DEFINITIVE HEALTHCARE

# Beyond the Noise: Where Claims Data Science Meets Interpretation

Leah Shea, VP Product – Definitive Healthcare

Emilio Ruocco, VP Provider & Market Solutions – Definitive Healthcare

Brandon Sherrets, Associate Director, Strategy & Business Development | Office of Health System Strategy | UCLA Health

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# Your speakers today

**Emilio Ruocco**

- 13 years in provider market intelligence and claims analytics
- Prior PBM and disease management experience
- Transportation, manufacturing, financial services before coming to healthcare

**Leah Shea**

- 20 years health system experience
- Service line operations, strategic planning, and enterprise analytics leadership
- Head of Product at Definitive Healthcare

**Brandon Sherrets**

- 15+ years health system experience
- Finance and strategy background
- UCLA Health, Strategy and Business Development

# Today, claims data analytics is still challenging…

There are common idiosyncrasies you should know about.

# “But can’t artificial intelligence fix the bad data?”

# Ummm...Not all!

# Let’s dive in.

# While all-market, all-payor claims data availability has improved…

Traditional medicare

**100%**

- Various ways to acquire the data

Commercial / other

**Unknown %**

- No 100% complete all-payor claims dataset(s) are available for purchase - **STILL**

# There are national, regional, and local factors to know about.

# For example, major national data gaps exist…

## Medicaid

- No 100% dataset with deep procedure and diagnosis detail available through CMS
- Not all Managed Medicaid commercial data is available

## Anthem

- Actively suppresses their data being available
- Affects 14 Anthem-heavy and Anthem - participating states

# As do regional gaps…

KAISER PERMANENTE®

- Closed loop system in most markets
- Out-of-network activity may be seen

UPMC HEALTH PLAN

- Closed loop system; Out-of-network activity may be seen
- Separation of health system and health plan

Select Health

- Intermountain Health's owned plan
- Closed loop system; Out-of-network activity may be seen

Regence

- Low, or sometimes zero, availability in western states

# There are also structural factors to understand.

# Some RCM/Billing application data is unavailable…

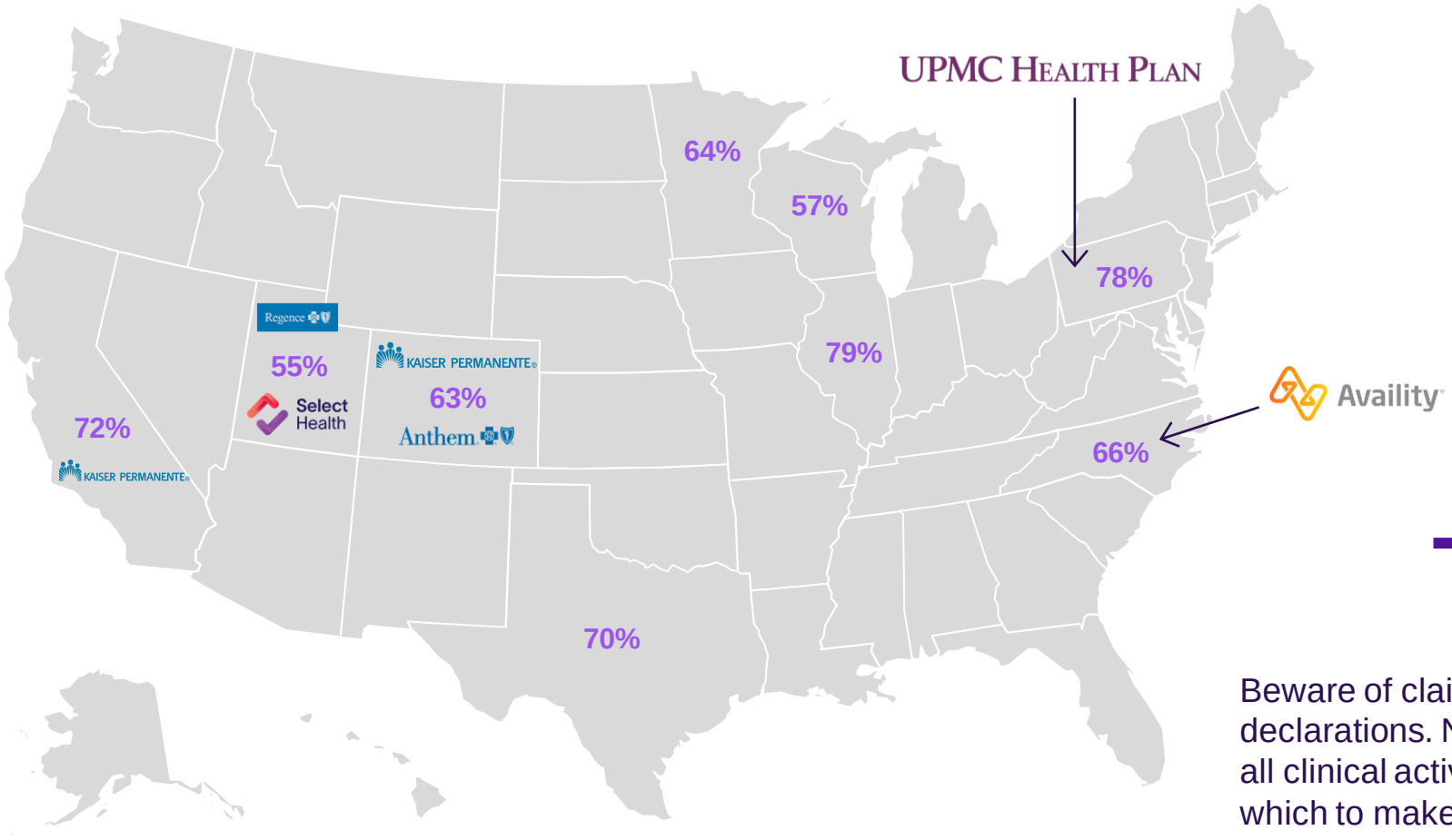
- RCM owned by Elevance/Anthem
- Billed claims don’t flow through the major clearinghouses or data consolidators

- Spot analysis can reveal this data gap
- Data not routed to clearinghouses or sold separately

# The net effect on ‘coverage’ can be substantial.

# Selected % of

## *Unique Claims Data Patients vs. U.S. Census Estimates (2022)*




**N**

**?**

Beware of claims coverage % declarations. No denominator for all clinical activity is available from which to make a solid calculation.

It’s important to know these circumstances before doing market analyses.

# Recommendation #1:

Understand claims data is known to be incomplete but offers valuable directional insights otherwise not available. Particularly, ambulatory/outpatient information not typically required in state reporting.

# Once you start using a market intelligence solution, you need to know about the quirks…

# Things we'll discuss today

NPPES
National Plan & Provider Enumeration System

**NPI 1s & NPI 2s**

**Location Names**

**Location Types**

**Master Billing**

AARP | Medicare Advantage from UnitedHealthcare

**Payor Types**

**Nulls / Redacted**

- Neonatology
- Nephrology
- Neurology
- Neurosurgery
- Nuclear Medicine
- Obesity Medicine
- Obstetrics & Gynecology
- Obstetrics Midwife
- Ophthalmology
- Optometry
- Oral & Maxillofacial Surgery
- Orthopedic Surgery

**Provider Specialties**

All entities and individuals discussed are intended as representative examples of common situations. No judgment of their individual claims data practices are being made or implied.

# Why would individual clinicians be listed as the Location for Radiation Therapy?

Flex-Filter 1
Filter by: Sub-Service Line
Filter values: Radiation therapy

Flex-Filter 2
Filter by: Select...
Filter values: -

Flex-Filter 3
Filter by: Select...
Filter values: -

**Paste-In Search Filters**
Paste values from a spreadsheet or from a multi-line document into the filters below

Paste-In Flex-Filter 1
1. Select field: Select...
2. Paste values

Paste-In Flex-Filter 2
1. Select field: Select...
2. Paste values

Exclude Null and Unclassified Service Categories?
(•) Yes

| Data Source | Date Range | Service Location | | Network Flag | |
|---|---|---|---|---|---|
| Procedures | From: 2023-01 | Service Location State: NJ | Primary Service Area: - | Performing Provider: Out-of-Network | |
| | To: 2023-12 | Service Area Region: - | Secondary Service Area: - | Service Location: Out-of-Network | |

* Measures show # of Procedures, unless otherwise stated

DEFINITIVE HEALTHCARE

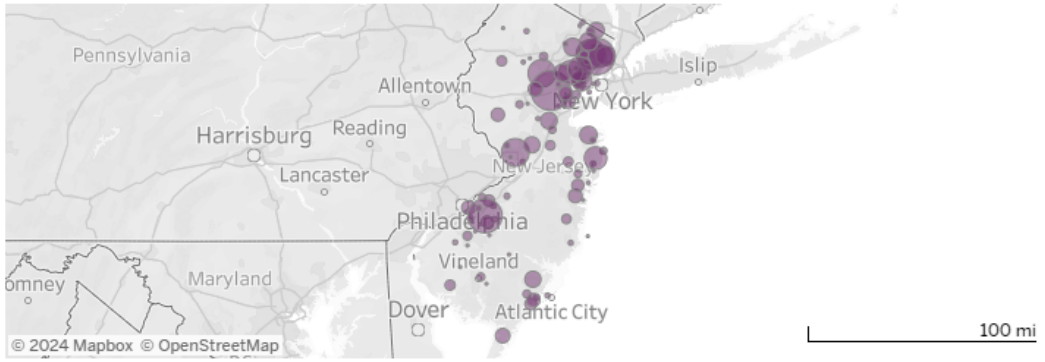
Service Line | **Provider** | Patient | Trend

**355.9K** Procedures
**0.0%** In-Network by Service Location
**0.0%** In-Network by Performing Provider

347 Service Locations
0.0% In-Network

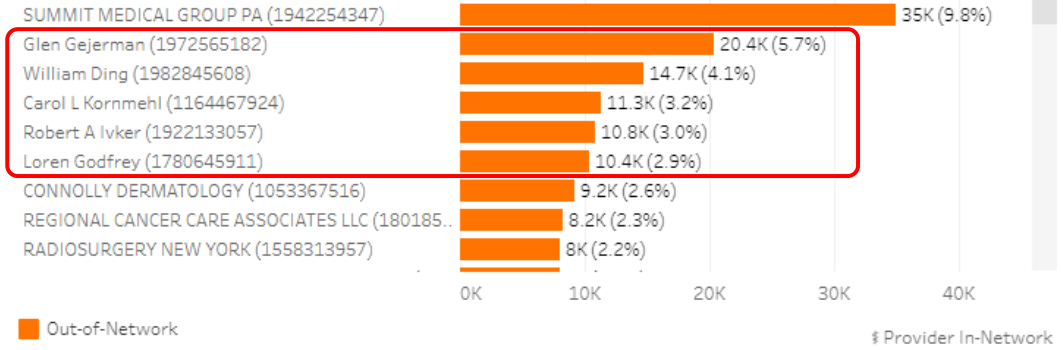
1.1K Performing Providers
0.0% In-Network

## Service Location Zip (Top 100)



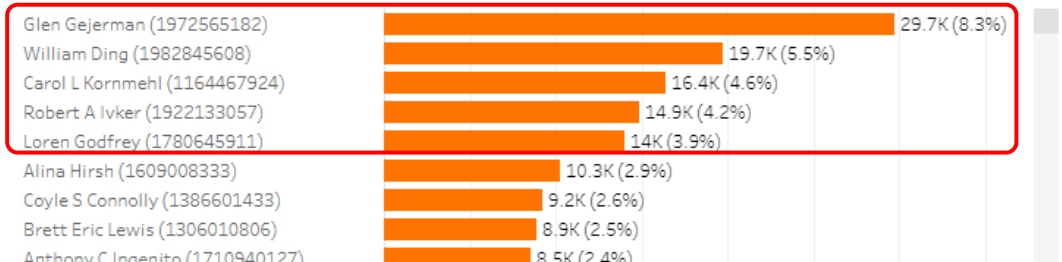

## Service Location

Display: Top 100 | Search



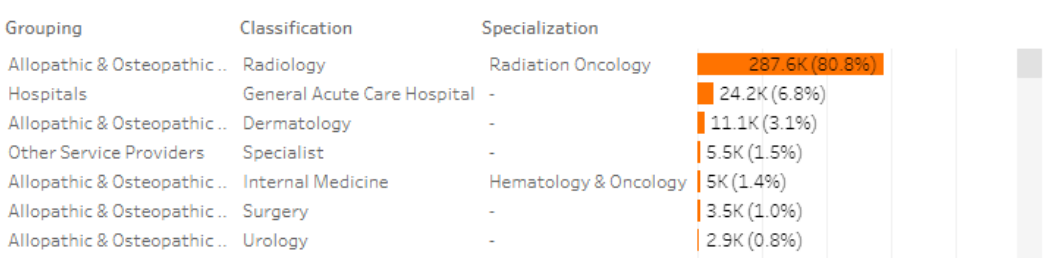

## Performing Provider

Display: Top 100 | Search



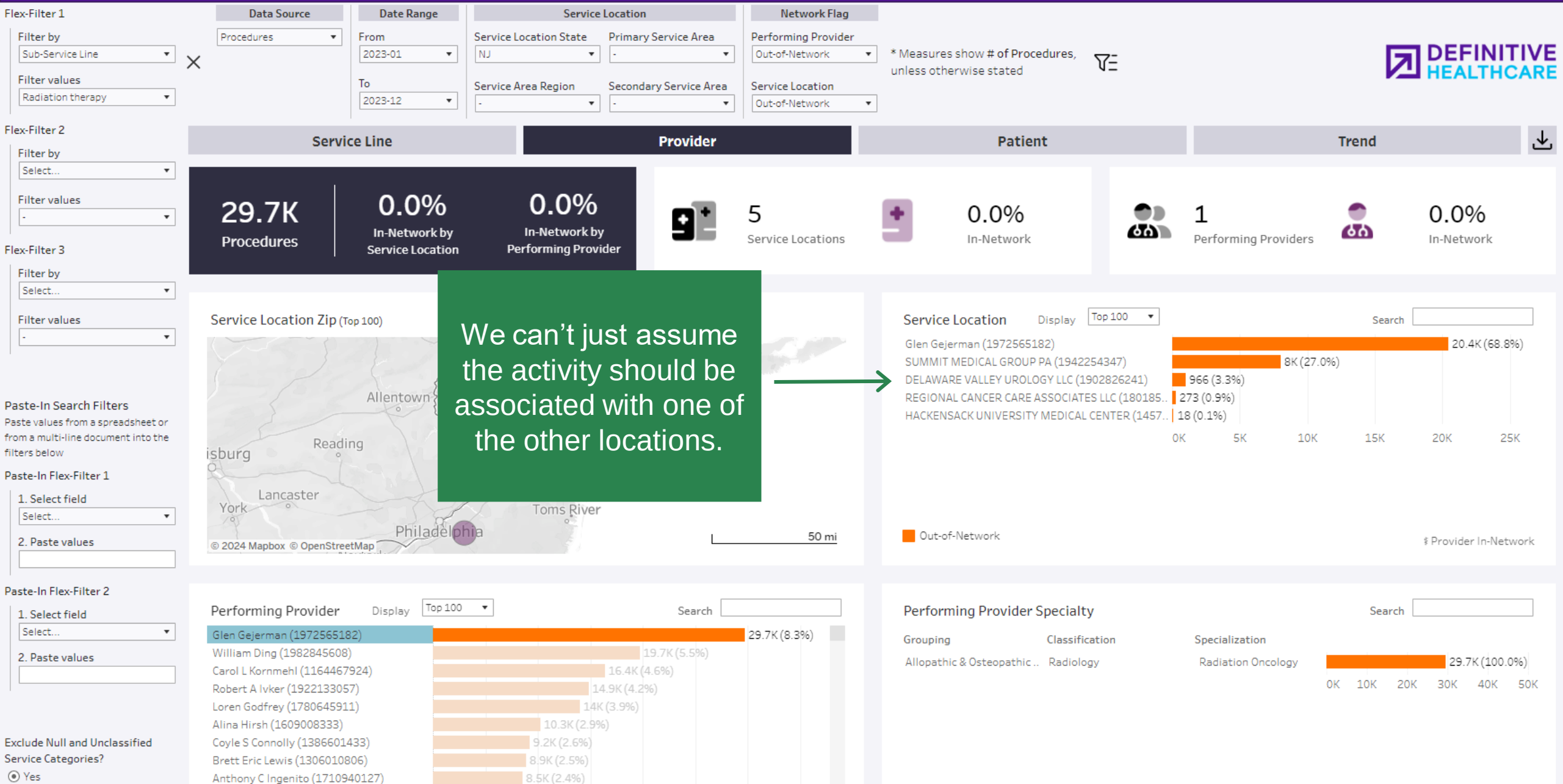

## Performing Provider Specialty

Search

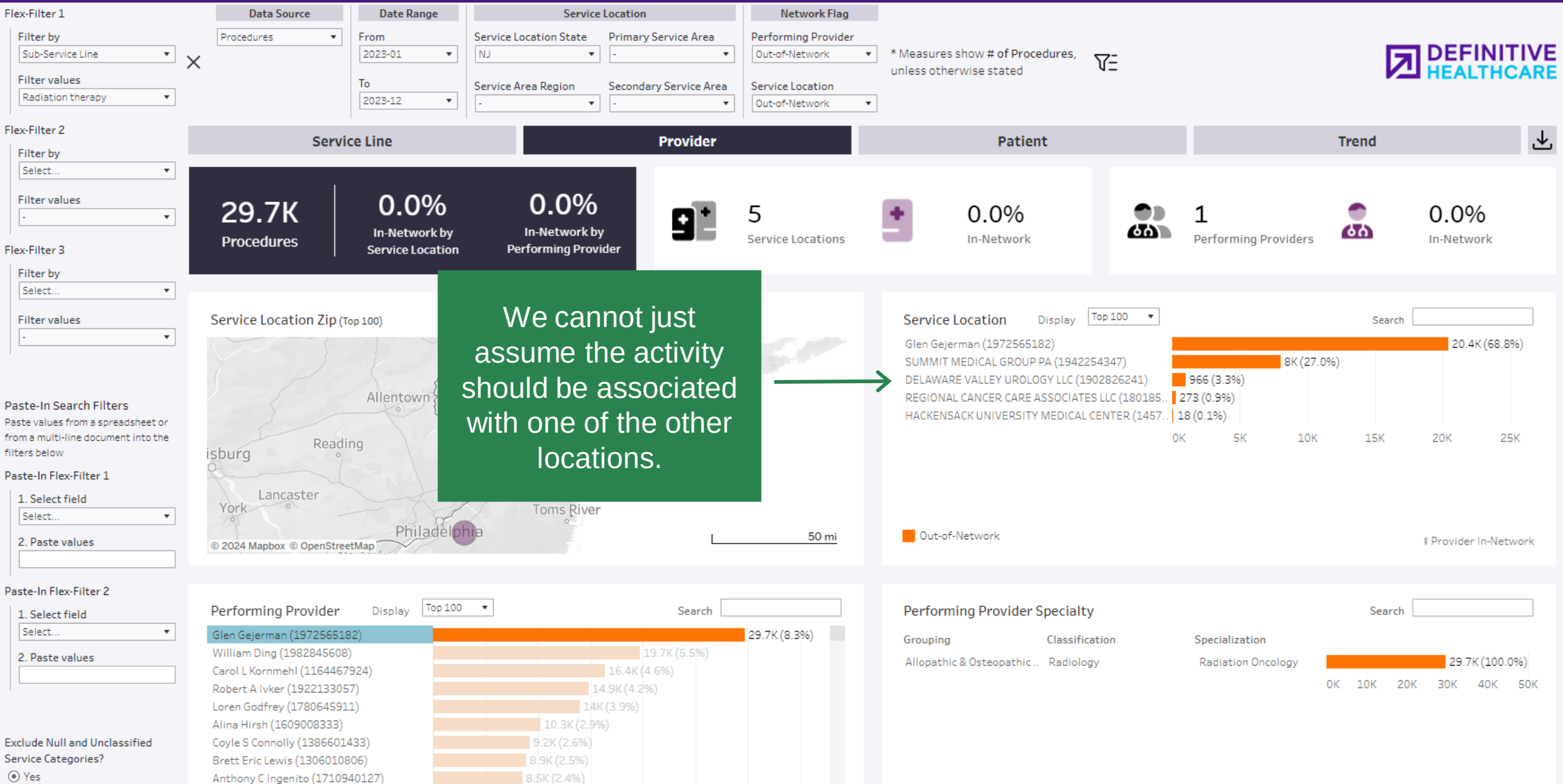


Sometimes, in raw claims, an NPI 1 is in the data field where an NPI 2 is expected.

