

# Spotting Anomalous Billing: An ACO Case Study

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*Educational Webinar Series*

# Today's Speakers



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Data Analytics Institute



- 60-employee predictive analytics and AI company based in Massachusetts
- Partners with **leading ACOs and health systems**
- We have **developed predictive models for hundreds of outcomes and generate millions of predictions** for our customers each week

- **Dynamic platform** that incorporates all available claims and EHR data
- **Advanced, predictive clinical workflows** to identify at-risk individuals so they can be managed proactively
- **Single-page Spotlights** that use AI models to consolidate what is most relevant in the patient record
- **Network and performance analytics** that rigorously assess providers, hospitals, and other facilities

# Who is HarmonyCares?

- HarmonyCares is the largest physician house call practice in the country.
- We have 30+ years of experience deliver primary care to patients with complex illness in their homes
- Have 140k+ patients under VBC (traditional Medicare and Medicare Advantage) in 14 states
- Participate in the High Needs Track of ACO REACH and MSSP

harmonycares. Why HarmonyCares Regions We Serve About Us

## We bring the doctor's office to you.

HarmonyCares offers comprehensive, home-based healthcare services. We care for people with Medicare and those with complex medical issues.

[Request a Physician House Call](#)

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# Overview

# Skin Substitutes 101

## What Are Skin Substitutes?

- Biological, synthetic, or composite materials applied to wounds to replace skin's structure and function
- Supposed to be used as second- and third-line therapies for certain patients when natural healing fails — diabetic foot ulcers, venous leg ulcers, burns, and chronic wounds
- Over 200 products currently on the U.S. market
- Products regulated in different ways with varying levels of FDA oversight: human tissue products (361 HTP/S), medical devices (510k, PMA), and drugs and biologics (BLA)

## Why Do They Matter?

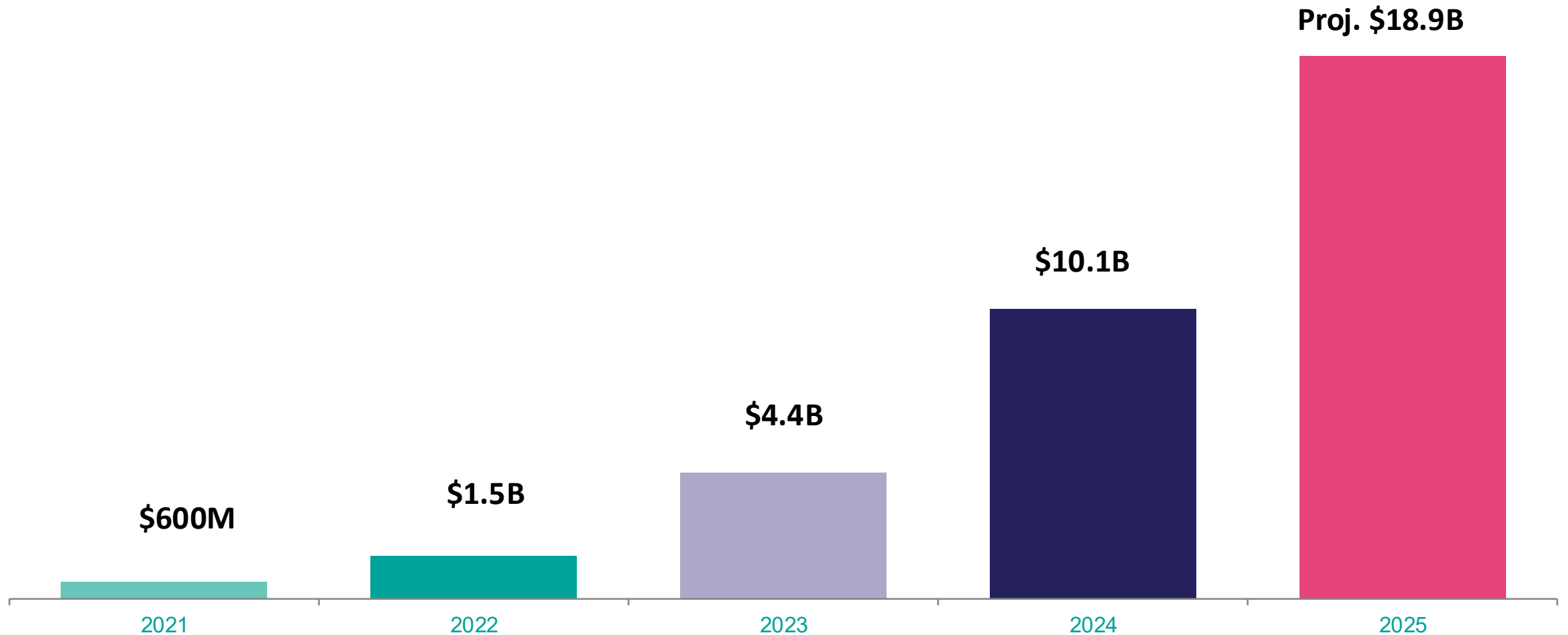
- ~16% of Medicare beneficiaries have a chronic wounds
- Incidence of chronic disease that drives wounds is growing
- When used appropriately help prevent serious complications like infection, hospitalization, and amputation

# What Drove Increases in Skin Substitutes Expenditures?

- **Rapid product proliferation**
  - Low barriers and limited FDA oversight (e.g., no formal evidence requirements) for human tissue products
  - October 2022 ASP file included 16 skin substitute products with Q codes
  - Latest Medicare physician payment file with Qcode between Q4100-Q500 and status indicator "active" shows 290+ products now on the market
- **Buy and bill payment system**
  - Clinicians and physician group practices can profit from product use, pocketing the difference between acquisition cost and Medicare payment amount
- **New product launches were coupled with significant increase in prices**
  - \$5800 per sq cm skin substitute in October 2025 ASP file (last file before new pricing)
- **Limited (Traditional) Medicare coverage criteria**
  - Existing LCD/NCDs limited in scope and geography
  - Effectively no guidelines for product efficacy, clinical appropriateness, application frequency/duration
  - Medicare Advantage largely does not pay for these products

# The Spending Explosion: Skin Substitutes by the Numbers

HDAI Analysis of Medicare Part B Skin Substitute Spending | 2021–2025 | Allowed Charges



