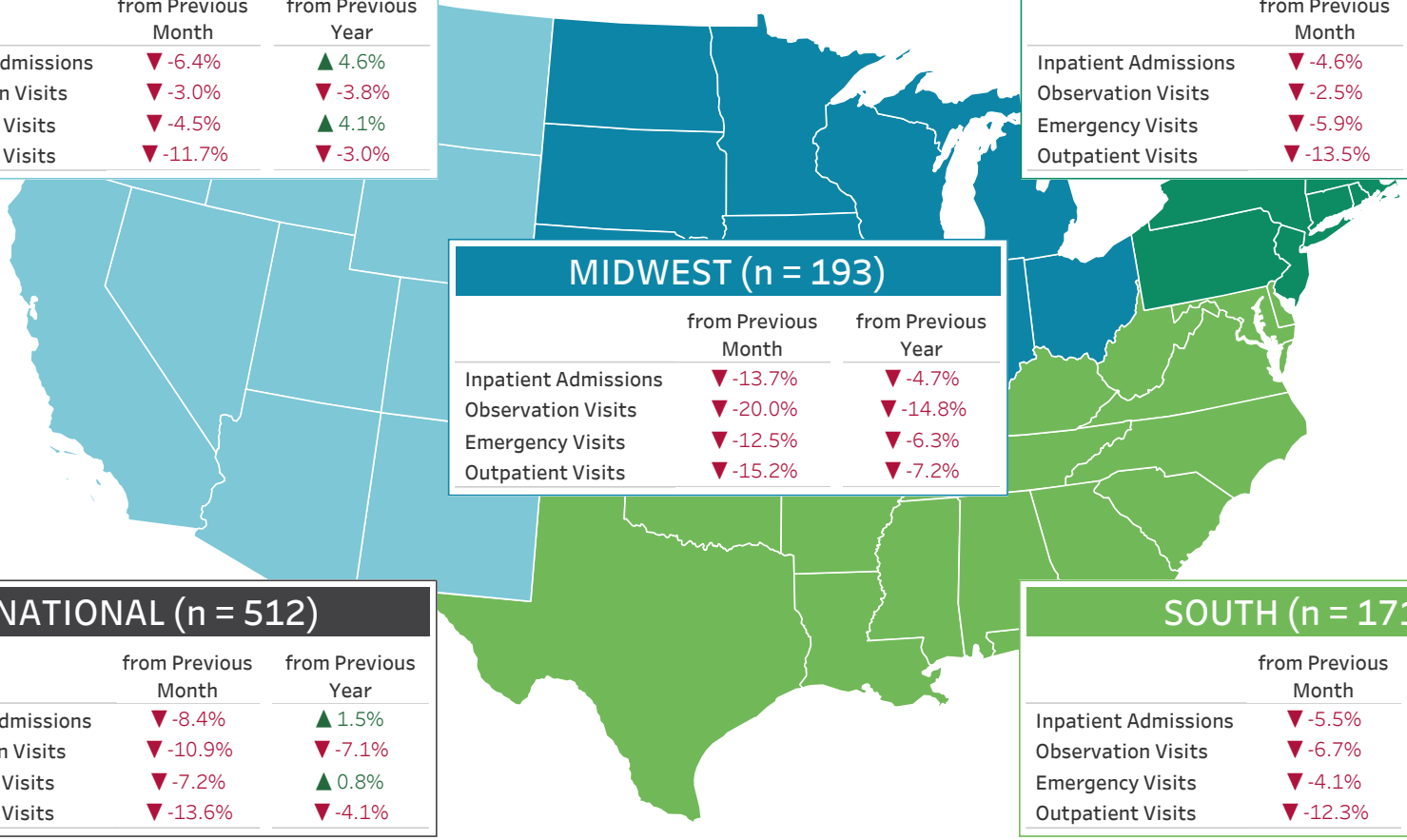
Data as of 4/30/2023

WEST (n = 74)

	from Previous Month	from Previous Year
Inpatient Admissions	▼ -6.4%	▲ 4.6%
Observation Visits	▼ -3.0%	▼ -3.8%
Emergency Visits	▼ -4.5%	▲ 4.1%
Outpatient Visits	▼ -11.7%	▼ -3.0%

NORTHEAST (n = 74)

	from Previous Month	from Previous Year
Inpatient Admissions	▼ -4.6%	▲ 5.2%
Observation Visits	▼ -2.5%	▲ 5.4%
Emergency Visits	▼ -5.9%	▲ 2.4%
Outpatient Visits	▼ -13.5%	▼ -4.7%



MIDWEST (n = 193)

	from Previous Month	from Previous Year
Inpatient Admissions	▼ -13.7%	▼ -4.7%
Observation Visits	▼ -20.0%	▼ -14.8%
Emergency Visits	▼ -12.5%	▼ -6.3%
Outpatient Visits	▼ -15.2%	▼ -7.2%

NATIONAL (n = 512)

	from Previous Month	from Previous Year
Inpatient Admissions	▼ -8.4%	▲ 1.5%
Observation Visits	▼ -10.9%	▼ -7.1%
Emergency Visits	▼ -7.2%	▲ 0.8%
Outpatient Visits	▼ -13.6%	▼ -4.1%

SOUTH (n = 171)

	from Previous Month	from Previous Year
Inpatient Admissions	▼ -5.5%	▲ 5.2%
Observation Visits	▼ -6.7%	▼ -5.5%
Emergency Visits	▼ -4.1%	▲ 5.5%
Outpatient Visits	▼ -12.3%	▲ 1.0%

