

Provider Perspectives on Vascular Medicine

Awareness, Utilization, and Opportunities for Collaborative Care

A Single-Center Survey of Referring Providers at an Academic Medical Center

Building the Evidence Base for Vascular Medicine Grant



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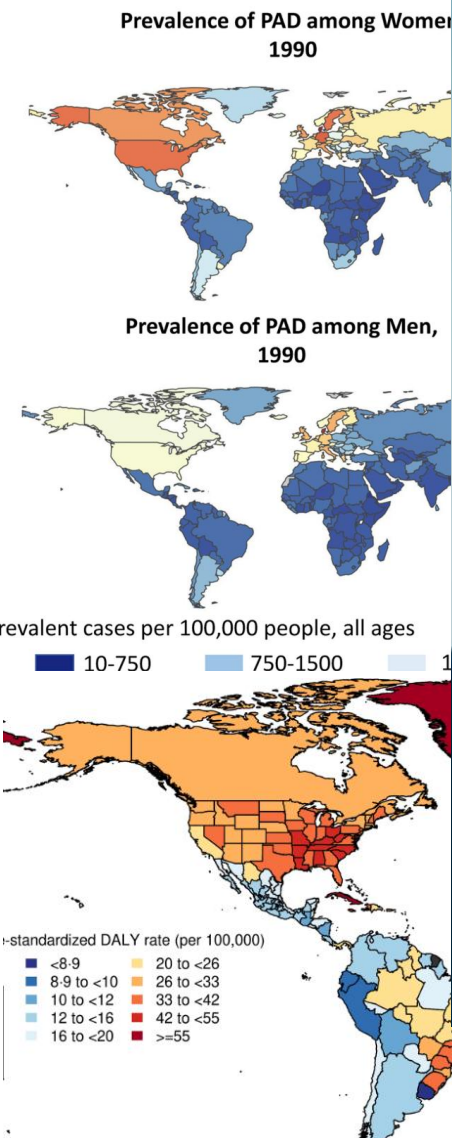
Disclosures

- Nothing to disclose

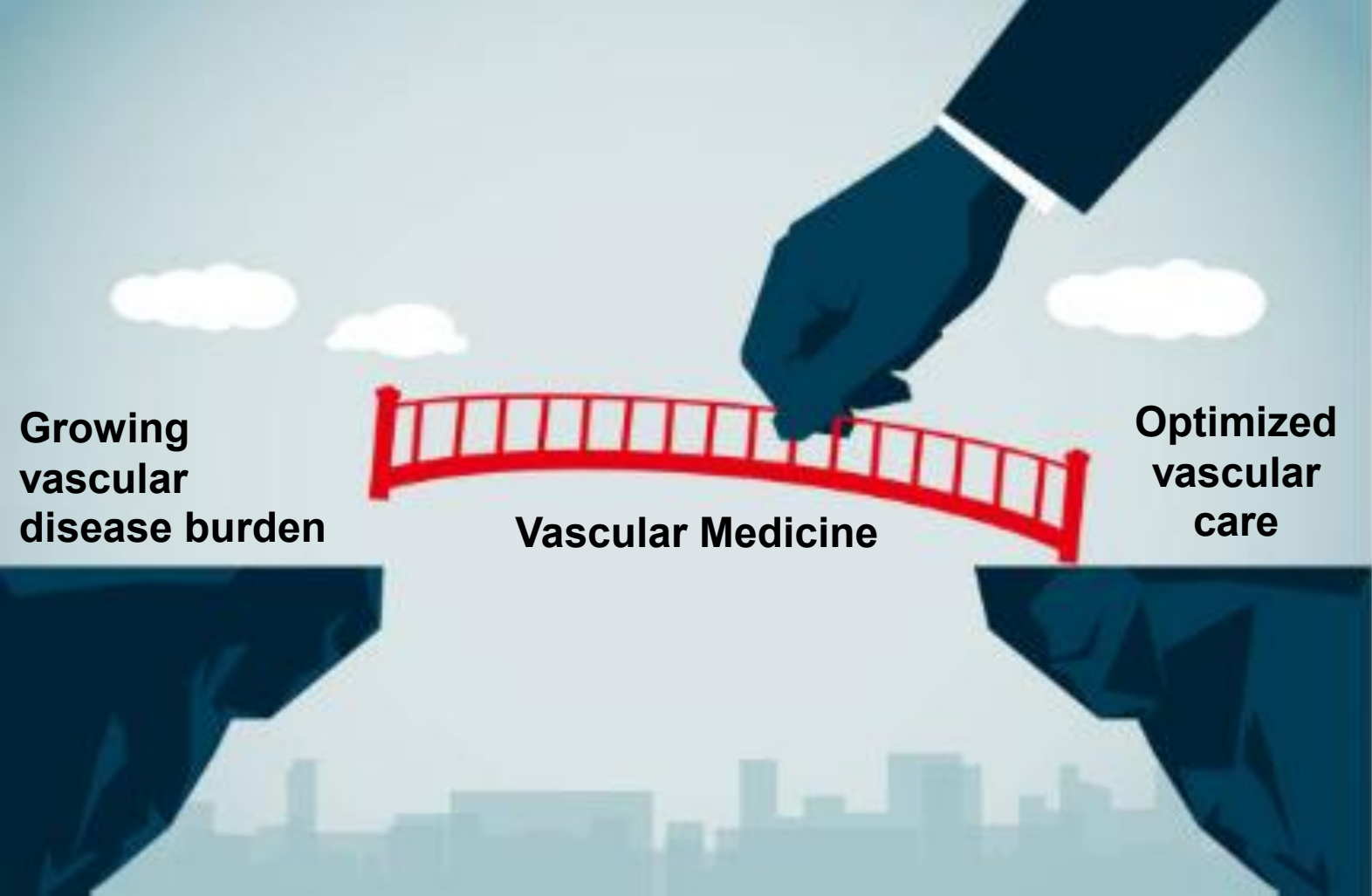
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Growing Vascular Diseases Burden and Unmet Need