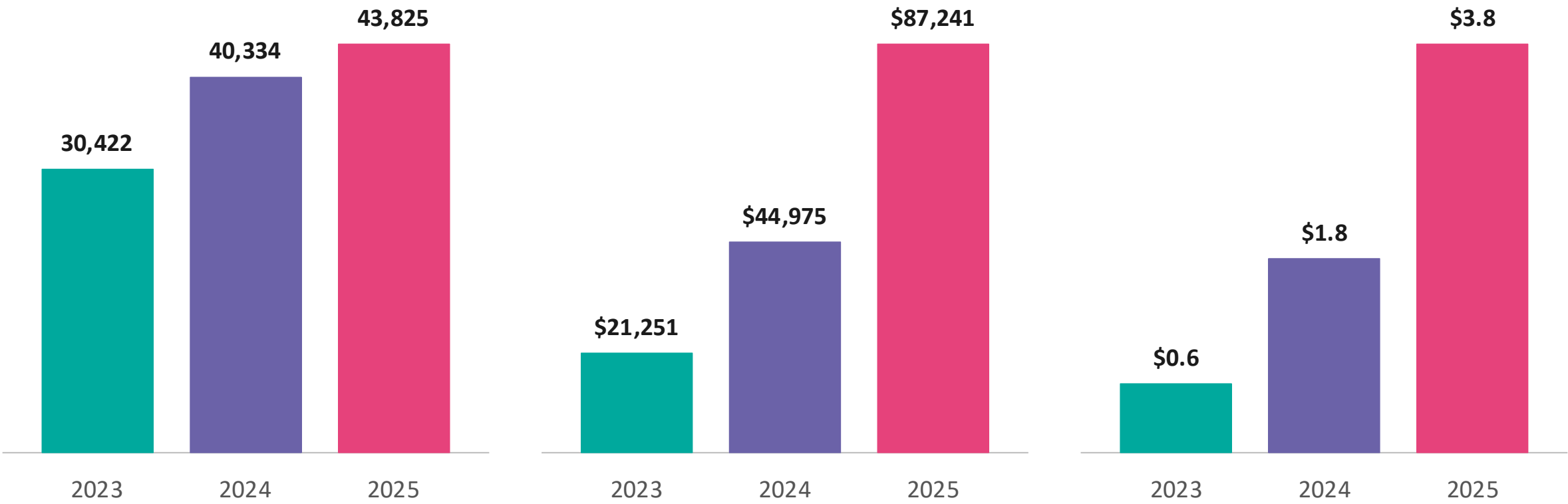
# Skin Substitute Utilization & Cost Across ACOs

Medicare MSSP and REACH ACOs — 2023, 2024, 2025

### Patients Receiving Skin Substitutes

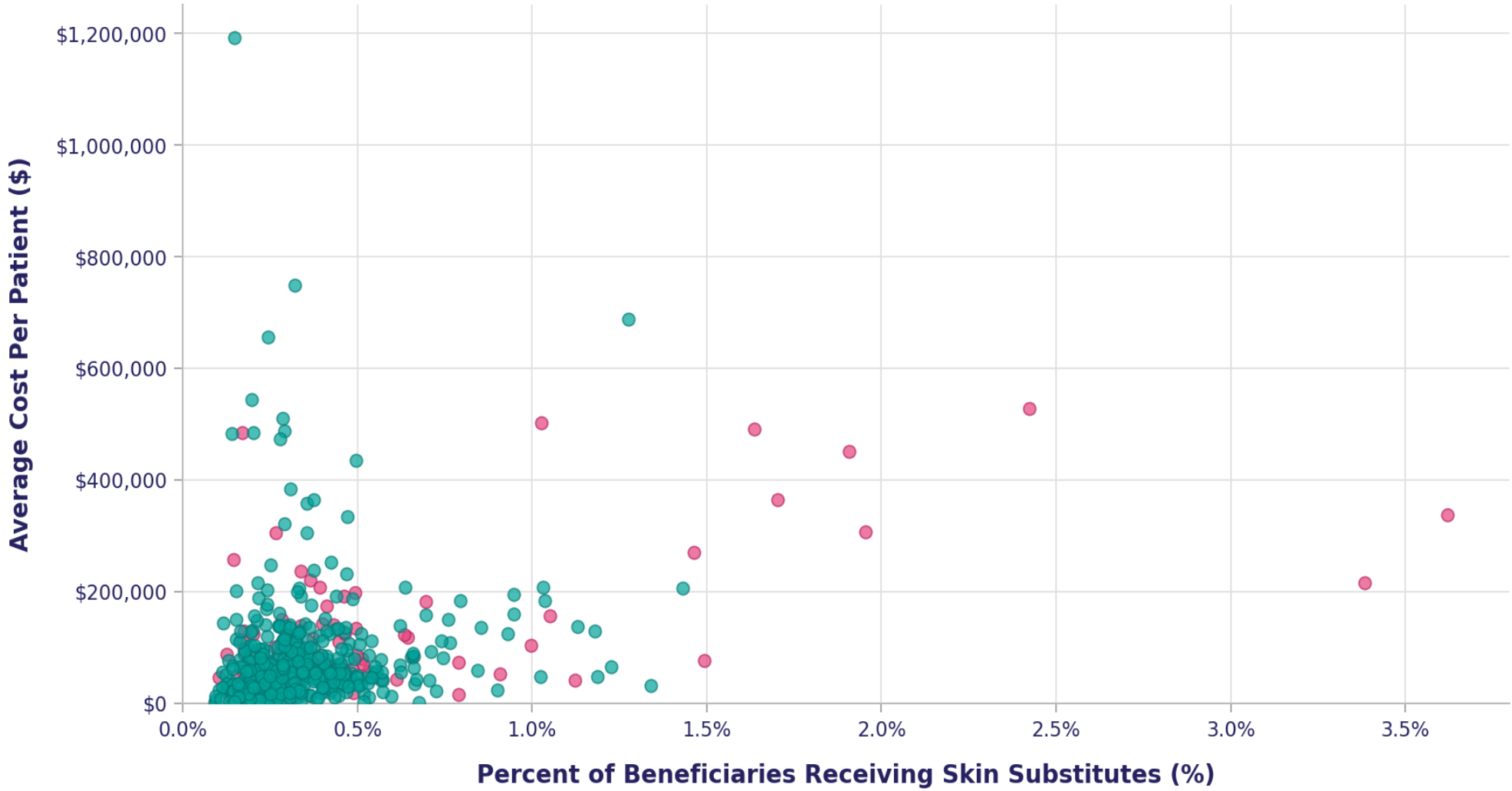
### Average Cost Per Patient (\$)