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Section 2.1

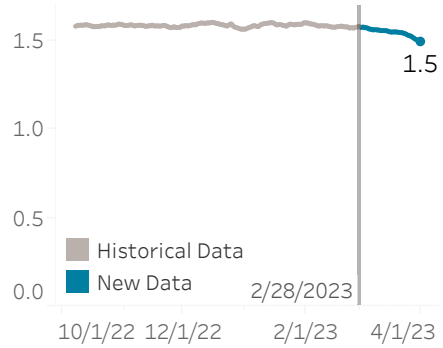
Inpatient Metrics

Data as of 3/31/2023

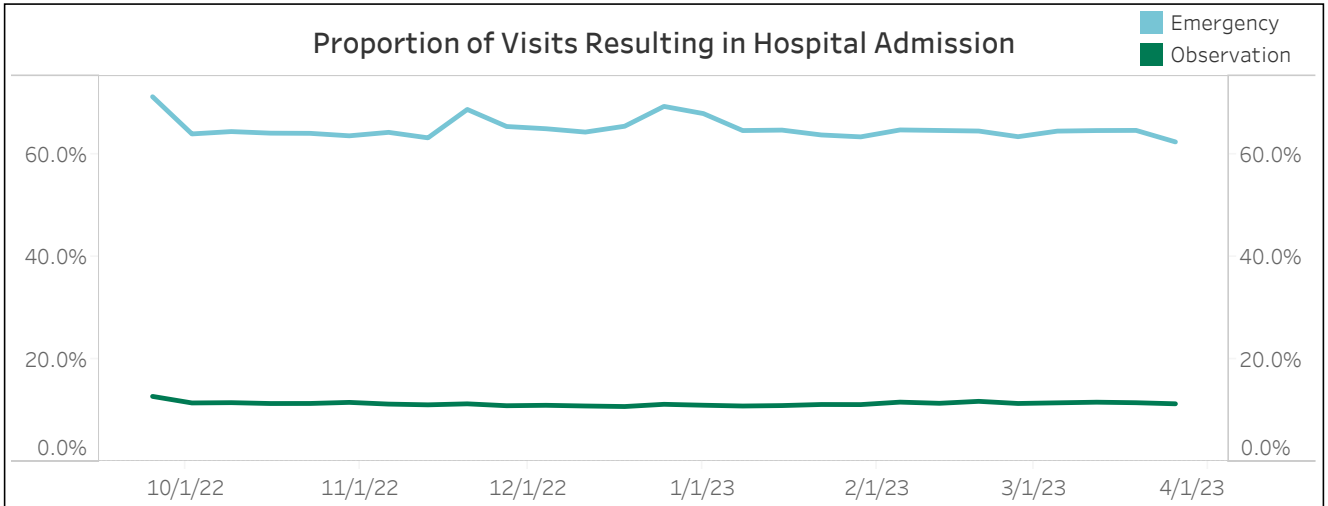
CMI

▼ -2.6% from Previous Month

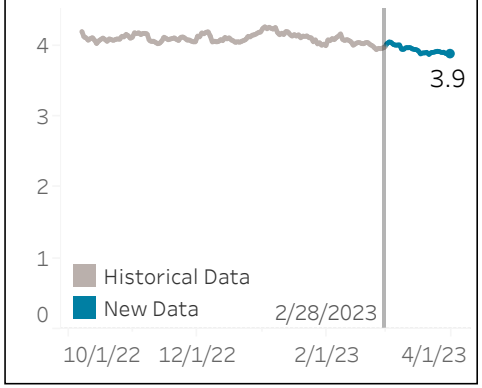
▼ -2.3% from Previous Year



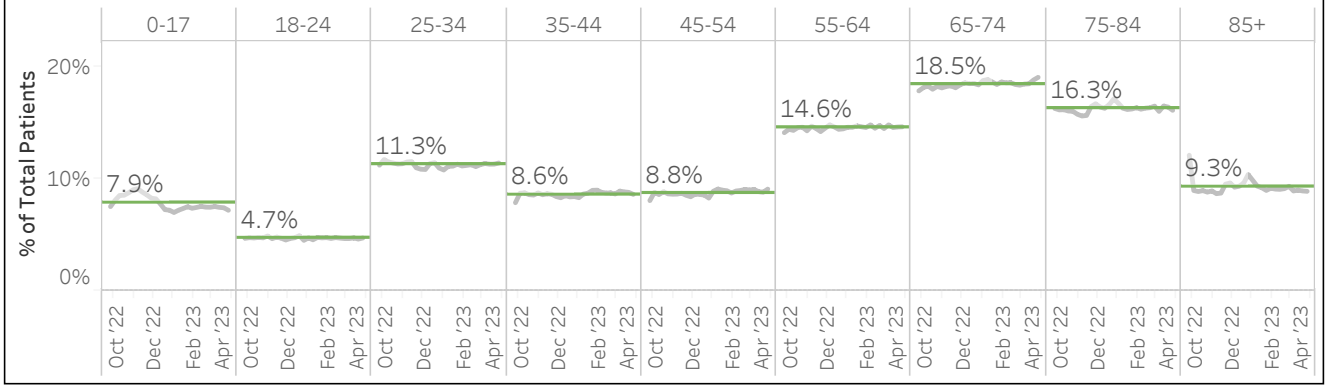
Proportion of Visits Resulting in Hospital Admission



GMLOS



Inpatient Visits by Age Group



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Section 2.2

Inpatient Admissions

Data as of 4/30/2023

2021 2023 2022

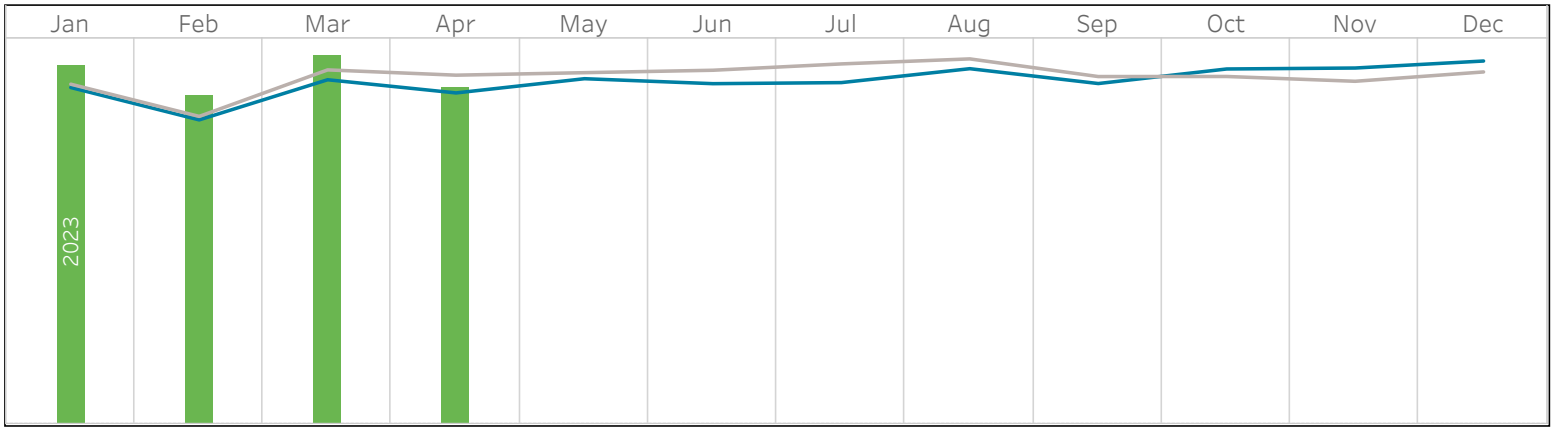
2023 YTD Volumes

▲ 5.6%
from 2022
(n = 509)

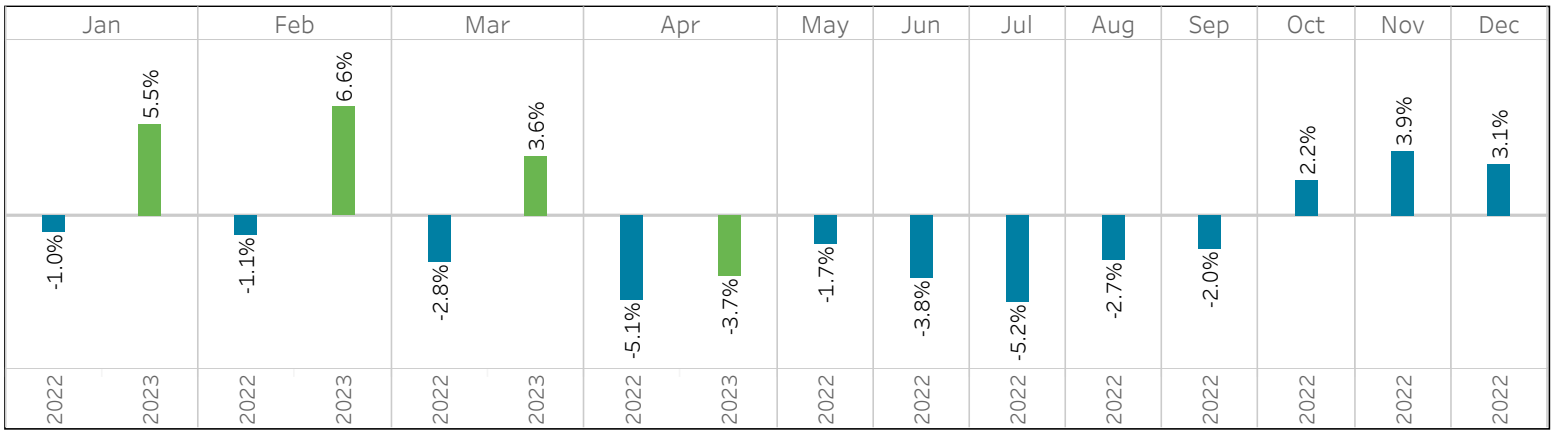
▲ 2.9%
from 2021
(n = 489)

▼ -7.0%
from 2019
(n = 426)

