StrataSphere®
Research Report:

# National Patient and Procedure Volume Tracker™

**Monthly Update 12/31/2023**

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**At the national level, all patient type volumes increased compared to December 2022. Inpatient (IP) and emergency (ED) volumes also increased compared to the previous month (section 1), and IP admissions reached their highest monthly level over the three year reporting period (section 2.2). On the outpatient (OP) side, 2023 annual visits are up 14% versus 2019's pre-COVID baseline (section 2.5).**

**With the exception of the seasonal spikes in ENT and Infectious Disease, all other assigned service lines across both hospital billing and professional billing sources decreased compared to October 2023 (sections 3.1-3.2, 6.1-6.2). Similarly, COVID testing was the only reported procedure that increased versus the previous month (section 4). Notably, despite the increase from the previous month, Infectious Disease volumes are much lower than November 2022 levels on both the hospital billing and professional billing sides (sections 3.2, 6.2). The majority of other hospital service line counts showed positive growth compared to the previous year (sections 3.1-3.2).**

**Similar to the general population, IP admissions within children's hospitals increased versus both the previous month and the previous year (section 5.1), and December 2023 marked their highest monthly level over the course of the entire three year reporting period (section 5.2). Annual OP visits for children's hospitals in 2023 are showing double-digit growth (16%) compared to 2019's pre-COVID baseline as well (section 5.5).**

**This report includes data from 113 health systems and 578 hospitals. Compared to last month, we have removed 3 health system and 3 hospitals. The breakdown by U.S. Census Region is shown on the next page.**

Section 1

# Monthly National and Regional Volume Changes

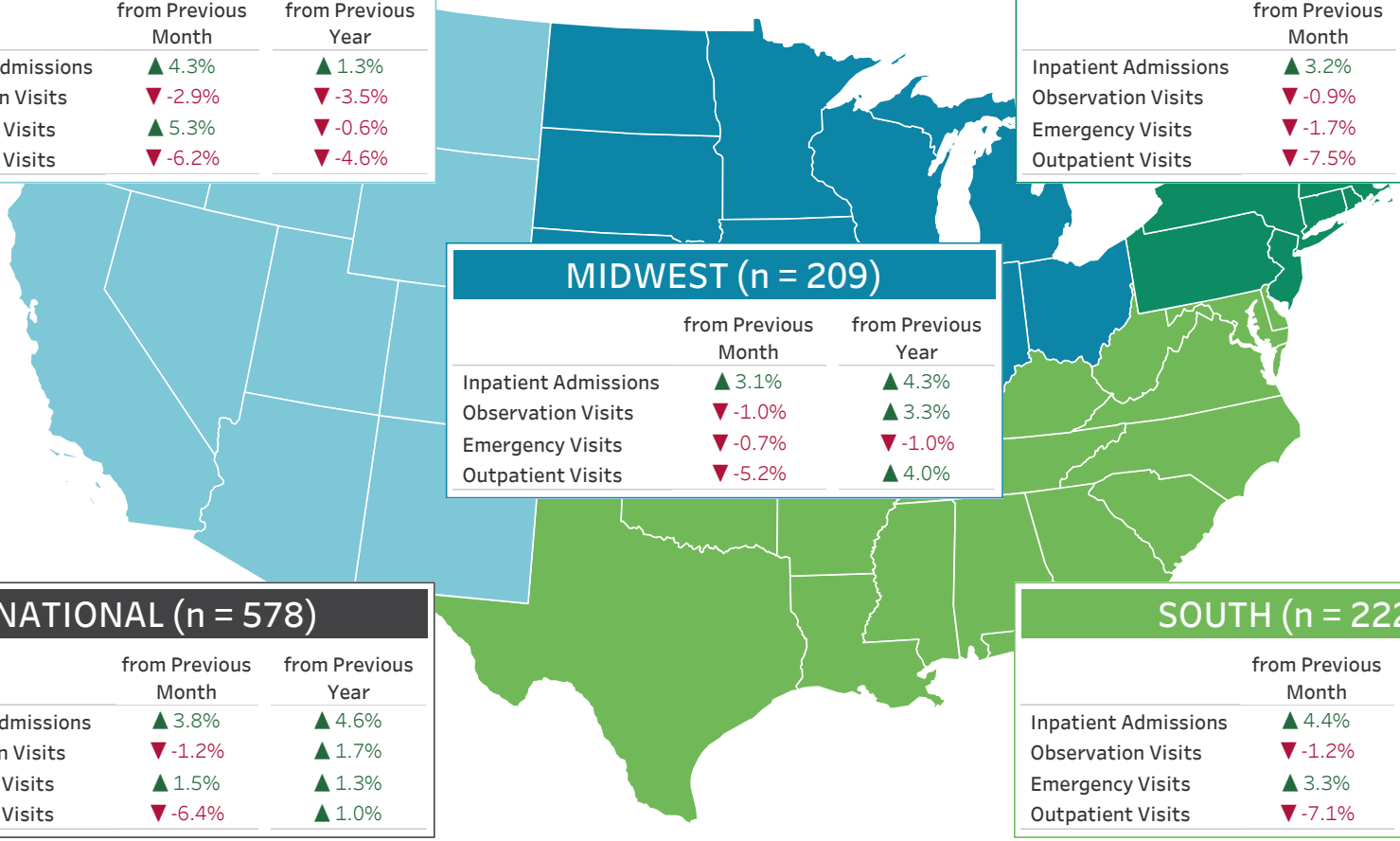
Data as of 12/31/2023

## WEST (n = 74)

| | from Previous Month | from Previous Year |
|---|---|---|
| Inpatient Admissions | ▲ 4.3% | ▲ 1.3% |
| Observation Visits | ▼ -2.9% | ▼ -3.5% |
| Emergency Visits | ▲ 5.3% | ▼ -0.6% |
| Outpatient Visits | ▼ -6.2% | ▼ -4.6% |

## NORTHEAST (n = 73)

| | from Previous Month | from Previous Year |
|---|---|---|
| Inpatient Admissions | ▲ 3.2% | ▲ 5.9% |
| Observation Visits | ▼ -0.9% | ▼ -4.0% |
| Emergency Visits | ▼ -1.7% | ▼ -4.0% |
| Outpatient Visits | ▼ -7.5% | ▼ -3.8% |



## MIDWEST (n = 209)

| | from Previous Month | from Previous Year |
|---|---|---|
| Inpatient Admissions | ▲ 3.1% | ▲ 4.3% |
| Observation Visits | ▼ -1.0% | ▲ 3.3% |
| Emergency Visits | ▼ -0.7% | ▼ -1.0% |
| Outpatient Visits | ▼ -5.2% | ▲ 4.0% |

## NATIONAL (n = 578)

| | from Previous Month | from Previous Year |
|---|---|---|
| Inpatient Admissions | ▲ 3.8% | ▲ 4.6% |
| Observation Visits | ▼ -1.2% | ▲ 1.7% |
| Emergency Visits | ▲ 1.5% | ▲ 1.3% |
| Outpatient Visits | ▼ -6.4% | ▲ 1.0% |

## SOUTH (n = 222)

| | from Previous Month | from Previous Year |
|---|---|---|
| Inpatient Admissions | ▲ 4.4% | ▲ 5.2% |
| Observation Visits | ▼ -1.2% | ▲ 3.6% |
| Emergency Visits | ▲ 3.3% | ▲ 5.6% |
| Outpatient Visits | ▼ -7.1% | ▲ 2.4% |

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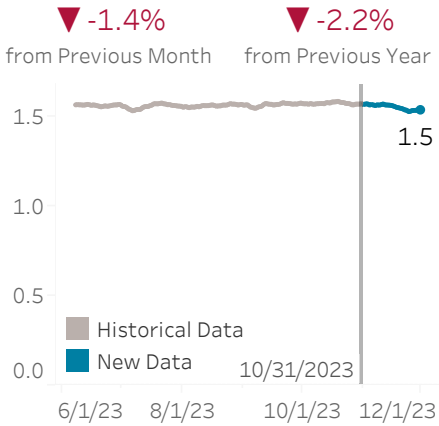
Section 2.1