### Total Skin Substitute Cost (\$B)



Source: HDAI Analysis on VRDC

# Great Variation in Expense: REACH ACO's More Exposed



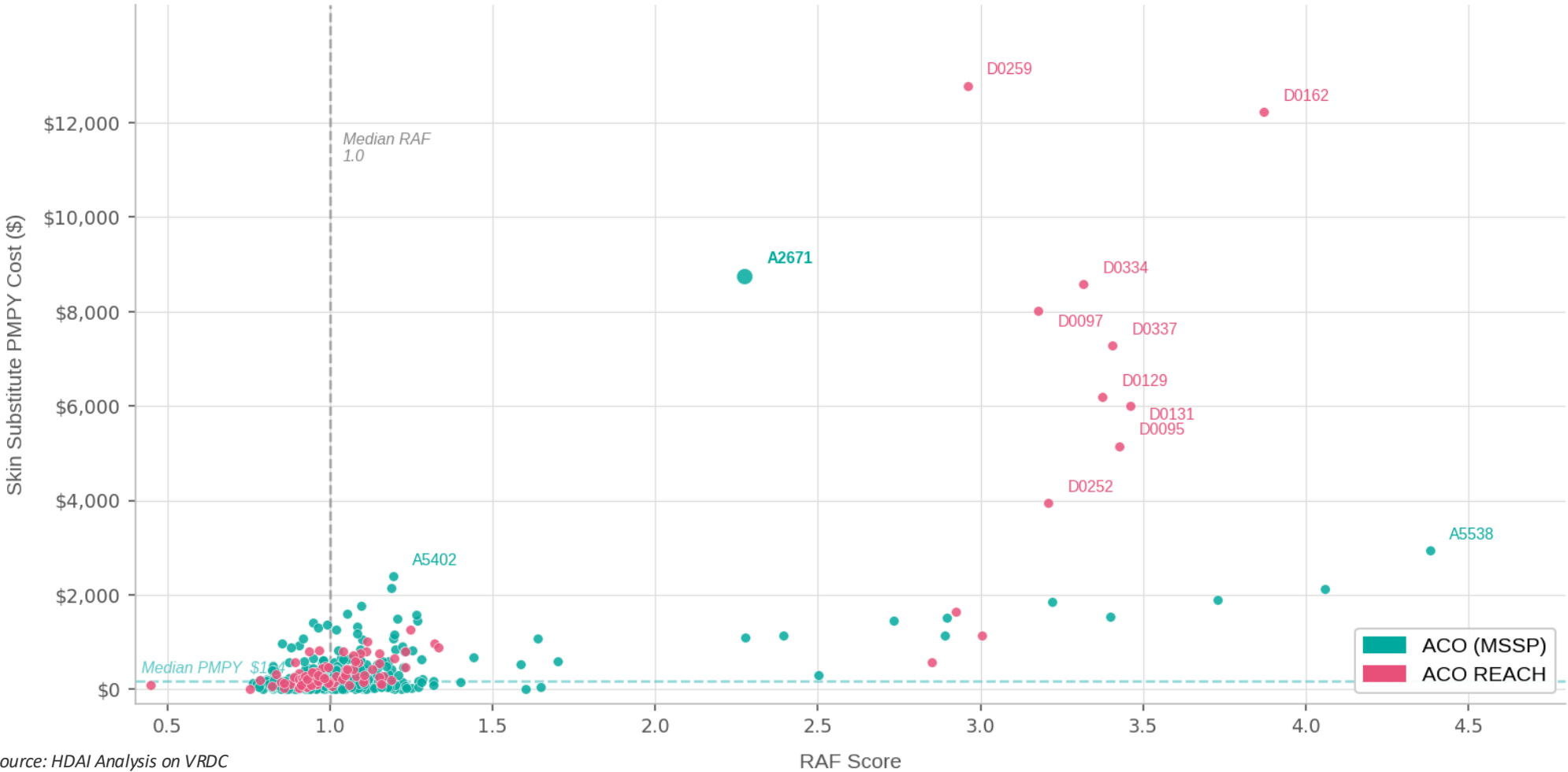
Source: HDAI Analysis on VRDC

ACO (MSSP) ACO REACH

# Skin Substitute PMPY Cost vs. RAF Score by ACO

ACOs serving complex patients had significantly higher skin substitute expenditures

