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Michigan Vascular Study Group

May 18, 2022

VQI Update

In Conjunction with BMC2 VS CQI

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Meeting Attendance Credit

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Before we get started, please sign in.

1. **Click "Participants" in the box at the top or bottom of your screen.**
2. **If your full name is not listed, hover next to your name and you'll see "rename".**
3. **Click and sign in.**

If you can't sign in, please email Leka Johnson at ljohnson@svspso.org and let her know the identifier you were signed in under (ex –LM7832 or your phone number).

****SPECIAL NOTE: We do give credit to residents/fellows that don't have a PATHWAYS user account !!!**

Sign in with your Full name, MD, Name of Institution

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Appreciation and Thanks

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- Ashraf Mansour, MD - Regional Medical Director
- Timothy Nypaver, MD– Associate Regional Medical Director
- Joseph Jacot- Regional Lead Data Manager
- Gary Lemmon, MD - SVS PSO Associate Medical Director
- Kristopher Huffman - Director Analytics & Analytic Team
- Jim Wadzinski– SVS PSO Deputy Executive Director
- Leka Johnson - Quality Improvement Specialist
- SVS PSO Staff

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Agenda

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VQI Michigan Data Review: Ashraf Mansour, MD

VQI National Update: Jim Wadzinski, SVS PSO

AQC Update: Mitchell Weaver, MD

VQC Update: Jennifer Watson, MD

RAC Update: Nicholas Osborne, MD

Site Profile

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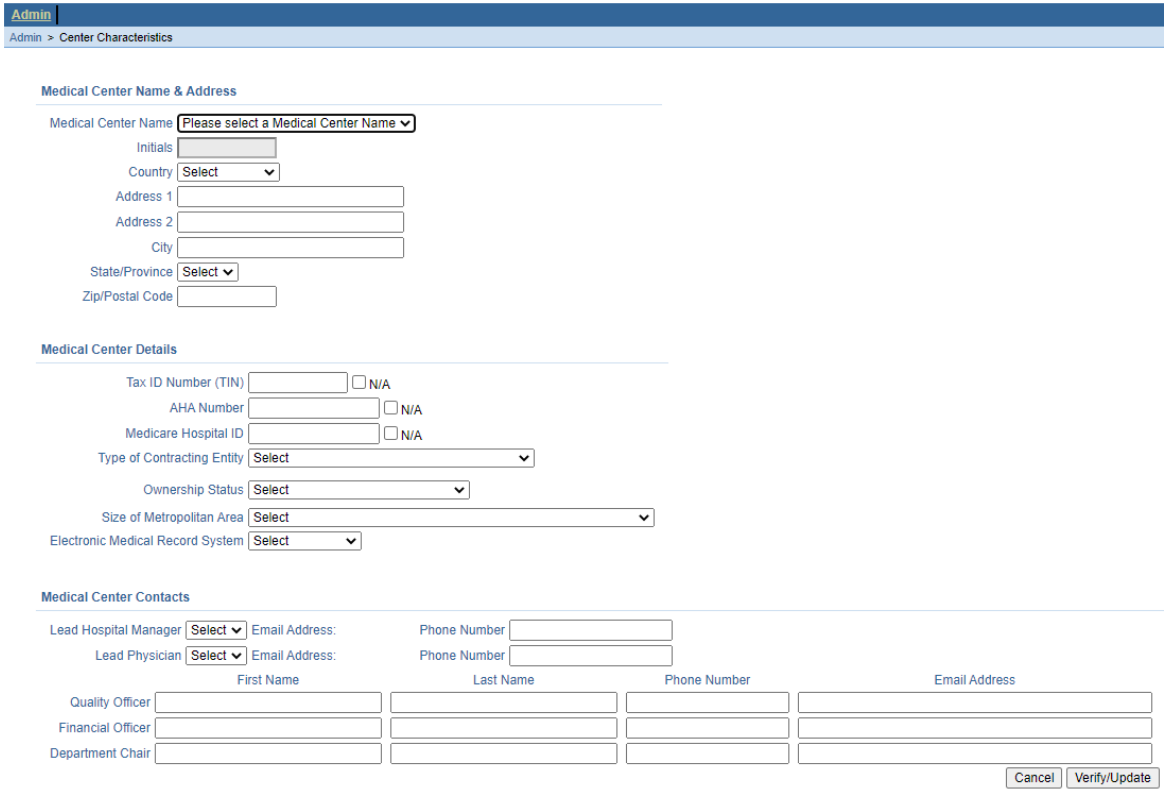
- Please routinely review your Center Characteristics for accuracy
- For those who have left your facility, please change their status to inactive and maintain current email addresses