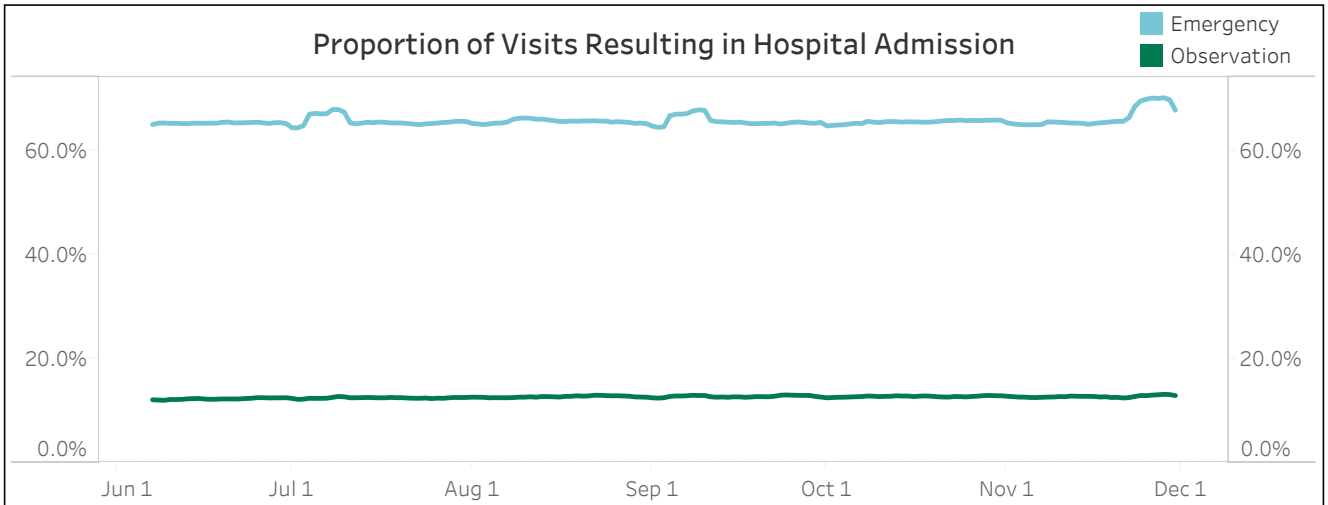
# Inpatient Metrics

Data as of 11/30/2023

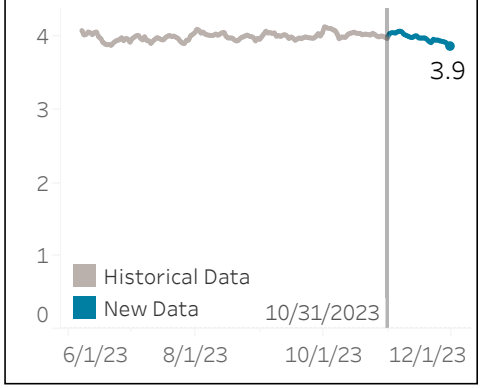
## CMI



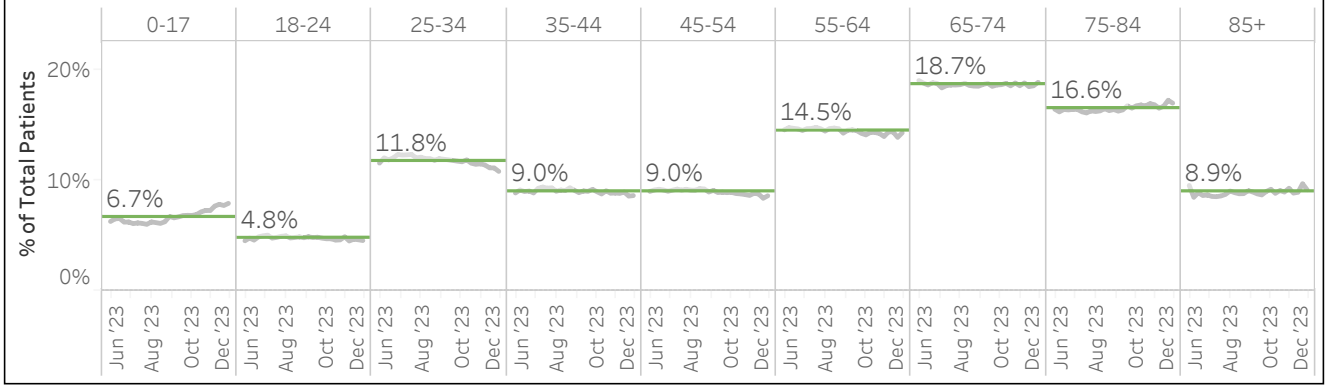

## Proportion of Visits Resulting in Hospital Admission




## GMLOS




## Inpatient Visits by Age Group

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Section 2.2

# Inpatient Admissions

Data as of 12/31/2023

2021 2023 2022

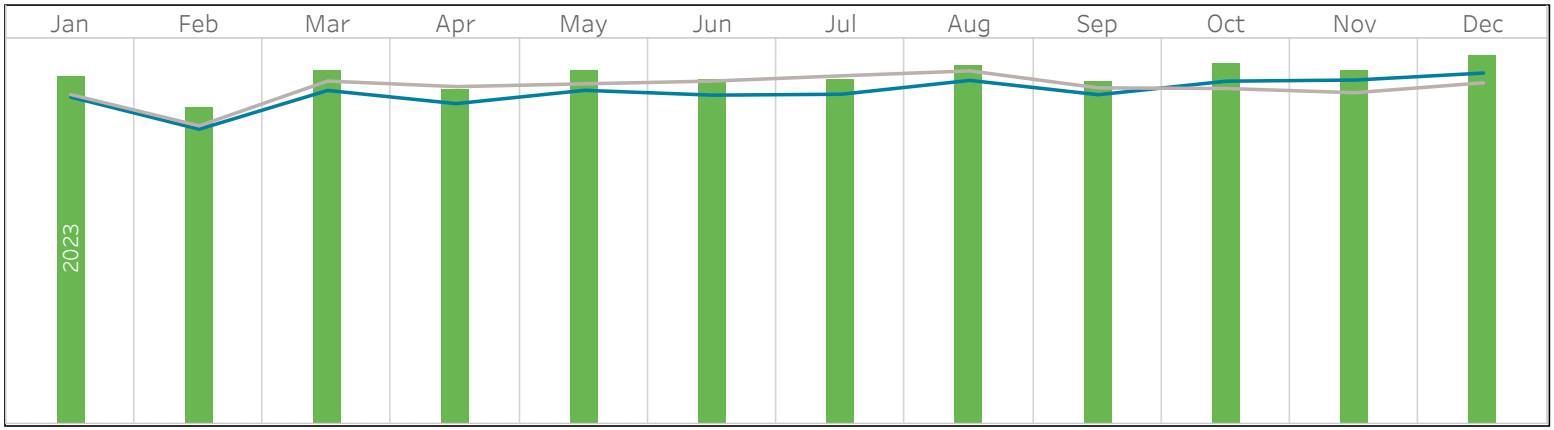
**2023 YTD Volumes**

**▲ 4.8%**
from 2022
(n = 572)

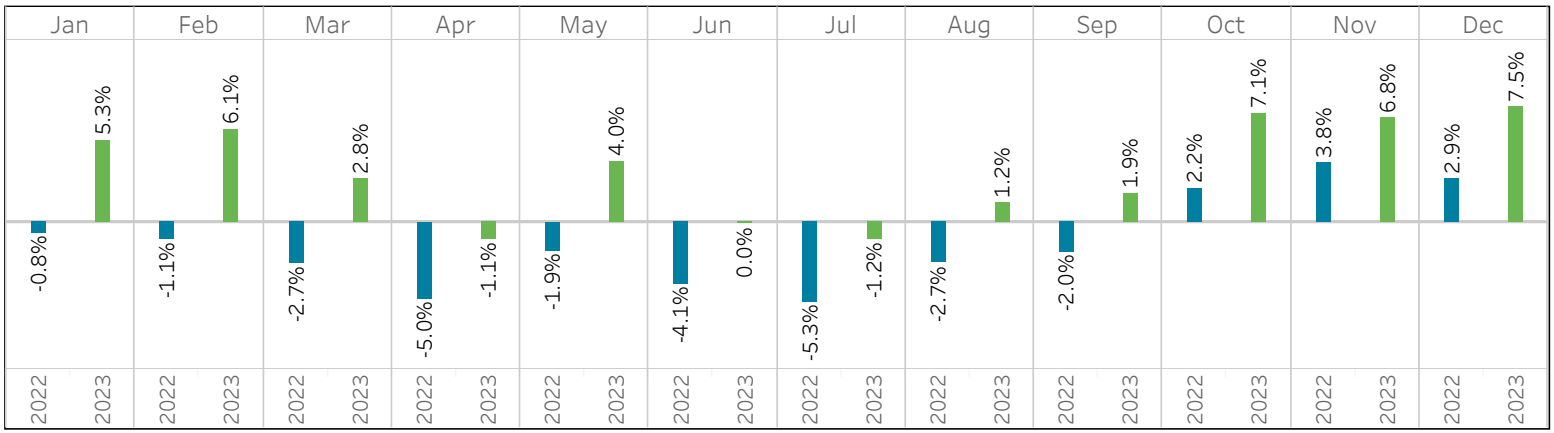
**▲ 3.3%**
from 2021
(n = 558)

**▼ -3.3%**
from 2019
(n = 425)

## Monthly Volumes




## Monthly Volume Changes Compared to 2021

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Section 2.3

# Observation Visits

Data as of 12/31/2023

2021 2023
2022

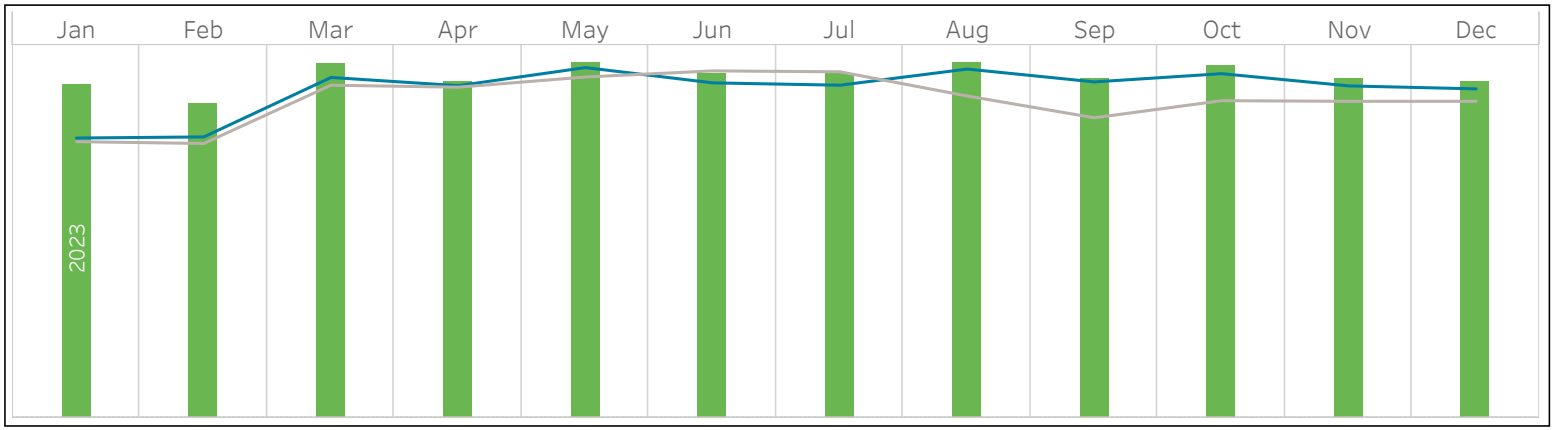
**2023 YTD Volumes**

**▲ 3.9%**
from 2022
(n = 572)

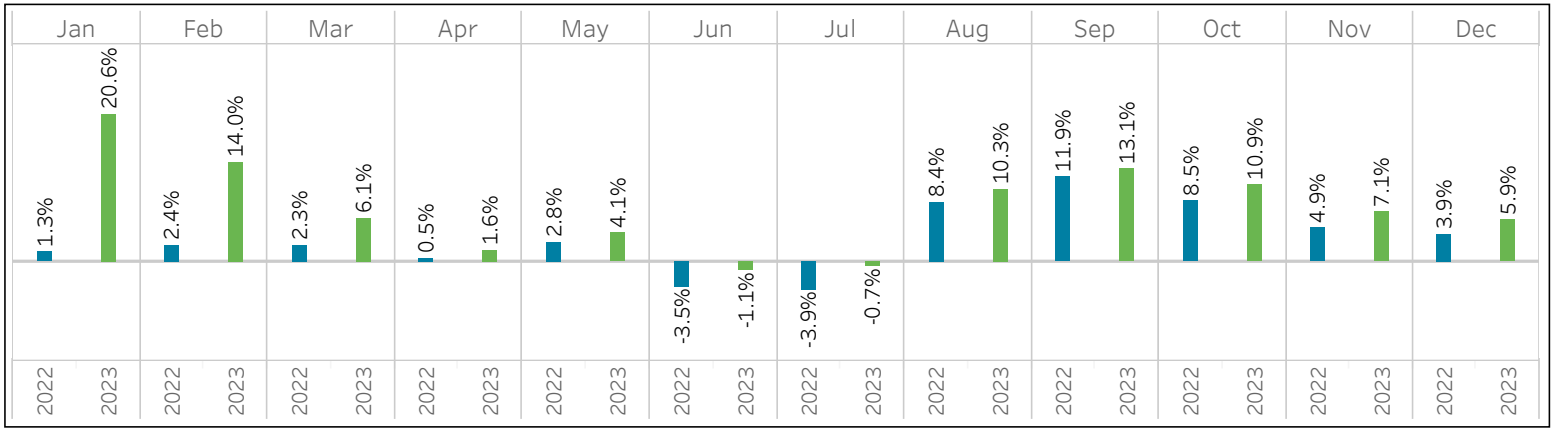
**▲ 7.3%**
from 2021
(n = 558)