# This situation is not black and white…



# Underlying data showed Billing NPIs were mixed…



# Dr. Gejerman appears to be part of RCCA in Hackensack, NJ; which had minimal activity in the data.

RCCA
REGIONAL CANCER CARE ASSOCIATES

(844) 301-4158

PATIENT RESOURCES OUR DOCTORS FAQs CONTACT US

CANCER TREATMENT | BLOOD DISORDERS | LOCATIONS | PATIENTS & CAREGIVERS | RESOURCES | FOR PHYSICIANS | REQUEST APPOINTMENT

## GLEN GEJERMAN, MD

**BOARD CERTIFICATIONS:** Radiation Oncology

**LANGUAGES:** English

**LOCATIONS:** Hackensack, NJ

REQUEST AN APPOINTMENT →

# Could Summit Medical Group be billing his work at RCCA? Or is it all Summit-related?

Flex-Filter 1

Filter by: Sub-Service Line

Filter values: Radiation therapy

Flex-Filter 2

Filter by: Select...

Filter values: -

Flex-Filter 3

Filter by: Select...

Filter values: -

Paste-In Search Filters

Paste values from a spreadsheet or from a multi-line document into the filters below

Paste-In Flex-Filter 1

1. Select field: Select...

2. Paste values

Paste-In Flex-Filter 2

1. Select field: Select...

2. Paste values

Exclude Null and Unclassified Service Categories?

(•) Yes

Data Source: Procedures

Date Range: From 2023-01 To 2023-12

Service Location: Service Location State: NJ; Primary Service Area: -; Service Area Region: -; Secondary Service Area: -

Network Flag: Performing Provider: Out-of-Network; Service Location: Out-of-Network

* Measures show # of Procedures, unless otherwise stated

DEFINITIVE HEALTHCARE

Service Line | Provider | Patient | Trend

29.7K Procedures

0.0% In-Network by Service Location

0.0% In-Network by Performing Provider

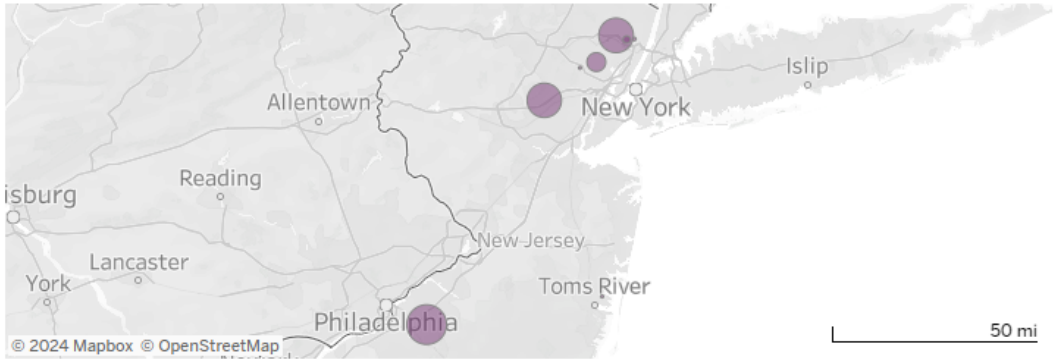
5 Service Locations

0.0% In-Network

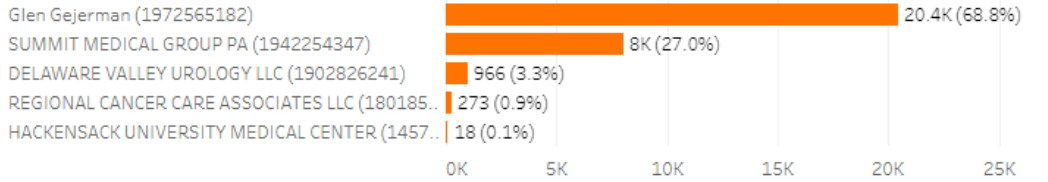
1 Performing Providers

0.0% In-Network

Service Location Zip (Top 100)



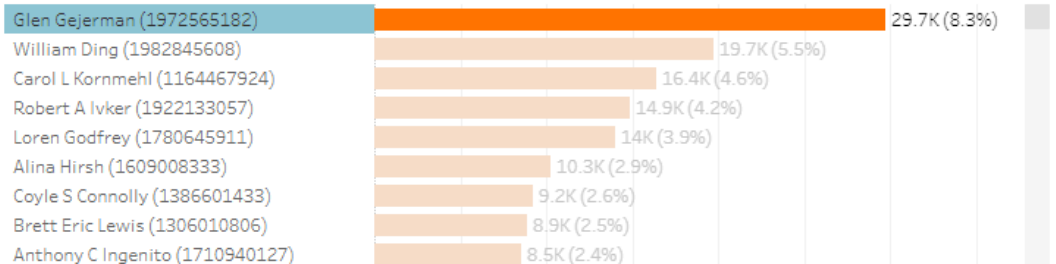

Service Location — Display: Top 100 — Search




Out-of-Network

‡ Provider In-Network

Performing Provider — Display: Top 100 — Search




Performing Provider Specialty — Search

| Grouping | Classification | Specialization | |
|---|---|---|---|
| Allopathic & Osteopathic .. | Radiology | Radiation Oncology | 29.7K (100.0%) |

0K 10K 20K 30K 40K 50K

# The reverse can also be true.

# Locations can be listed where we expect to see clinicians. Here are some Angiography & Venography volumes.

Flex-Filter 1
Filter by: Sub-Service Line
Filter values: Angiography & venography

Flex-Filter 2
Filter by: Select...
Filter values: -

Flex-Filter 3
Filter by: Select...
Filter values: -

Paste-In Search Filters
Paste values from a spreadsheet or from a multi-line document into the filters below

Paste-In Flex-Filter 1
1. Select field: Select...
2. Paste values

Paste-In Flex-Filter 2
1. Select field: Select...
2. Paste values

Exclude Null and Unclassified Service Categories?
(•) Yes

| Data Source | Date Range | Service Location | | Network Flag |
|---|---|---|---|---|
| Procedures | From: 2023-01 | Service Location State: NJ | Primary Service Area: - | Performing Provider: (All) |
| | To: 2023-12 | Service Area Region: - | Secondary Service Area: - | Service Location: (All) |

* Measures show # of Procedures, unless otherwise stated

DEFINITIVE HEALTHCARE

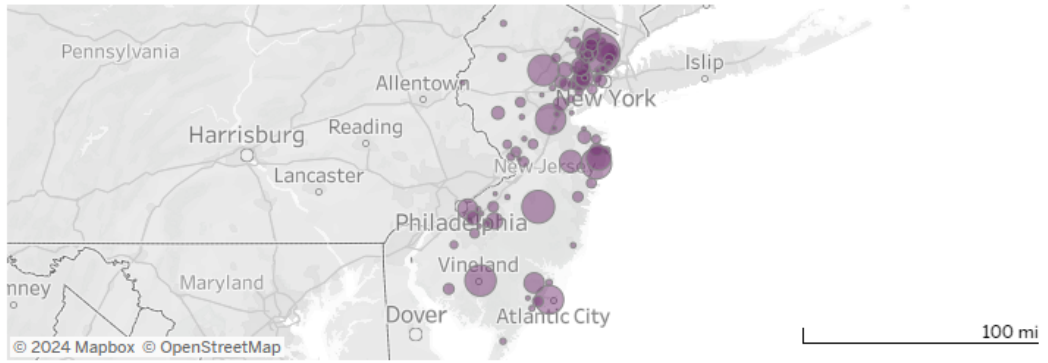
Service Line | Provider | Patient | Trend

**85.4K** Procedures
**0.0%** In-Network by Service Location
**0.0%** In-Network by Performing Provider

842 Service Locations
0.1% In-Network

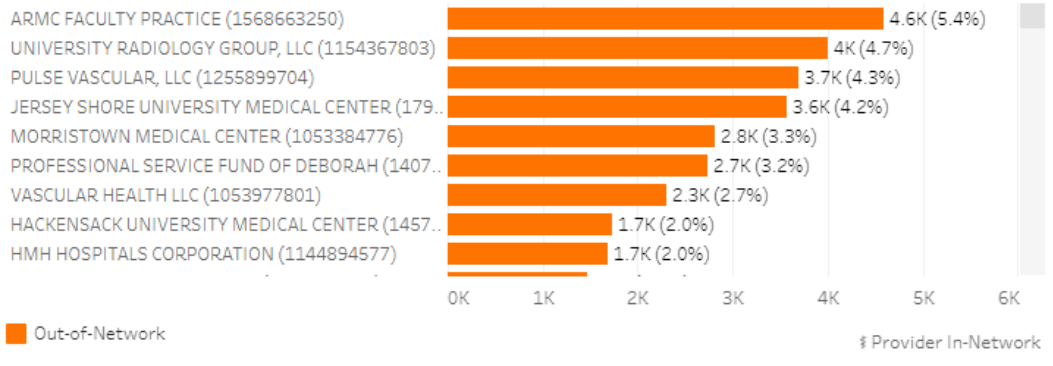
3K Performing Providers
0.0% In-Network

## Service Location Zip (Top 100)



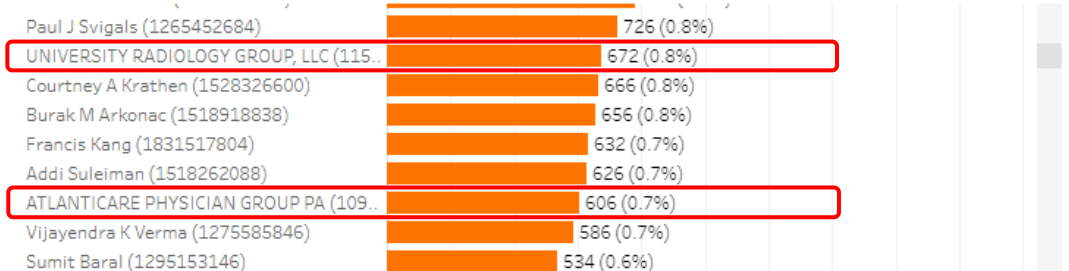

## Service Location

Display: Top 100 | Search




## Performing Provider

Display: Top 100 | Search




## Performing Provider Specialty

Search

| Grouping | Classification | Specialization | |
|---|---|---|---|
| Allopathic & Osteopathic .. | Internal Medicine | Cardiovascular Disease | 22.3K (26.1%) |
| Allopathic & Osteopathic .. | Internal Medicine | Interventional Cardiolo.. | 19.9K (23.4%) |
| Allopathic & Osteopathic .. | Radiology | Vascular & Intervention.. | 8.6K (10.0%) |
| Allopathic & Osteopathic .. | Internal Medicine | - | 7.6K (8.9%) |
| Allopathic & Osteopathic .. | Surgery | Vascular Surgery | 5K (5.9%) |
| Allopathic & Osteopathic .. | Radiology | Diagnostic Radiology | 4.4K (5.1%) |
| Hospitals | General Acute Care Hospital | - | 3.5K (4.1%) |

# So, we know the activity took place, just not who specifically performed it.

Flex-Filter 1

Filter by: Sub-Service Line

Filter values: Angiography & venography

Flex-Filter 2

Filter by: Select...

Filter values: -

Flex-Filter 3

Filter by: Select...

Filter values: -

**Paste-In Search Filters**

Paste values from a spreadsheet or from a multi-line document into the filters below

Paste-In Flex-Filter 1

1. Select field: Select...

2. Paste values

Paste-In Flex-Filter 2

1. Select field: Select...

2. Paste values

Exclude Null and Unclassified Service Categories?

(•) Yes

| Data Source | Date Range | Service Location | | Network Flag |
|---|---|---|---|---|
| Procedures | From: 2023-01 | Service Location State: NJ | Primary Service Area: - | Performing Provider: (All) |
| | To: 2023-12 | Service Area Region: - | Secondary Service Area: - | Service Location: (All) |

* Measures show # of Procedures, unless otherwise stated

DEFINITIVE HEALTHCARE

Service Line | **Provider** | Patient | Trend

**85.4K** Procedures

**0.0%** In-Network by Service Location

**0.0%** In-Network by Performing Provider

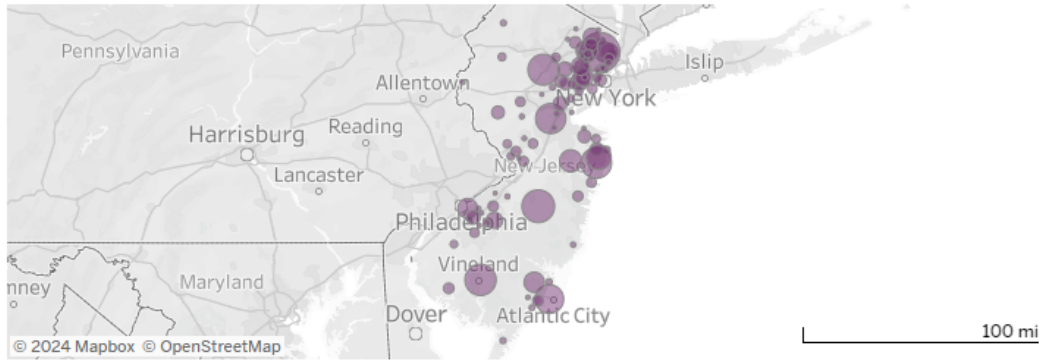
842 Service Locations

0.1% In-Network

3K Performing Providers

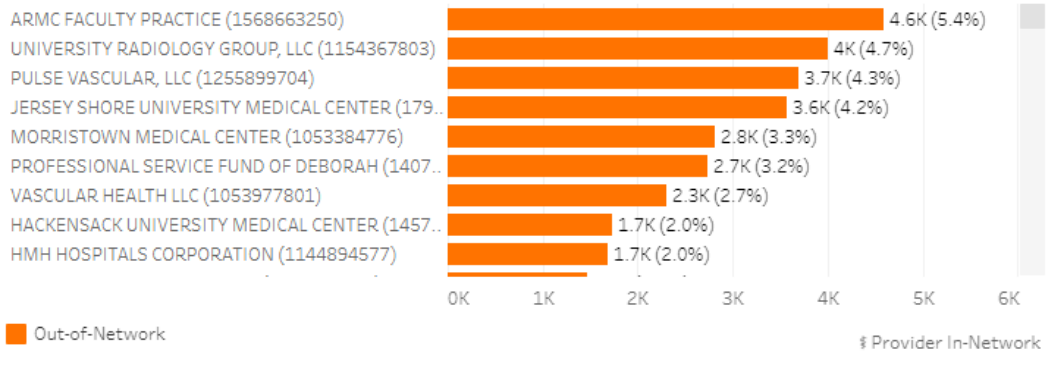
0.0% In-Network

## Service Location Zip (Top 100)



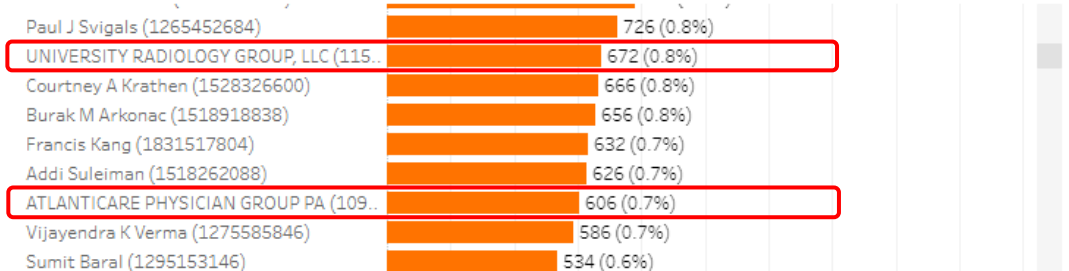

## Service Location

Display: Top 100 | Search




## Performing Provider

Display: Top 100 | Search




## Performing Provider Specialty

Search

| Grouping | Classification | Specialization | |
|---|---|---|---|
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| Allopathic & Osteopathic .. | Internal Medicine | Interventional Cardiolo.. | 19.9K (23.4%) |
| Allopathic & Osteopathic .. | Radiology | Vascular & Intervention.. | 8.6K (10.0%) |
| Allopathic & Osteopathic .. | Internal Medicine | - | 7.6K (8.9%) |
| Allopathic & Osteopathic .. | Surgery | Vascular Surgery | 5K (5.9%) |
| Allopathic & Osteopathic .. | Radiology | Diagnostic Radiology | 4.4K (5.1%) |
| Hospitals | General Acute Care Hospital | - | 3.5K (4.1%) |

# Can a physician assistant or a dentist (!) perform a knee replacement?

# Claims data says it's possible!

Flex-Filter 1

Filter by: Sub-Service Line

Filter values: Arthroplasty, knee

Data Source: Procedures

Date Range: From 2023-01 To 2023-12

Service Location: Service Location State: NJ; Primary Service Area: -; Service Area Region: -; Secondary Service Area: -

Network Flag: Performing Provider: (All); Service Location: Out-of-Network

* Measures show # of Procedures, unless otherwise stated

DEFINITIVE HEALTHCARE

Flex-Filter 2

Filter by: Select...