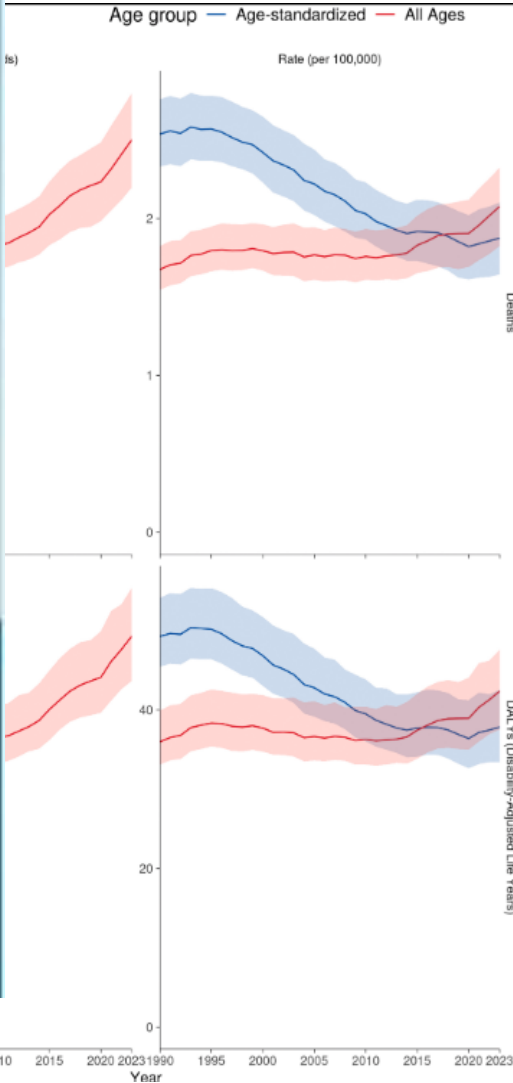
Peripheral Artery Disease



Venous Thromboembolism



Aortic Disease



Global Burden of Cardiovascular Diseases and Risks 2023 Collaborators, JACC 2025

Zuin, EHJ, 2026

Global Burden of Cardiovascular Diseases and Risks 2023 Collaborators, JACC 2025

Joint consensus guidelines endorse **multidisciplinary team models** to manage complex vascular conditions to optimize timely management and patient outcomes.

4. Multidisciplinary Aortic Teams

Recommendations for Multidisciplinary Aortic Teams		
COR	LOE	Recommendations
1	C-EO	1. For patients with acute aortic disease that requires urgent repair, a multidisciplinary team should determine the most suitable intervention.
2a	C-LD	2. For patients who are asymptomatic with extensive aortic disease, or who may benefit from complex open and endovascular aortic repairs, or with multiple comorbidities for whom intervention is considered, referral to a high-volume center (performing at least 30-40 aortic procedures annually) with experienced surgeons in a Multidisciplinary Aortic Team is reasonable to optimize treatment outcomes. ¹⁻⁶

Isselbacher et. al, Circ 2022

10.1. Team-Based Care for CLTI

Recommendation for Team-Based Care for CLTI

Referenced studies that support the recommendation are summarized in the [Online Data Supplement](#).

COR	LOE	Recommendation
1	B-NR	1. In patients with CLTI, a multispecialty care team should evaluate and provide comprehensive care with goals of complete wound healing, minimizing tissue loss, and preservation of ambulatory status. ^{1,2}

Gornik et. al, Circ 2024

4.1.4. Pulmonary Embolism Response Team

Recommendation for PERT

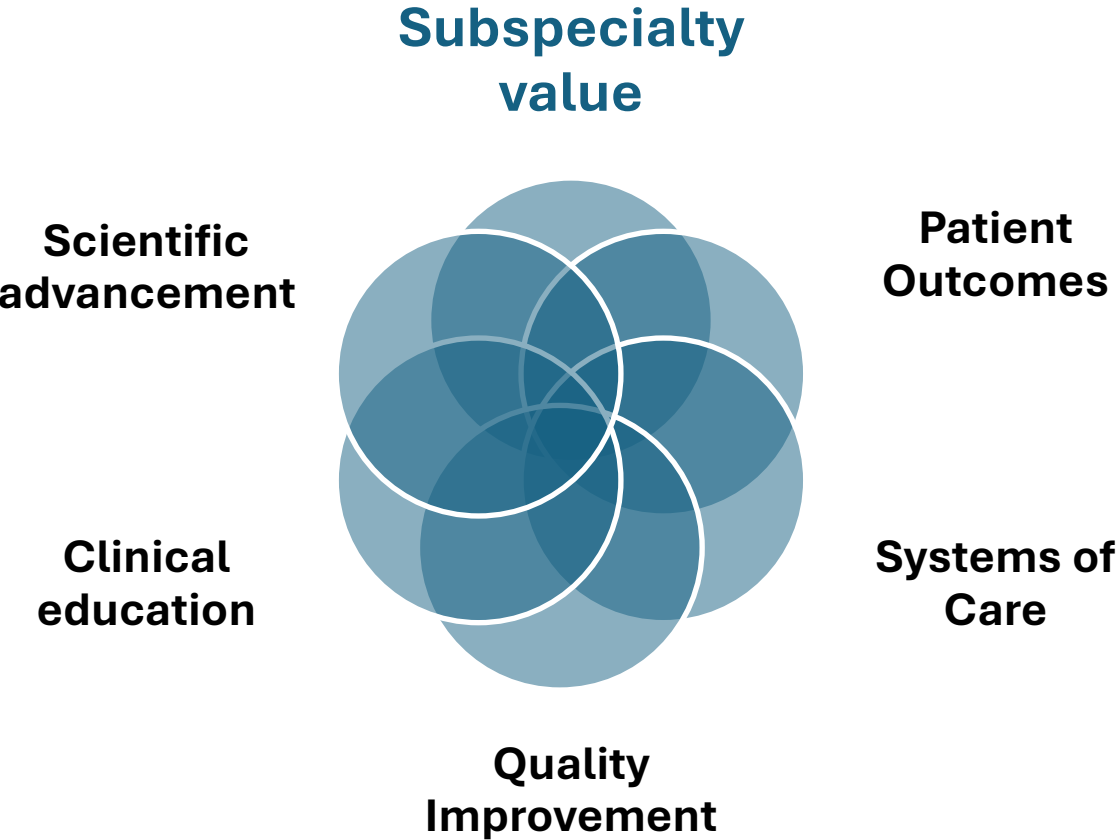
Referenced studies that support the recommendation are summarized in the [Evidence Table](#).