**▲ 3.3%**
from 2019
(n = 425)

## Monthly Volumes




## Monthly Volume Changes Compared to 2021

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Section 2.4

# Emergency Visits

Data as of 12/31/2023

2021 2023
2022

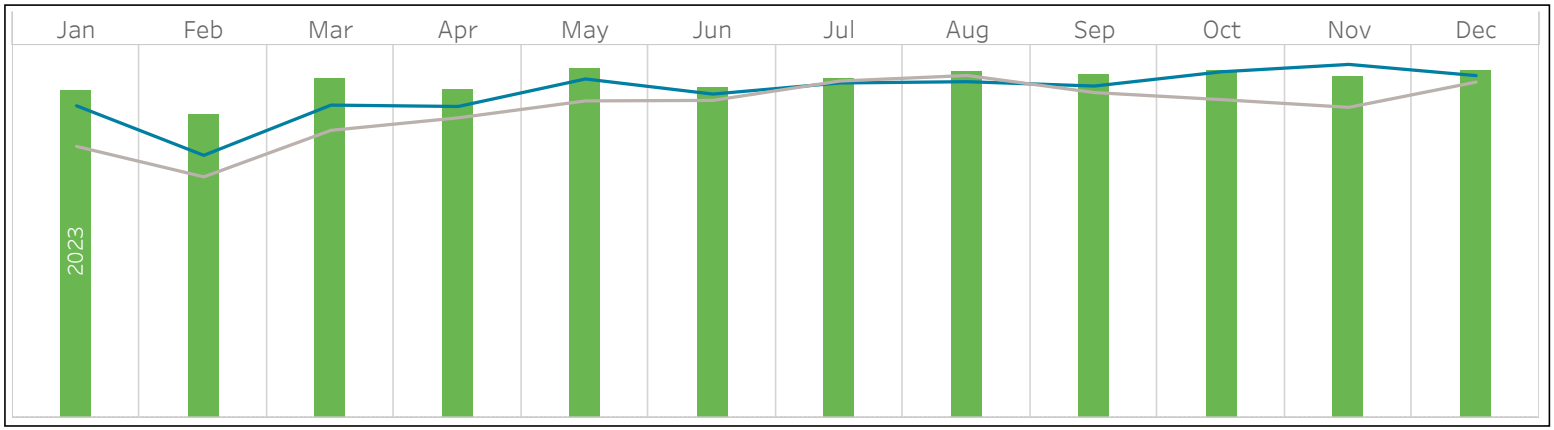
**2023 YTD Volumes**

**▲ 3.4%**
from 2022
(n = 572)

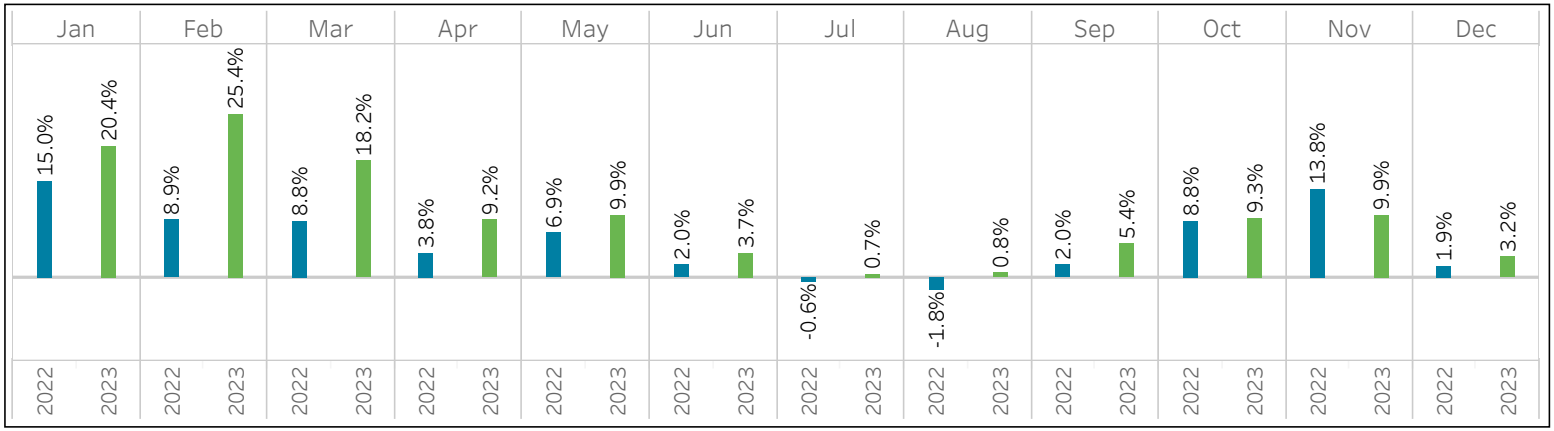
**▲ 9.0%**
from 2021
(n = 558)

**▼ -1.4%**
from 2019
(n = 425)

## Monthly Volumes




## Monthly Volume Changes Compared to 2021

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Section 2.5

# Outpatient Visits

Data as of 12/31/2023

2021 2023
2022

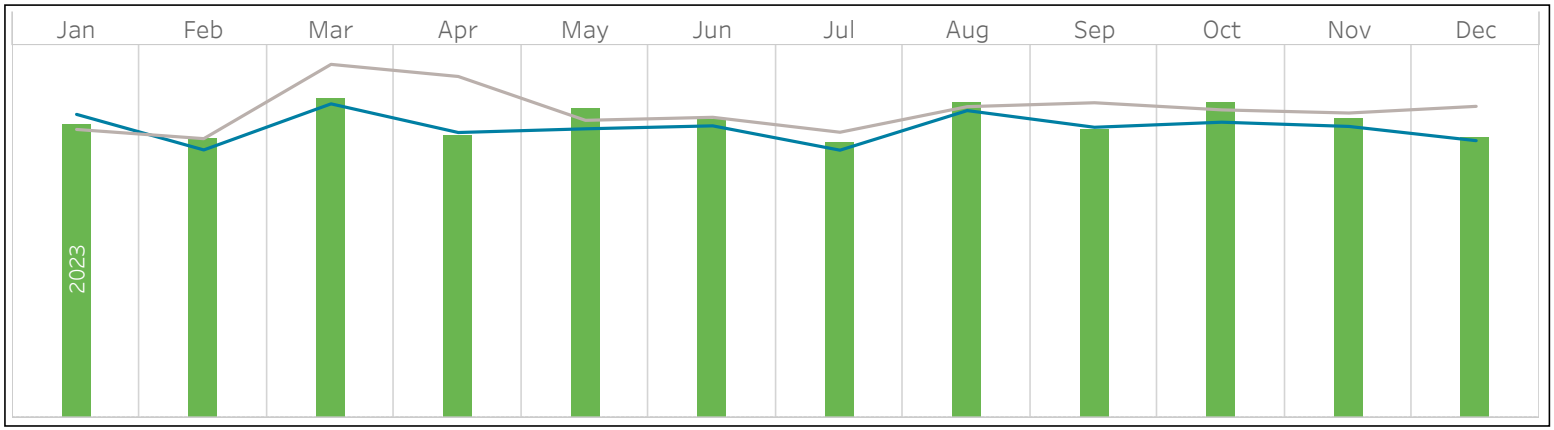
**2023 YTD Volumes**

**▲ 2.0%**
from 2022
(n = 572)

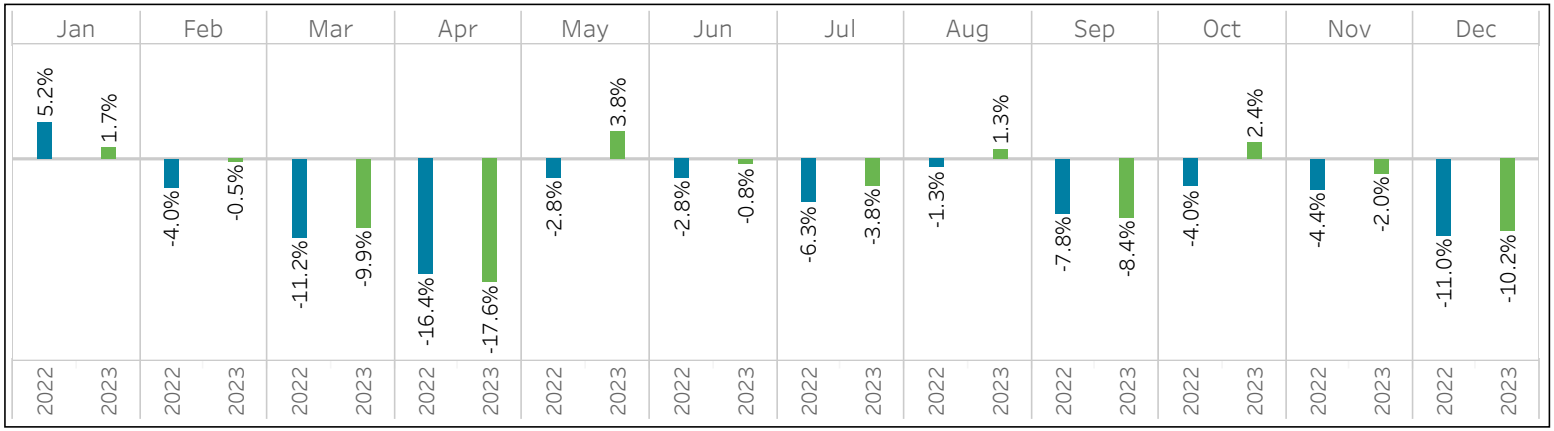
**▼ -4.0%**
from 2021
(n = 558)