Skin Substitute PMPY Cost vs. RAF Score by ACO

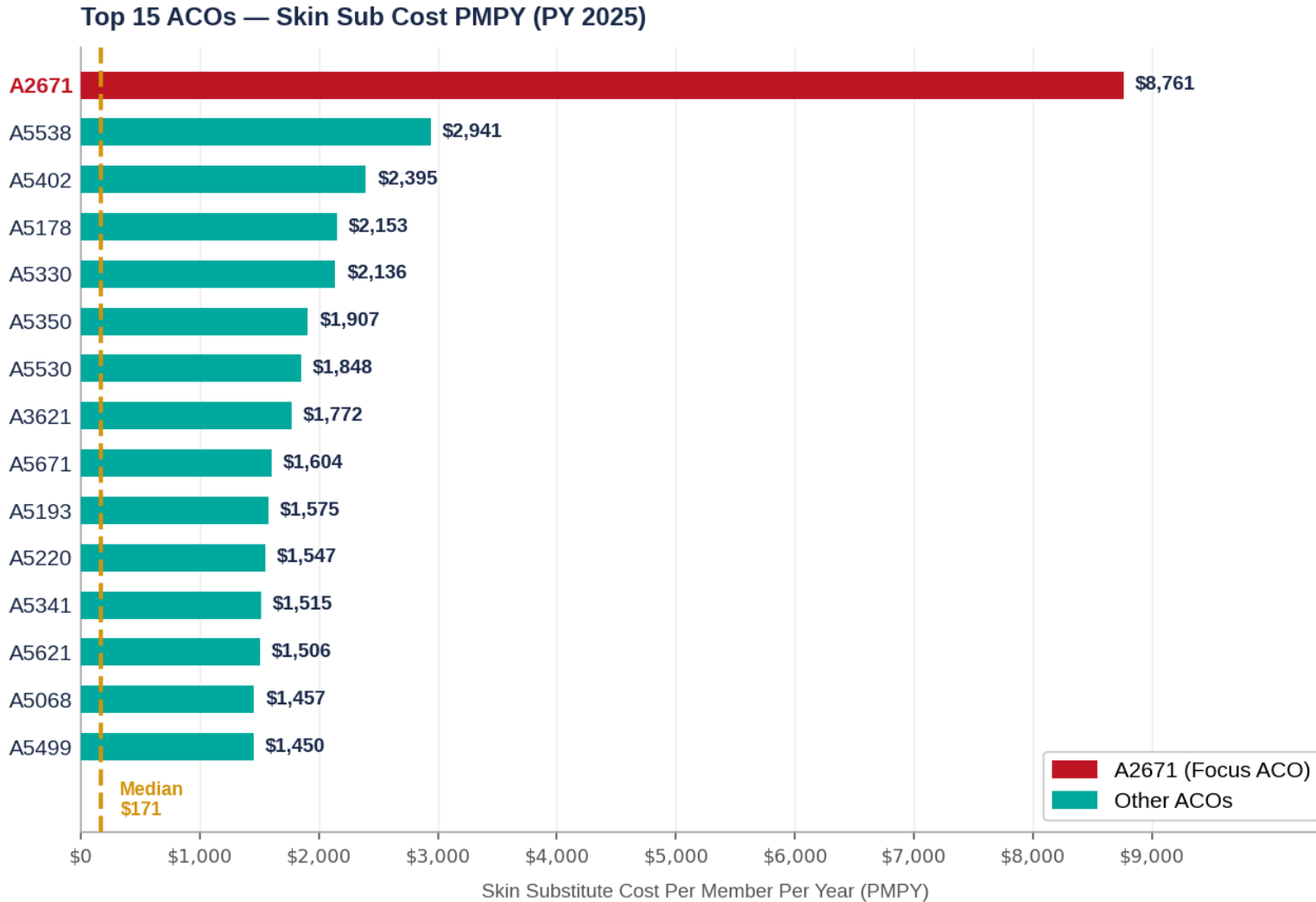


Source: HDAI Analysis on VRDC

# The HarmonyCares Story

# Skin Substitute Expenditure Variation Across MSSP ACOs

Performance Year 2025



## HarmonyCares MSSP At a Glance

**#1 of 479 ACOs**

Highest Skin Sub PMPY in PY 2025

**\$8,761 PMPY**

**29× Median PMPY**

\$8,761 vs. \$171 ACO median (PY 2025)