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Welcome and Introductions

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Ascension Borgess Hospital
Ascension Genesys Hospital
Ascension Providence Hospital, Novi Campus
Ascension Providence Hospital, Southfield Campus
Ascension St. John Hospital
Ascension St. Mary's Hospital
Beaumont Royal Oak
Bronson Battlecreek Hospital
Bronson Methodist Hospital
Covenant Healthcare
DMC Harper University Hospital
Henry Ford Allegiance Health
Henry Ford Hospital, Detroit MI
Henry Ford Hospital, West Bloomfield MI
Henry Ford Macomb Hospital
McLaren Bay Region
McLaren Flint
McLaren Greater Lansing
McLaren Macomb
McLaren Northern Michigan
McLaren Port Huron
Mercy Health Saint Mary's
Michigan Vascular Center
Munson Medical Center
MyMichigan Health-Midland
Oaklawn Hospital
Providence Hospital-Rochester
Spectrum Health Hospital
St. John Macomb Oakland
St. Joseph Mercy Health System
St. Mary Mercy Livonia
University of Michigan
Vascular Institute of Michigan

Spring Regional Reports

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Ashraf Mansour, MD

VQI Regional Quality Report

SVS | VQI
In collaboration with NCDR®

Spring 2022

This report is patient safety work product generated within the SVS PSO, LLC, and is considered privileged and confidential.

About the Report

The VQI Regional Quality Report is produced semiannually to provide centers and regions targeted, comparative results and benchmarks for a variety of procedures, process measures, and postoperative outcomes. The report is organized into separate reports that can be quickly accessed by clicking on the report names in the table of contents on the left.

For drill-down and data feedback on your center's cases, click on "VQI Case Appendix" in the table of contents on the left.

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Spring Regional Reports

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Important Notes

- All results are based on data entered into the VQI as of January 31, 2022. Any subsequent changes or updates to data after that date will not be reflected in this report.
- Procedure timeframes and inclusion/exclusion criteria are given at the top of each report. Cases are also excluded if outcomes are missing or not enough data was entered to determine whether the case met inclusion/exclusion criteria.
- Regions must have at least 3 centers with included cases for regional results to be displayed in tables and line charts.
- Regions must have at least 3 centers with at least 10 included cases per center for regional results to be displayed in bar charts. It is therefore possible for a region's results to be displayed in tables and line charts, but not in bar charts.
- For risk-adjusted reports, regions must have at least 3 centers with at least 10 *complete* cases per center for regional results to be displayed in bar charts. It is therefore possible for a region's results to be displayed in tables and line charts, but not in bar charts.
- In all graphics, "*" indicates a p-value <.05.

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Important Updates

The following updates have been implemented to enhance and improve the Spring 2022 VQI Regional Quality Report:

- Number of Centers Displayed
  - All center-variation bar charts now show the number of centers displayed in the chart, as well as the total number of centers in the region contributing data to the associated report.

- Updated Region Volume Appendix
  - The Region Volume Appendix now contains entries for the “Procedure Volume” and “Procedure Volume, All Years” reports.

Spring 2022 Important Report Updates:

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Report-Specific Updates

The following report-specific updates have been implemented to enhance and improve the specified report(s):

- TFEM CAS
  - Changed inclusion/exclusion criteria – Procedures with an approach of either Brachial or Radial are now included in both ASYMP and SYMP reports.

- EVAR: SVS Sac Size Guideline
  - Nomenclature change to “EVAR: SVS AAA Diameter Guideline”. No changes to the report itself.

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Dashboard

The dashboard provides a high-level summarization of your center's results for each of 25 reports, and gives both regional and VQI-wide benchmarks for comparison. The "Your Center" column gives the percentage of your center's cases with the noted outcome. Numbers in parentheses give the number of cases with the outcome and the total number of cases meeting the inclusion criteria for that report. The "Your Region" and "VQI Overall" columns give the aggregate percentage of cases with the noted outcome, as well as the 10th, 25th, 50th (median), 75th, and 90th percentiles for centers in your region and VQI, respectively ([10th|25th|50th|75th|90th]). Your center's results are highlighted blue if your center is in the "top" 25th percentile for VQI Overall, and coral if your center is in the "bottom" 25th percentile for VQI Overall.