COR	LOE	Recommendations
1	B-NR	1. In patients with acute PE who are at increased risk of adverse outcomes (ie, AHA/ACC PE Categories C-E)*, a multidisciplinary PERT assessment is recommended to improve in-hospital clinical care delivery. ¹⁻¹⁸

Creager et. al, Circ 2026

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Introduction: Defining Subspecialty Value within Health Systems



Circulation:
Cardiovascular Interventions

REVIEW ARTICLE | Originally Published 15 January 2021 |

2021 ACC/AHA/SVM/ACP Advanced Training Statement on Vascular Medicine (Revision of the 2004 ACC/ACP/SCAI/SVMB/SVS Clinical Competence Statement on Vascular Medicine and Catheter-Based Peripheral Vascular Interventions)

Mark A. Creager, MD, FACC, FAHA, MSVM, Chair, Naomi M. Hamburg, MD, FACC, FAHA, FSVM, Vice Chair, Keith D. Calligaro, MD, Ana I. Casanegra, MD, MS, FSVM, Rosario Freeman, MD, MS, FACC, Phyllis A. Gordon, MSN, APRN, Retired, Heather L. Gornik, MD, FAHA, FSVM, [SHOW ALL ...](#), and Marlene S. Williams, MD, FACC | [AUTHOR INFO & AFFILIATIONS](#)

Gornik et.al. *VMJ*. 2024

Potential value does not necessarily translate to utilization

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Clinic Awareness

Are you aware of the vascular medicine clinic?



Referral Patterns

Have you referred patients to the clinic?



Referral Indications & Goals

For which conditions and for what goals do you refer?



Role & Collaboration

How do you view the role of vascular medicine and collaboration with the clinic?



Facilitators to Referral

What would increase your likelihood of referral?

Methods: Survey Design and Institutional Setting

Survey & Participants



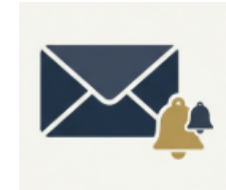
Study-specific
electronic survey



Active clinicians across
specialties caring for
vascular patients



Email distribution
with two reminders



October 2025-
March 2026

Institutional Setting



Academic vascular
medicine program
4 specialists



Outpatient setting
Focus on arterial disease
Medical /interventional
vascular care



Vascular Medicine-
Vascular Surgery clinic
Monthly PAD conference



vascular laboratory
privileges

Figures from notebooklm

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Results - Participant Characteristics

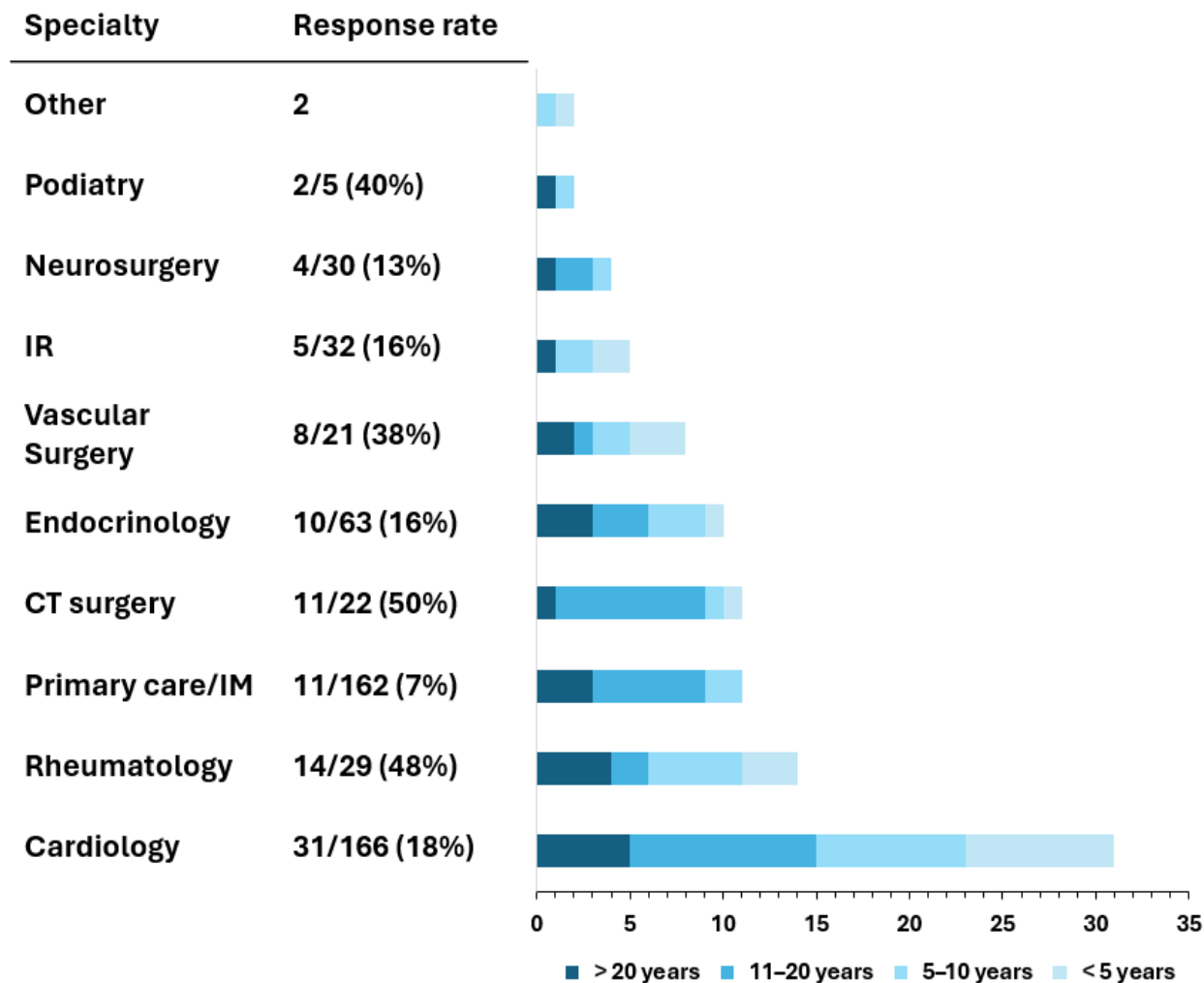
Overall Cohort:

Completed by **98 / 530** approached providers, (18% response rate)*

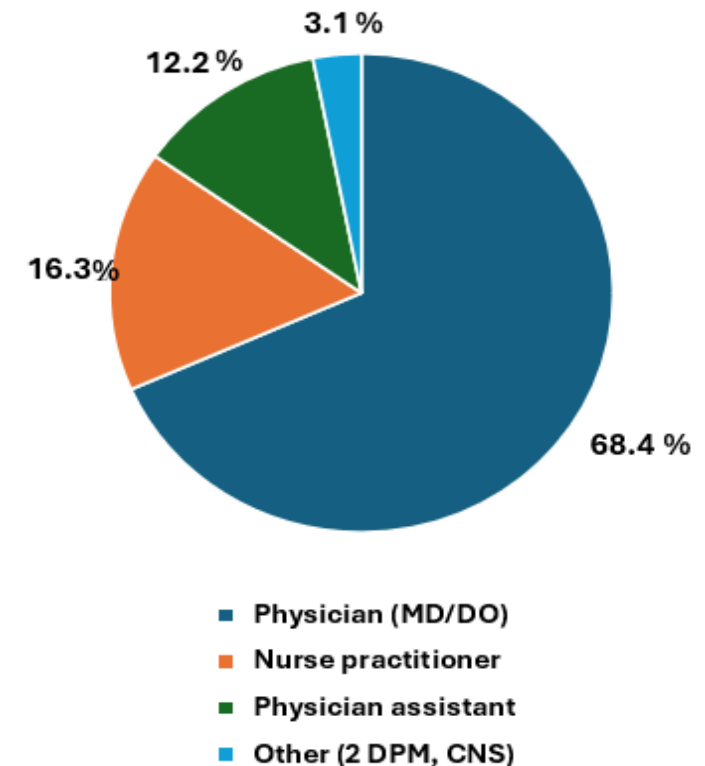
46% of responders practiced 10 years or less

*selection bias

Primary Specialties of Providers and Years in Practice

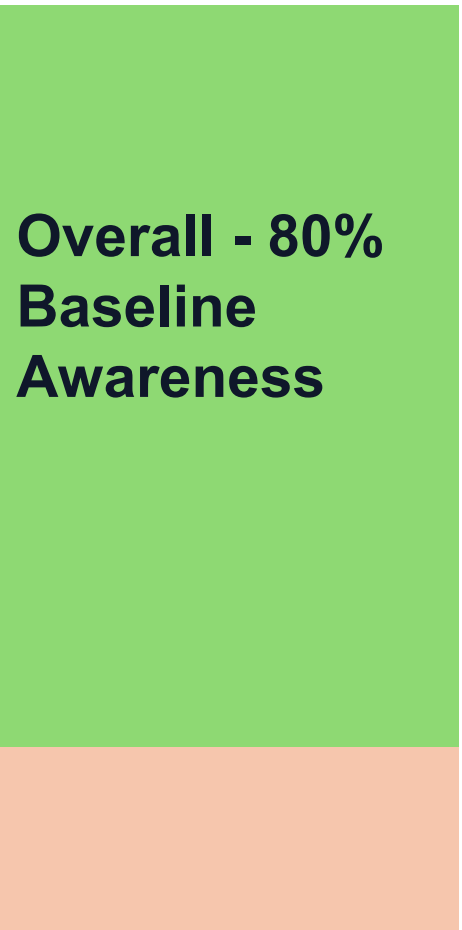


Providers Professional Designation



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Results - General and Specialty-Specific Clinic Awareness