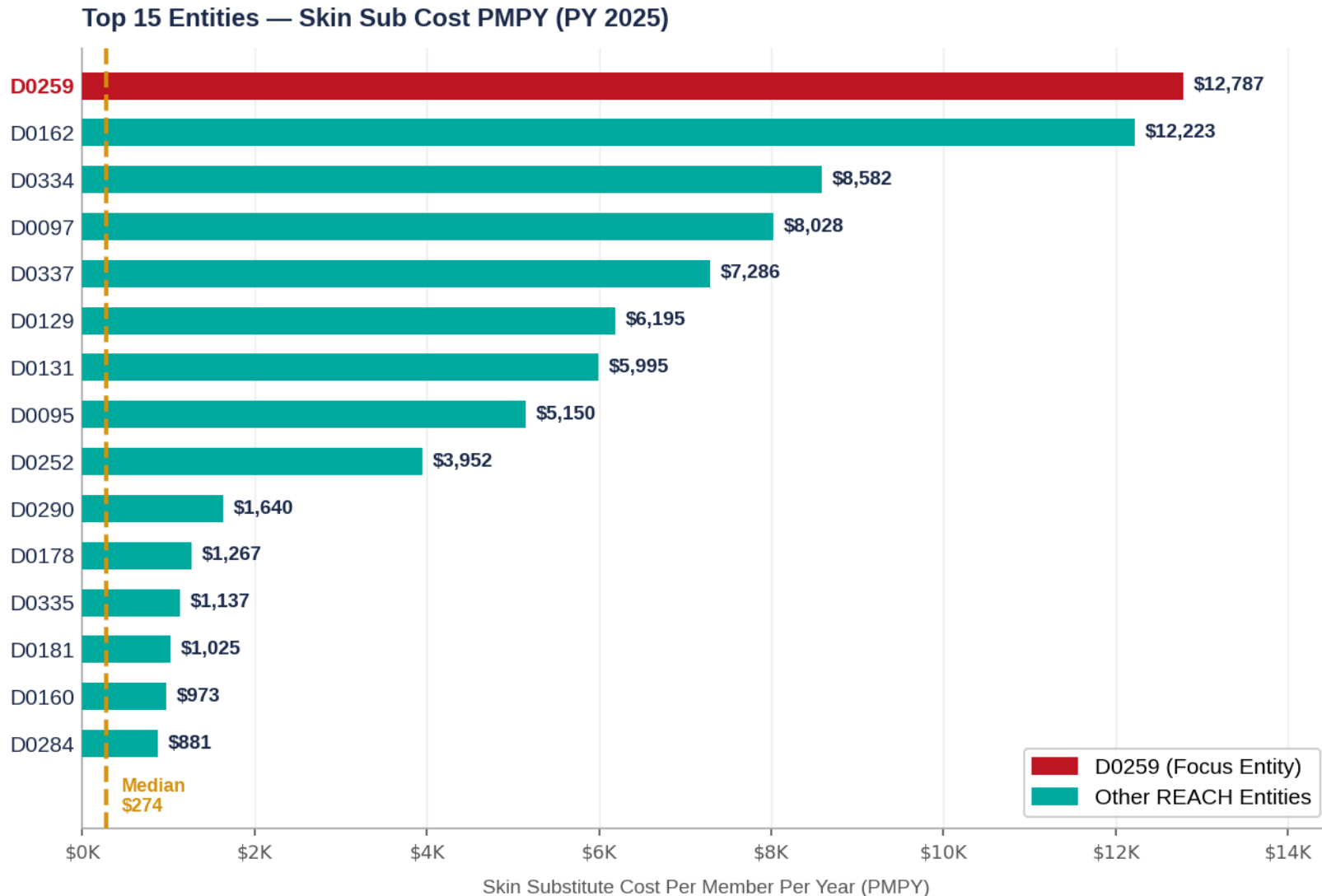
Top 1% of all ACOs by skin sub spend

**\$71.4M Total Spend**

Source: HDAI Analysis on VRDC

# Skin Substitute Expenditure Variation Across ACO REACH

Performance Year 2025



Source: HDAI Analysis on VRDC

## HarmonyCares REACH At a Glance

# #1 of 99 Entities

1st Highest Skin Sub PMPY in PY 2025

**\$12,787 PMPY**

## 36x Median PMPY

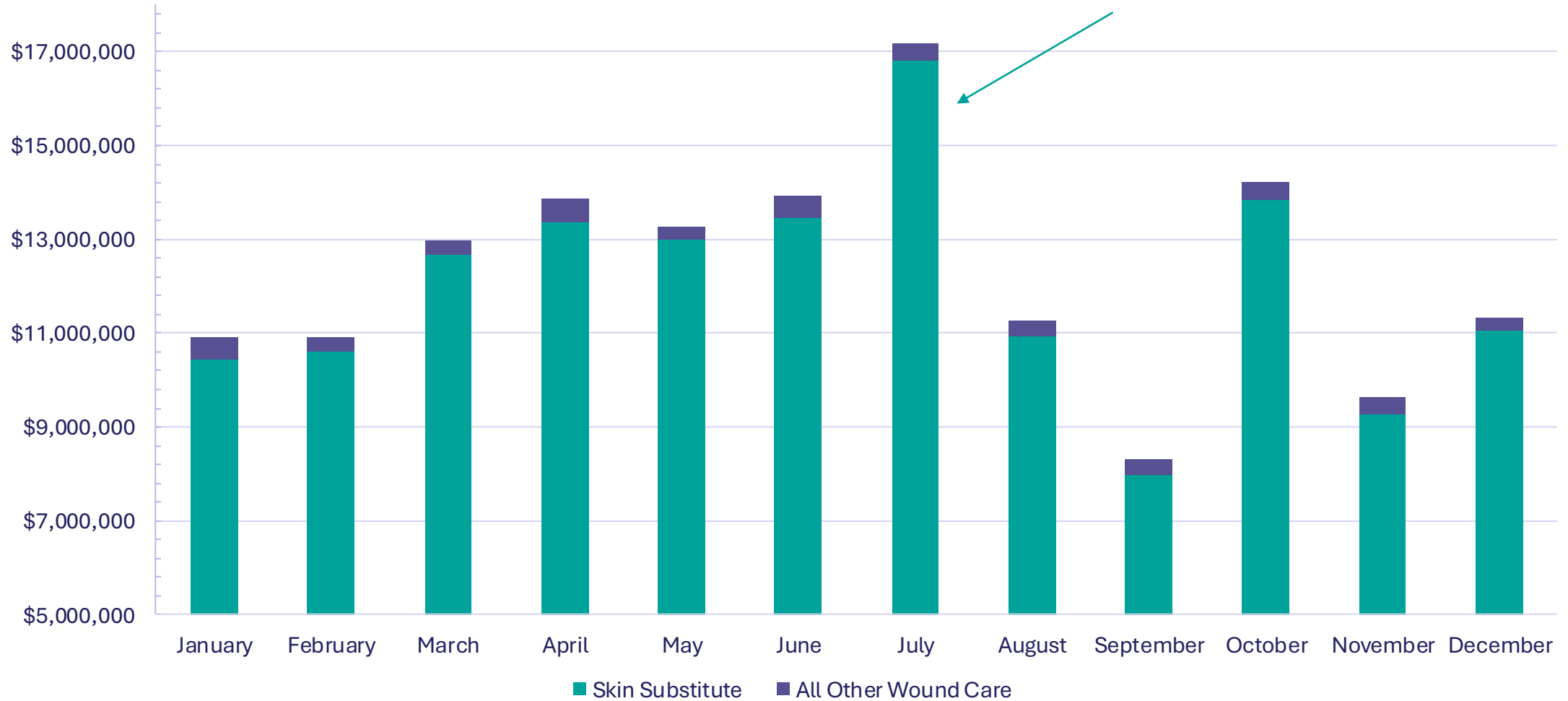
\$12,787 vs. \$274 entity median (PY 2025)

Top 1% of all ACO REACH entities

# \$58.9M Total Spend

# Month over Month Spend, 2025

222.8% increase in Simplimax skin substitutes from June to July



Source: HDAI Analysis on BCDA

# High-Cost Patients

## OUTLIER ANALYSIS

Top 5 patients by skin substitute product spend — each population

### MSSP

| Rank | Product | Claim Lines | Wound Type   |
|------|---------|-------------|--------------|
| 1    | \$7.9M  | 125         | Pressure     |
| 2    | \$5.6M  | 99          | Pressure     |
| 3    | \$3.9M  | 72          | Non-Pressure |
| 4    | \$3.5M  | 50          | Diabetic     |
| 5    | \$2.6M  | 51          | Non-Pressure |