For details on a particular report, click on the report name in the table of contents on the left.

Legend: Blue = "Top" 25th percentile **Coral = "Bottom" 25th percentile**

Note that procedure volume results are not highlighted.

MVSG Regional Dashboard

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Dashboard

The dashboard provides a high-level summarization of your center's results for each of 25 reports, and gives both regional and VQI-wide benchmarks for comparison. The "Your Center" column gives the percentage of your center's cases with the noted outcome. Numbers in parentheses give the number of cases with the outcome and the total number of cases meeting the inclusion criteria for that report. The "Your Region" and "VQI Overall" columns give the aggregate percentage of cases with the noted outcome, as well as the 10th, 25th, 50th (median), 75th, and 90th percentiles for centers in your region and VQI, respectively ([10th|25th|50th|75th|90th]). Your center's results are highlighted blue if your center is in the "top" 25th percentile for VQI Overall, and coral if your center is in the "bottom" 25th percentile for VQI Overall.

For details on a particular report, click on the report name in the table of contents on the left.

Procedure Group	Outcome	Your Center	Your Region	VQI Overall
All	Procedure Volume		[28 | 43 | 133 | 205 | 307]	[7 | 19 | 76 | 203 | 413]
	Procedure Volume, All Years		[39 | 190 | 356 | 1440 | 3766]	[12 | 47 | 266 | 1294 | 3153]
Multiple	Long-Term Follow-up		70.6% [0 | 54 | 80 | 93 | 98]	71.1% [0 | 37 | 73 | 89 | 96]
	Discharge Medications		89.2% [83 | 87 | 90 | 93 | 98]	88.1% [73 | 82 | 90 | 97 | 100]
TFEM CAS ASYMP	Stroke/Death		0.8% [0 | 0 | 0 | 0 | 1]	1.7% [0 | 0 | 0 | 0 | 3]
TFEM CAS SYMP	Stroke/Death		6.7% [0 | 0 | 0 | 1 | 9]	4.7% [0 | 0 | 0 | 0 | 13]
TCAR ASYMP	Stroke/Death		0.6% [0 | 0 | 0 | 0 | 0]	1.3% [0 | 0 | 0 | 0 | 4]
TCAR SYMP	Stroke/Death		3.5% [0 | 0 | 0 | 0 | 12]	2.6% [0 | 0 | 0 | 0 | 10]
CEA ASYMP	Stroke/Death		0% [0 | 0 | 0 | 0 | 0]	0.9% [0 | 0 | 0 | 0 | 3]
	Postop LOS>1 Day		21.4% [8 | 13 | 20 | 25 | 31]	21.7% [0 | 11 | 20 | 32 | 50]
CEA SYMP	Stroke/Death		0% [0 | 0 | 0 | 0 | 0]	2.2% [0 | 0 | 0 | 0 | 8]
	Postop LOS>1 Day		41.5% [23 | 29 | 38 | 45 | 60]	40.8% [0 | 25 | 40 | 56 | 75]
EVAR	Postop LOS>2 Days		14% [4 | 5 | 14 | 26 | 35]	16.7% [0 | 7 | 15 | 23 | 34]
	Sac Diameter Reporting		48% [18 | 30 | 49 | 65 | 71]	58% [0 | 38 | 60 | 77 | 87]
	SVS AAA Diameter Guideline		88.1% [80 | 85 | 91 | 95 | 98]	75.3% [50 | 64 | 76 | 86 | 100]
TEVAR	Sac Diameter Reporting		22.7% [12 | 20 | 33 | 54 | 67]	59.3% [0 | 33 | 58 | 78 | 94]
OAAA	In-Hospital Mortality		3.1% [0 | 0 | 3 | 5 | 6]	4.2% [0 | 0 | 0 | 7 | 15]
	SVS Cell-Saver Guideline		90.3% [66 | 84 | 92 | 99 | 100]	92.4% [73 | 89 | 98 | 100 | 100]
	SVS Iliac Inflow Guideline		98.5% [74 | 85 | 100 | 100 | 100]	97.6% [92 | 98 | 100 | 100 | 100]
PVI CLAUD	ABI/Toe Pressure		80.3% [62 | 73 | 84 | 96 | 96]	74.6% [39 | 63 | 82 | 93 | 100]
INFRA CLTI	Major Complications		4% [0 | 0 | 4 | 5 | 5]	4.9% [0 | 0 | 3 | 7 | 12]
SUPRA CLTI	Major Complications		0% [0 | 0 | 0 | 0 | 0]	8.1% [0 | 0 | 0 | 12 | 25]
LEAMP	Postop Complications		NA (<3 centers)	11.7% [0 | 3 | 8 | 15 | 21]
HDA	Primary AVF vs. Graft		NA (<3 centers)	82.4% [64 | 73 | 84 | 91 | 100]
IVCF	Filter Retrieval Reporting		NA (<3 centers)	54.5% [9 | 31 | 52 | 72 | 87]