**▲ 14.0%**
from 2019
(n = 425)

## Monthly Volumes




## Monthly Volume Changes Compared to 2021

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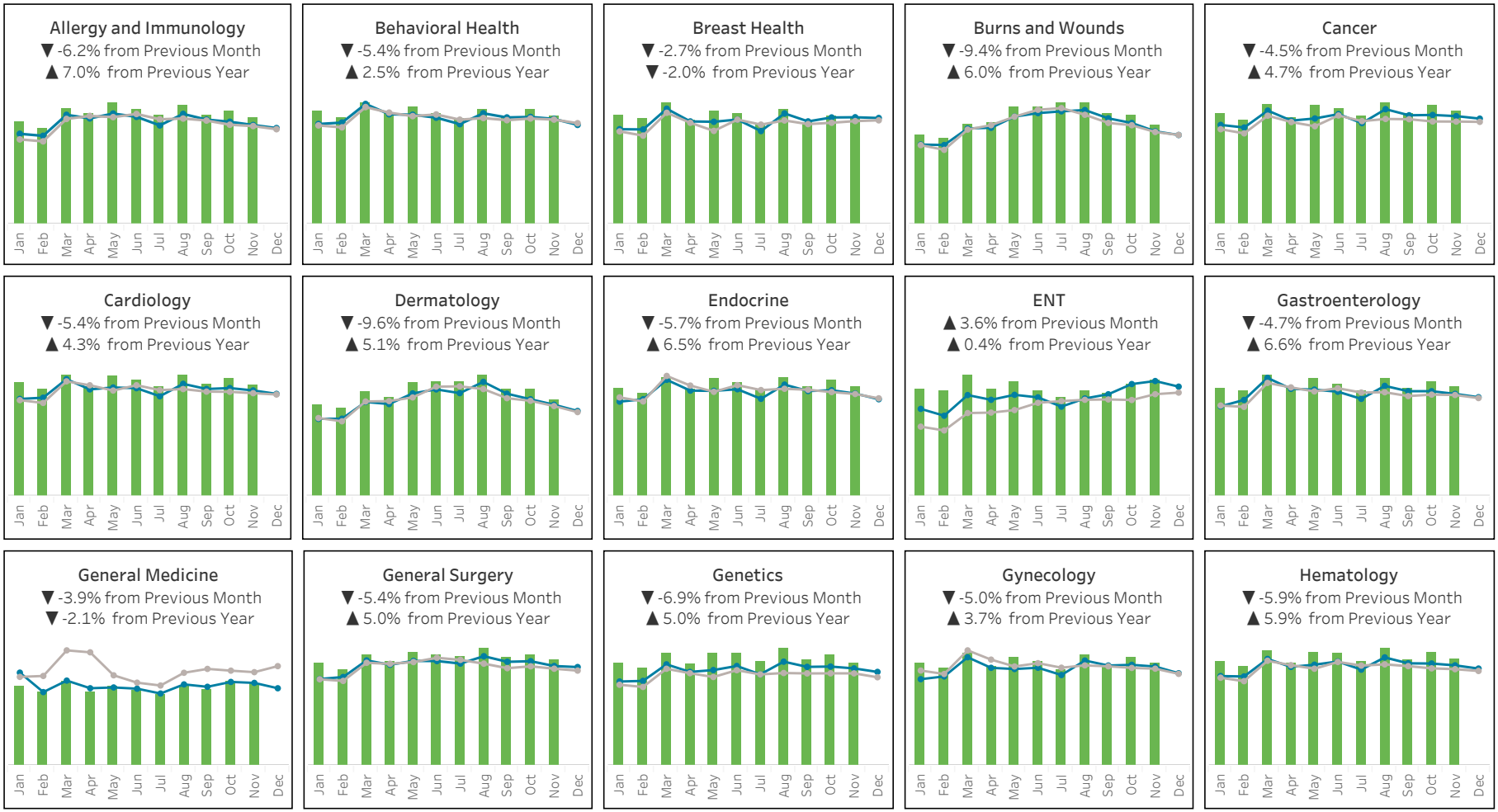
Section 3.1

# National Volume Changes by Service Line (IP & OP)

Data as of 11/30/2023

2021 2023 2022

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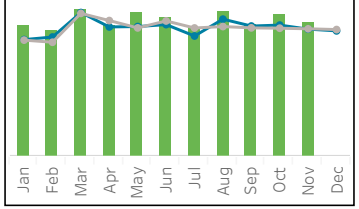
Section 3.2

# National Volume Changes by Service Line (IP & OP)

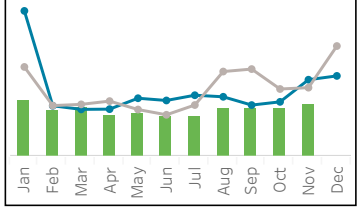
Data as of 11/30/2023

2021 2023 2022

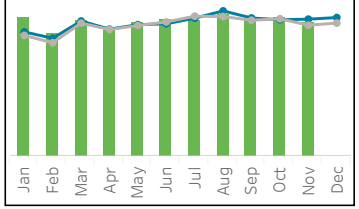
## Hepatology
▼-5.6% from Previous Month
▲4.7% from Previous Year