Top MSSP patient spent \$7.9M

### REACH

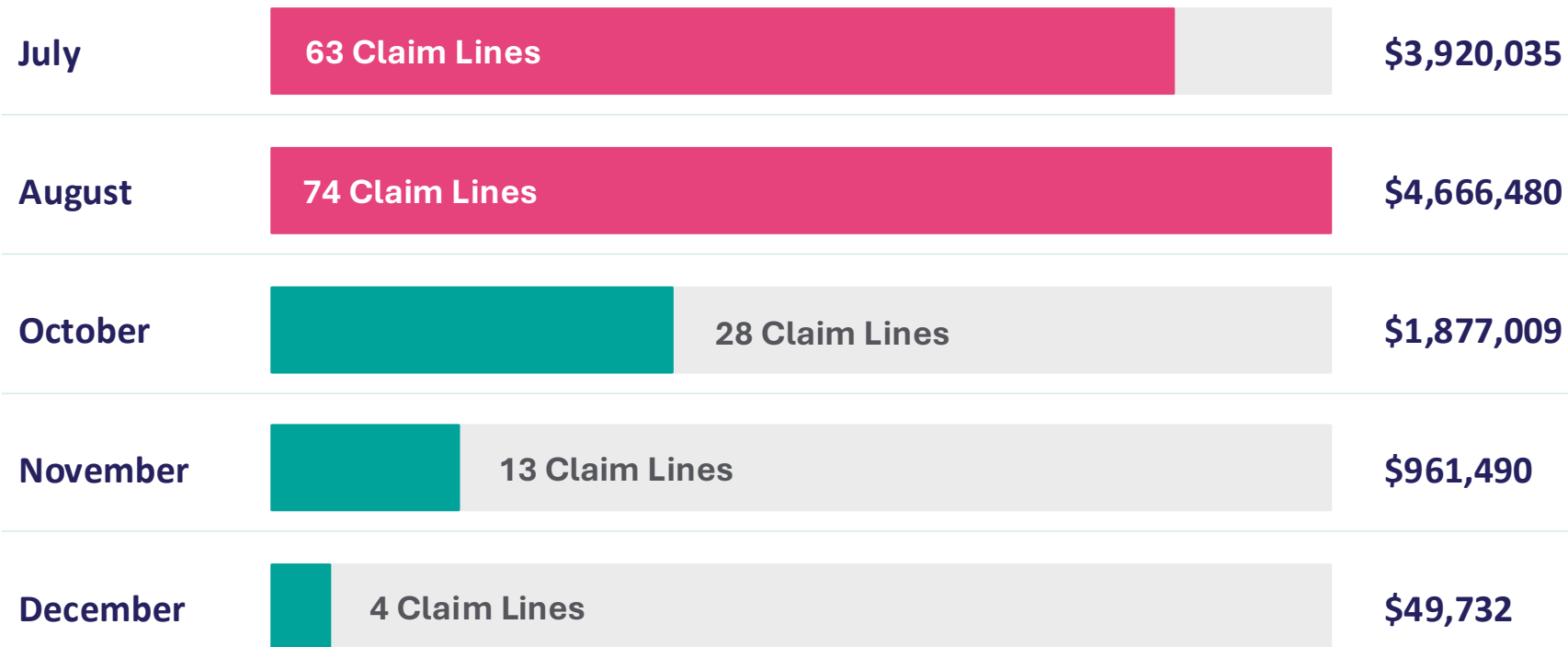
| Rank | Product | Claim Lines | Wound Type   |
|------|---------|-------------|--------------|
| 1    | \$11.5M | 192         | Vasc-Ulcer   |
| 2    | \$8.3M  | 151         | Non-Pressure |
| 3    | \$7.3M  | 124         | Pressure     |
| 4    | \$3.4M  | 58          | Non-Pressure |
| 5    | \$2.4M  | 52          | Pressure     |

Top REACH patient spent \$11.6M

Source: HDAI Analysis on BCDA

# One Egregious Example

Simplimax (per sq. cm)  
One provider · One patient · Five months of billing



**\$11.5M**

Source: HDAI Analysis on BCDA

# Using Data to Prevent Overuse

# HarmonyCares Approaches to Improving Wound Care

## HarmonyCares Circumstances



- **Massive increase in ACO expenditures** starting in 2023 and escalating through 2025
- **Poor patient outcomes** for vulnerable patients (patients with dementia, on hospice)
- Many **clinicians unaware** of circumstances, financial incentives and fraud + abuse
- Geographically diverse but **consistent problems** with high spending, lots of providers entering wound care market, and rapid shift into higher cost products

### Intervention #1

Launched **internal wound care program** in early 2025 with goal of furnishing wound care for all of our patients. Built detailed operating report with HDAI.

- Support patients with existing wounds. We closely track spending using BCDA claims.
- Stop wounds from happening in the first place.
- Developed patient specific wound risk factor.
- Manage partnerships with home health.

### Intervention #2

**Tracked predatory mobile wound care claims** with HDAI support and reported anomalous billing patterns to CMS.

- Patterns: delayed claims submission, frequent applications, long durations, same wound sizing
- Goal is to flag seriousness of the waste fraud and abuse problem and have specific claims removed

# Identifying Highly-Billed Skin Substitute Providers

Flag-Based Surveillance Methodology | 10 Provider-Level Detection Criteria

## CLAIM TIMING FLAGS

Skin substitute claims tend to be submitted much later than other claims. We look at:

Longest single claim lag (days) for provider

claims  $\geq 60$  days to enter production

claims  $\geq 90$  days to enter production

claims  $\geq 180$  days to enter production

## BILLING PATTERN FLAGS

Same product billed 2+ times for a patient in one day

Same product billed on 2+ days within a single week

## SPEND THRESHOLD FLAGS

$\geq \$150K$  in skin subs accrued for a single beneficiary

$\geq \$1M$  in total skin substitute spend by provider

## PRODUCT PATTERN FLAG

Provider switched from low-cost wound care to high-cost skin substitutes

## METHODOLOGY SUMMARY

### 10 Surveillance Flags

Comprehensive provider-level detection criteria applied across all skin substitute claims

### 4 Flag Categories

Timing · Billing Patterns · Spend Thresholds · Product Switching

# Policy Changes

# CMS Policy Response: What's Changed?

## What 2026 Policy Changes Accomplish

- CMS reclassified skin substitutes as "incident to supplies" consistent with most medical devices, changing payment system that allowed for product specific coding and pricing to flat payment rate of \$127 per sq cm
- CMS estimates 90% reduction in Medicare payments for skin substitutes

## What CMS Did for 2025 — and Who It Helped

- CMS acknowledged the disproportionate burden on High Needs REACH ACOs — where skin substitutes accounted for 12.6% of total program expenses
- For REACH ACOs, CMS agreed to remove 90% of skin substitute expenditures across 254 HCPCS codes from PY2025 settlement calculations, recalculate stop-loss and the retrospective trend adjustment, and hold ACOs harmless from downside risk
- MSSP ACOs received no such relief — CMS reasoned that skin substitutes averaged less than 2% of total MSSP spending and that truncation would protect 90%+ of programs

# MSSP

## Why 2025 Still Hurts MSSP

- 2025 expenditures are already locked in — the 2026 policy fix does not reverse damage already done
- Spending includes significant skin substitute waste, fraud, and abuse that ACOs had little ability to control
- ACOs with heavy exposure — particularly those serving high-RAF populations — face meaningful erosion of 2025 shared savings performance
- Roughly 48 MSSP programs remain at real financial risk, disproportionately those serving higher-need populations
- The 2026 fix addresses the incentive structure — it does not make 2025 MSSP ACOs whole
- CMS has multiple options to address the 2025 problem and should act
- CMS is pushing ACO's to reopen their settlement but there is a lack of clarity in what counts as 'improper'.