Filter values: -

Flex-Filter 3

Filter by: Select...

Filter values: -

Service Line | Provider | Patient | Trend

22.8K Procedures

0.0% In-Network by Service Location

0.1% In-Network by Performing Provider

350 Service Locations

0.0% In-Network

867 Performing Providers

0.2% In-Network

Paste-In Search Filters

Paste values from a spreadsheet or from a multi-line document into the filters below

Paste-In Flex-Filter 1

1. Select field: Select...

2. Paste values

Paste-In Flex-Filter 2

1. Select field: Select...

2. Paste values

Exclude Null and Unclassified Service Categories?

(•) Yes

## Performing Provider Specialty

Search

| Grouping | Classification | Specialization | |
|---|---|---|---|
| Allopathic & Osteopathic .. | Orthopaedic Surgery | - | 12K (52.6%) |
| Allopathic & Osteopathic .. | Orthopaedic Surgery | Adult Reconstructive Or.. | 2.4K (10.4%) |
| Physician Assistants & Ad.. | Physician Assistant | - | 2.2K (9.7%) |
| Physician Assistants & Ad.. | Physician Assistant | Surgical | 1.6K (6.8%) |
| Ambulatory Health Care F.. | Clinic/Center | Ambulatory Surgical | 871 (3.8%) |
| Hospitals | General Acute Care Hospital | - | 811 (3.6%) |
| Allopathic & Osteopathic .. | Orthopaedic Surgery | Sports Medicine | 652 (2.9%) |
| Dental Providers | Dentist | Orthodontics and | 640 (2.8%) |
| - | - | - | 500 (2.2%) |

0K 5K 10K 15K 20K

Display: Top 100 Search

AL CENTER (1053384776) 1K (4.4%)
NCETON MEDICAL CENTER (16.. 987 (4.3%)
EDICS OF NEW JERSEY, LLC (1.. 959 (4.2%)
ENTER (1528016656) 849 (3.7%)
NAL MEDICAL CENTER (10139.. 791 (3.5%)
L INC. (1013912633) 723 (3.2%)
RSITY MEDICAL CENTER (1457.. 722 (3.2%)
TER (1477065126) 570 (2.5%)
57432) 538 (2.4%)

0 200 400 600 800 1000 1200

# Provider In-Network

## Performing Provider

Display: Top 100 Search

| | |
|---|---|
| Gregg Klein (1528053642) | 618 (2.7%) |
| - (-) | 500 (2.2%) |
| Harlan Levine (1922001361) | 492 (2.2%) |
| Stephen Peter Kayiaros (1669699542) | 392 (1.7%) |
| Alvin Chua Ong (1992759138) | 363 (1.6%) |
| James W Cahill (1124183694) | 318 (1.4%) |
| David A Harwood (1144225079) | 310 (1.4%) |
| David George Nazarian (1013944859) | 301 (1.3%) |
| Thomas Karoor John (1104021427) | 289 (1.3%) |

## Performing Provider Specialty

Search

| Grouping | Classification | Specialization | |
|---|---|---|---|
| Allopathic & Osteopathic .. | Orthopaedic Surgery | - | 12K (52.6%) |
| Allopathic & Osteopathic .. | Orthopaedic Surgery | Adult Reconstructive Or.. | 2.4K (10.4%) |
| Physician Assistants & Ad.. | Physician Assistant | - | 2.2K (9.7%) |
| Physician Assistants & Ad.. | Physician Assistant | Surgical | 1.6K (6.8%) |
| Ambulatory Health Care F.. | Clinic/Center | Ambulatory Surgical | 871 (3.8%) |
| Hospitals | General Acute Care Hospital | - | 811 (3.6%) |
| Allopathic & Osteopathic .. | Orthopaedic Surgery | Sports Medicine | 652 (2.9%) |
| Dental Providers | Dentist | Orthodontics and | 640 (2.8%) |

There’s a claim field for a provider’s specialty, which can have unexpected information.

# The data shows Penn Medicine Princeton is the culprit, is isolated to this facility.

| 640 | 0.0% | 0.0% |
|---|---|---|
| Procedures | In-Network by Service Location | In-Network by Performing Provider |

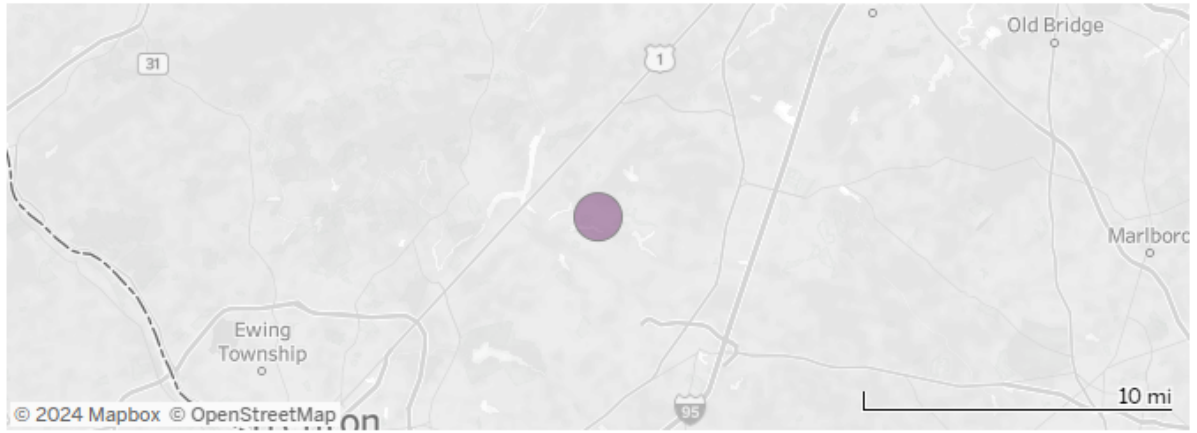
1 Service Locations

0.0% In-Network

9 Performing Providers

0.0% In-Network

## Service Location Zip (Top 100)




## Service Location

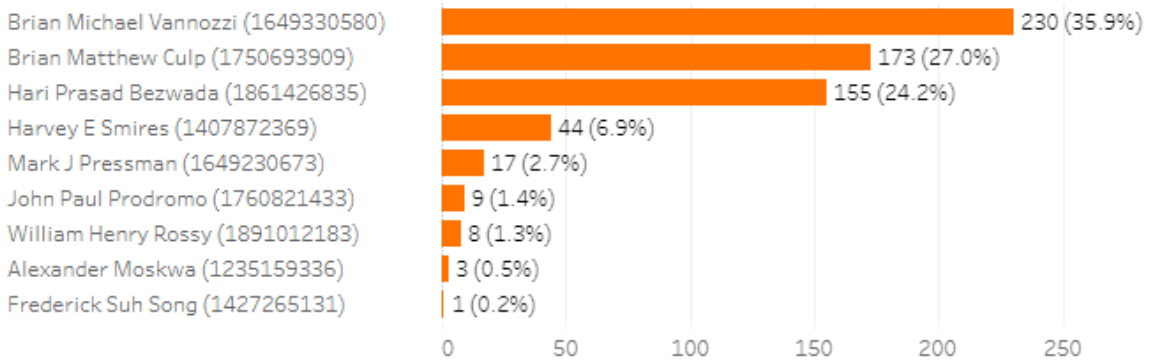
Display: Top 100 | Search

Out-of-Network

Provider In-Network

## Performing Provider

Display: Top 100 | Search




Out-of-Network

Provider In-Network

## Performing Provider Specialty

Search

| Grouping | Classification | Specialization | |
|---|---|---|---|
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| Allopathic & Osteopathic .. | Orthopaedic Surgery | Adult Reconstructive Or.. | 2.4K (10.4%) |
| Physician Assistants & Ad.. | Physician Assistant | - | 2.2K (9.7%) |
| Physician Assistants & Ad.. | Physician Assistant | Surgical | 1.6K (6.8%) |
| Ambulatory Health Care F.. | Clinic/Center | Ambulatory Surgical | 871 (3.8%) |
| Hospitals | General Acute Care Hospital | - | 811 (3.6%) |
| Allopathic & Osteopathic .. | Orthopaedic Surgery | Sports Medicine | 652 (2.9%) |
| Dental Providers | Dentist | Orthodontic | 640 (2.8%) |
| - | - | - | 500 (2.2%) |

0K 10K 20K

# And, despite the *Primary Specialty* being correct, the claim indicated the incorrect specialty.

Flex-Filter 1
Filter by: Sub-Service Line
Filter values: Arthroplasty, knee

Flex-Filter 2
Filter by: Select...
Filter values: -

Flex-Filter 3
Filter by: Select...
Filter values: -

Paste-In Search Filters
Paste values from a spreadsheet or from a multi-line document into the filters below

Paste-In Flex-Filter 1
1. Select field: Select...
2. Paste values

Paste-In Flex-Filter 2
1. Select field: Select...
2. Paste values

Exclude Null and Unclassified Service Categories?
Yes

Data Source: Procedures
Date Range: From 2023-01 To 2023-12
Service Location: Service Location State: NJ; Primary Service Area: -; Service Area Region: -; Secondary Service Area: -
Network Flag: Performing Provider: Out-of-Network; Service Location: Out-of-Network

* Measures show # of Procedures, unless otherwise stated

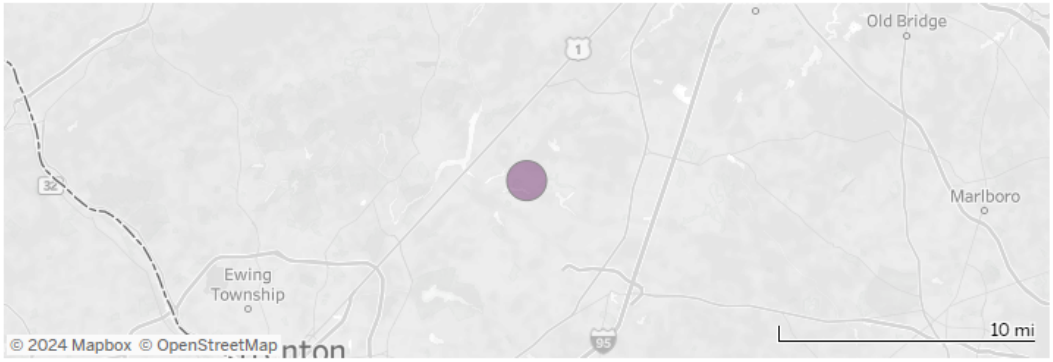
DEFINITIVE HEALTHCARE

Service Line | Provider | Patient | Trend

640 Procedures
0.0% In-Network by Service Location
0.0% In-Network by Performing Provider

1 Service Locations
0.0% In-Network
9 Performing Providers
0.0% In-Network

Service Location Zip (Top 100)




Service Location Display: Top 100 Search
PENN MEDICINE PRINCETON MEDICAL CENTER (16.. 640 (100.0%)
0 100 200 300 400 500 600 700 800

Name: Brian Michael Vannozzi (1649330580)
NPI: 1649330580 (Type 1)
Network Flag: Out-of-Network
Primary Grouping: Allopathic & Osteopathic Physicians
Primary Classification: Orthopaedic Surgery
Primary Specialization: -
# of Procedures: 230

Primary Address:
325 Princeton Ave
Princeton, NJ 085401617
(609) 924-8131

Performing Provider Display: Top 100 Search

| | |
|---|---|
| Brian Michael Vannozzi (1649330580) | 230 (35.9%) |
| Brian Matthew Culp (1750693909) | 173 (27.0%) |
| Hari Prasad Bezwada (1861426835) | 155 (24.2%) |
| Harvey E Smires (1407872369) | 44 (6.9%) |
| Mark J Pressman (1649230673) | 17 (2.7%) |
| John Paul Prodromo (1760821433) | 9 (1.4%) |
| William Henry Rossy (1891012183) | 8 (1.3%) |
| Alexander Moskwa (1235159336) | 3 (0.5%) |
| Frederick Suh Song (1427265131) | 1 (0.2%) |

Search
12K (52.6%)
2.4K (10.4%)
2.2K (9.7%)
.6K (6.8%)
1 (3.8%)
811 (3.6%)
652 (2.9%)

Hospitals | General Acute Care Hospital | -
Allopathic & Osteopathic .. | Orthopaedic Surgery | Sports Medicine

‡ Provider In-Network

Importantly, sometimes the claim is more ‘right’ than a provider's primary specialty.

# It isn't a 1:1 situation, based on the distribution of specialties listed for the Penn Medicine location.

| 987 | 0.0% | 0.0% |
|---|---|---|
| Procedures | In-Network by Service Location | In-Network by Performing Provider |

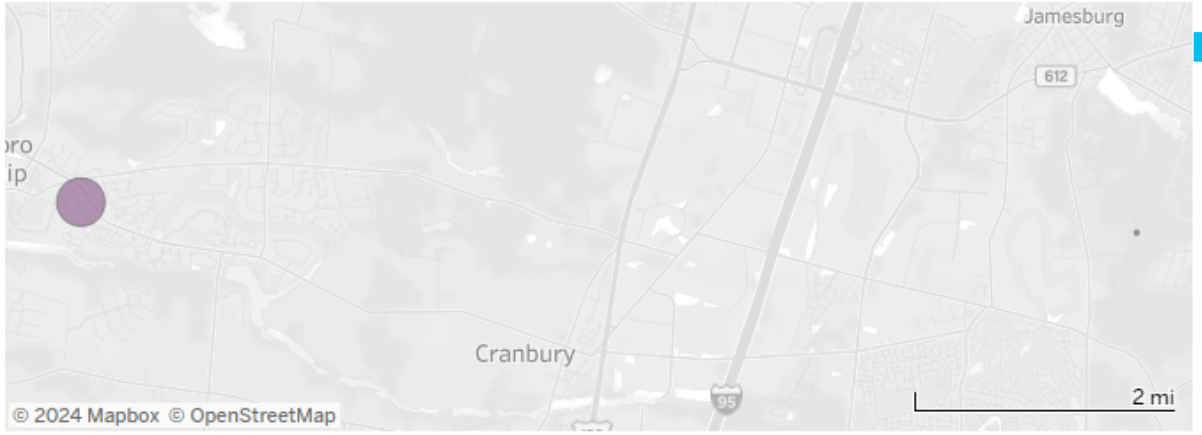
1 Service Locations

0.0% In-Network

40 Performing Providers

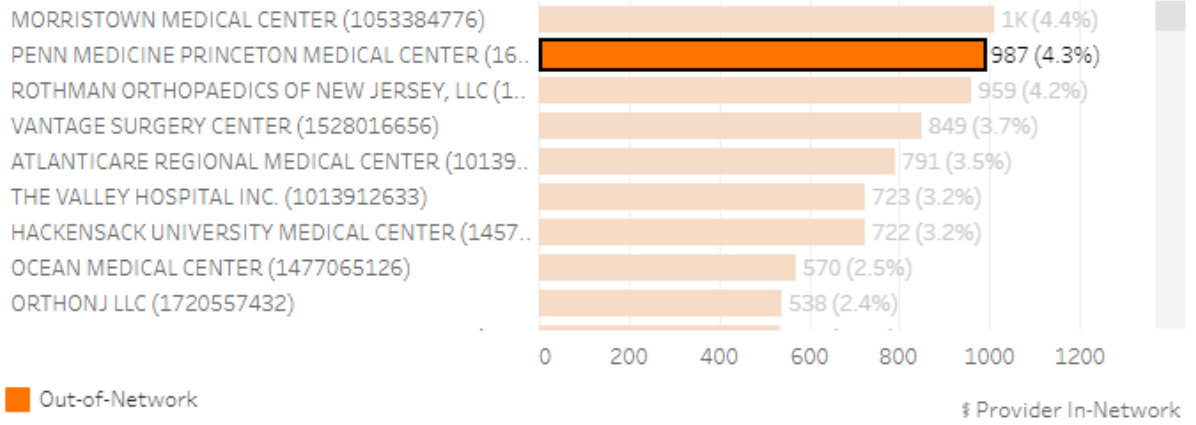
0.0% In-Network

## Service Location Zip (Top 100)



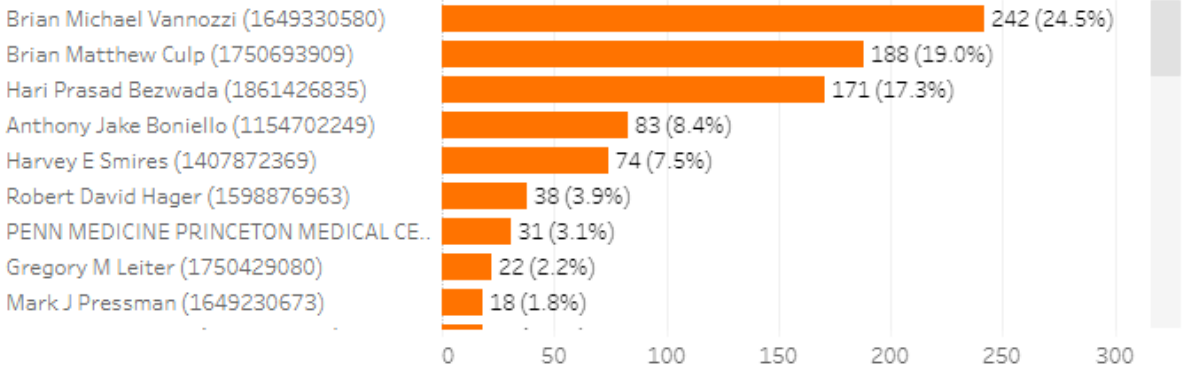

## Service Location

Display: Top 100 | Search




## Performing Provider

Display: Top 100 | Search




## Performing Provider Specialty

Search

| Grouping | Classification | Specialization | |
|---|---|---|---|
| Dental Providers | Dentist | Orthodontics and | 640 (64.8%) |
| Allopathic & Osteopathic .. | Orthopaedic Surgery | - | 162 (16.4%) |
| Allopathic & Osteopathic .. | Internal Medicine | - | 103 (10.4%) |
| Physician Assistants & Ad.. | Physician Assistant | - | 46 (4.7%) |
| Hospitals | General Acute Care Hospital | - | 31 (3.1%) |
| Allopathic & Osteopathic .. | Internal Medicine | Obesity Medicine | 3 (0.3%) |
| Nursing Service Providers | Registered Nurse | Cardiac Rehabilitation | 2 (0.2%) |