Monthly Volumes



Monthly Volume Changes Compared to 2021



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Section 2.3

Observation Visits

Data as of 4/30/2023

2021 2023
2022

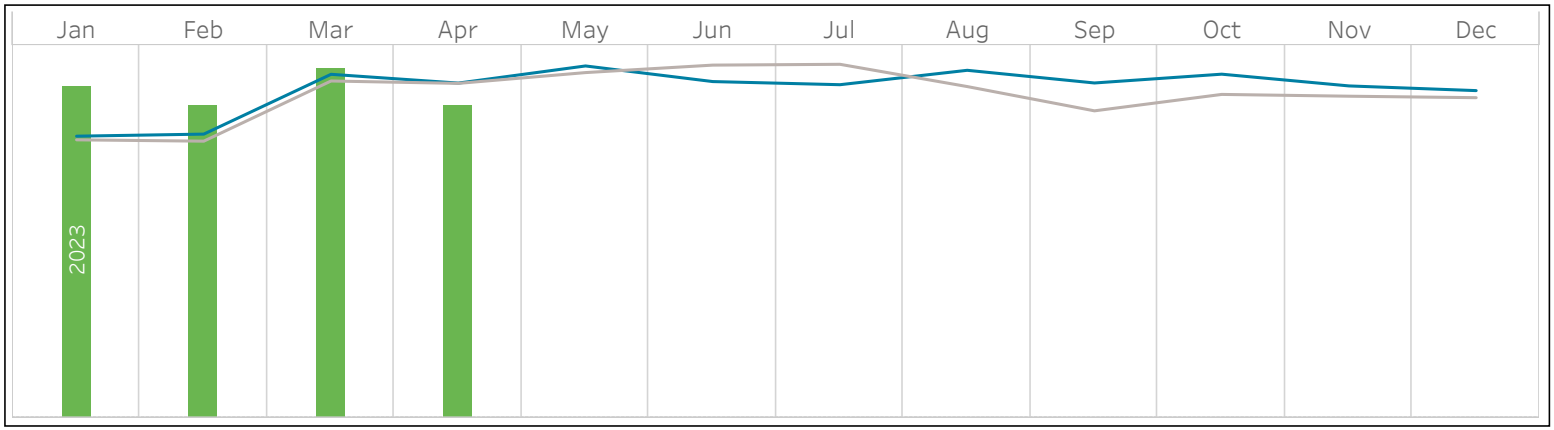
2023 YTD Volumes

▲ 4.8%
from 2022
(n = 509)

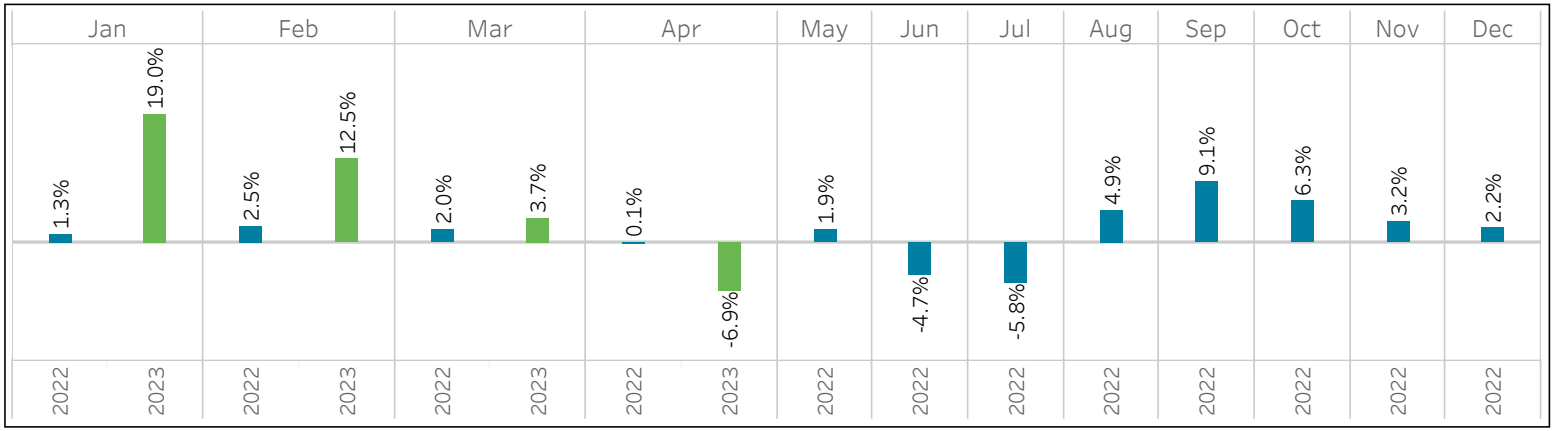
▲ 6.2%
from 2021
(n = 489)

▼ -0.5%
from 2019
(n = 426)

Monthly Volumes



Monthly Volume Changes Compared to 2021



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Section 2.4

Emergency Visits

Data as of 4/30/2023

2021 2023
2022

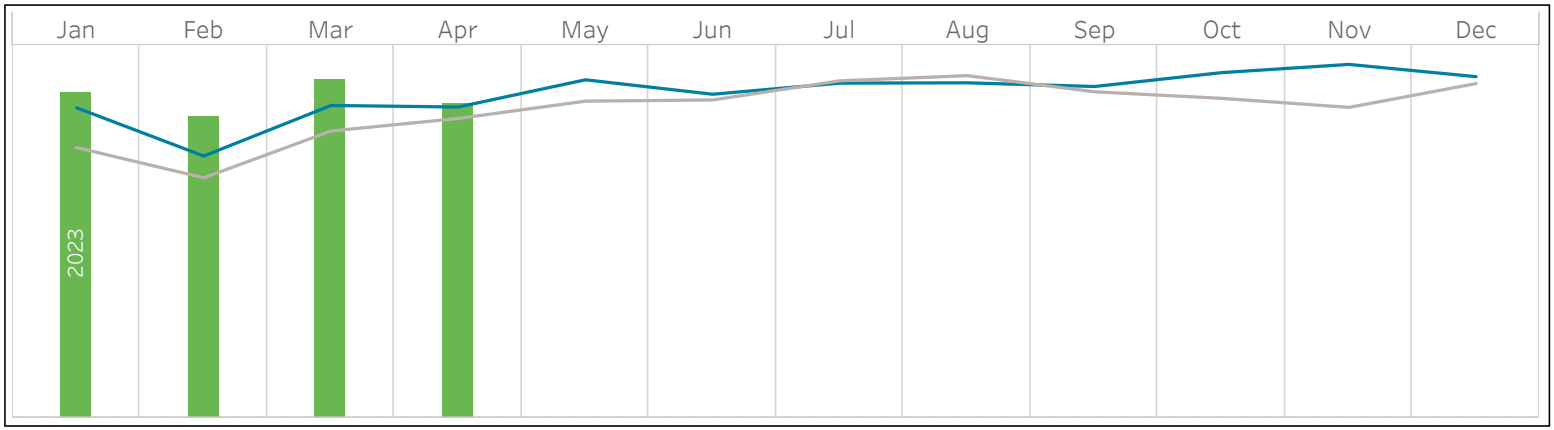
2023 YTD Volumes

▲ 6.8%
from 2022
(n = 509)

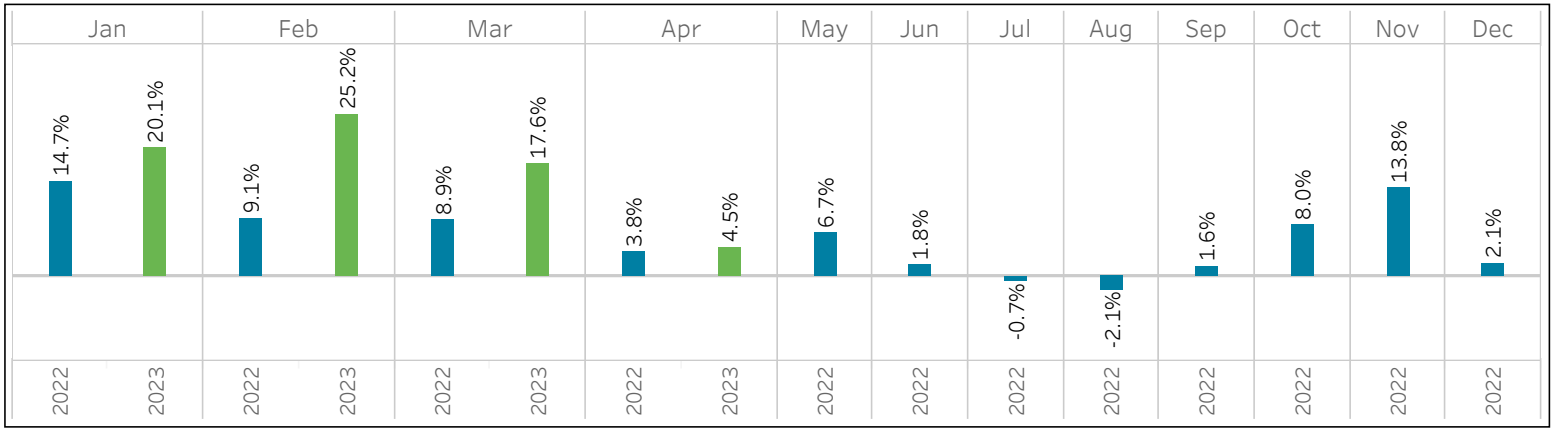
▲ 16.3%
from 2021
(n = 489)