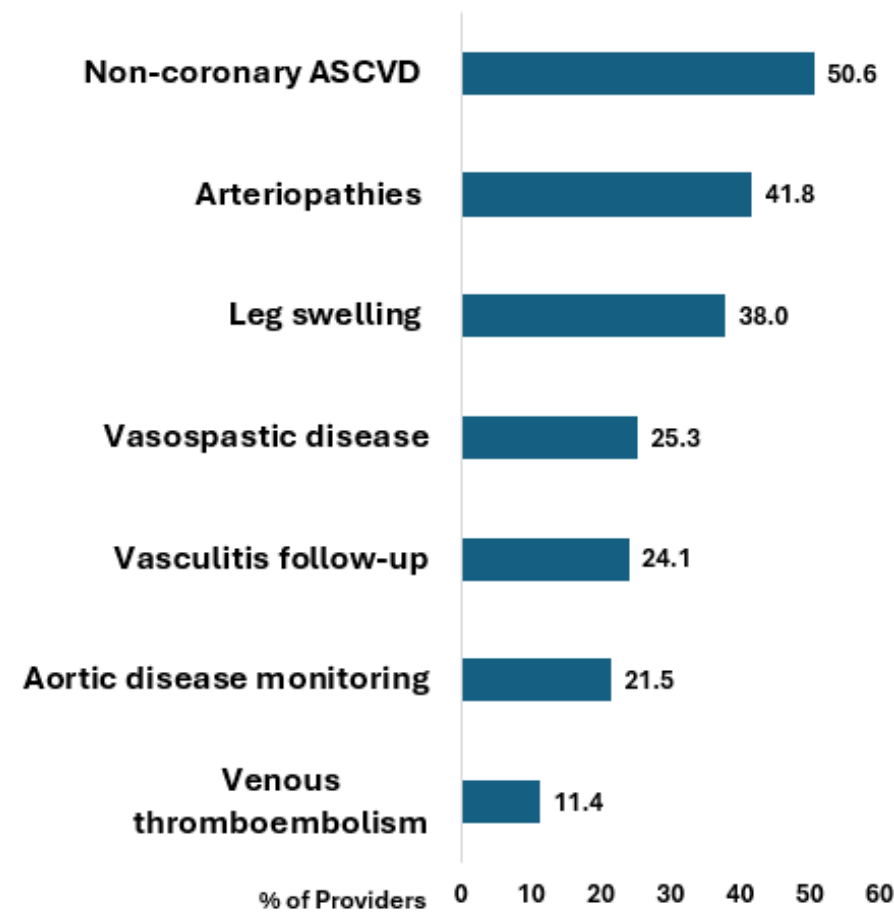


**Overall - 80%
Baseline
Awareness**

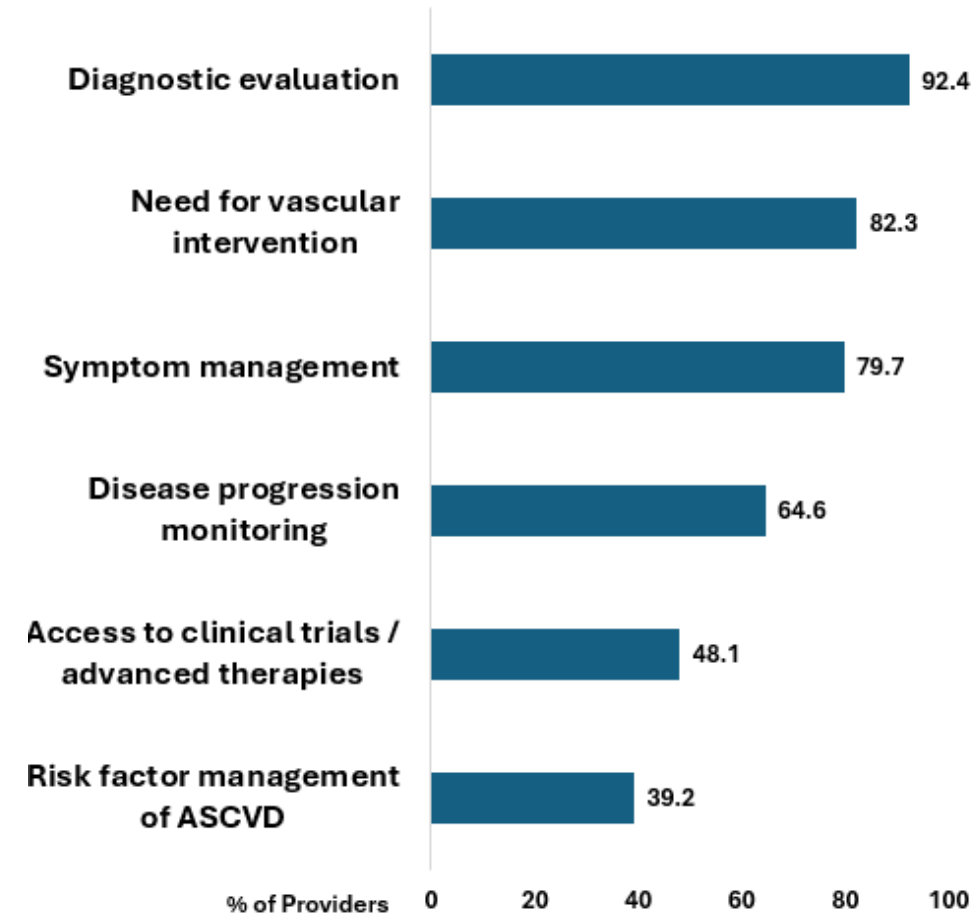
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General Conditions Referred and Referral Goals

Conditions Referred to Vascular Medicine



Management Goal of Referral to Vascular Medicine

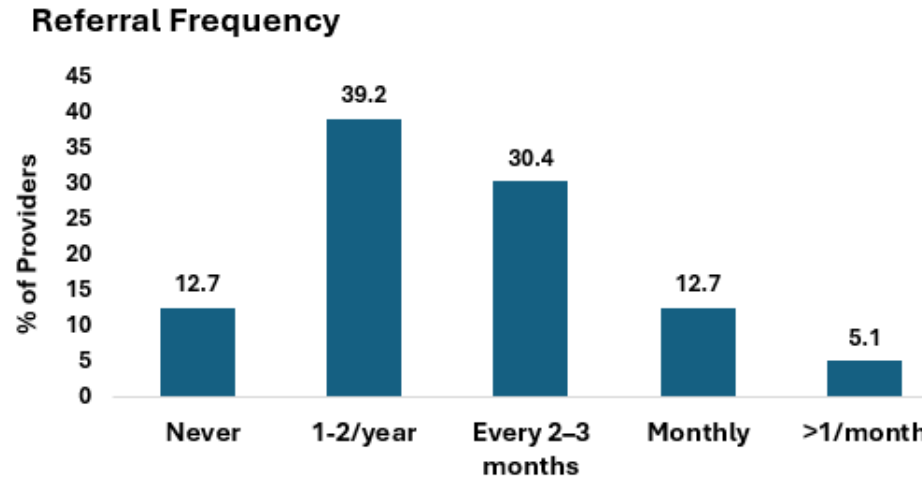


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General Referral Patterns and Perceived Collaborative Baseline

Referral frequency:

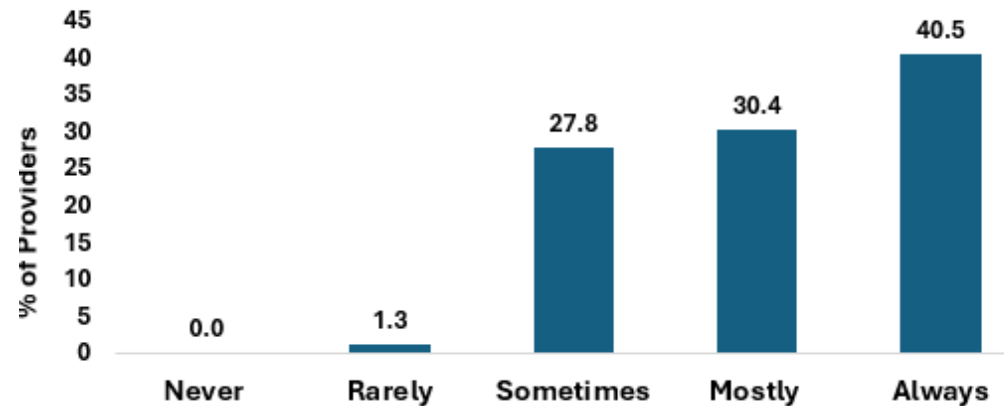
Utilization: **48% of aware providers** reported referring patients to the clinic every 2–3 months or more. **52% refer infrequently or never.**