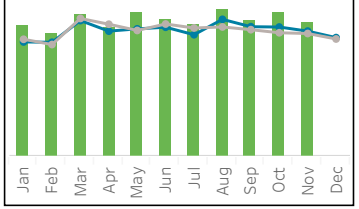

## Infectious Disease
▲10.4% from Previous Month
▼-32.0% from Previous Year



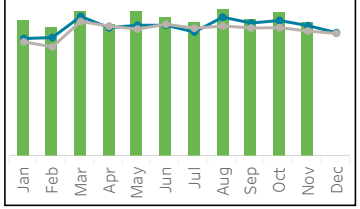

## Neonatology
▼-3.7% from Previous Month
▼-2.7% from Previous Year



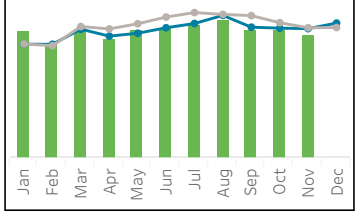

## Nephrology
▼-6.4% from Previous Month
▲6.9% from Previous Year



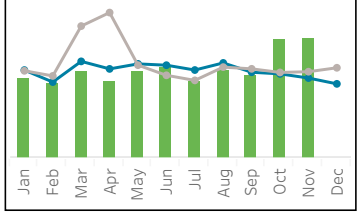

## Neurosciences
▼-6.8% from Previous Month
▲1.8% from Previous Year



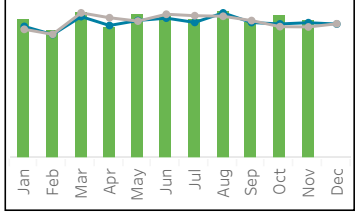

## Normal Newborn
▼-4.0% from Previous Month
▼-5.6% from Previous Year



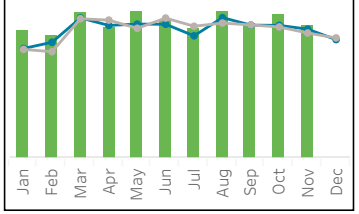

## Not Assigned
▲2.0% from Previous Month
▲48.2% from Previous Year



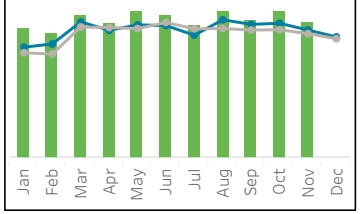

## Obstetrics
▼-3.2% from Previous Month
▲0.6% from Previous Year



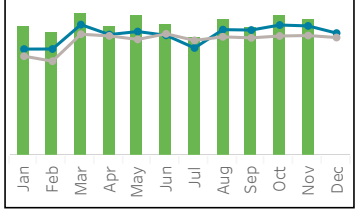

## Ophthalmology
▼-8.6% from Previous Month
▲1.9% from Previous Year



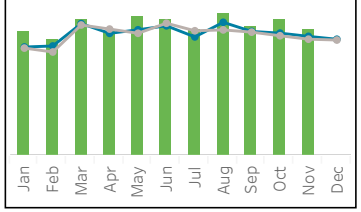

## Orthopedics
▼-7.9% from Previous Month
▲5.0% from Previous Year



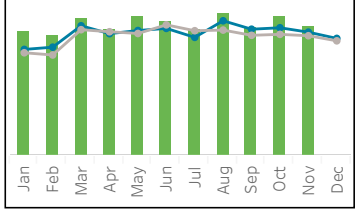

## Pulmonology
▼-3.4% from Previous Month
▲4.6% from Previous Year



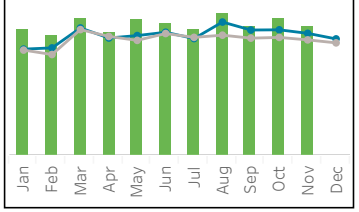

## Rheumatology
▼-6.4% from Previous Month
▲5.8% from Previous Year



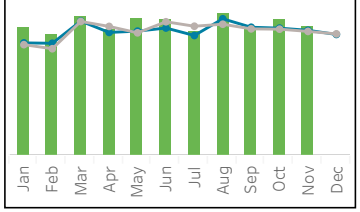

## Spine
▼-7.0% from Previous Month
▲3.8% from Previous Year




## Urology
▼-6.7% from Previous Month
▲4.8% from Previous Year




## Vascular
▼-4.8% from Previous Month
▲2.9% from Previous Year

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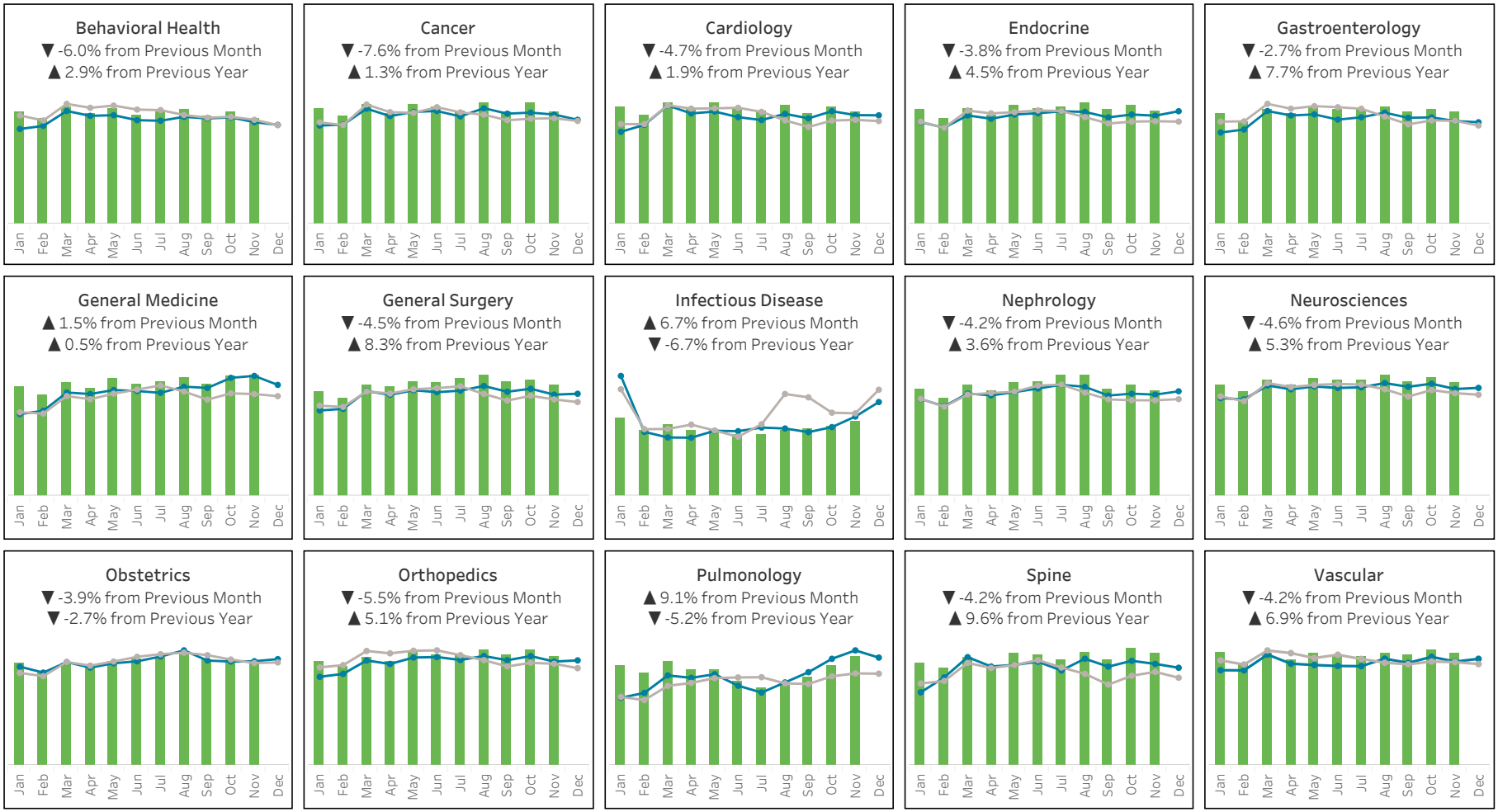
Section 3.3

# National Volume Changes by Service Line (IP Only)

Data as of 11/30/2023

2021 2023 2022

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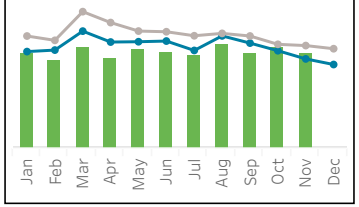
Section 4

# National Volume Changes by Procedure Type

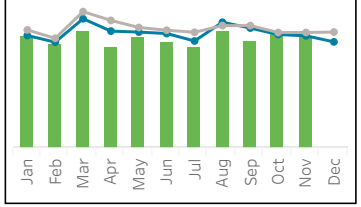
Data as of 11/30/2023

2021 2023 2022

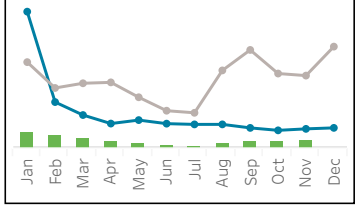
**OP Lab - Chemistry/Hematology**
▼-5.6% from Previous Month
▲5.7% from Previous Year



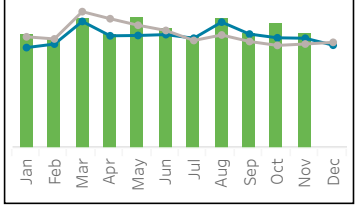

**OP Lab - Microscopic Exam**
▼-4.2% from Previous Month
▼-1.6% from Previous Year



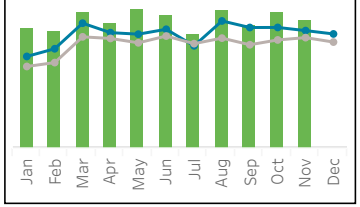

**OP Lab - SARS-CoV-2 Test**
▲19.5% from Previous Month
▼-62.8% from Previous Year



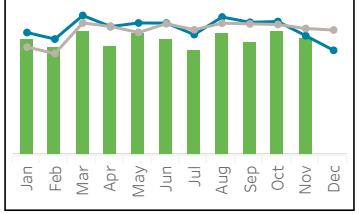

**OP Lab - Genetic Testing**
▼-8.2% from Previous Month
▲3.9% from Previous Year



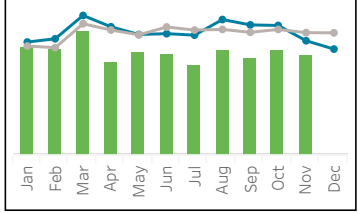

**OP Endoscopy - Colonoscopy**
▼-6.2% from Previous Month
▲8.0% from Previous Year



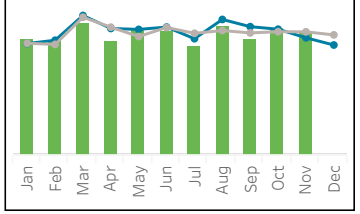

**OP Imaging - X-Ray**
▼-5.8% from Previous Month
▼-3.3% from Previous Year




**OP Imaging - CT**
▼-4.9% from Previous Month
▼-14.3% from Previous Year

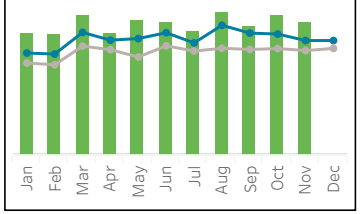



**OP Imaging - US**
▼-4.6% from Previous Month
▲2.7% from Previous Year

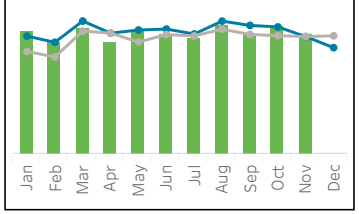



**OP Imaging - MRI**
▼-5.3% from Previous Month
▲3.8% from Previous Year

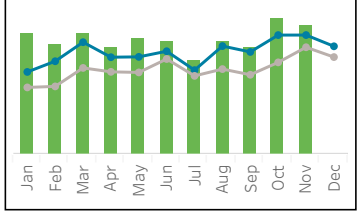
**OP Imaging - PET**
▼-4.3% from Previous Month
▲15.6% from Previous Year



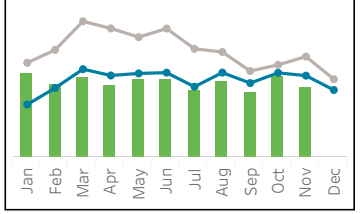

**OP Diagnostics - Routine ECG**
▼-5.9% from Previous Month
▲1.6% from Previous Year



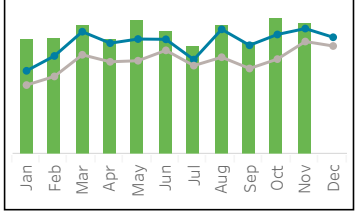

**OP - Primary Knee Replacement**
▼-4.6% from Previous Month
▲7.6% from Previous Year



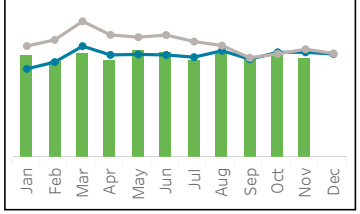

**IP - Primary Knee Replacement**
▼-13.7% from Previous Month
▼-15.6% from Previous Year




**OP - Primary Hip Replacement**
▼-3.0% from Previous Month
▲3.9% from Previous Year




**IP - Primary Hip Replacement**
▼-5.8% from Previous Month
▼-6.8% from Previous Year

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Section 5.1

# Children's Hospitals Recent Volume Changes

Data as of 12/31/2023

Childrens Hospital
18

Historical Data
New Data

## Inpatient Admissions

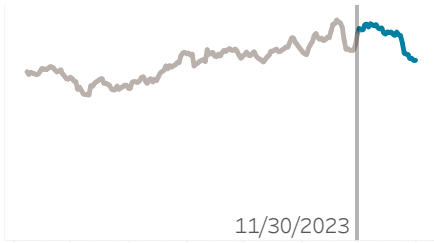
Current Month Volume

▲ 6.1% from Previous Month
▲ 11.0% from Previous Year

## Observation Visits

Current Month Volume

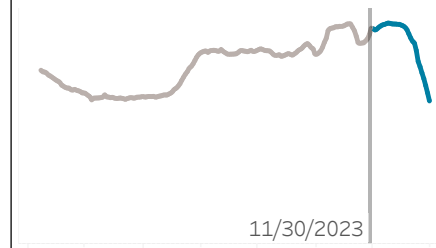
▲ 0.1% from Previous Month
▲ 13.0% from Previous Year