0 500 1000

# If we'd limited our analysis to just the Orthopedic Surgery specialty, we might have missed substantive volumes.

Flex-Filter 1
Filter by: Sub-Service Line
Filter values: Arthroplasty, knee

Flex-Filter 2
Filter by: Select...
Filter values: -

Flex-Filter 3
Filter by: Select...
Filter values: -

Paste-In Search Filters
Paste values from a spreadsheet or from a multi-line document into the filters below

Paste-In Flex-Filter 1
1. Select field: Select...
2. Paste values

Paste-In Flex-Filter 2
1. Select field: Select...
2. Paste values

Exclude Null and Unclassified Service Categories?
(•) Yes

| Data Source | Date Range | Service Location | | Network Flag | |
|---|---|---|---|---|---|
| Procedures | From: 2023-01 | Service Location State: NJ | Primary Service Area: - | Performing Provider: (All) | |
| | To: 2023-12 | Service Area Region: - | Secondary Service Area: - | Service Location: Out-of-Network | |

* Measures show # of Procedures, unless otherwise stated

DEFINITIVE HEALTHCARE

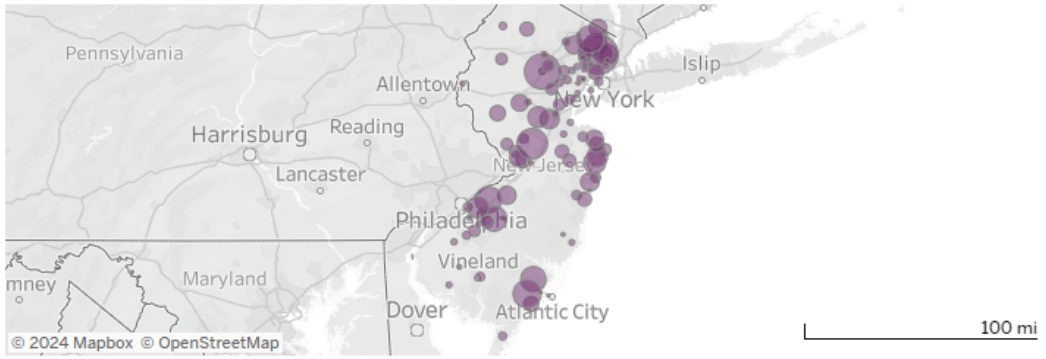
Service Line | **Provider** | Patient | Trend

**22.8K** Procedures
**0.0%** In-Network by Service Location
**0.1%** In-Network by Performing Provider

350 Service Locations
0.0% In-Network

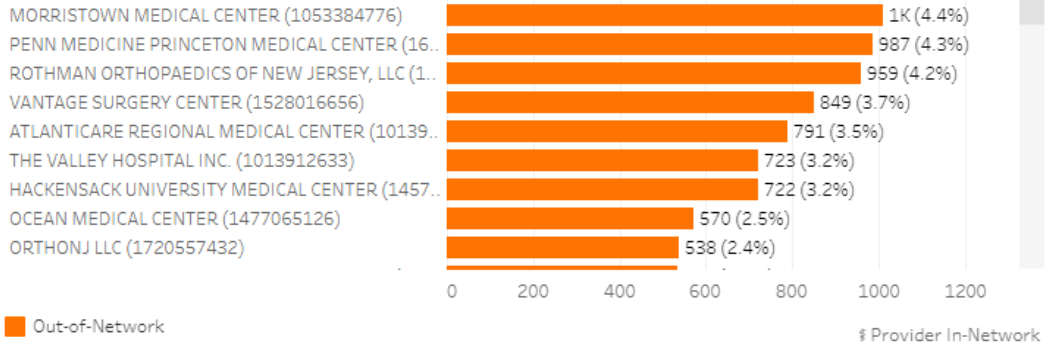
867 Performing Providers
0.2% In-Network

## Service Location Zip (Top 100)



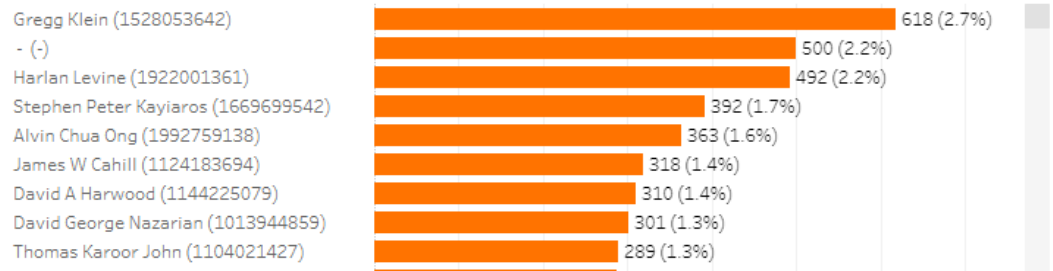

## Service Location

Display: Top 100 | Search




## Performing Provider

Display: Top 100 | Search




## Performing Provider Specialty

Search

# Recommendation #2:

Always start broader market analyses with specific procedures or service lines, before any provider specialty filters.

# Master billing is a challenge for everyone...

# A good example is University Radiology in New Jersey

## Imaging Center Locations

- Bedminster
- Bridgewater
- Cherry Hill
- East Brunswick
- Edison
- Elizabeth
- Freehold
- Hillsborough (Rte. 206)
- Lacey
- Linden
- Maplewood
- Metuchen
- Monroe
- Moorestown
- Neptune
- New Brunswick
- Nutley
- Oakhurst
- Point Pleasant
- Somerset
- Teaneck
- Tinton Falls
- Wall
- Warren

&

## Hospitals

- Bergen New Bridge Medical Center
- Hunterdon Healthcare
- Jersey City Medical Center
- Jersey Shore University Medical Center
- Monmouth Medical Center
- Monmouth Medical Center Southern Campus
- Raritan Bay Medical Center - Old Bridge Division
- Raritan Bay Medical Center - Perth Amboy Division
- RWJBarnabas Health - New Brunswick
- RWJBarnabas Health - Somerset
- St. Peter's University Hospital
- Trinitas Regional Medical Center

# The overall available data for them is very solid…

Data Source: Procedures | Date Range: From 2023-01 To 2023-12 | Service Location: Service Location State NJ; Primary Service Area -; Service Area Region -; Secondary Service Area - | Network Flag: Performing Provider (All); Service Location (All)

* Measures show # of Procedures, unless otherwise stated

DEFINITIVE HEALTHCARE

Service Line | **Provider** | Patient | Trend

**10.4M** Procedures

**0.0%** In-Network by Service Location

**0.1%** In-Network by Performing Provider

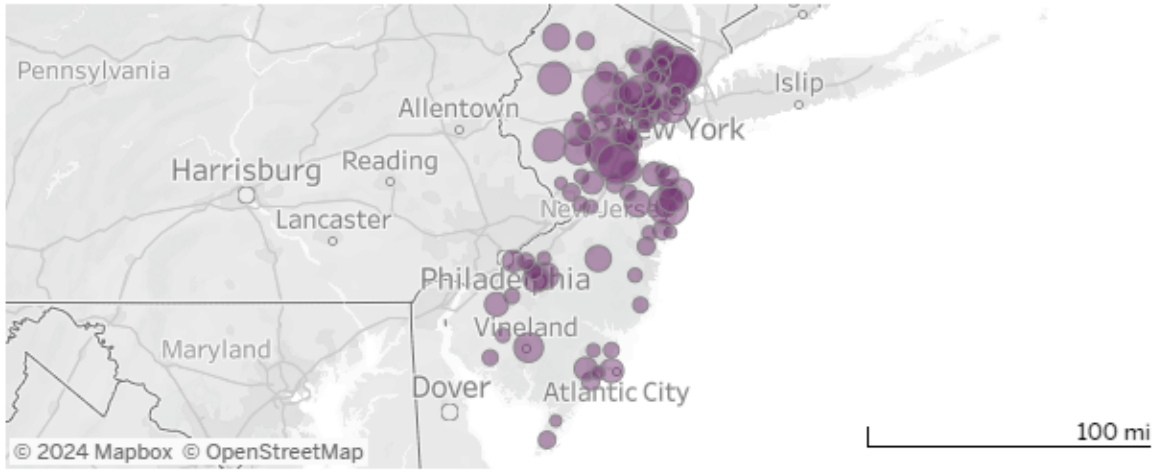
**12.7K** Service Locations

**0.0%** In-Network

**35.1K** Performing Providers

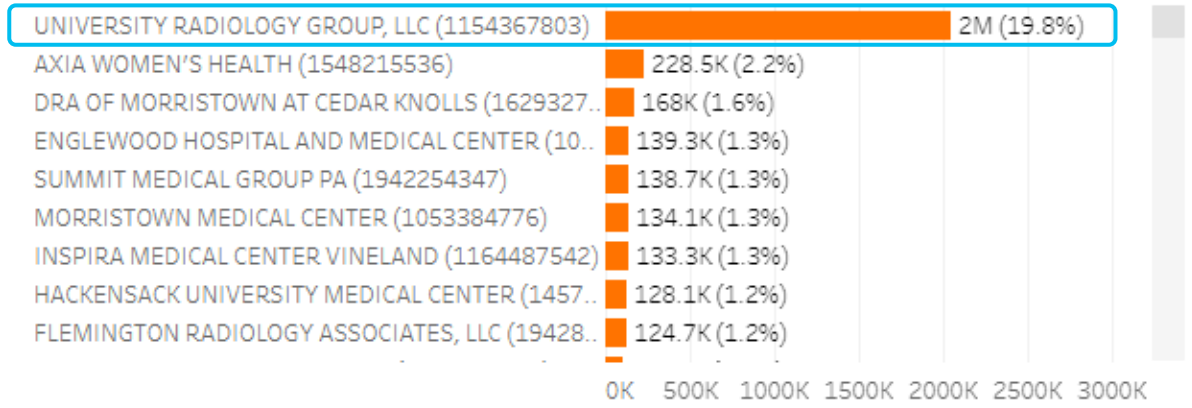
**0.1%** In-Network

## Service Location Zip (Top 100)

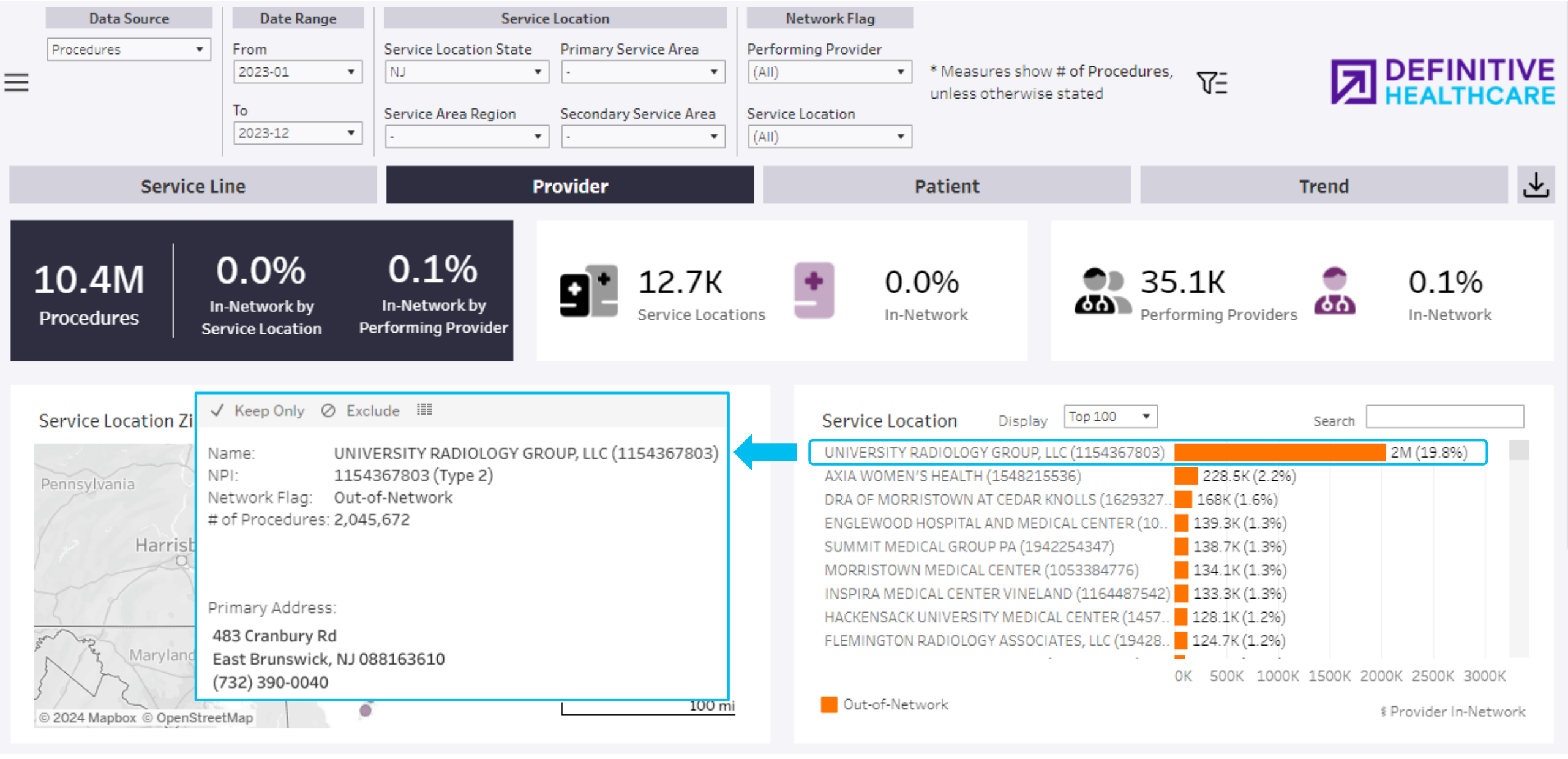



## Service Location

Display: Top 100 | Search



# But specific sub-location detail is missing due to their master billing.



# To overcome this, sometimes claims data contains sub-location detail by Zip 5, but it is often inconsistent.

| Billing Entity | Service Location | Registered Zip | Claim Zip | Year | | | Grand Total |
|---|---|---|---|---|---|---|---|
| | | | | 2020 | 2021 | 2022 | |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08816 | 379,232 | 474,445 | 604,731 | 1,458,408 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08901 | 122,979 | 139,792 | 150,063 | 412,834 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 07753 | 82,931 | 96,561 | 101,324 | 280,816 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 07302 | 59,195 | 64,716 | 71,207 | 195,118 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08873 | 45,190 | 54,241 | 58,795 | 158,226 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08840 | 63,543 | 42,702 | 48,689 | 154,934 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 07208 | 37,101 | 42,029 | 47,913 | 127,043 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08876 | 1,602 | 61,301 | 59,143 | 122,046 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08831 | 26,788 | 32,497 | 34,867 | 94,152 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 07059 | 27,494 | 31,593 | 33,115 | 92,202 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08820 | 24,310 | 32,188 | 34,309 | 90,807 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08807 | 22,821 | 29,333 | 33,243 | 85,397 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08863 | 24,799 | 28,902 | 30,019 | 83,720 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08857 | 22,879 | 27,399 | 31,087 | 81,365 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 07740 | 1,740 | 36,994 | 36,987 | 75,721 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 07102 | 29,087 | 31,244 | 9,280 | 69,611 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 07666 | 18,840 | 23,843 | 23,643 | 66,326 |
| UNIVERSITY RADIOLOGY GROUP, LLC | UNIVERSITY RADIOLOGY GROUP, LLC | 08816 | 08731 | 15,479 | 20,594 | 22,382 | 58,455 |

Vast majority of data tied to main Registered Primary Location Zip code

# Another version of master billing is one NPI 2 used for many different types of locations.

**53 Locations!**

**1093090342**

**SANFORD MEDICAL CENTER**

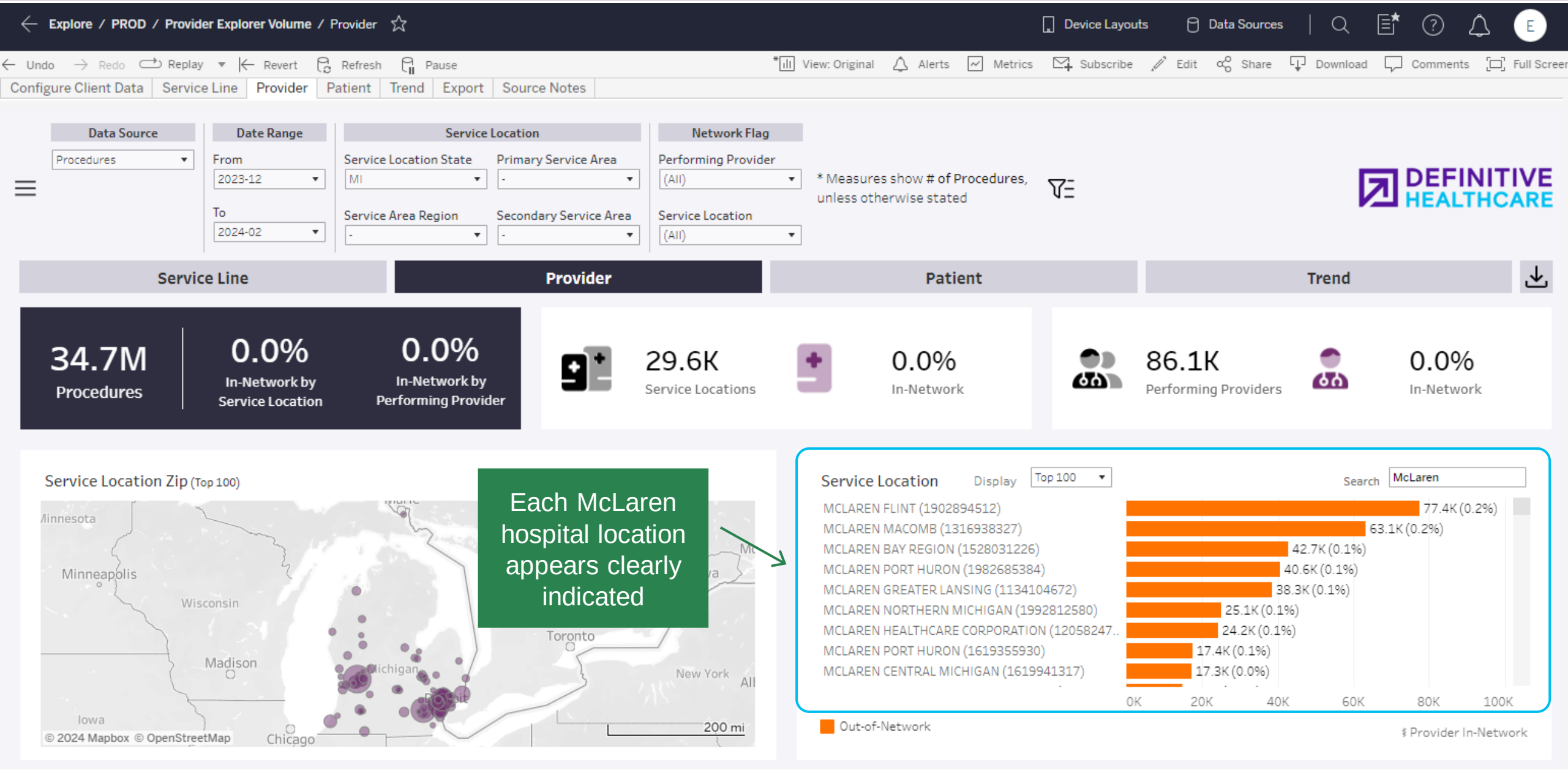
This will overstate Sanford Medical Center activity ***AND*** Make the individual locations' data less clear