Legend: Blue = "Top" 25th percentile Coral = "Bottom" 25th percentile

Note that procedure volume results are not highlighted.

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MVSG Volume Appendix

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Region Volume Appendix

Spring 2022

About the Appendix

The Region Volume Appendix provides your region's case volumes for each report. In addition, the number of centers with cases contributing to each report is given. Note that columns referencing complete cases are appropriately left blank for non risk-adjusted reports.

Report	Included Cases	Centers with Included Cases	Centers with at least 10 Included Cases	Complete Cases	Centers with Complete Cases	Centers with at least 10 Complete Cases
Procedure Volume	5060	23	22			
Procedure Volume, All Years	43382	27	27			
Long-Term Follow-up	3937	20	18			
Discharge Medications	3006	22	21			
TFEM CAS ASYMP: Stroke/Death	118	10	4	109	10	4
TFEM CAS SYMP: Stroke/Death	135	12	4	122	12	4
TCAR ASYMP: Stroke/Death	181	16	7	170	16	7
TCAR SYMP: Stroke/Death	85	13	3	80	13	2
CEA ASYMP: Stroke/Death	159	6	4	152	6	4
CEA ASYMP: Postop LOS>1 Day	159	6	4	152	6	4
CEA SYMP: Stroke/Death	82	5	3	81	5	3
CEA SYMP: Postop LOS>1 Day	82	5	3	81	5	3
EVAR: Postop LOS>2 Days	150	4	4	137	4	4
EVAR: Sac Diameter Reporting	200	4	4			
EVAR: SVS AAA Diameter Guideline	135	4	4			
TEVAR: Sac Diameter Reporting	22	3	1			
OAAA: In-Hospital Mortality	294	6	4	278	6	4
OAAA: SVS Cell-Saver Guideline	268	6	4			
OAAA: SVS Iliac Inflow Guideline	313	6	4			
PVI CLAUD: ABI/Toe Pressure	613	15	12			
INFRA CLTI: Major Complications	125	5	5			
SUPRA CLTI: Major Complications	28	4	1			
LEAMP: Postop Complications	3	1	0			
HDA: Primary AVF vs. Graft	254	2	1			
IVCF: Filter Retrieval Reporting	54	1	1			