Perceived Collaborative

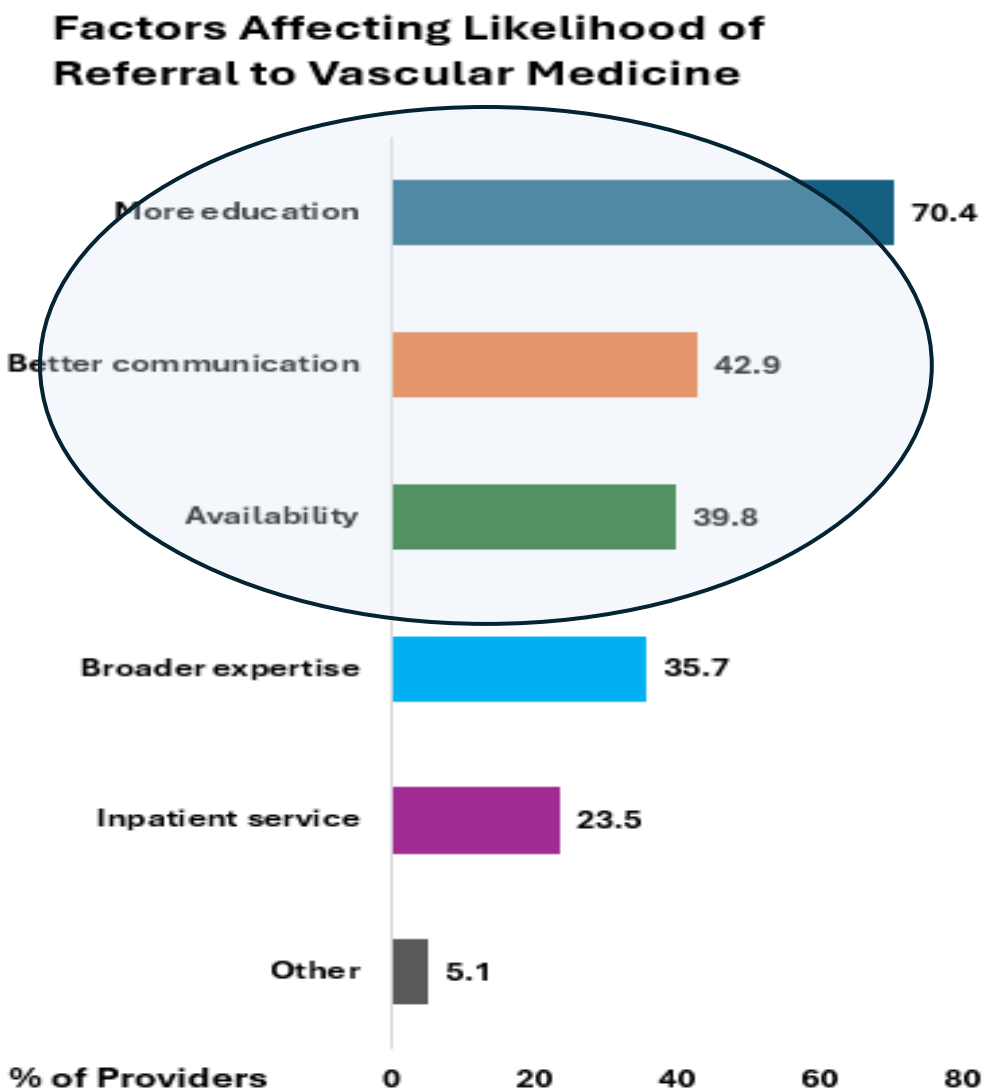
71% of referring providers reported a collaborative relationship with vascular medicine "most of the time" or "always"

Referring Providers' Perception of the Collaboration of CU Vascular Medicine Specialists



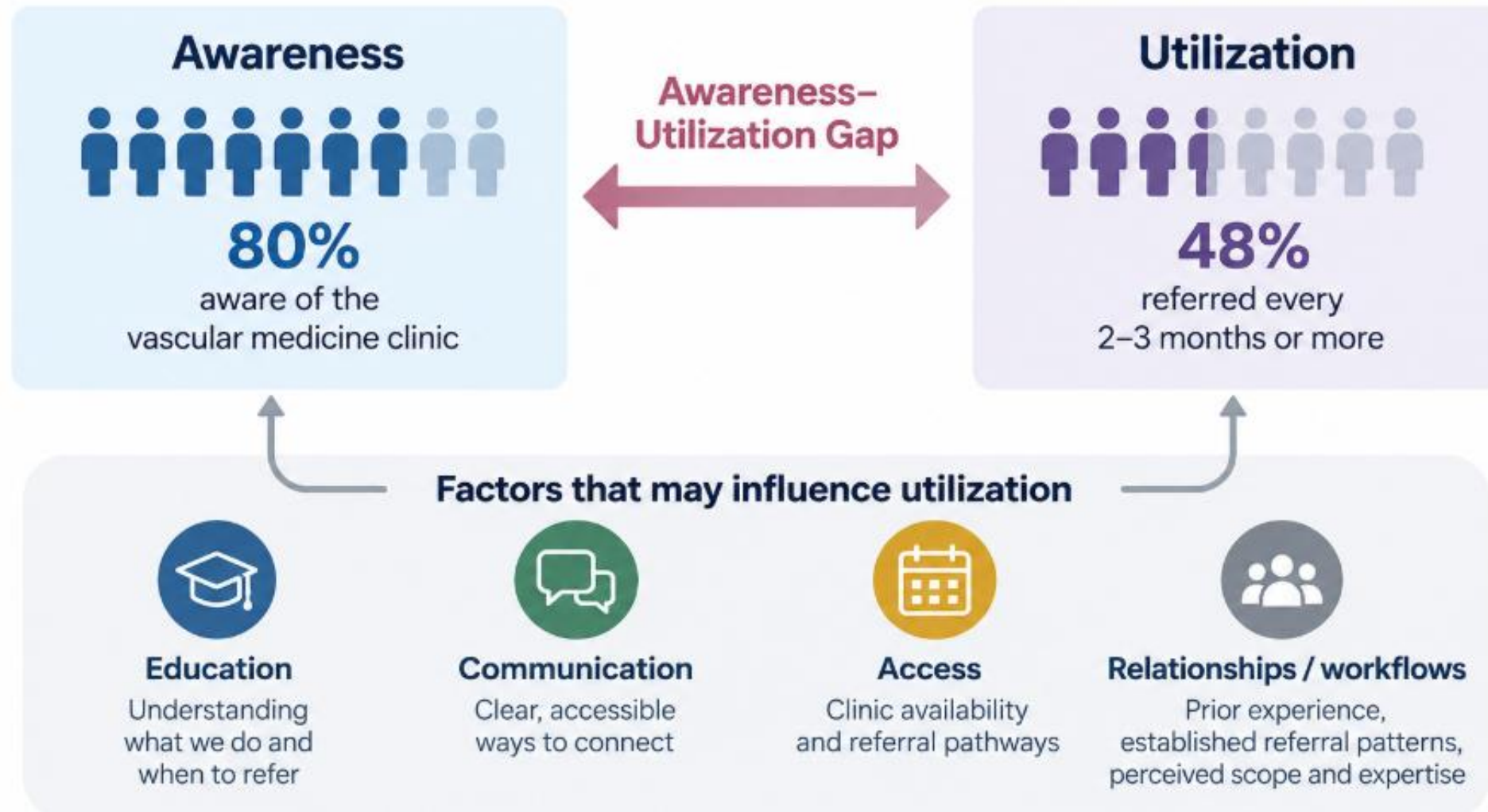
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Factors Influencing Referral Likelihood



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Discussion: The Awareness-Utilization Divergence



Finn et al. 2022, J. Gen. Intern. Med

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Figures created in chatgpt

Discussion: Referral Patterns, Scope and Clinical Relationships

Referral patterns should also be interpreted in the context of variation in local vascular medicine scope, interdisciplinary relationships and responsibilities distribution.