**Doing Business As:**

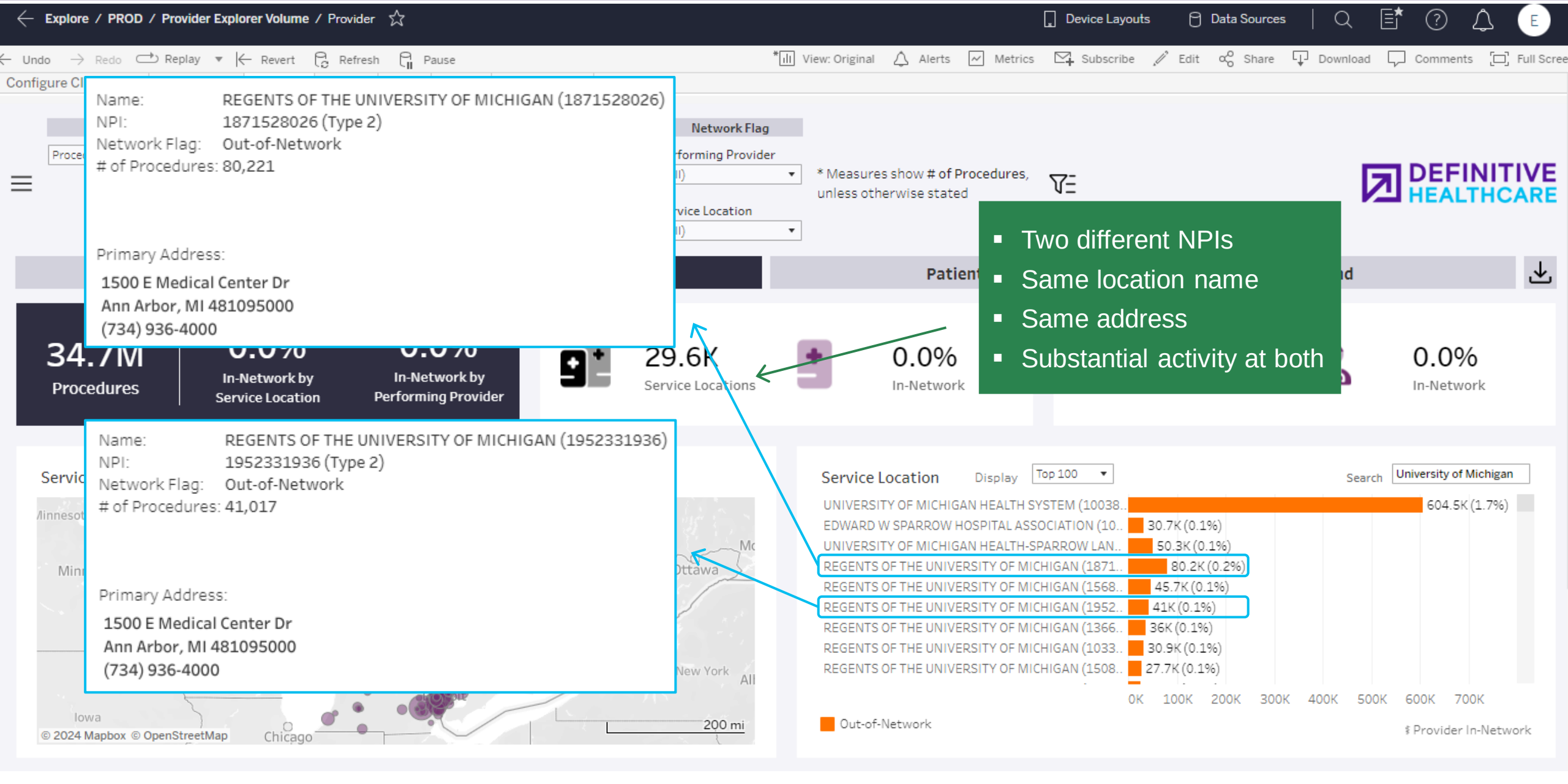
| | |
|---|---|
| SANFORD DERMATOLOGY CLINIC | SANFORD 32ND & ELLIS FAMILY MEDICINE CLINIC |
| SANFORD CHILDREN'S 32ND & ELLIS CLINIC | SANFORD MATERNAL FETAL MEDICINE CLINIC |
| SANFORD USD MEDICAL CENTER | SANFORD 26TH AND SYCAMORE FAMILY MEDICINE |
| SANFORD INFECTIOUS DISEASE CLINIC | SANFORD NEUROLOGY CLINIC |
| SANFORD INTERNAL MEDICINE CLINIC | SANFORD EYE CENTER & OPTICAL |
| SANFORD CHILDREN'S 69TH & LOUISE CLINIC | SANFORD RHEUMATOLOGY CLINIC |
| SANFORD PHYSICAL MEDICINE AND REHABILITATION | SANFORD HARRISBURG CLINIC |
| SANFORD 69TH & MINNESOTA FAMILY MEDICINE | SANFORD EAR NOSE & THROAT CLINIC |
| SANFORD OBSTETRICS & GYNECOLOGY 32ND & ELLIS CLINIC | SANFORD CHILDREN'S 26TH & SYCAMORE CLINIC |
| SANFORD CHILDREN'S RESIDENCY CLINIC | SANFORD CLINIC ALLERGY AND IMMUNOLOGY |
| SANFORD ACUTE CARE SPORTS COMPLEX CLINIC | SANFORD FEMALE PELVIC MEDICINE AND RECONSTRUCTIVE SURGERY CLINIC |
| SANFORD DIABETES AND THYROID CLINIC | SANFORD HEALTH FERTILITY & REPRODUCTIVE CLINIC |
| SANFORD GASTROENTEROLOGY CLINIC | SANFORD BRANDON FAMILY MEDICINE |
| SANFORD NEUROSURGERY AND SPINE CLINIC | SANFORD PULMONARY MEDICINE CLINIC |
| SANFORD VASCULAR ASSOCIATES | SANFORD EDITH SANFORD BREAST CENTER |
| SANFORD WOMEN'S PRIMARY CARE CLINIC | SANFORD GYNECOLOGIC ONCOLOGY CLINIC |
| SANFORD MOLECULAR IMAGING CLINIC | SANFORD USD 34TH & KIWANIS FAMILY MEDICINE CLINIC |
| SANFORD ORTHOPEDICS & SPORTS MEDICINE | SANFORD ACUTE CARE 26TH & SYCAMORE CLINIC |
| SANFORD USD MEDICAL CENTER-CRNA/ED | SANFORD 69TH & LOUISE FAMILY MEDICINE |
| SANFORD ACUTE CARE 69TH & MINNESOTA CLINIC | SANFORD CARDIOVASCULAR INSTITUTE |
| SANFORD 4TH AND SYCAMORE FAMILY MEDICINE | SANFORD CHILDREN'S CLINIC SANFORD USD MEDICAL CENTER MB2 |
| EDITH SANFORD BREAST SPECIALTY CLINIC | SANFORD HEALTH EDITH SANFORD BREAST CENTER BRIDGES |
| SANFORD CHILDREN'S SPECIALTY CLINIC | SANFORD 49TH AND OXBOW FAMILY MEDICINE |
| SANFORD SURGICAL ASSOCIATES | SANFORD NEPHROLOGY CLINIC |
| SANFORD OBSTETRICS AND GYNECOLOGY CLINIC | SANFORD HEALTH PSYCHIATRY & PSYCHOLOGY CLINIC |
| SANFORD ACUTE CARE 32ND & ELLIS CLINIC | |

# Location names may be even more challenging…

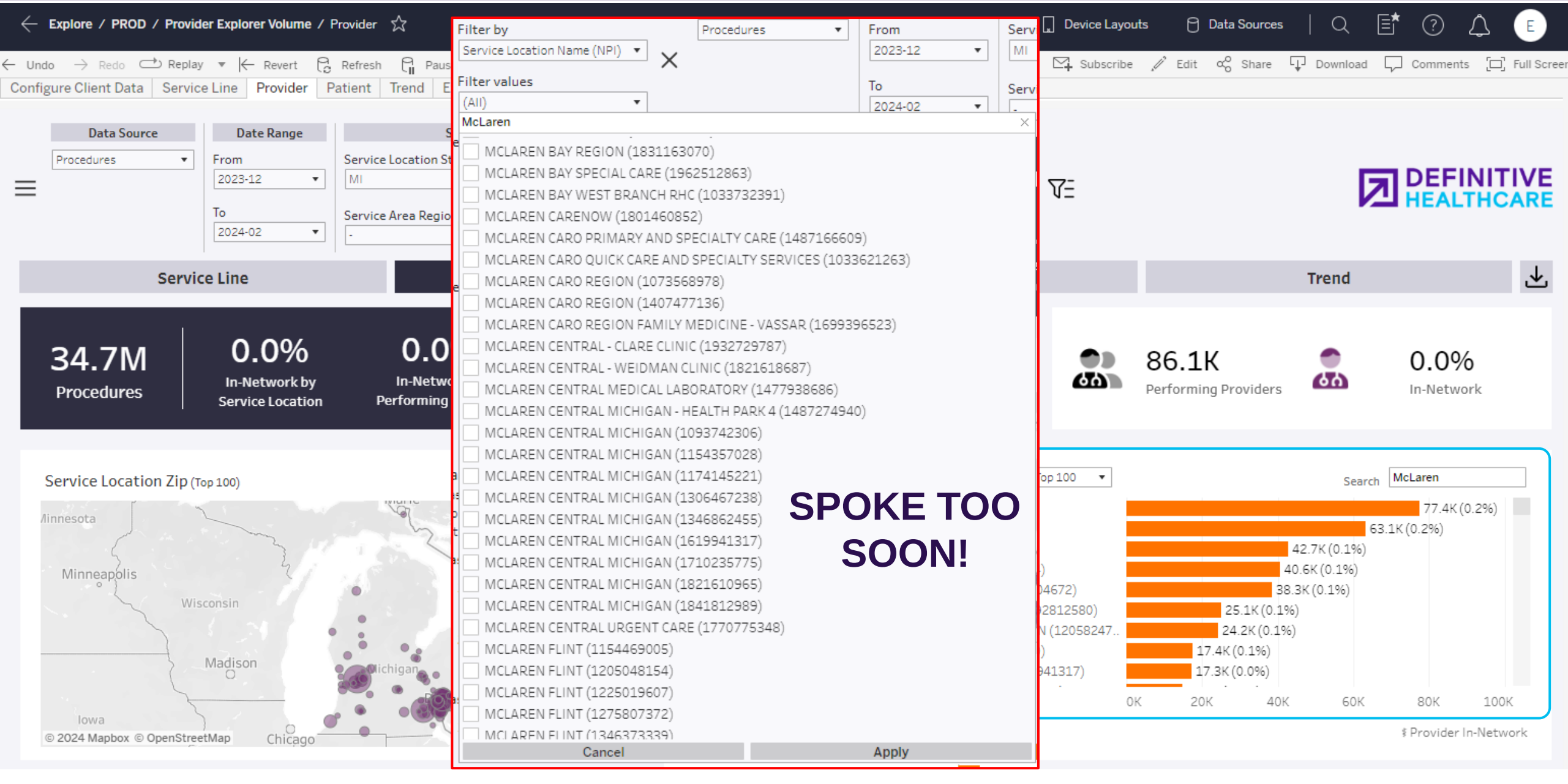
# When NPPES registrations are location specific, they are great…