## Emergency Visits

Current Month Volume

▼ -5.1% from Previous Month
▲ 1.5% from Previous Year



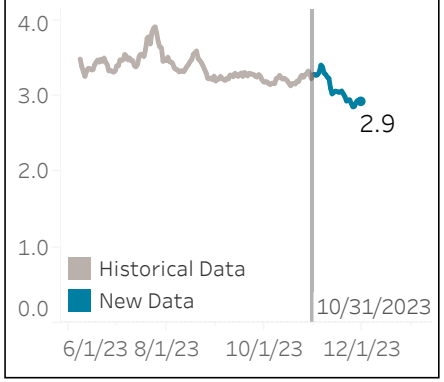

## Outpatient Visits

Current Month Volume

▼ -6.6% from Previous Month
▲ 4.9% from Previous Year

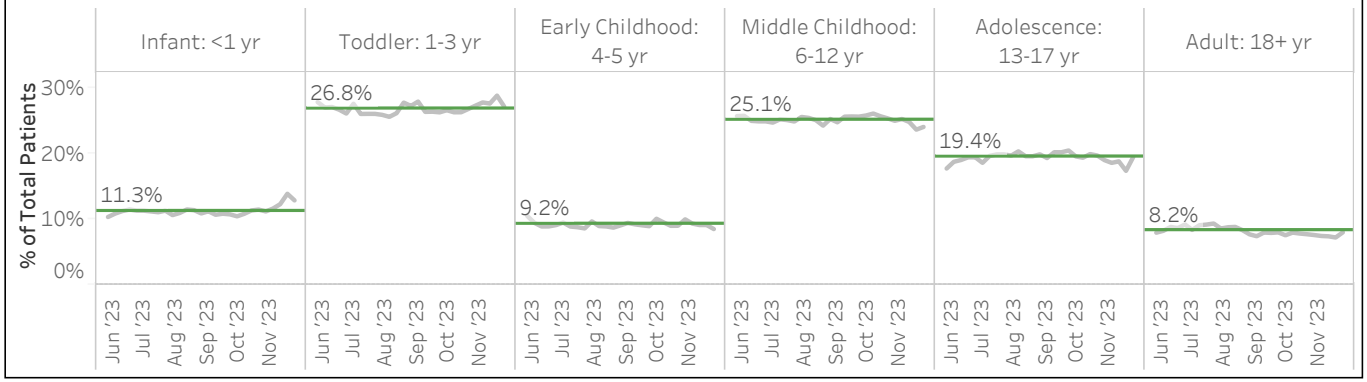
## GMLOS

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 12/31/2023

Childrens Hospital
18

2021 2023
2022

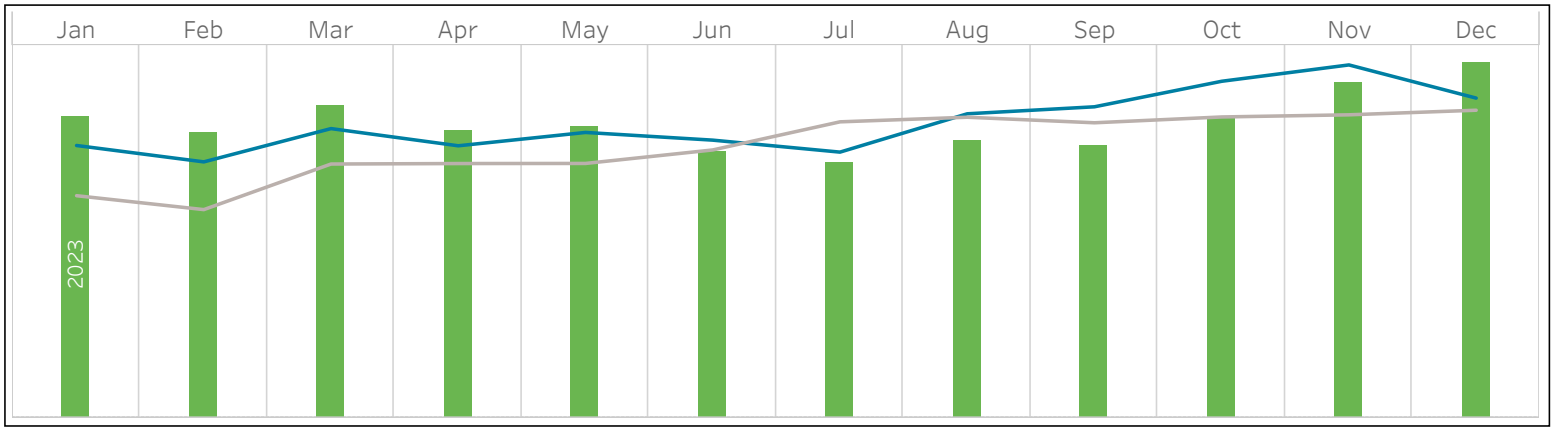
**2023 YTD Volumes**

**▼ -0.3%**
from 2022
(n = 18)

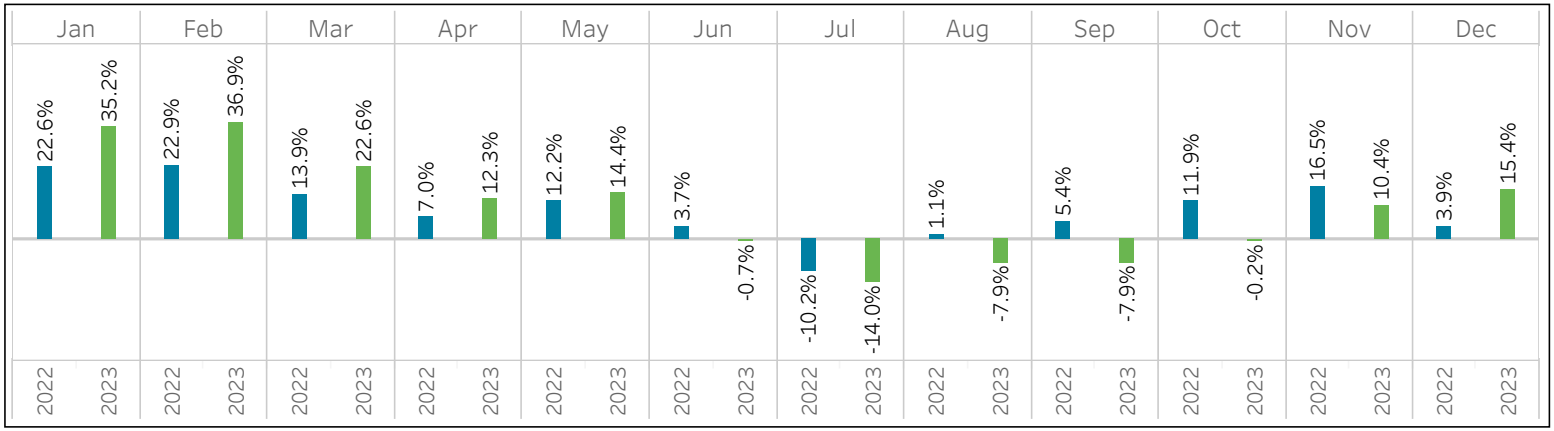
**▲ 8.2%**
from 2021
(n = 18)

**▲ 0.4%**
from 2019
(n = 17)

## Monthly Volumes




## Monthly Volume Changes Compared to 2021

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Section 5.3

# Children's Hospitals Observation Visits

Data as of 12/31/2023

Childrens Hospital
18

2021 2023
2022

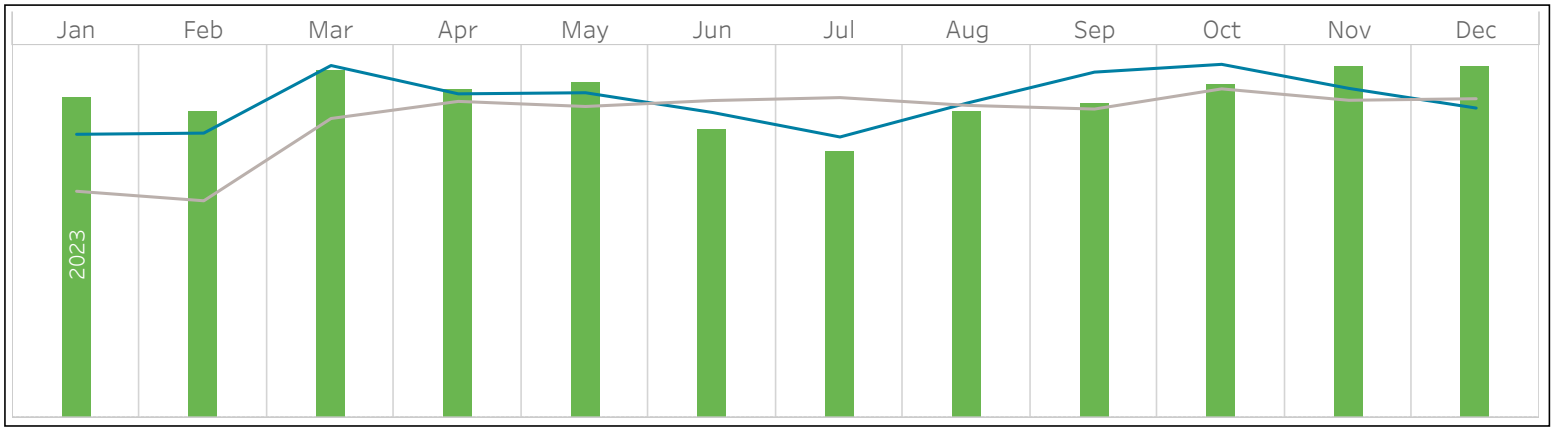
**2023 YTD Volumes**

**▲ 0.7%**
from 2022
(n = 18)

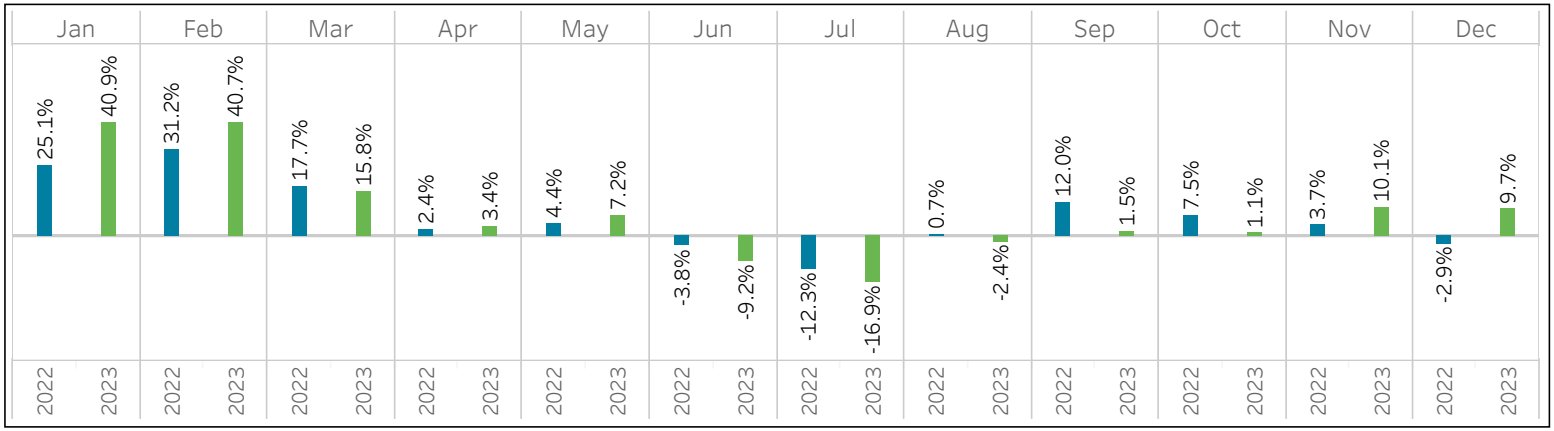
**▲ 6.7%**
from 2021
(n = 18)