▼ -6.1%
from 2019
(n = 426)

Monthly Volumes



Monthly Volume Changes Compared to 2021



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Section 2.5

Outpatient Visits

Data as of 4/30/2023

2021 2023 2022

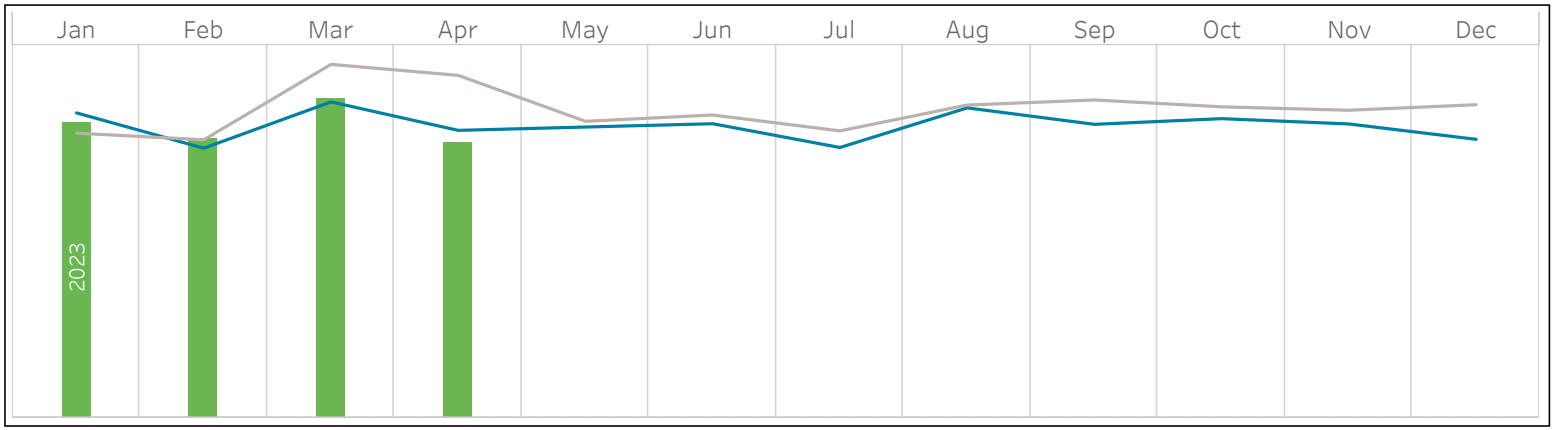
2023 YTD Volumes

▼ -0.9%
from 2022
(n = 509)

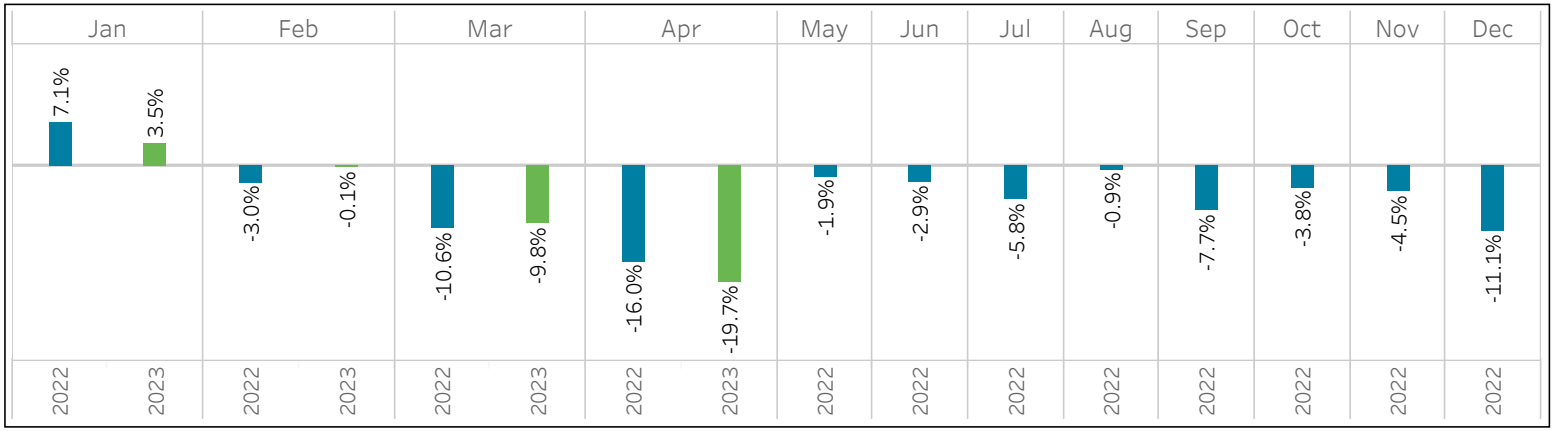
▼ -7.3%
from 2021
(n = 489)

▲ 14.0%
from 2019
(n = 426)

Monthly Volumes



Monthly Volume Changes Compared to 2021



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Section 3.1

National Volume Changes by Service Line (IP & OP)

Data as of 3/31/2023

2021 2023
2022

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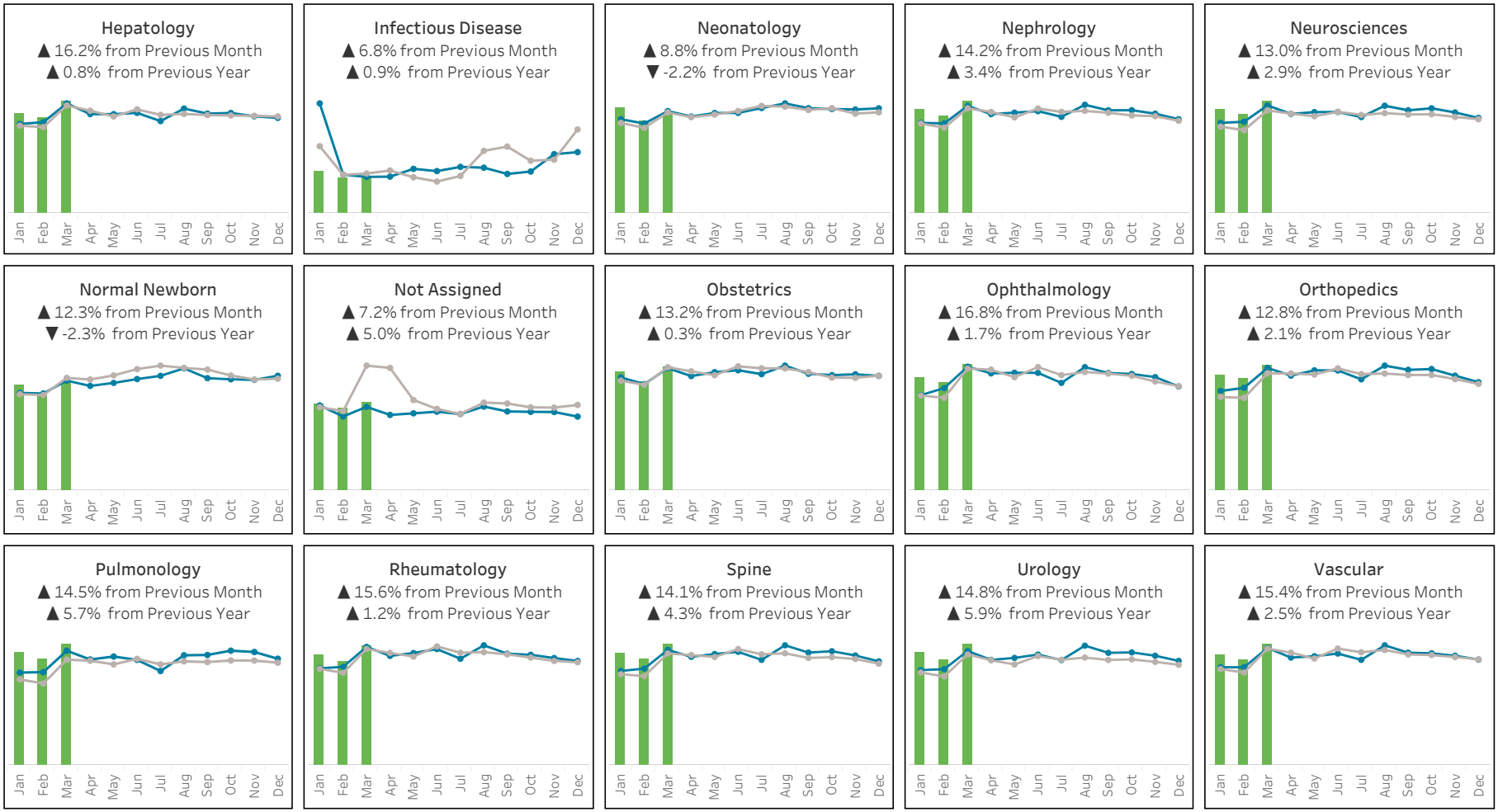
Section 3.2