# But often they are not…

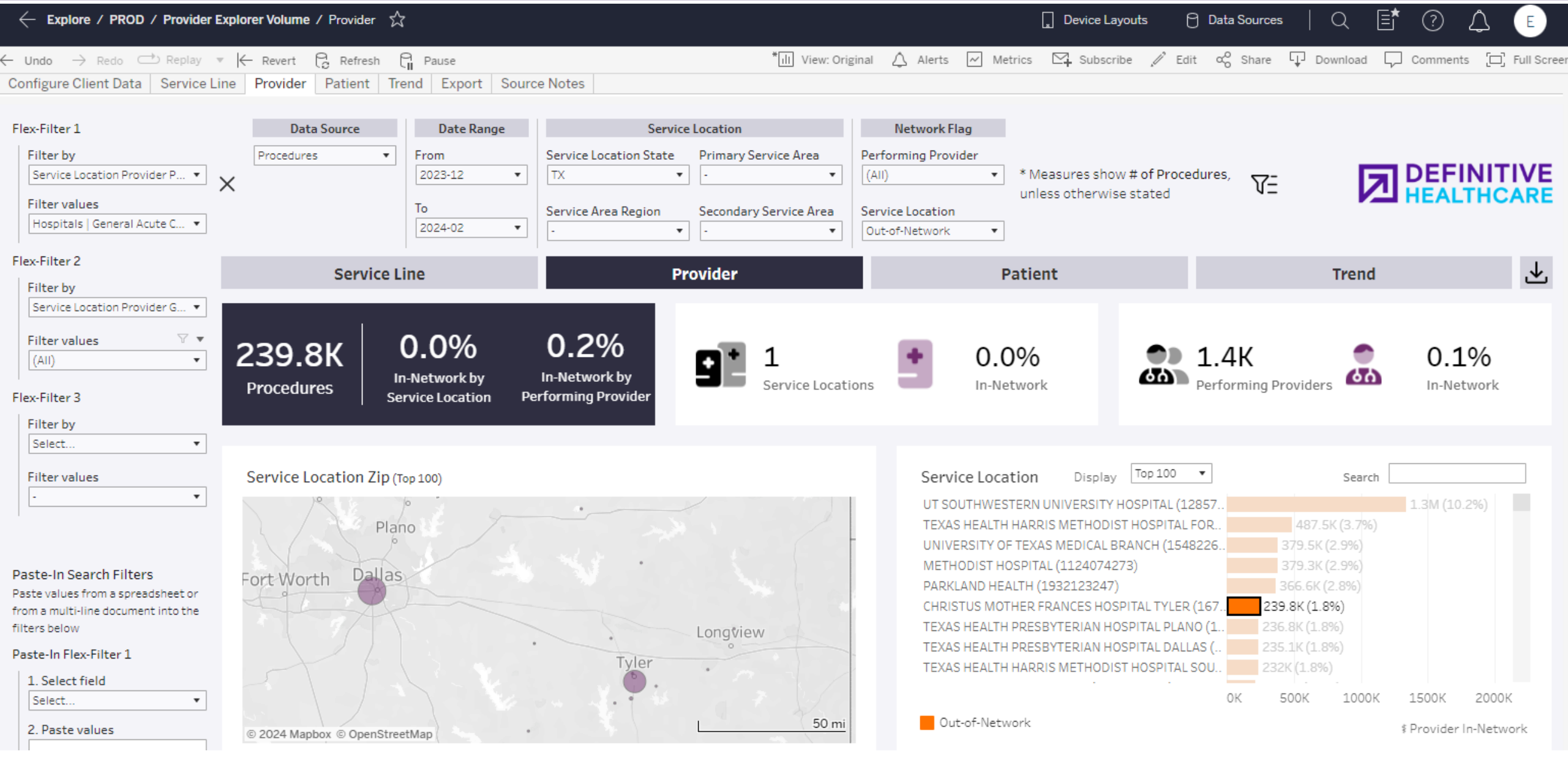


# ~~Bottom line: When NPPES registrations are location specific they are great…~~

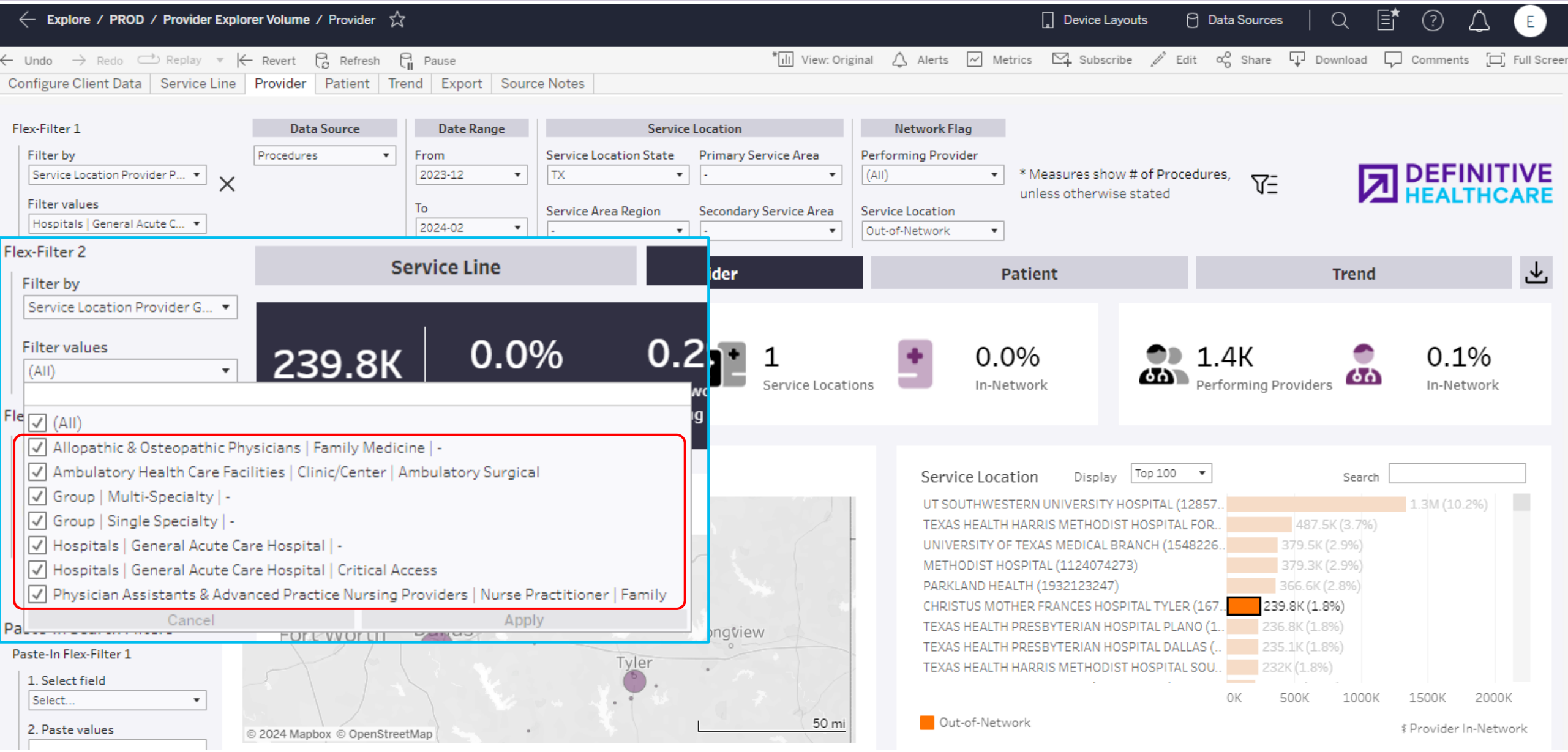


# Location types may also confuse…

# Christus Mother Frances Hospital Tyler is a General Acute Care Hospital…

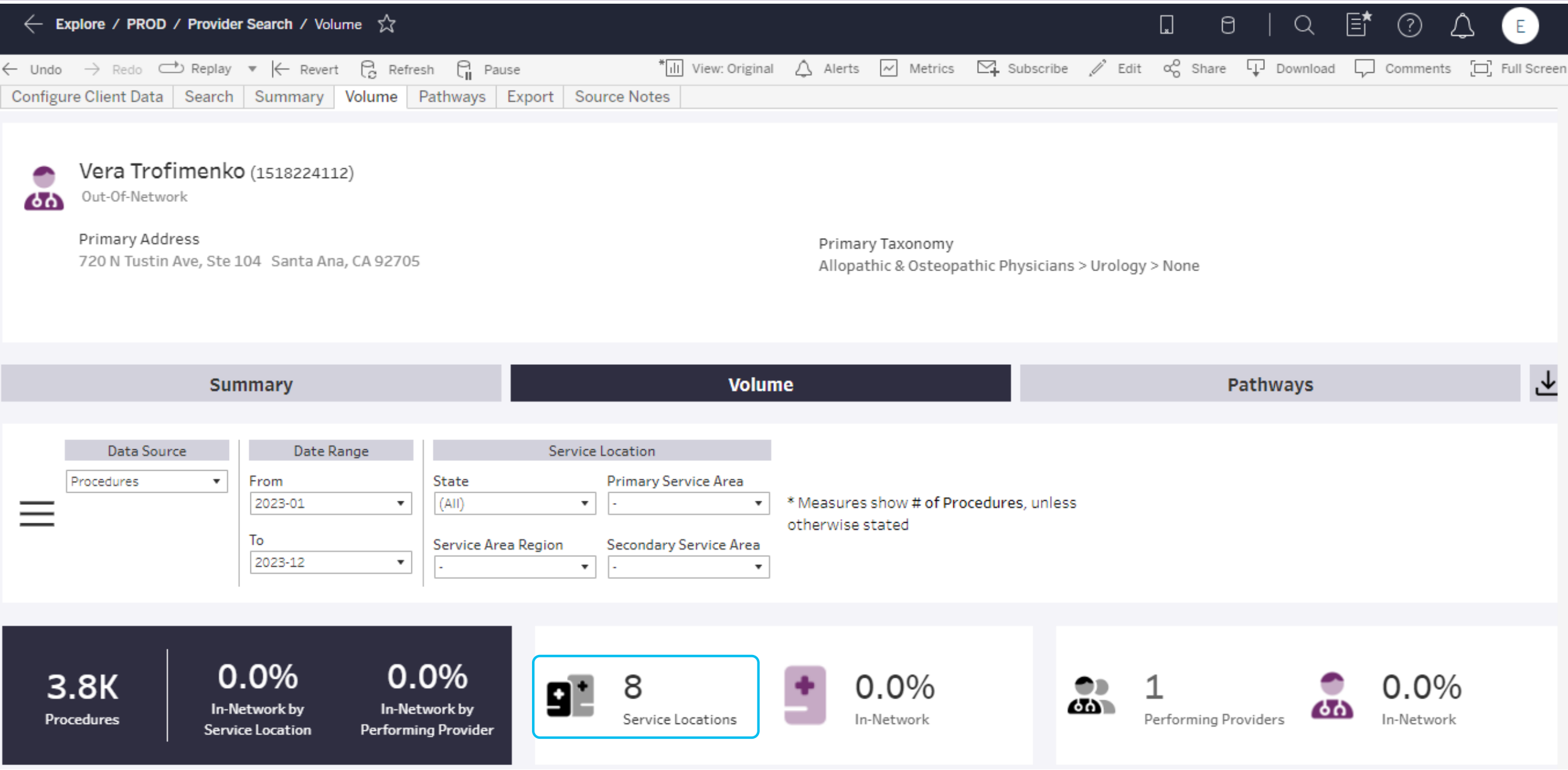


# But in their claims data they have a personality disorder!



Even knowing where a specific provider performs their activity can be difficult…

# Let's look at this Urologist in California...



# The majority of her activity, according to claims, occurs at “Lamia L. Gabal, MD, Inc.”

| 3.8K | 0.0% | 0.0% |
|---|---|---|
| Procedures | In-Network by Service Location | In-Network by Performing Provider |

8 Service Locations

0.0% In-Network

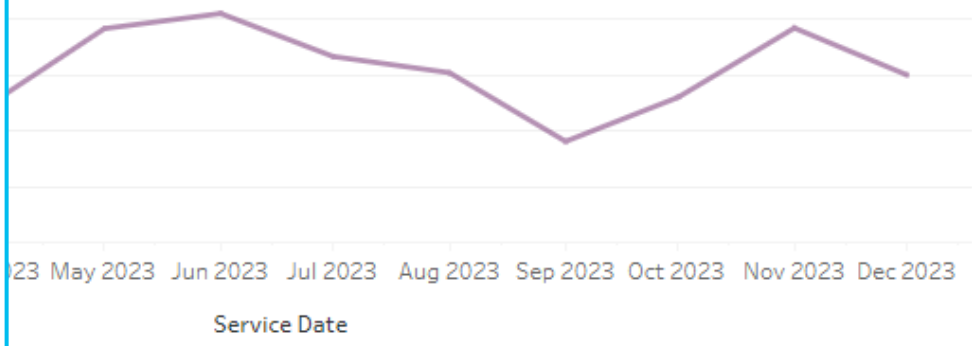
1 Performing Providers

0.0% In-Network

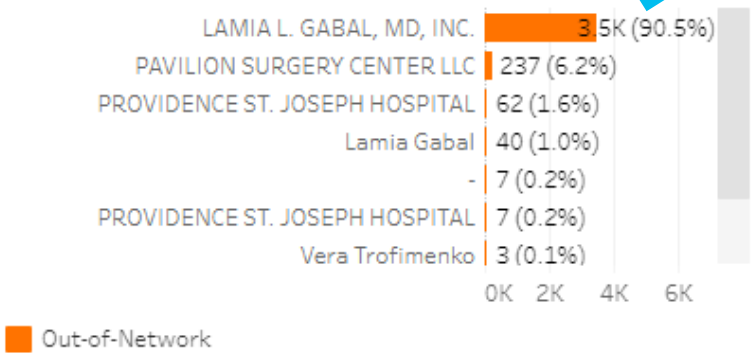
## Service Location Zip

Name: LAMIA L. GABAL, MD, INC.
NPI: 1801000542 (Type Type 2)
Network Flag: Out-of-Network
Primary Grouping: Allopathic & Osteopathic Physicians
Primary Classification: Urology
Primary Specialization: Pediatric Urology
# of Procedures: 3,451 (90.5%)

Primary Address
720 N Tustin Ave, # 140
Santa Ana, CA 927053606
(949) 825-7650

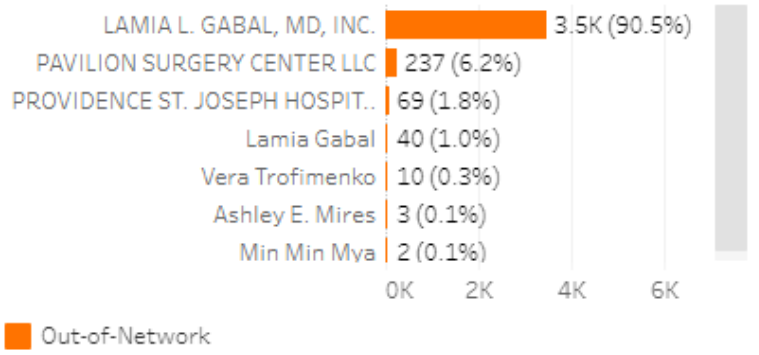



## Service Locations




## Performing Providers

## Billing Providers



# And NPPES says that address is her primary location…

| NPI | Name | NPI Type | Primary Practice Address | Phone | Primary Taxonomy |
|---|---|---|---|---|---|
| 1518224112 | VERA TROFIMENKO | | 720 N TUSTIN AVE STE 104<br>SANTA ANA, CA 92705 | 949-825-7650 | Urology |

# But a Google search finds her as a provider for Prestige Medical Group…

| NPI | Name | NPI Type | Primary Practice Address | Phone | Primary Taxonomy |
|---|---|---|---|---|---|
| 1518224112 | VERA TROFIMENKO | | 720 N TUSTIN AVE STE 104<br>SANTA ANA, CA 92705 | 949-825-7650 | Urology |

(949) 825-7650 Our **Tustin, CA** Office Rate Us:

PRESTIGE MEDICAL GROUP

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## OUR PROVIDERS

# And NPPES doesn't have a registration for a Prestige Medical Group in California…

| NPI | Name | NPI Type | Primary Practice Address | Phone | Primary Taxonomy |
|---|---|---|---|---|---|
| 1518224112 | VERA TROFIMENKO | | 720 N TUSTIN AVE STE 104<br>SANTA ANA, CA 92705 | 949-825-7650 | Urology |

(949) 825-7650 Our **Tustin, CA** Office Rate Us:

| NPI | Name | NPI Type | Primary Practice Address | Phone | Primary Taxonomy |
|---|---|---|---|---|---|
| 1437332624 | PRESTIGE MEDICAL GROUP LJCPSC | | MONTEHEIDRA TOWN CTR<br>SAN JUAN, PR 00926-7007 | 787-760-6604 | Anesthesiology |
| 1528440781 | PRESTIGE MEDICAL GROUP LLC | | 6924 PROFESSIONAL PKWY E<br>LAKEWOOD RANCH, FL 34240-8414 | 941-752-6002 | Specialist |
| 1801476502 | PRESTIGE MEDICAL GROUP LLC | | 8800 W 159TH ST<br>ORLAND PARK, IL 60462-5618 | 708-942-6843 | Clinic/Center |

# NPPES does have registration for "Lamia L. Gabal, MD, Inc." at the Tustin Ave address

| NPI | Name | NPI Type | Primary Practice Address | Phone | Primary Taxonomy |
|---|---|---|---|---|---|
| 1518224112 | VERA TROFIMENKO | | 720 N TUSTIN AVE STE 104<br>SANTA ANA, CA 92705 | 949-825-7650 | Urology |

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## OUR PROVIDERS

| NPI | Name | NPI Type | Primary Practice Address | Phone | Primary Taxonomy |
|---|---|---|---|---|---|
| 1801000542 | LAMIA L. GABAL, MD, INC. | | 720 N TUSTIN AVE # 140<br>SANTA ANA, CA 92705-3606 | 949-825-7650 | Urology |

# Of which Dr. Lamia Gabal appears to be the founder…

(949) 825-7650 Our **Tustin, CA** Office Rate Us:

PRESTIGE MEDICAL GROUP

APPOINTMENTS

Home | About | New Patients | Services | Clinical Trials | Supplements | Our Blog | Contact

## OUR PROVIDERS

### Lamia Gabal, MD, FPMRS

Urologist & Female Pelvic Medicine and Reconstructive Surgery

Dr. Lamia Gabal is a board-certified urologist with a subspecialty board certification in Female Pelvic Medicine and Reconstructive Surgery (FPMRS). She specializes in several different areas of urology, including regenerative and restorative surgeries. At Prestige Medical Group, the doctor and her staff take great pride in offering many of the newest, cutting-edge treatment options, including SculpSure®, and MonaLisa Touch®.

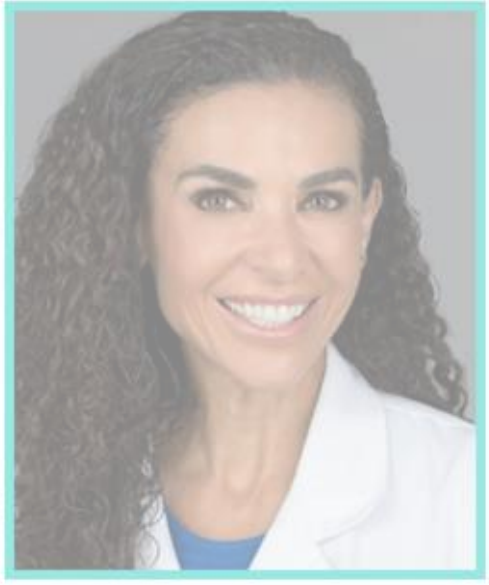
# But the Tustin, CA address for this practice location's website is completely different

(949) 825-7650 Our **Tustin, CA** Office Rate Us:

PRESTIGE MEDICAL GROUP

Home | About | New Patients | Services | Clinical Trials | Supplem

## OUR PROVIDERS



### Lamia Gabal, MD, FPMRS

Urologist & Female Pelvic Medicine and Reconstr

Dr. Lamia Gabal is a board-certified urologist with a sub
certification in Female Pelvic Medicine and Reconstruc
(FPMRS). She specializes in several different areas of ur
regenerative and restorative surgeries. At Prestige Med
doctor and her staff take great pride in offering many c
cutting-edge treatment options, including SculpSure®
Touch®.

## Find Us Here

**ADDRESS**
18302 Irvine Blvd #200
Tustin, CA 92780

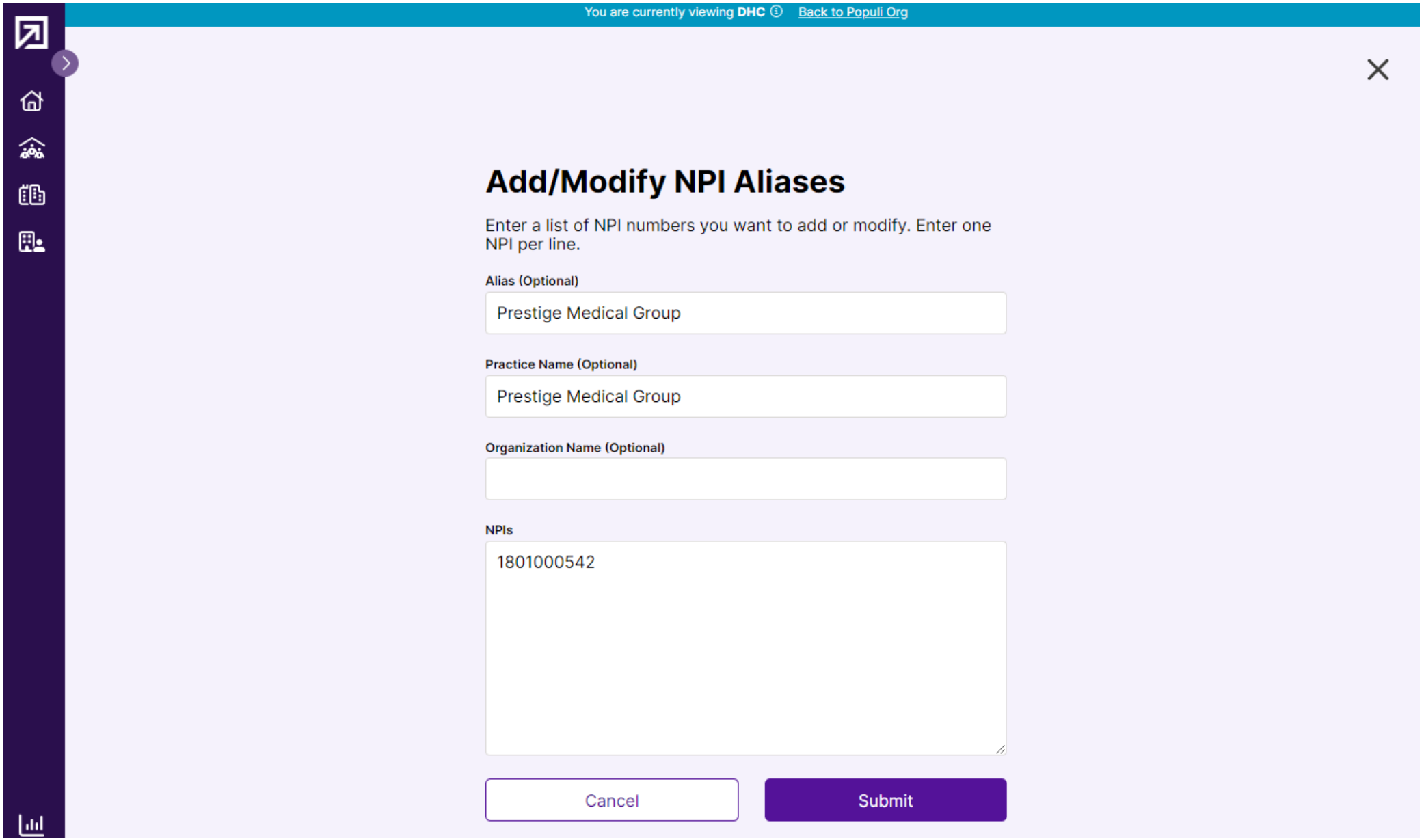
**HOURS**
Monday: 8:30 am – 5:00pm
Tuesday: 8:30 am – 5:00pm
Wednesday: 8:30 am – 5:00pm
Thursday: 8:30 am – 5:00pm
Friday: 8:30 am – 5:00pm
Saturday: Closed
Sunday: Closed

**Urine Drop Off Hours**
Monday – Thursday: 8:45am – 11:45am and 1:45pm – 3:45pm
Friday: 8:45am – 11:45am and 1:45pm – 3:00 pm