Local and System-Level Dynamics (not assessed)

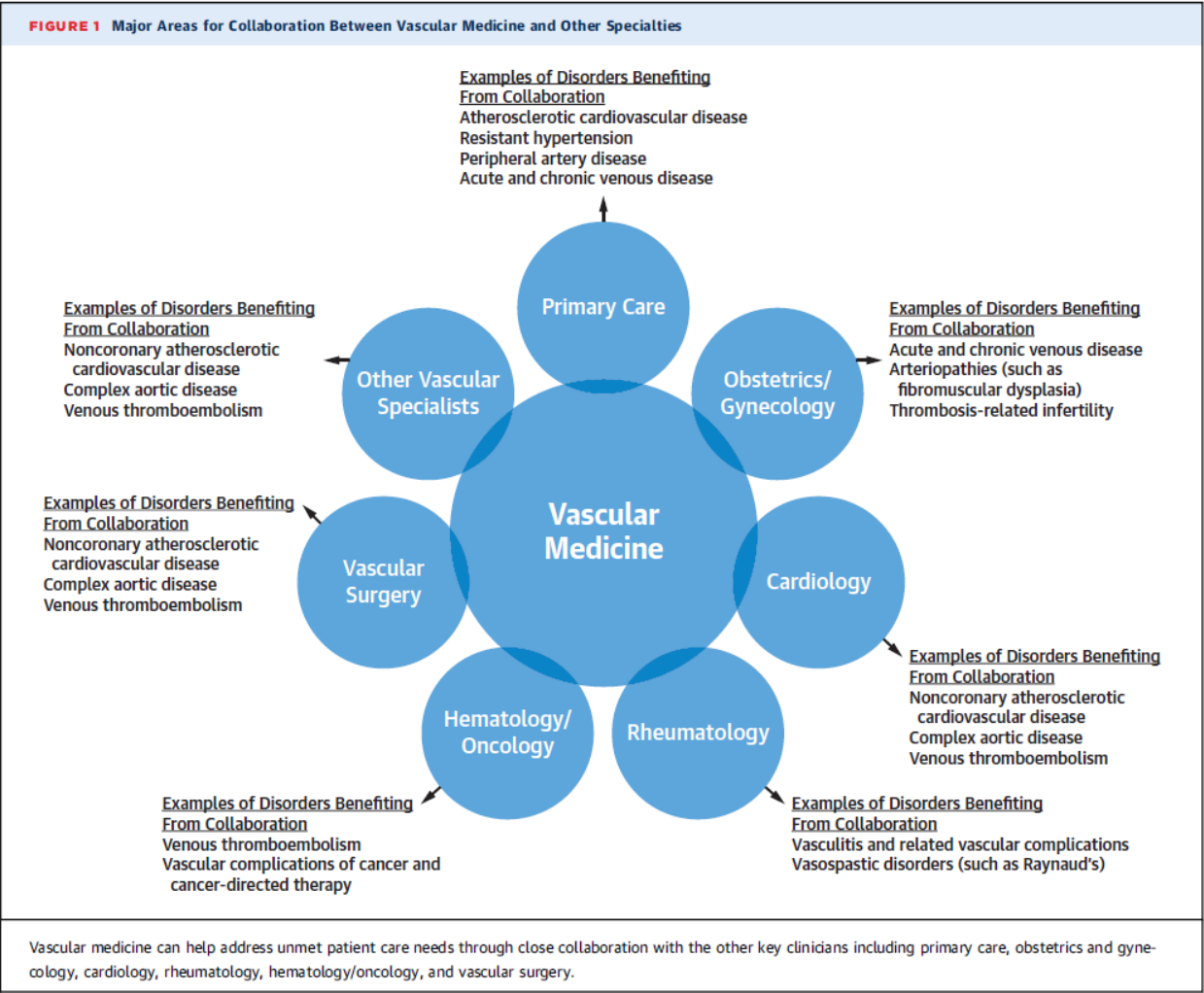
Overlapping specialty roles and responsibilities

Clinical and financial incentives

Established referral relationships



Broader Context



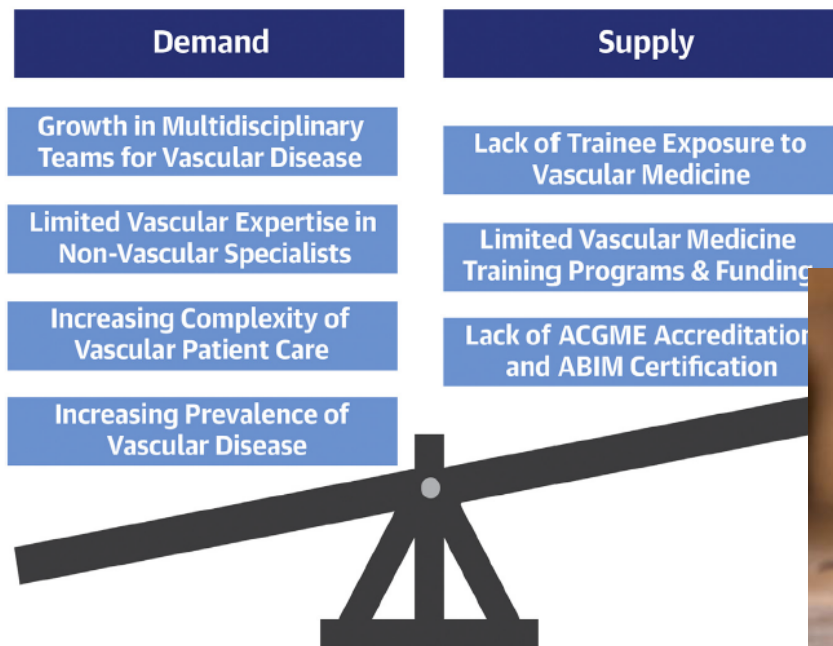
Eberhardt et.al. JACC 2022

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System Wide Context: National Training and Workforce Gaps

CENTRAL ILLUSTRATION Supply Demand Mismatch in Vascular Medicine Training



Eberhardt RT, et al. J Am Coll Cardiol. 2022;79(21):2129-2139.