National Volume Changes by Service Line (IP & OP)

Data as of 3/31/2023

2021 2023
2022



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Section 3.3

National Volume Changes by Service Line (IP Only)

Data as of 3/31/2023

2021 2023 2022

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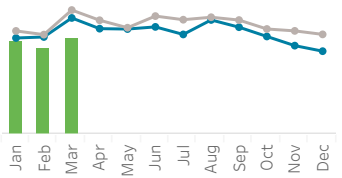
Section 4

National Volume Changes by Procedure Type

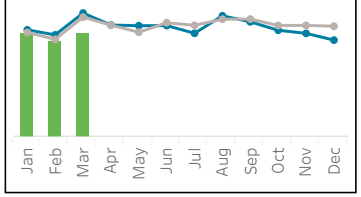
Data as of 3/31/2023

2021 2023 2022

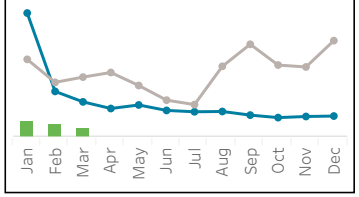
OP Lab - Chemistry/Hematology
▲11.0% from Previous Month
▼-17.4% from Previous Year



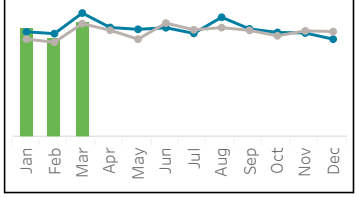
OP Lab - Microscopic Exam
▲9.1% from Previous Month
▼-16.7% from Previous Year



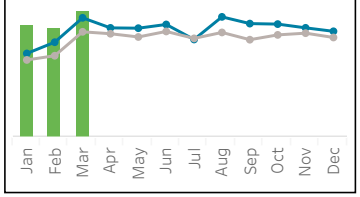
OP Lab - SARS-CoV-2 Test
▼-26.8% from Previous Month
▼-72.8% from Previous Year



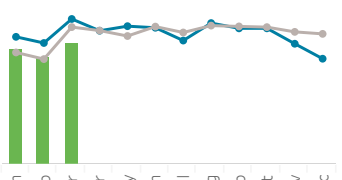
OP Lab - Genetic Testing
▲14.8% from Previous Month
▼-8.4% from Previous Year



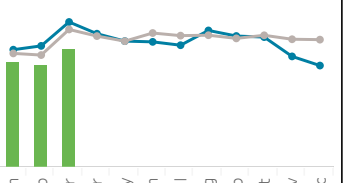
OP Endoscopy - Colonoscopy
▲16.5% from Previous Month
▲5.1% from Previous Year



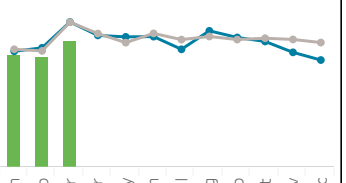
OP Imaging - X-Ray
▲13.9% from Previous Month
▼-16.6% from Previous Year



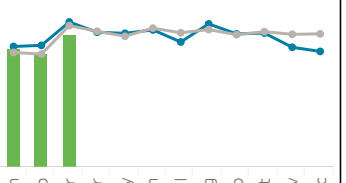
OP Imaging - CT
▲15.0% from Previous Month
▼-19.6% from Previous Year



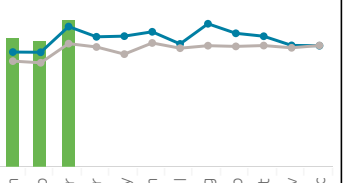
OP Imaging - US
▲15.4% from Previous Month
▼-13.6% from Previous Year



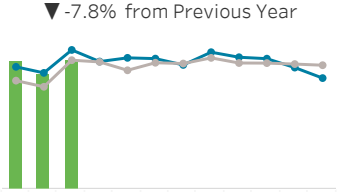
OP Imaging - MRI
▲16.2% from Previous Month
▼-9.2% from Previous Year



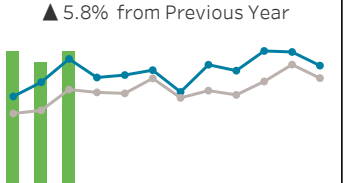
OP Imaging - PET
▲16.3% from Previous Month
▲4.2% from Previous Year



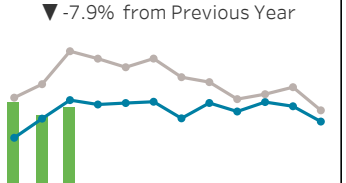
OP Diagnostics - Routine ECG
▲12.6% from Previous Month
▼-7.8% from Previous Year



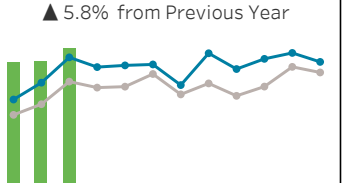
OP - Primary Knee Replacement
▲9.2% from Previous Month
▲5.8% from Previous Year



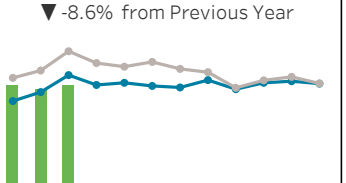
IP - Primary Knee Replacement
▲10.5% from Previous Month
▼-7.9% from Previous Year