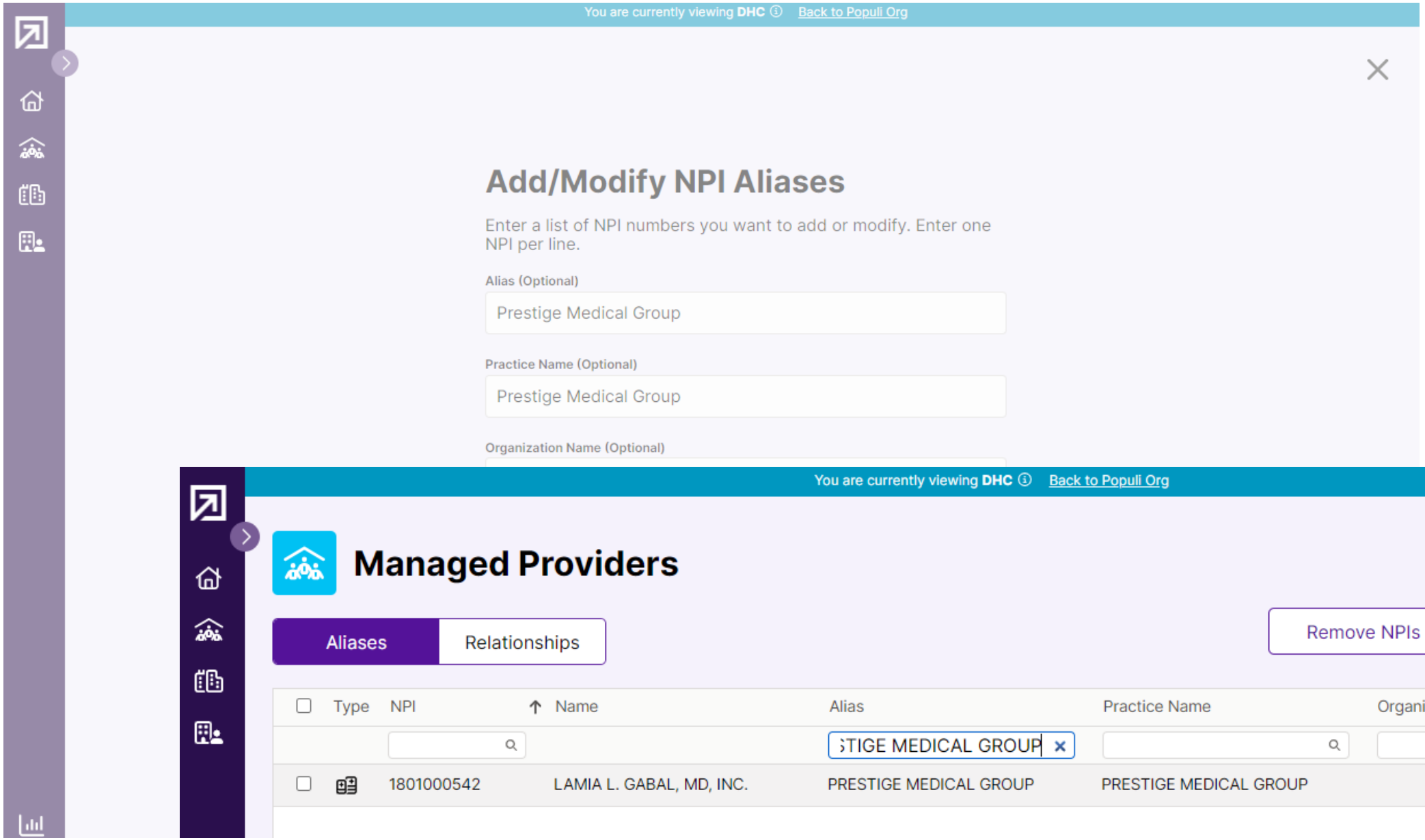
**CONTACT**
(949) 825-7650

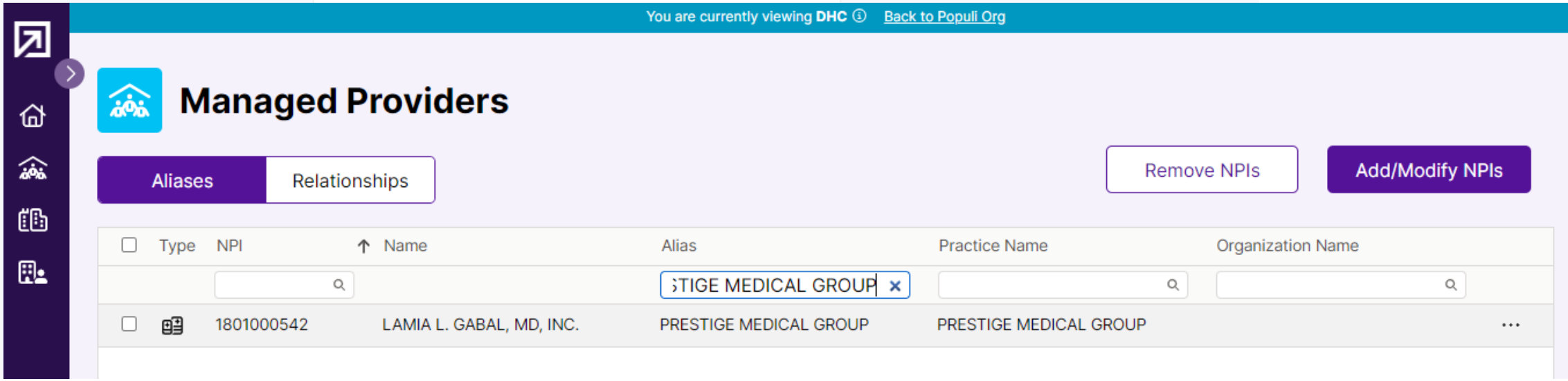
# Confused yet?

# No provider directory can be perfect.
# Make sure your analytics solution enables your local knowledge to be easily incorporated



# We can at least change the name for this location, so it is more logical



# The result will be cleaner, more easily understood, data...

| 4.2K | 0.0% | 0.0% |
|---|---|---|
| Procedures | In-Network by Service Location | In-Network by Performing Provider |

8 Service Locations

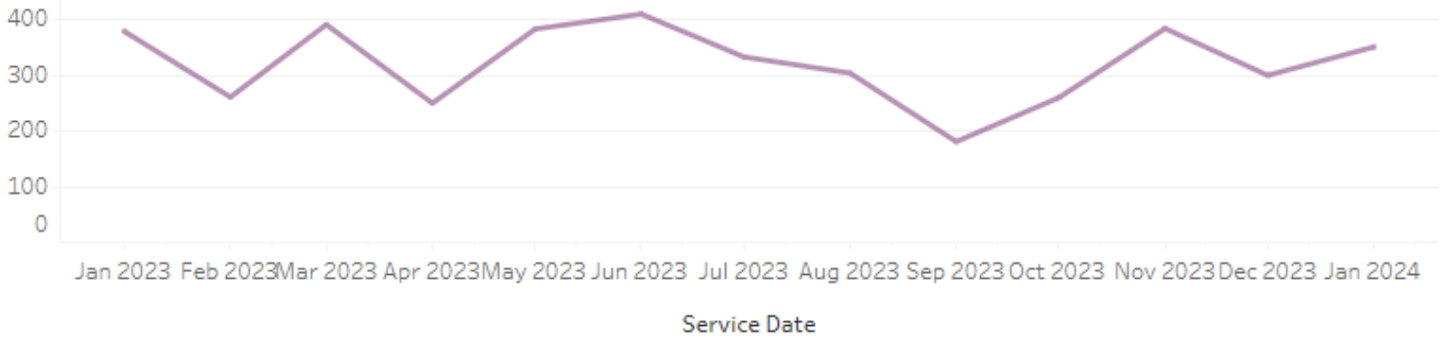
0.0% In-Network

1 Performing Providers

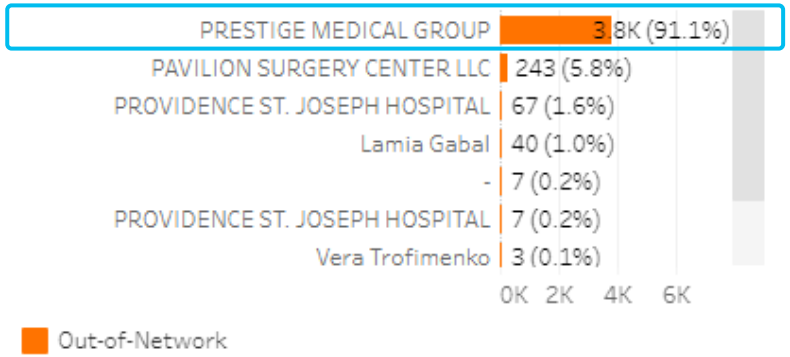
0.0% In-Network

## Service Location Zip

## Volume Timeline

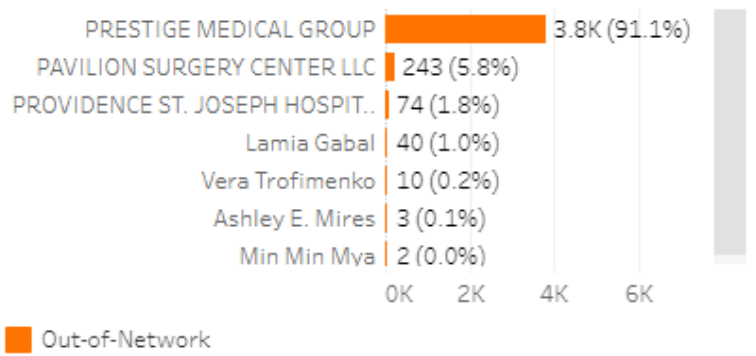



## Service Locations

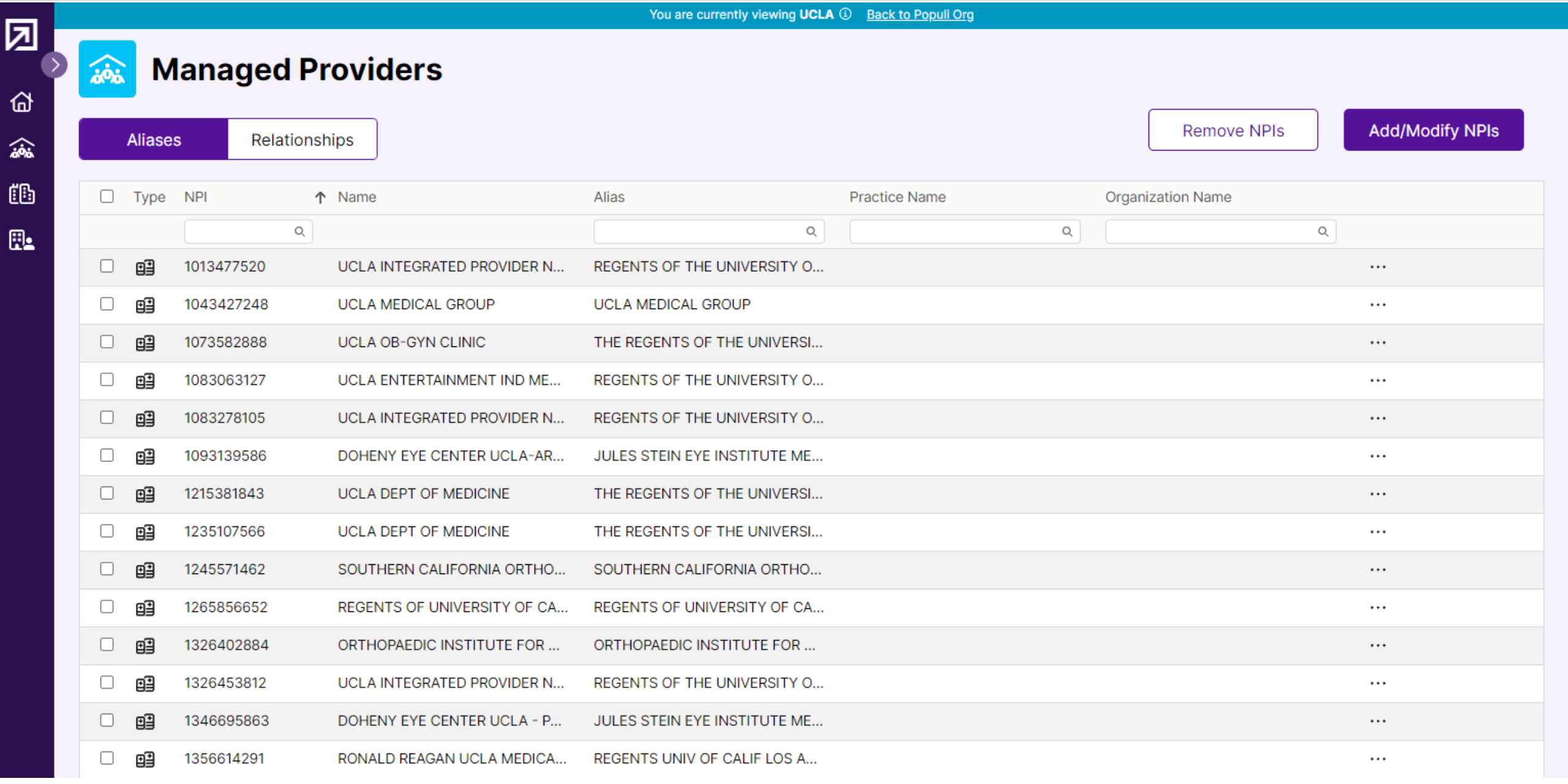



## Performing Providers

## Billing Providers

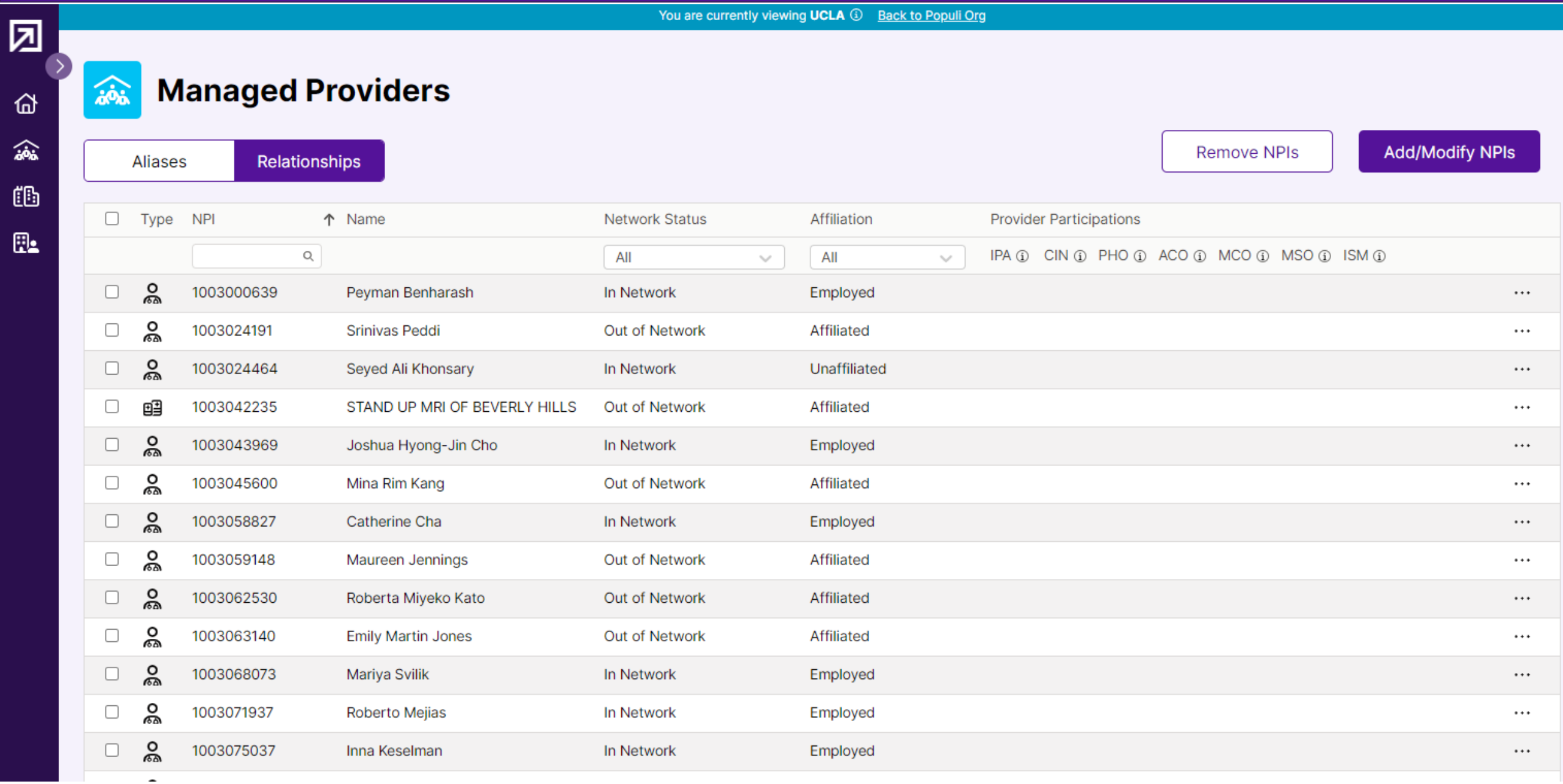


# The UCLA Health team has been doing this with both their own and other locations…




| Type | NPI | Name | Alias | Practice Name | Organization Name |
|---|---|---|---|---|---|
| | 1013477520 | UCLA INTEGRATED PROVIDER N... | REGENTS OF THE UNIVERSITY O... | | |
| | 1043427248 | UCLA MEDICAL GROUP | UCLA MEDICAL GROUP | | |
| | 1073582888 | UCLA OB-GYN CLINIC | THE REGENTS OF THE UNIVERSI... | | |
| | 1083063127 | UCLA ENTERTAINMENT IND ME... | REGENTS OF THE UNIVERSITY O... | | |
| | 1083278105 | UCLA INTEGRATED PROVIDER N... | REGENTS OF THE UNIVERSITY O... | | |
| | 1093139586 | DOHENY EYE CENTER UCLA-AR... | JULES STEIN EYE INSTITUTE ME... | | |
| | 1215381843 | UCLA DEPT OF MEDICINE | THE REGENTS OF THE UNIVERSI... | | |
| | 1235107566 | UCLA DEPT OF MEDICINE | THE REGENTS OF THE UNIVERSI... | | |
| | 1245571462 | SOUTHERN CALIFORNIA ORTHO... | SOUTHERN CALIFORNIA ORTHO... | | |
| | 1265856652 | REGENTS OF UNIVERSITY OF CA... | REGENTS OF UNIVERSITY OF CA... | | |
| | 1326402884 | ORTHOPAEDIC INSTITUTE FOR ... | ORTHOPAEDIC INSTITUTE FOR ... | | |
| | 1326453812 | UCLA INTEGRATED PROVIDER N... | REGENTS OF THE UNIVERSITY O... | | |
| | 1346695863 | DOHENY EYE CENTER UCLA - P... | JULES STEIN EYE INSTITUTE ME... | | |
| | 1356614291 | RONALD REAGAN UCLA MEDICA... | REGENTS UNIV OF CALIF LOS A... | | |

# And Network and Affiliation flagging for their providers and some locations.



# Recommendation #3:

Local market knowledge always needs to supplement claims data.