# This can happen again

## We Have Seen This Pattern Before

- In 2025, a similar overuse pattern emerged with orthopedic HCPCS codes in DME claims — high-cost bracing products billed at inflated rates through loosely affiliated supplier networks
- The playbook is the same: a reimbursement gap opens, products proliferate, high-margin codes get exploited, and spending spikes before policy can respond
- By the time CMS identifies the pattern and acts, ACOs have already absorbed the cost

## What ACOs Should Be Watching

- Monitor for sudden spend spikes in any Part B category — especially when new or recently pass-through products are involved
- Flag providers who shift product mix rapidly or concentrate high-cost codes among a small number of beneficiaries
- Build ongoing anomaly detection into your data workflow — early warnings allow for intervention before costs become unrecoverable

# What Questions Can we Answer?

# Stop by our VBCExhibitHall.com Virtual Booth

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Same constellation of risk factors

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# Live Demonstrations, Upon Request

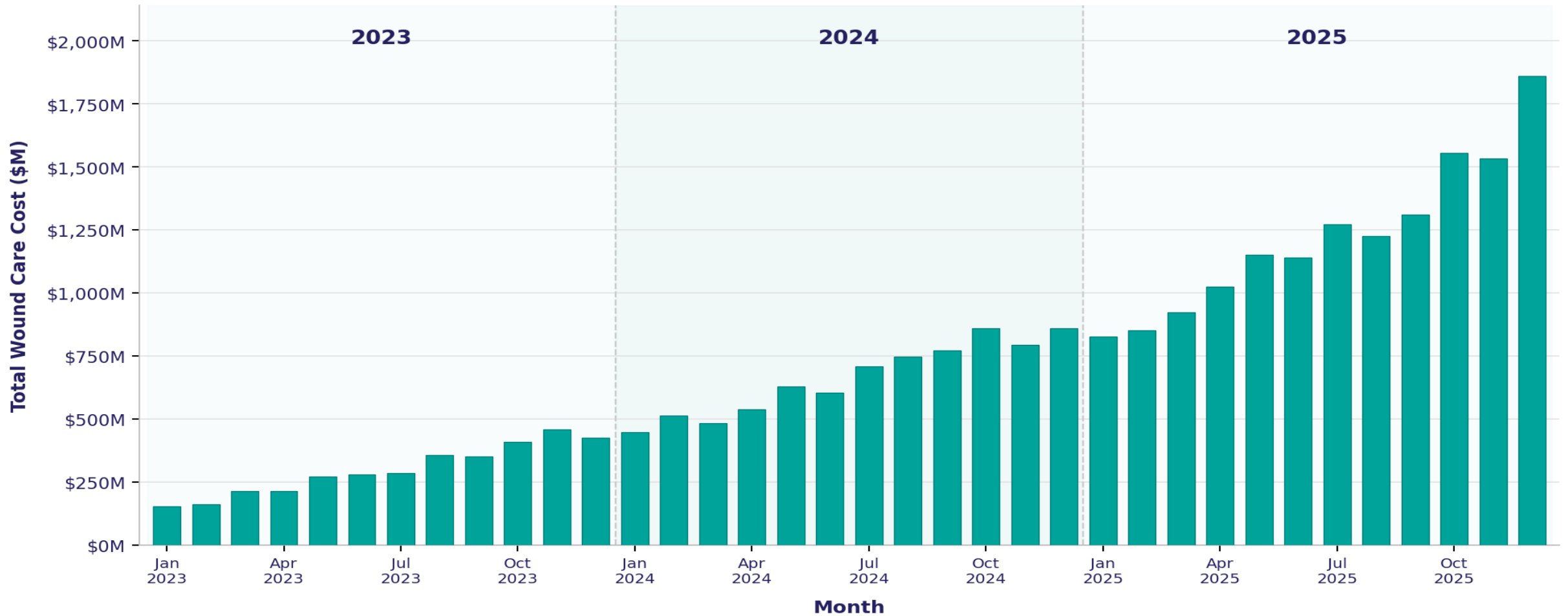
# Thank you!