OP - Primary Hip Replacement
▲9.1% from Previous Month
▲5.8% from Previous Year



IP - Primary Hip Replacement
▲5.2% from Previous Month
▼-8.6% from Previous Year



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Section 5.1

Children's Hospitals Recent Volume Changes

Data as of 4/30/2023

Childrens Hospital
17

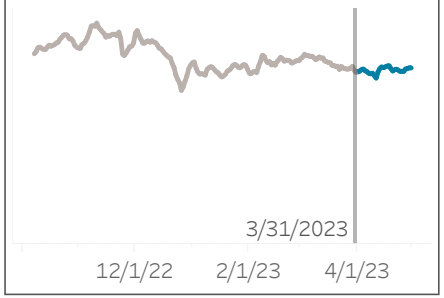
Historical Data
New Data

Inpatient Admissions

Current Month Volume

▼ -8.4% from Previous Month

▲ 5.8% from Previous Year

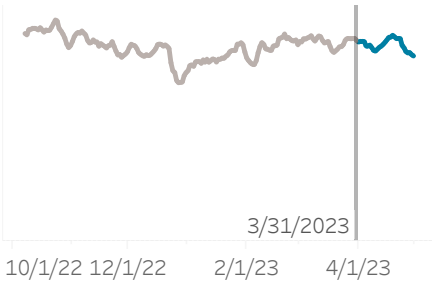


Observation Visits

Current Month Volume

▼ -7.4% from Previous Month

▼ -1.0% from Previous Year

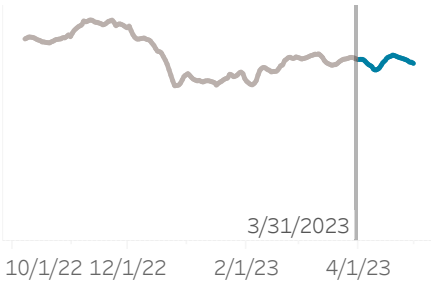


Emergency Visits

Current Month Volume

▼ -4.7% from Previous Month

▲ 1.1% from Previous Year

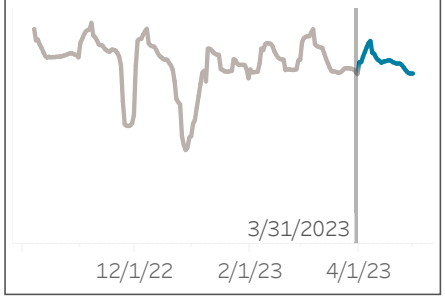


Outpatient Visits

Current Month Volume

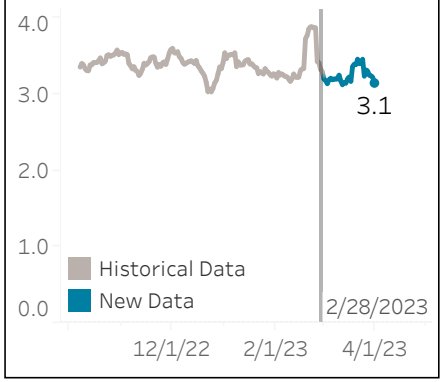
▼ -11.4% from Previous Month

▼ -4.8% from Previous Year



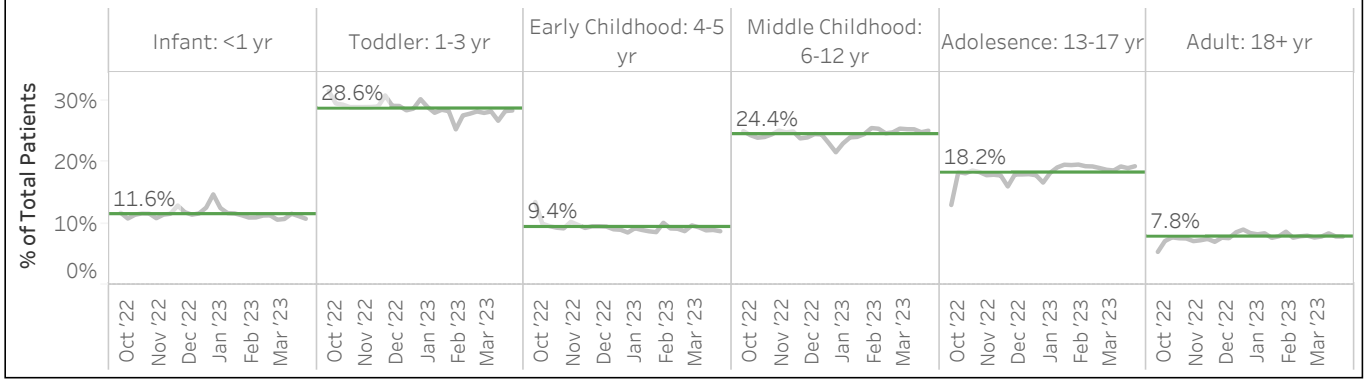
GMLOS

Children's Inpatients



Children's IP & OP Volume by Age Group

Weekly Data from Recent Six Months



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Section 5.2

Children's Hospitals Inpatient Admissions

Data as of 4/30/2023

Childrens Hospital
17

2021 2023
2022

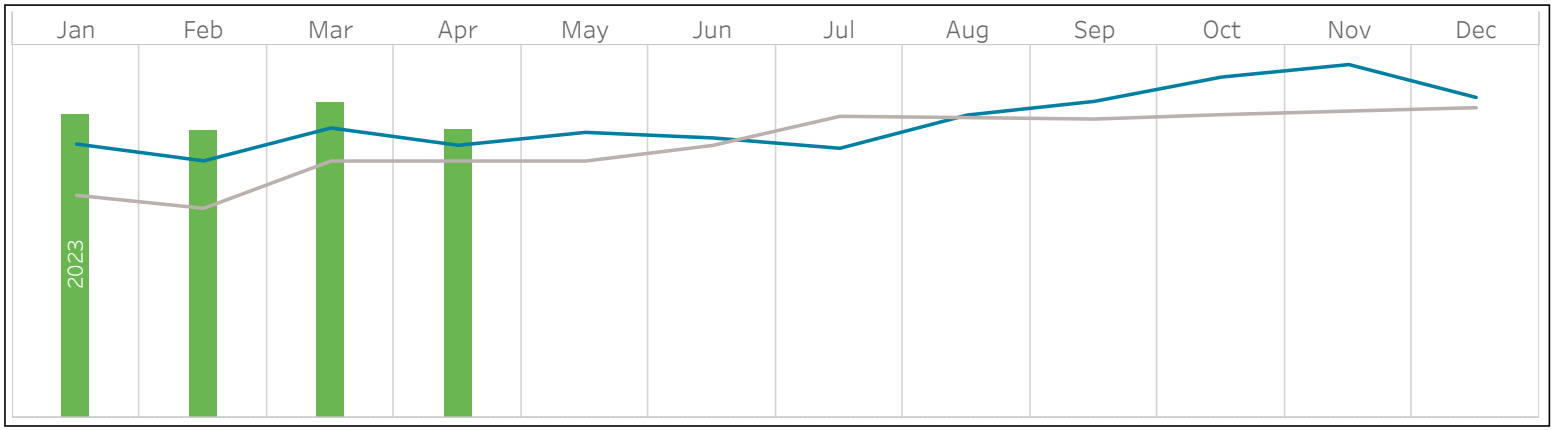
2023 YTD Volumes

▲ 9.1%
from 2022
(n = 17)

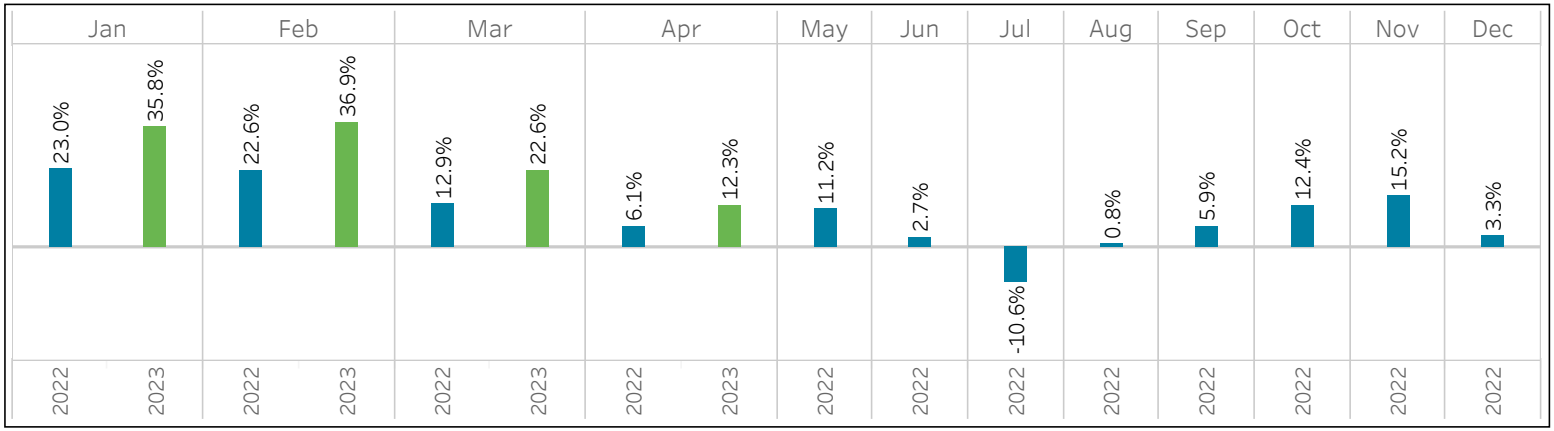
▲ 26.1%
from 2021
(n = 17)