# Why do I see nulls or ‘Redacted’ items?

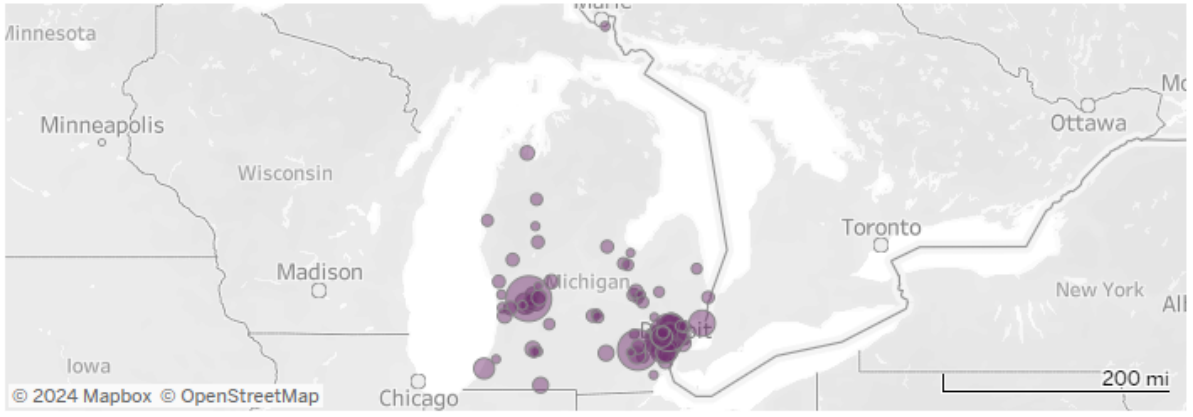
# These items can appear in several places...

| 34.7M | 0.0% | 0.0% |
|---|---|---|
| Procedures | In-Network by Service Location | In-Network by Performing Provider |

29.6K Service Locations | 0.0% In-Network

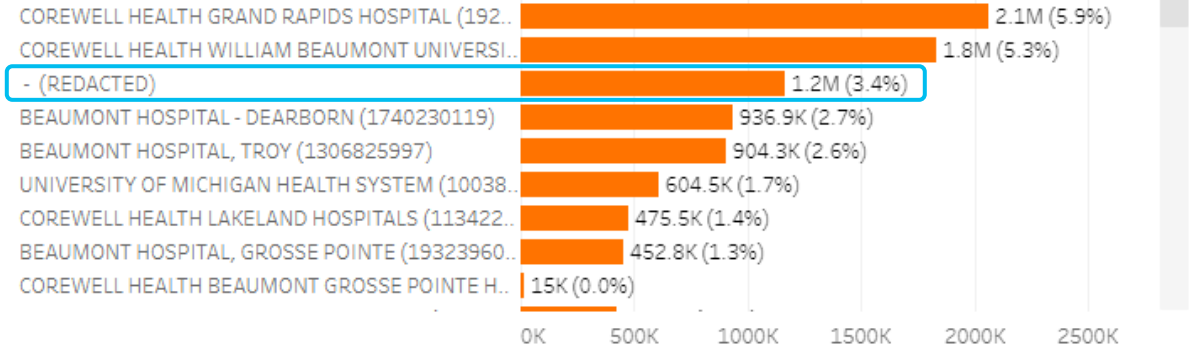
86.1K Performing Providers | 0.0% In-Network

## Service Location Zip (Top 100)



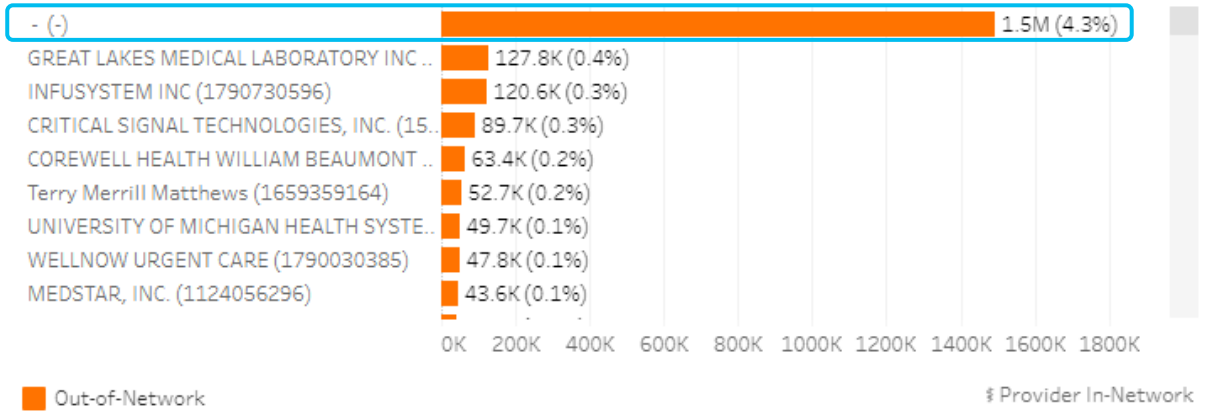

## Service Location

Display: Top 100 | Search



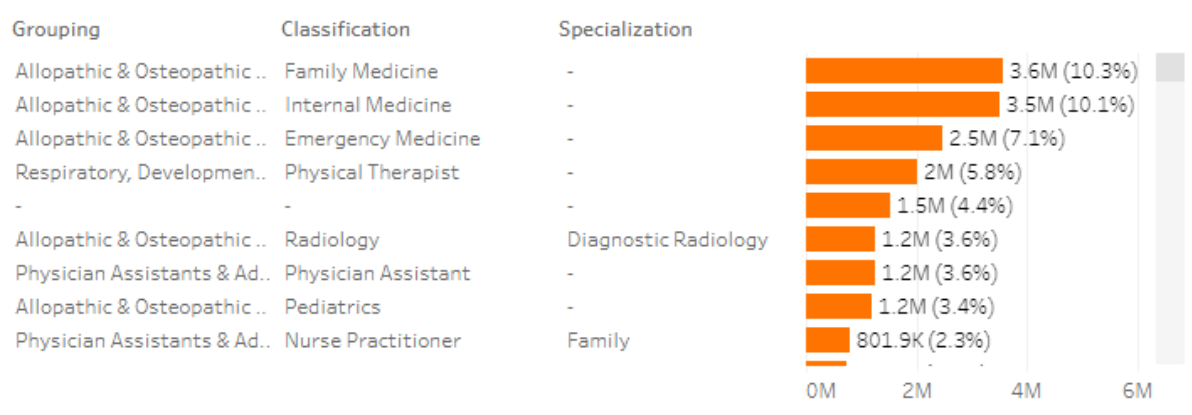

## Performing Provider

Display: Top 100 | Search

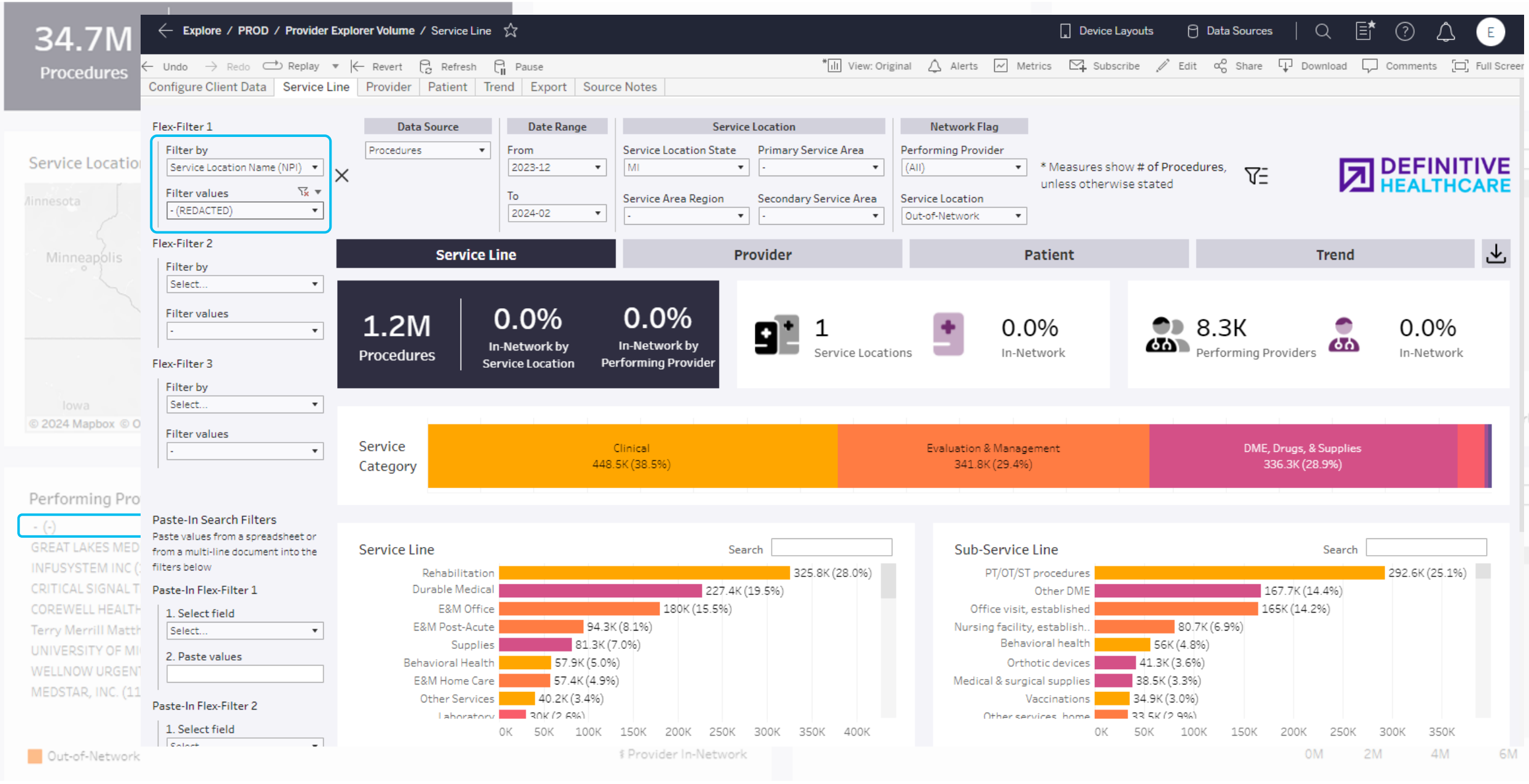



## Performing Provider Specialty

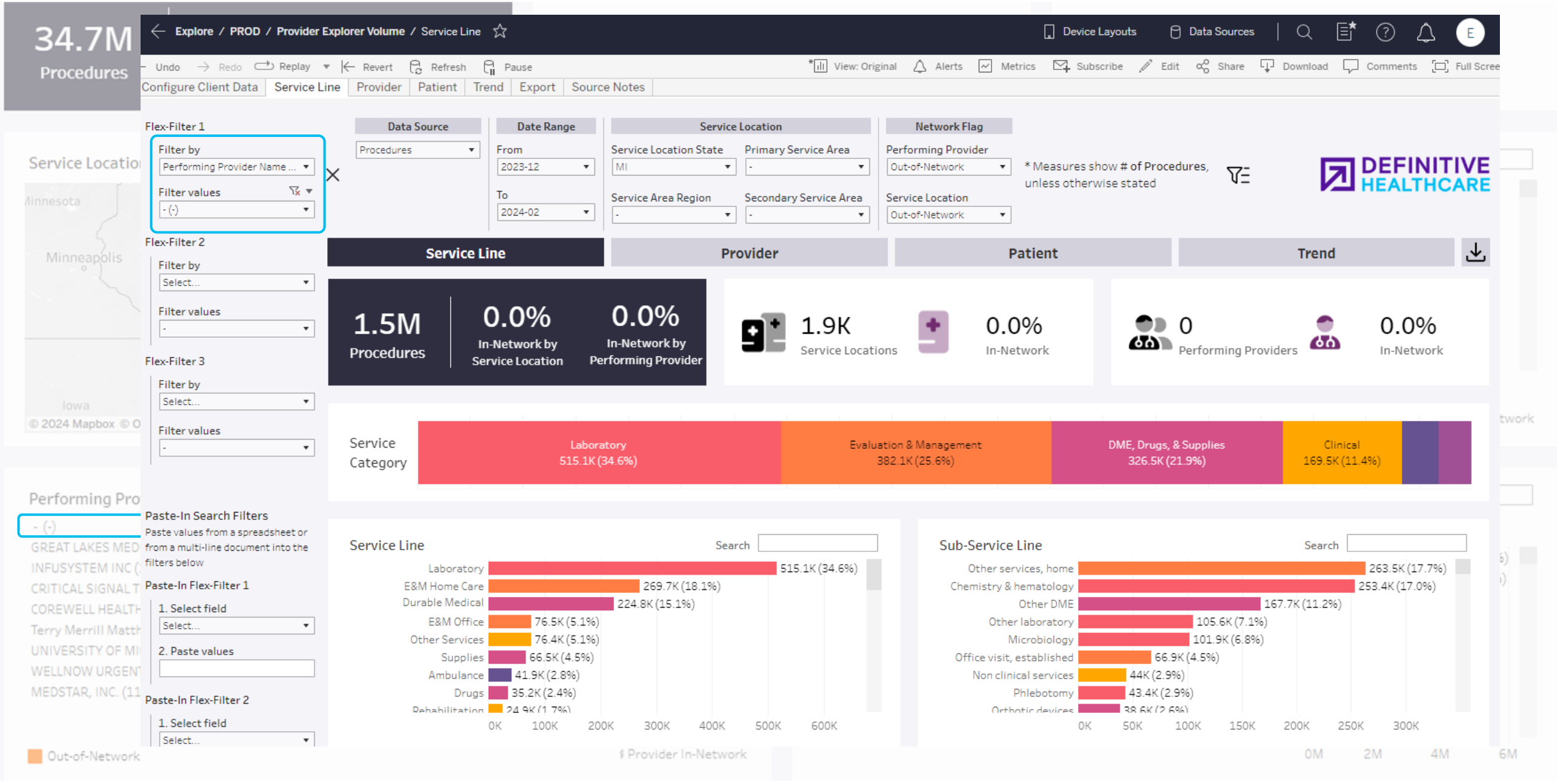
Search



# It can happen across a range of activity, often a type of PHI protection on the raw claim



# But can also simply be missing data on the claim



# Payor/Payer information is a kaleidoscope!

# What you expect to see in raw claims data…

| payer_id | payer_name | type_of_coverage | type_of_coverage_grouping | year | count |
|---|---|---|---|---|---|
| 99998 | AARP | Medicare Supplemental | Medicare Supplemental | 2022 | 55 |

# What we actually get in claims data…

| payer_id | payer_name | type_of_coverage | type_of_coverage_grouping | year | count |
|---|---|---|---|---|---|
| 36273 | AARP | Commercial | Commercial | 2022 | 63,625 |
| 36273 | AARP | Indemnity | Commercial | 2022 | 7,703 |
| 36273 | AARP | null | null | 2022 | 5,374 |
| AARP | AARP | Self-funded | Commercial | 2022 | 4,459 |
| 8940 | AARP | Self-funded | Commercial | 2022 | 3,602 |
| AARP-UNITED HEALTHCARE MCR SUPPLE | AARP-UNITED HEALTHCARE MCR SUPPLE | Self-funded | Commercial | 2022 | 2,866 |
| AARP-UHC MCR SUPPLEMENT | AARP-UHC MCR SUPPLEMENT | Self-funded | Commercial | 2022 | 1,659 |
| 36273 | AARP | Self-funded | Commercial | 2022 | 806 |
| 7684 | MDX HI AARP MDCR COMPLE | Medicare | Medicare | 2022 | 775 |
| 36273 | AARP | Other | Other | 2022 | 671 |
| 05271 | AARP | Medicare | Medicare | 2022 | 482 |
| 36273 | AARP | BCBS | Commercial | 2022 | 228 |
| AARP UHC MEDICARE SUPP ALL USA | AARP UHC MEDICARE SUPP ALL USA | Self-funded | Commercial | 2022 | 162 |
| AARP UNITED HLTH GRP | AARP UNITED HLTH GRP | Self-funded | Commercial | 2022 | 146 |
| 36273 | AARP | Medicare | Medicare | 2022 | 101 |
| MANAGED CARE UHCAARP OMR | MANAGED CARE UHCAARP OMR | Self-funded | Commercial | 2022 | 93 |
| TH36273 | AARP MEDICARE SUPPLEMENT | Commercial | Commercial | 2022 | 91 |
| 36273 | AARP | PPO | Commercial | 2022 | 84 |
| AARP UNITED HEALTHCARE CL | AARP UNITED HEALTHCARE CL | Commercial | Commercial | 2022 | 77 |
| MANAGED CARE UHCAARP OQO | MANAGED CARE UHCAARP OQO | Self-funded | Commercial | 2022 | 58 |
| 99998 | AARP | Medicare Supplemental | Medicare Supplemental | 2022 | 55 |
| 99998 | AARP | Self-funded | Commercial | 2022 | 52 |
| 99998 | AARP | Medicaid | Medicaid | 2022 | 36 |
| ZZ AARP-UHC MCR SUPP | ZZ AARP-UHC MCR SUPP | Self-funded | Commercial | 2022 | 36 |

**This is one of the relatively easy ones to fix…**

# Recommendation #4:

Research your and your key competitors' data up front, to understand and adapt to the various quirks you might encounter.

# Why can’t all this data be better?

Without a mandate for all this data to be cleaner, it won’t happen soon.

# Summary

Understand that claims data is known to be incomplete but offers valuable insights otherwise not available. Particularly, ambulatory/outpatient information not typically required in state reporting.

Always start broader market analyses with specific procedures or service lines, before any provider specialty filters.

Local market knowledge is helpful to supplement and add further color to claims insights.

Research your and your key competitors' data up front, to understand and adapt to the various quirks you might encounter.

Despite the promise of AI, it will take time before many of these data items can reliably be fixed.