**▲ 3.0%**
from 2019
(n = 17)

## Monthly Volumes




## Monthly Volume Changes Compared to 2021

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Section 5.4

# Children's Hospitals Emergency Visits

Data as of 12/31/2023

Childrens Hospital
18

2021 2023
2022

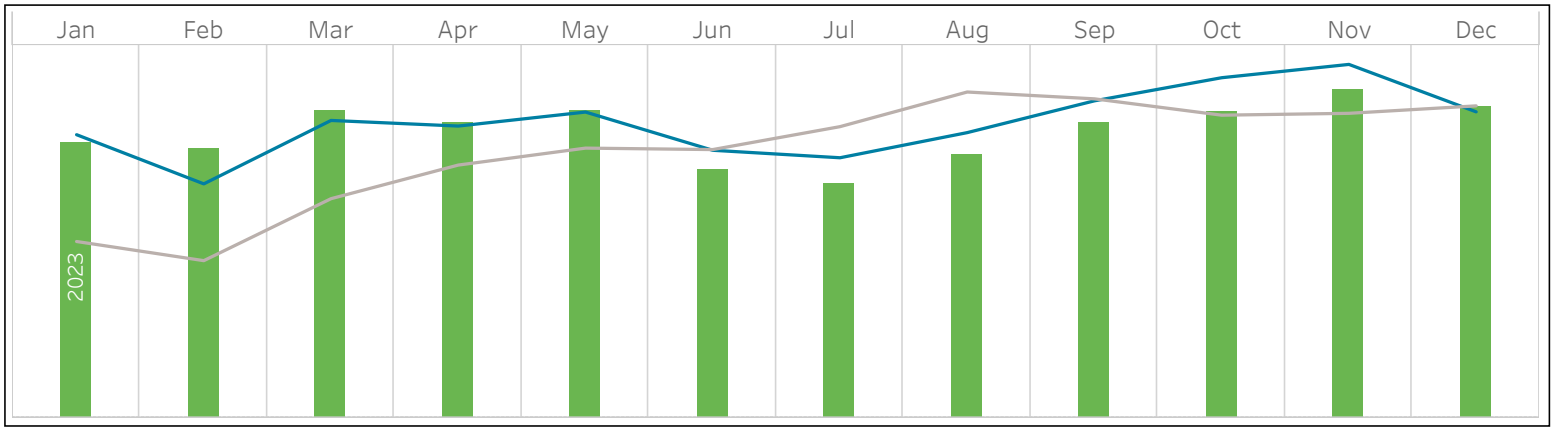
**2023 YTD Volumes**

**▼ -3.0%**
from 2022
(n = 18)

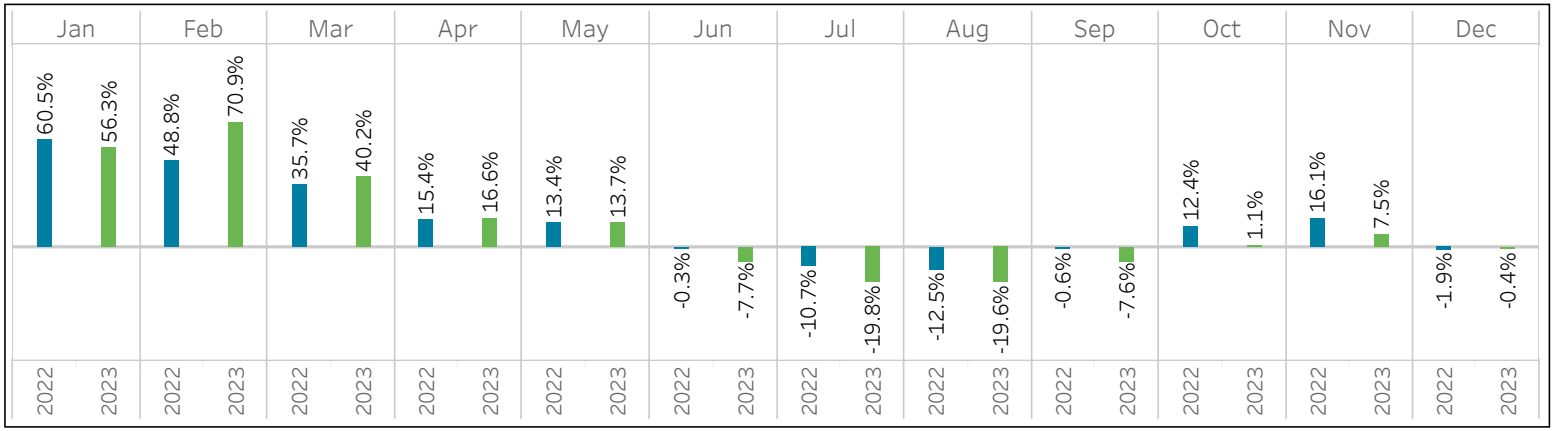
**▲ 7.4%**
from 2021
(n = 18)

**▼ -7.5%**
from 2019
(n = 17)

## Monthly Volumes




## Monthly Volume Changes Compared to 2021

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Section 5.5

# Children's Hospitals Outpatient Visits

Data as of 12/31/2023

Childrens Hospital
18

2021 2023
2022

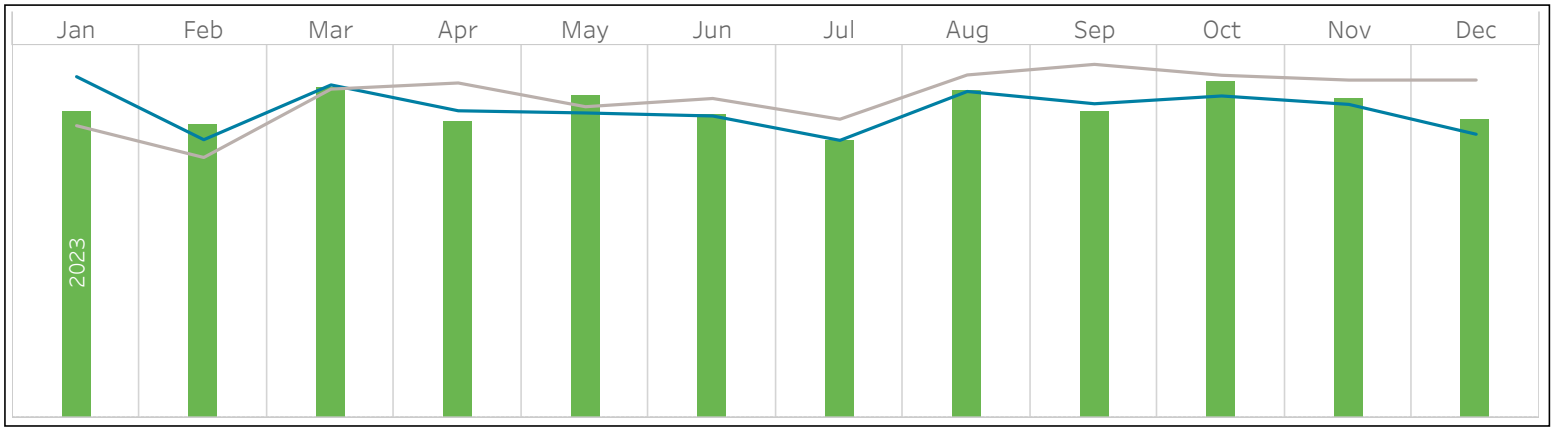
**2023 YTD Volumes**

**▲ 0.2%**
from 2022
(n = 18)

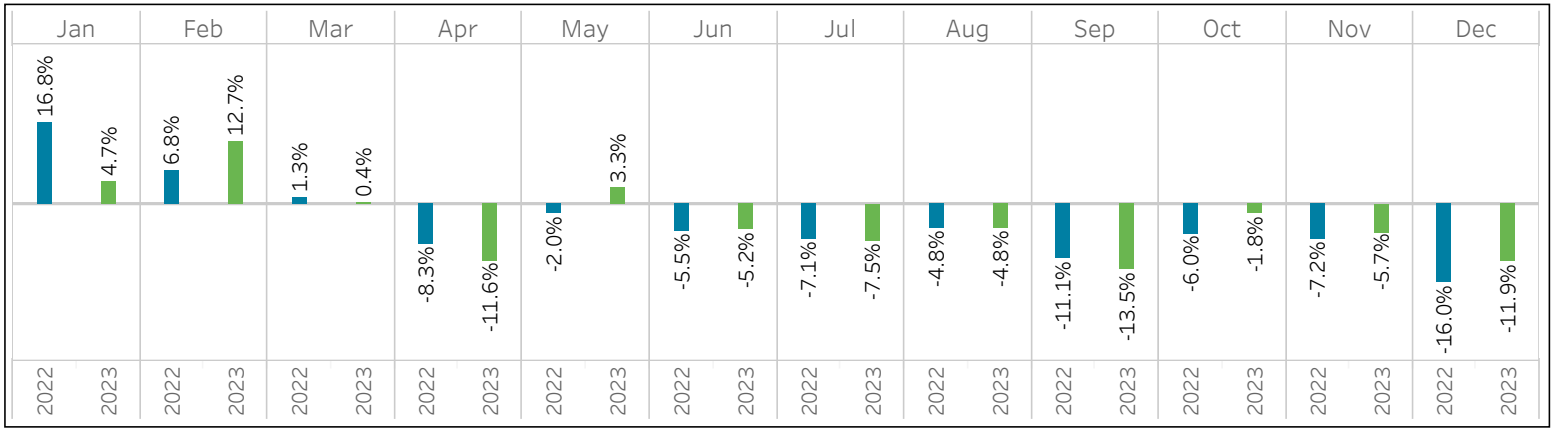
**▼ -3.9%**
from 2021
(n = 18)