▼ -2.9%
from 2019
(n = 16)

Monthly Volumes



Monthly Volume Changes Compared to 2021



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Section 5.3

Children's Hospitals Observation Visits

Data as of 4/30/2023

Childrens Hospital: 17

2021 2023 2022

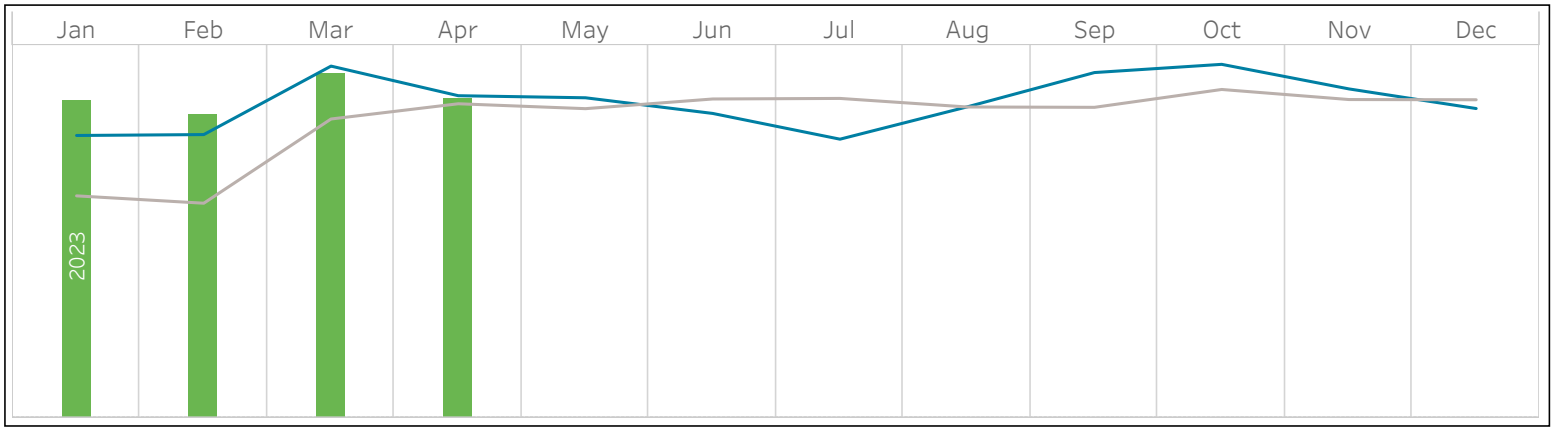
2023 YTD Volumes

▲ 3.4%
from 2022
(n = 17)

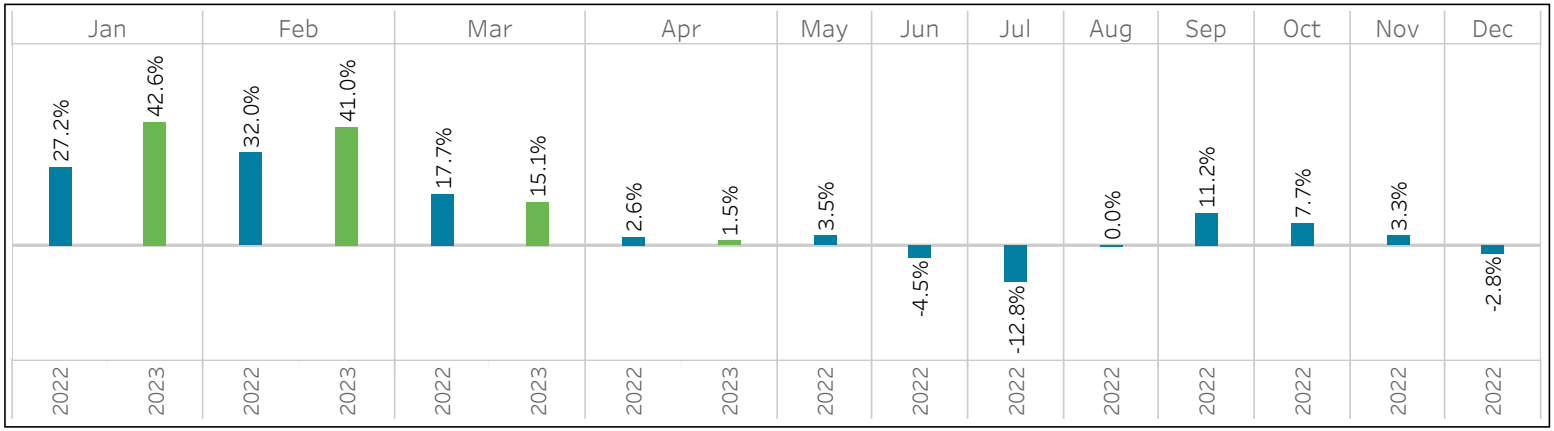
▲ 22.1%
from 2021
(n = 17)

▲ 2.9%
from 2019
(n = 16)

Monthly Volumes



Monthly Volume Changes Compared to 2021



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Section 5.4

Children's Hospitals Emergency Visits

Data as of 4/30/2023

Childrens Hospital
17

2021 2023
2022

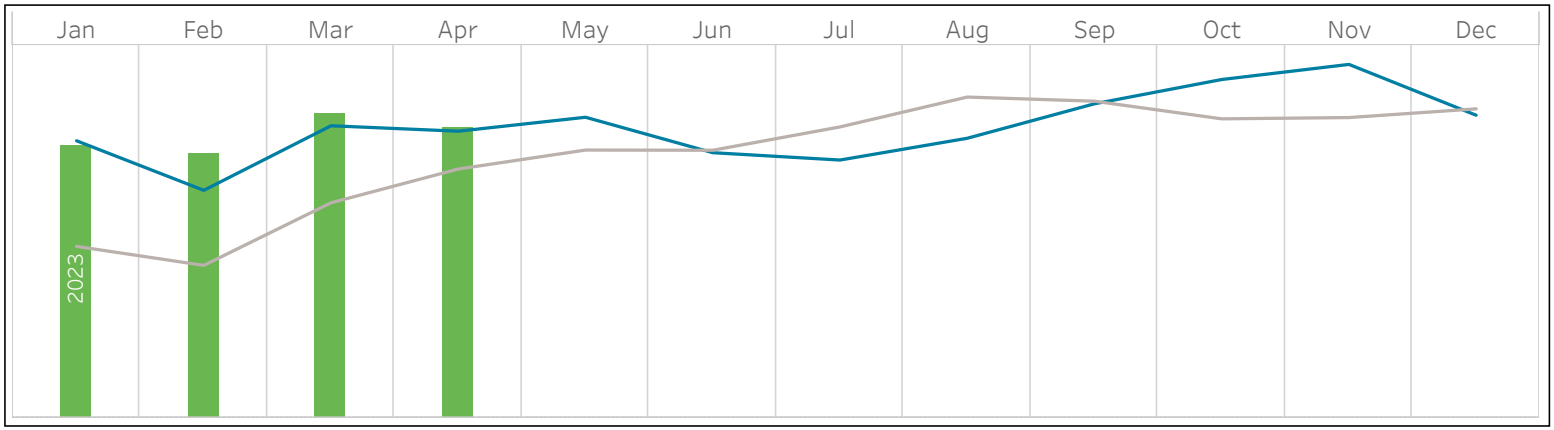
2023 YTD Volumes

▲ 4.3%
from 2022
(n = 17)