An imbalance in supply and demand driving the call for support of formalized pathways for training in vascular medicine. The increasing prevalence of vascular disease, growing complexity of diagnosis and treatment of vascular diseases, limited training in vascular disorders in other fields of medicine, and expanding indications for multidisciplinary care teams requiring vascular expertise are critical drivers for vascular medicine specialist demand. However, scant exposure of trainees in residency and fellowships to vascular medicine as a specialty limits interest in careers focused on vascular care. Furthermore, lack of vascular medicine expertise, funding, and Accreditation Council for Graduate Medical Education (ACGME) recognition limit the development of formal and standardized training program, resulting in a small number of fellowship opportunities. Finally, lack of American Board of Internal Medicine (ABIM) certification limits funding opportunities for training and earning potential for vascular medicine specialists, respectively.

Eberhardt et.al. JACC 2022

Trends in supply, demand, and workforce adequacy in vascular surgery: Forecasting a national shortage.

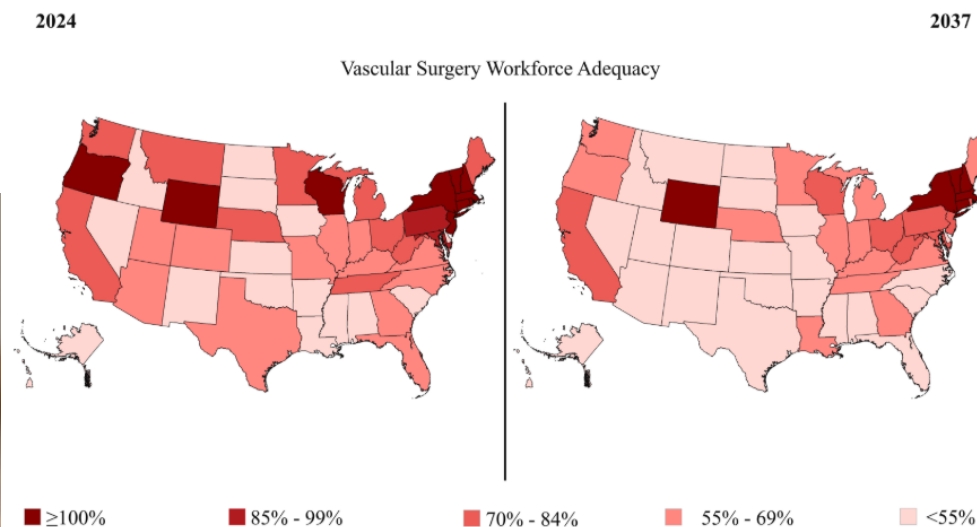


FIG 3
Geographic analysis of vascular surgery workforce adequacy across the United States (U.S.).

Silvestre et.al J of Vasc Surg. 2025

- Vascular surgery ranked **last among 11 surgical specialties** for workforce adequacy in both 2024 and 2037.

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Discussion: Actionable Opportunities to Optimize Care Pathways



Clinician education



Patient education



Establish multidisciplinary collaborative connections



Improve Research and Knowledge



System wide processes to Promote Recognition, Awareness and Integration



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Methodological Considerations and Study Limitations

Single-Center Scope

Selection Bias

Incomplete Dissemination

Self-Reported Metric recall bias

Small subgroup cohorts

Subjective referral pattern reporting

Independent survey development

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Conclusions & Take-Home Messages

- Providers perceptions of vascular medicine may assist in mapping vascular medicine value and utilization as a subspecialty.
- **In this institutional survey** - Responding providers **viewed vascular medicine as a valuable collaborative partner**, particularly for complex vascular disease.
- **Awareness is high, but utilization remains variable.**
- **Local opportunities** include education, multidisciplinary communication, referral pathways, and clinic access.
- **At a broader level, efforts to strengthen recognition, training, and the evidence base may also help support integration of vascular medicine into care.**



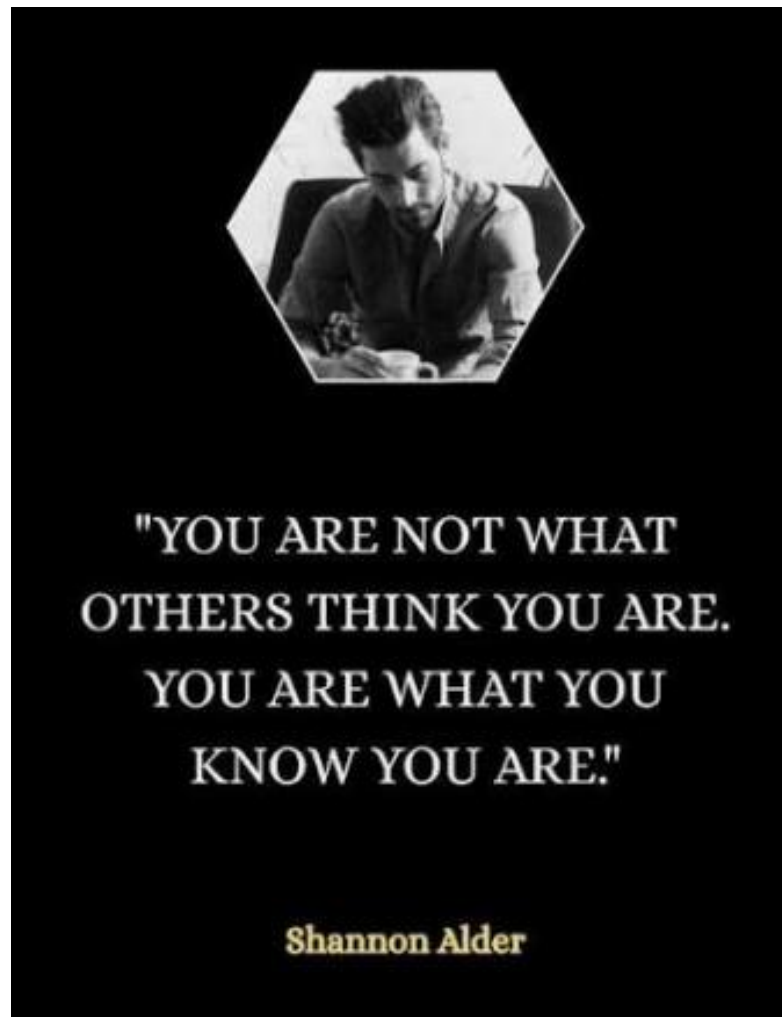
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**Who we are
shapes our
path.
Understanding
how others see
us can help us
navigate it.**



Thank you



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