**▲ 16.3%**
from 2019
(n = 17)

## Monthly Volumes




## Monthly Volume Changes Compared to 2021

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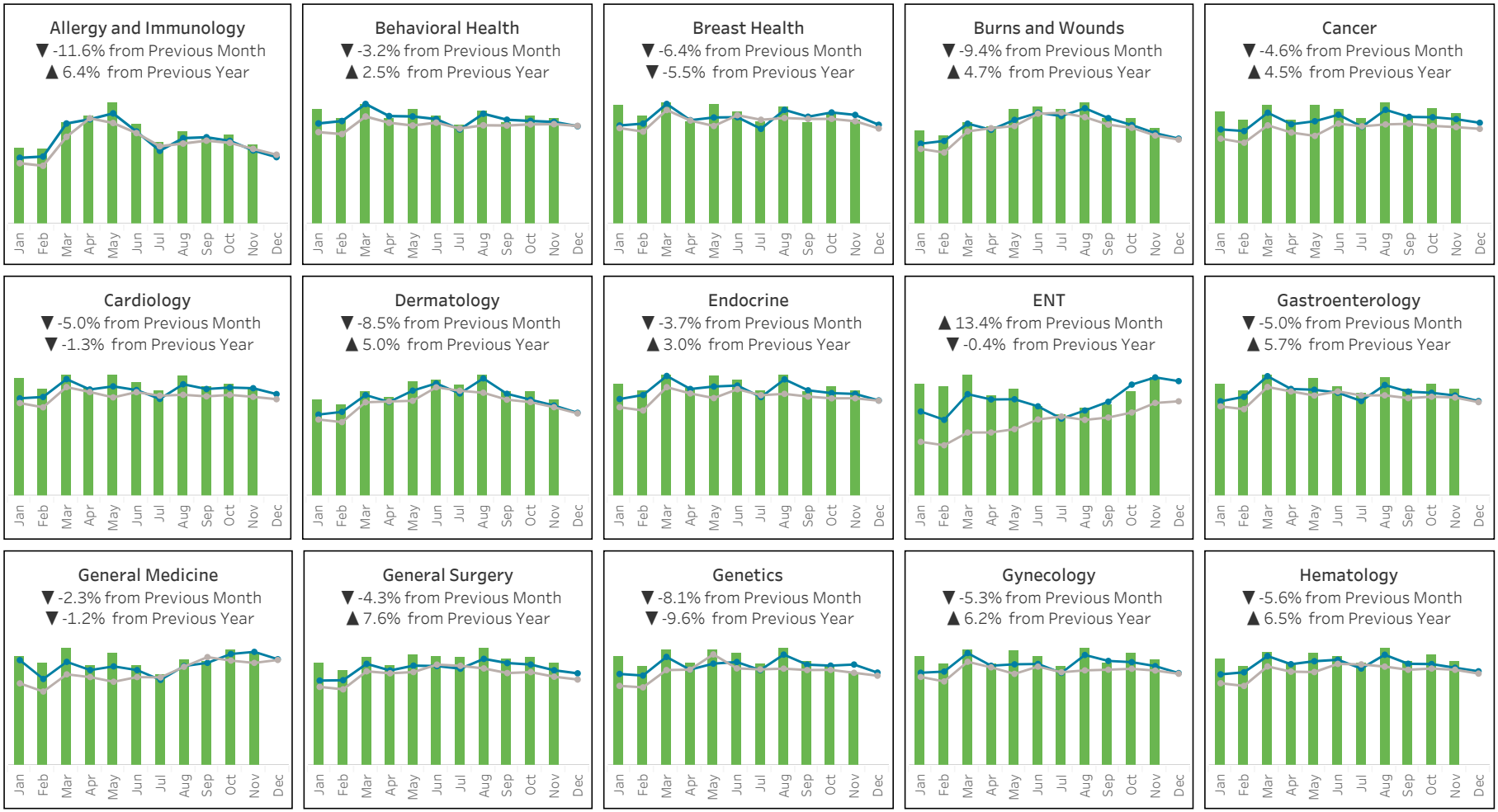
Section 6.1

# Professional Evaluation and Management Visits by Service Line (Including Children's Health Systems)

Data as of 11/30/2023

2021 2023 2022

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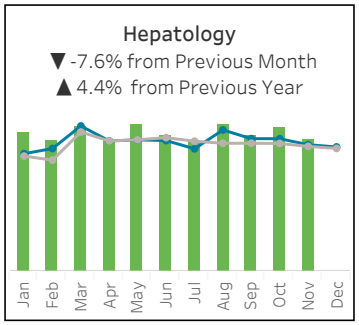
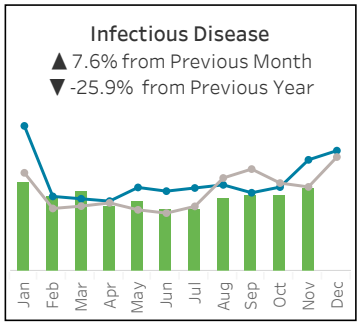
Section 6.2

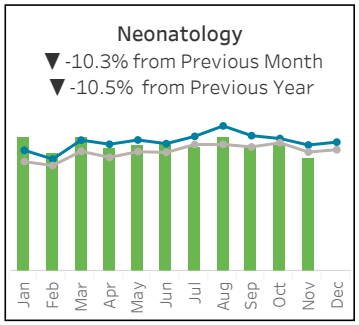
# Professional Evaluation and Management Visits by Service Line (Including Children's Health Systems)

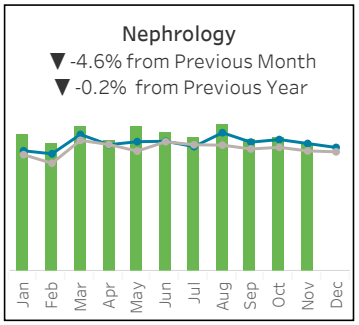
Data as of 11/30/2023

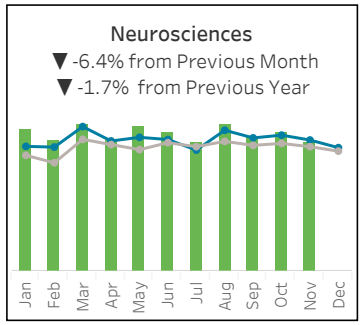
2021 2023 2022

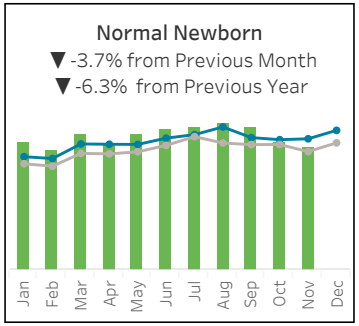


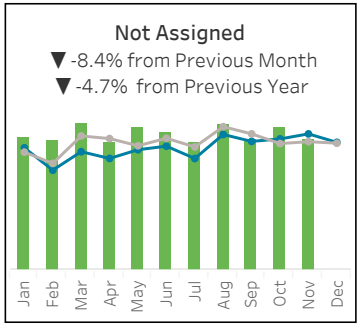



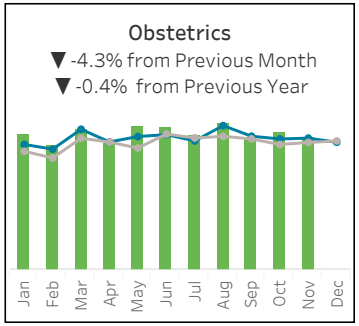



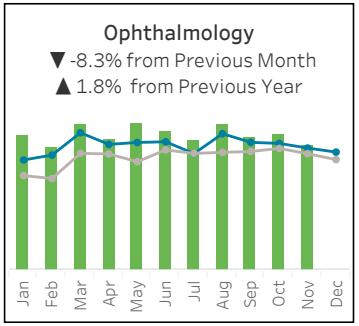



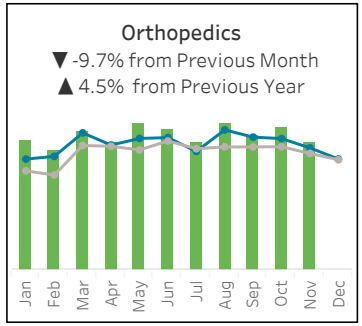



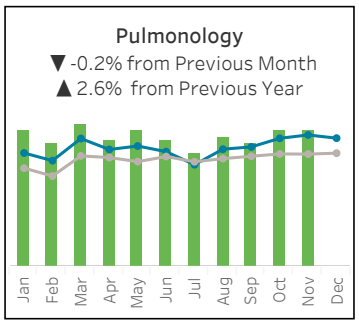



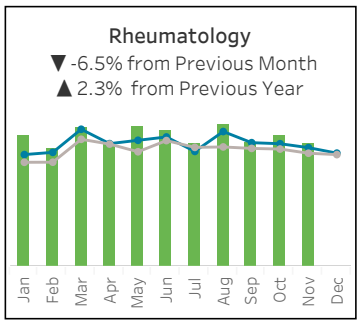



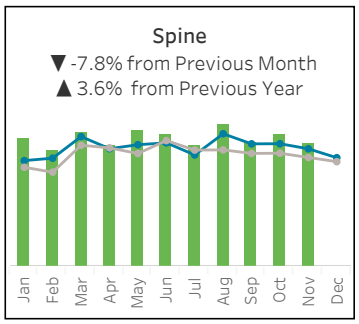



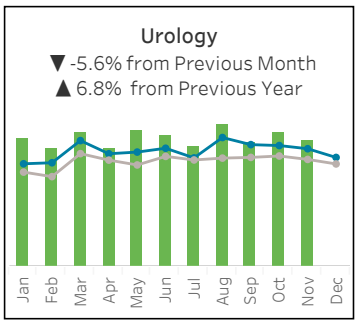



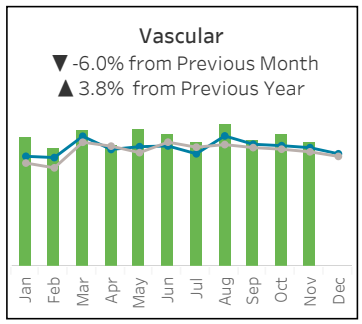

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# Methodology

Data Source: 113 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 daily basis. Each date's 7-day moving average is reflected in the graph.

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.

For the professional billing graphs: Volumes represent total unique professional billing encounters for a basket of CPT codes in the range 99201 to 99255 related to evaluation & management (E&M) care. This includes codes related to patient office and outpatient visits, inpatient and observation care E&M visits (initial, subsequent, and discharge), and consultations. Not all StrataSphere clients provide professional billing data, these graphs represent 95 health system's professional billing data.

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