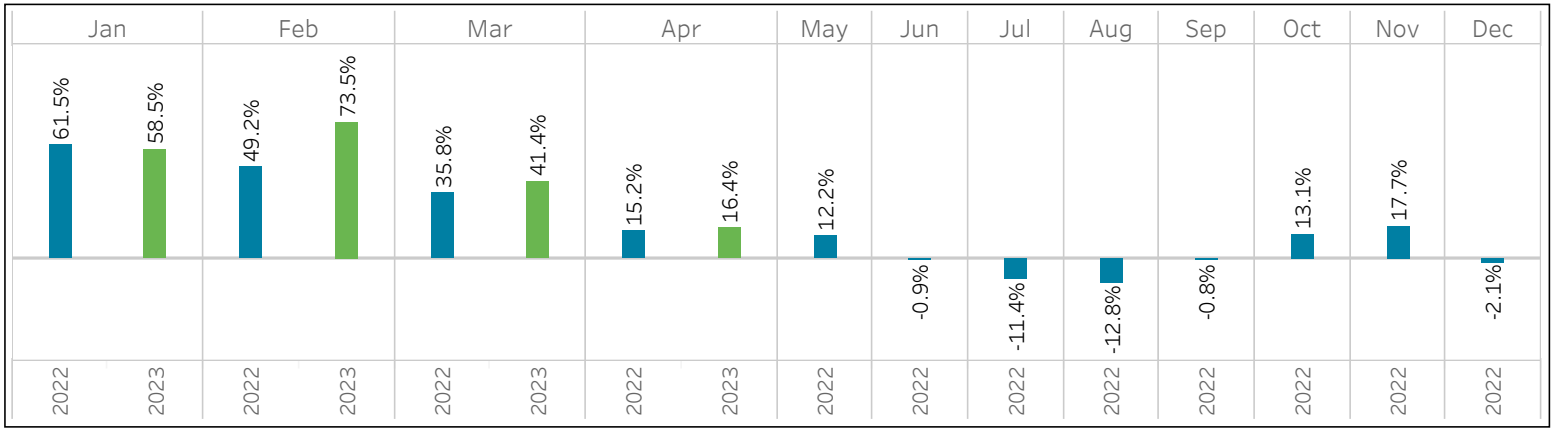
▲ 43.5%
from 2021
(n = 17)

▼ -11.5%
from 2019
(n = 16)

Monthly Volumes



Monthly Volume Changes Compared to 2021



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Section 5.5

Children's Hospitals Outpatient Visits

Data as of 4/30/2023

Childrens Hospital
17

2021 2023
2022

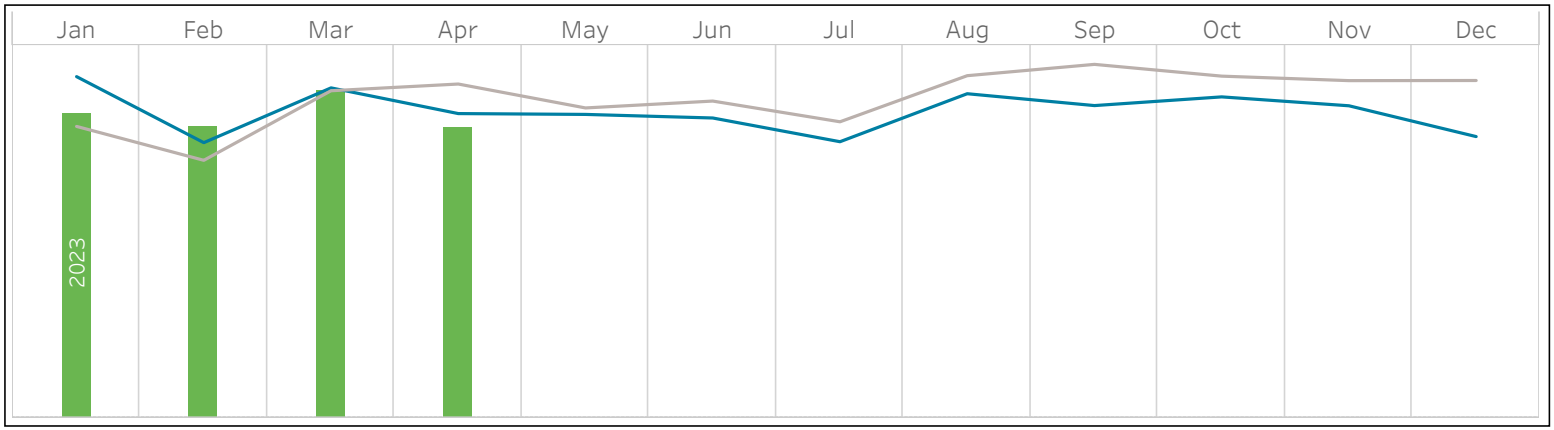
2023 YTD Volumes

▼ -3.2%
from 2022
(n = 17)

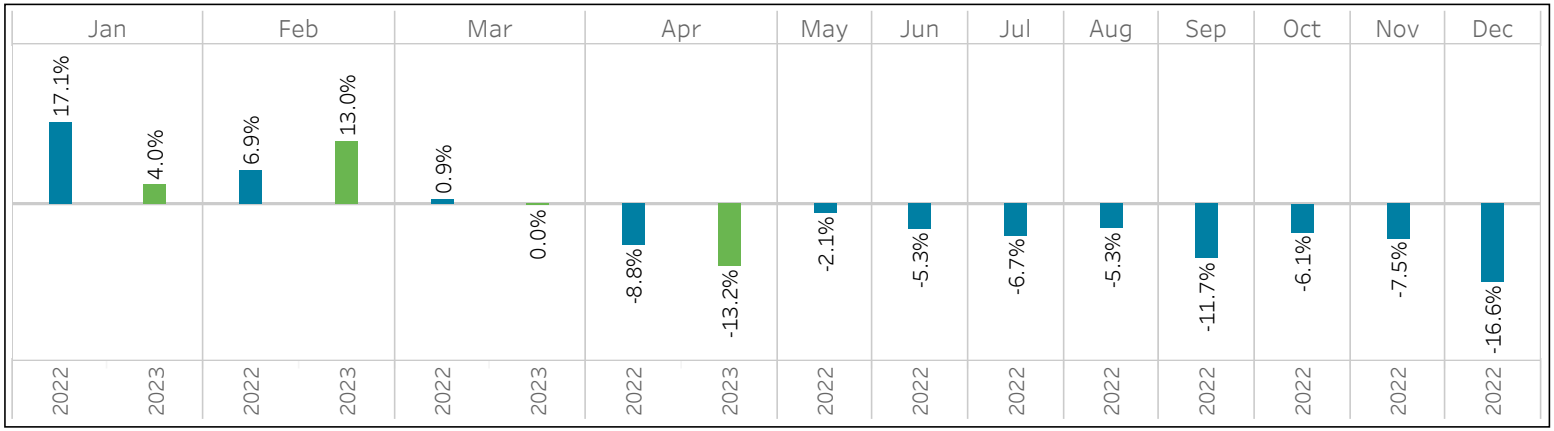
▲ 0.1%
from 2021
(n = 17)

▲ 17.6%
from 2019
(n = 16)

Monthly Volumes



Monthly Volume Changes Compared to 2021



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Methodology

Data Source: 109 StrataSphere® health systems with StrataJazz® Decision Support. All hospital billing encounters with nonzero charges were included. Once the encounter has charges greater than zero, it will then be included in the encounter count.

Regional information outlined in this report follows the census region definitions established by the U.S. Census Bureau.

Patient Types include inpatient, observation, emergency, and outpatient, which are determined by the presence of associated UB revenue codes in encounter charges.

Percentage change from previous month refers to the percentage difference between the current month and previous month. Percentage change from previous year refers to the percentage difference between the current month and the same month in the previous year.

CMI (Case Mix Index) is the average diagnosis-related group (DRG) relative weight. This average is calculated by summing the MS-DRG weights for all inpatient admissions and dividing by the distinct count of admissions.

For the proportion of visits resulting in hospital admission graph: Proportions were calculated by aggregating distinct inpatient encounters stratified by visit type (emergency and observation), and dividing by the total inpatient encounters on a weekly basis.

For the service line and procedure graphs: Service line and procedure groups are provided by the Sg2 CARE Grouper™, based on the ICD-10 diagnosis and procedure codes, DRG codes, and CPT codes of each encounter. Service line inpatient detail displays the 15 service lines with the highest inpatient volume.

GMLOS (Geometric mean length of stay) represents the nth root of the product of the LOS values for every inpatient admitted per day, where n is the number of patients per admit date. We chose this metric over average length of stay as it is less influenced by very high outliers.

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