**Will Robinson  
Maria Monahan  
Emily Hightower**

**Contact: [info@hda-institute.com](mailto:info@hda-institute.com)**

# Wound Care Cost: 2023 – 2025

Monthly skin substitute costs



Source: VRDC

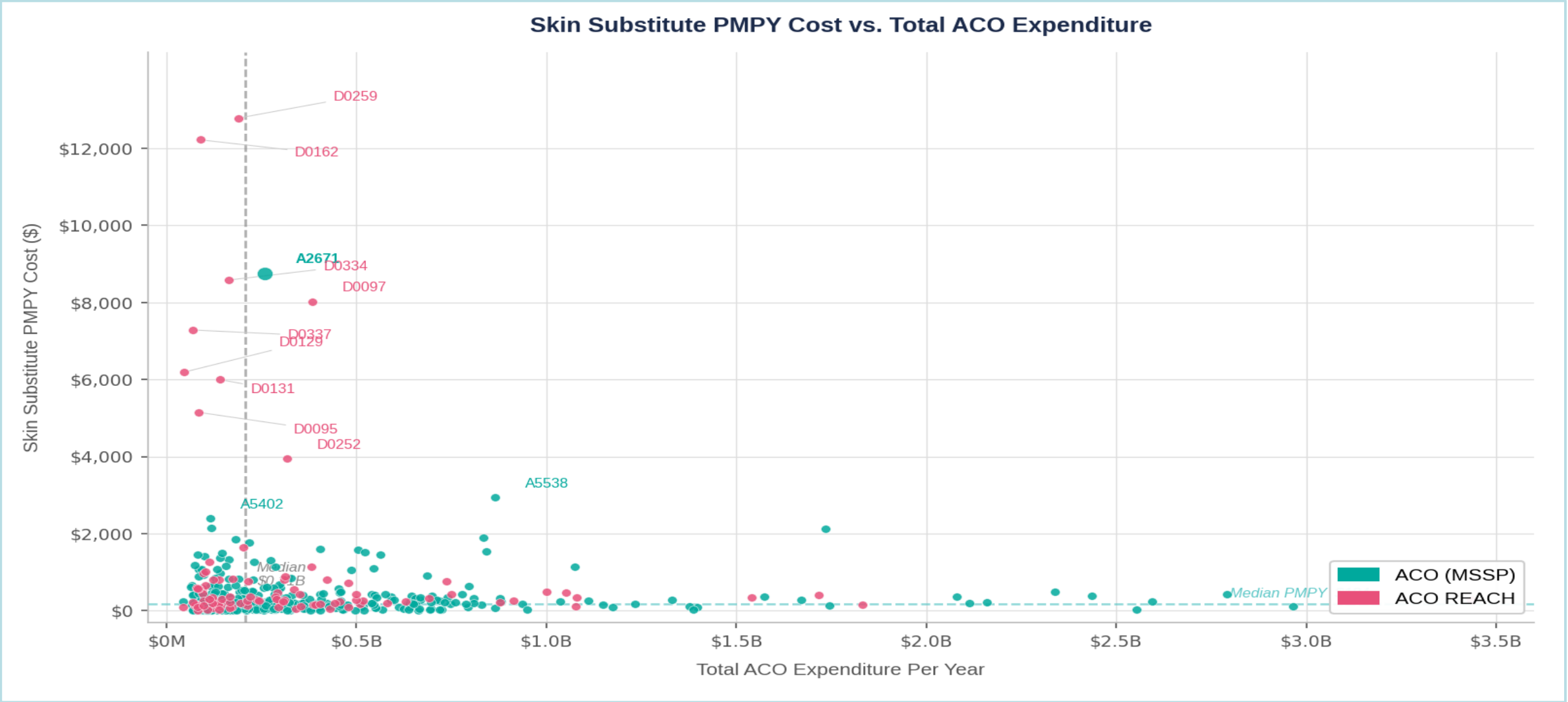
# ACO Variation -

# Patient Volume

| Group                                | # Providers | # Patients | Total Skin Substitute Expenditures |
|--------------------------------------|-------------|------------|------------------------------------|
| Spencer J Hardenbrook Md Pc          | 25          | 39         | \$6,851,622                        |
| Prestige Foot & Ankle Center Llc     | 5           | 27         | \$24,985,356                       |
| Old Mission Wound Care Virginia Pllc | 6           | 17         | \$3,196,108                        |
| Wound Care Consultants Llc           | 10          | 17         | \$2,495,657                        |
| 365 Health Care Group Plc            | 5           | 13         | \$18,607,523                       |
| Global Wound Care Medical Group      | 11          | 13         | \$3,346,563                        |
| Athena Medical Group                 | 8           | 12         | \$3,169,642                        |
| Khalid Rao Md Pc                     | 4           | 12         | \$18,592,564                       |
| Acs Wounds Llc                       | 4           | 10         | \$1,817,122                        |
| Fairview Hospital                    | 2           | 10         | \$9,646,326                        |

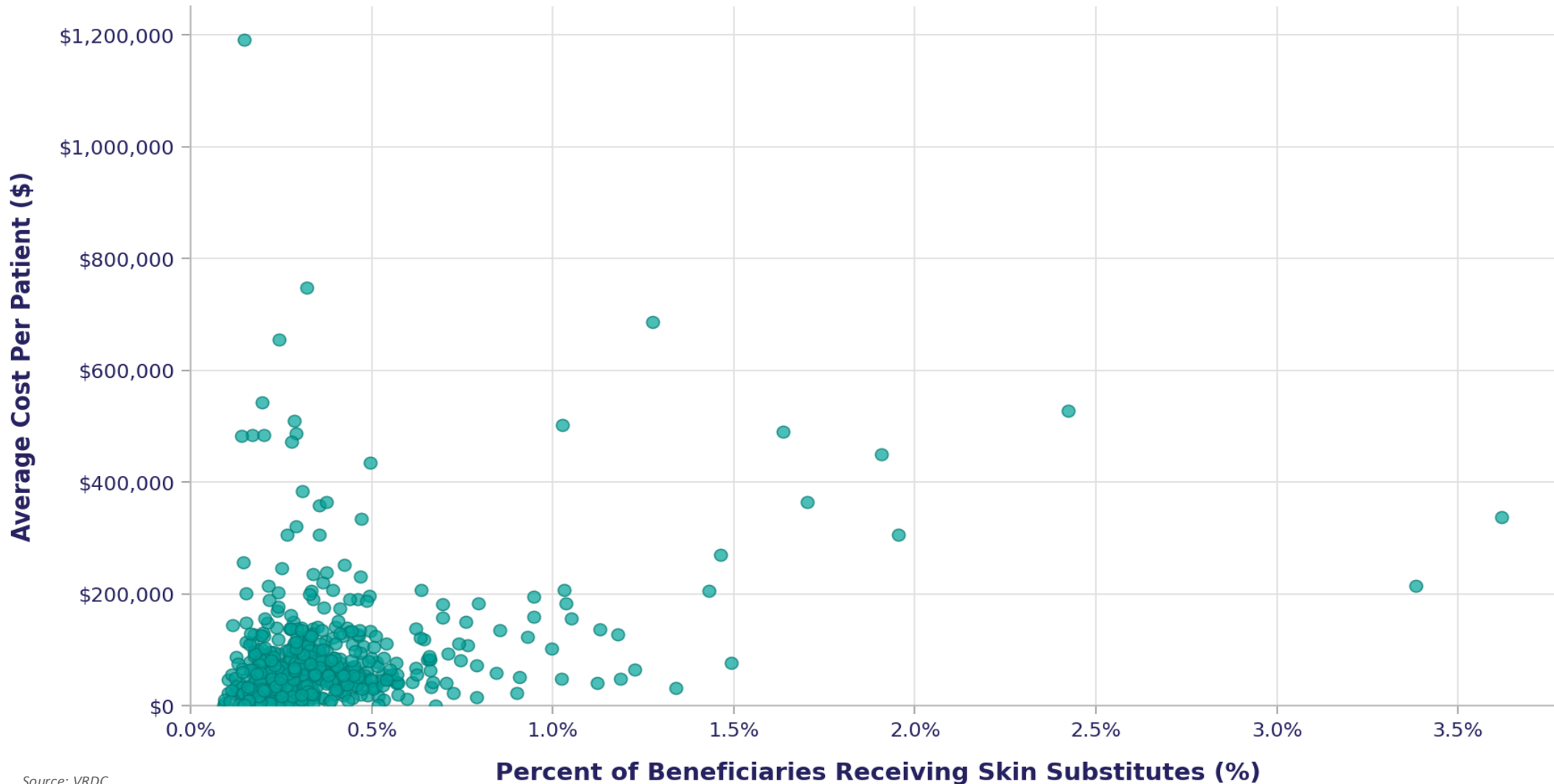
# Skin Substitute PMPY Cost vs. Total ACO Expenditure

ACOs serving complex, high-cost populations show concentrated high-PMPY outliers regardless of total spend



# Great Variation in Expense Across ACOs

2025 MSSP and REACH ACOs



Source: VRDC