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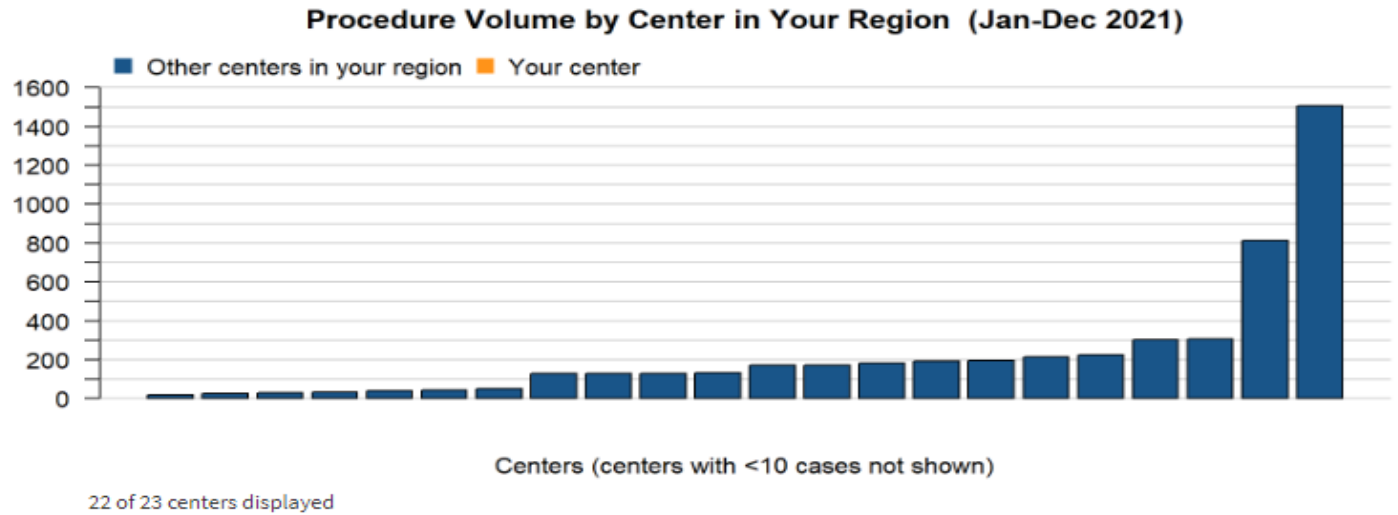
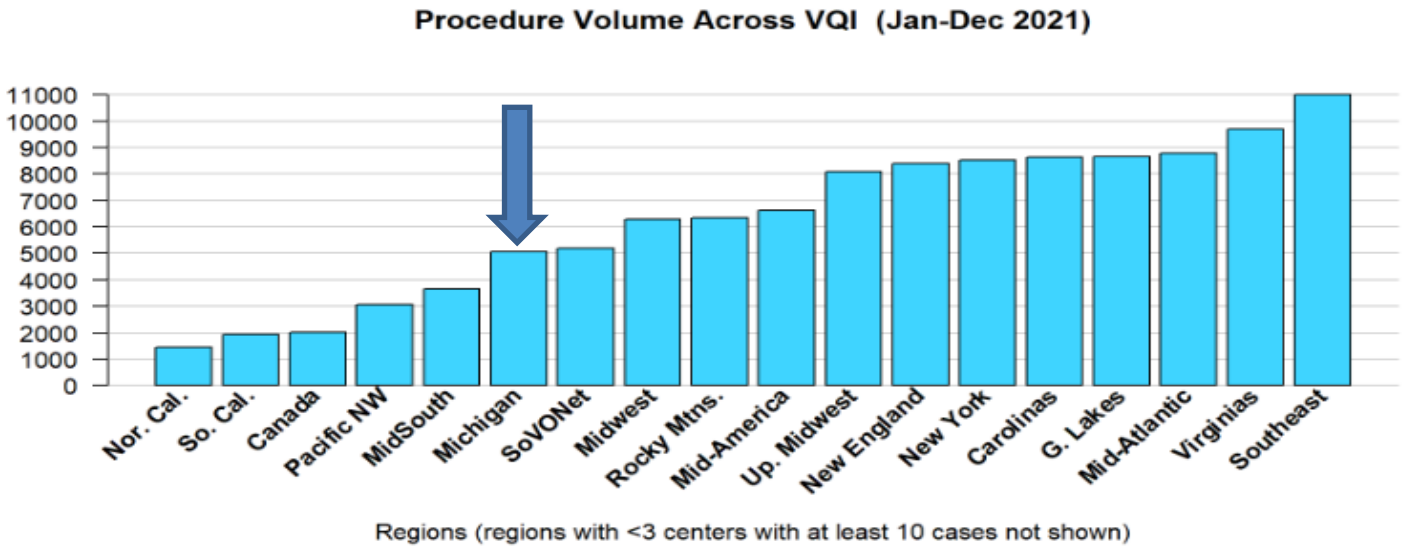
Procedure Volume

Procedures performed between January 1 and December 31, 2021

Number of cases entered into the VQI, by registry and overall

	Your Center (N)	Your Region (N)	VQI Overall (N)
CAS (TFEM CAS & TCAR)		612	15409
CEA		273	17679
EVAR		159	7653
HDA		NA (<3 centers)	5978
INFRA		186	6789
IVCF		NA (<3 centers)	1322
LEAMP		NA (<3 centers)	3085
OAAA		79	1283
PVI		1820	43995
SUPRA		48	1870
TEVAR		NA (<3 centers)	3163
Varicose Veins		1508	5991
Overall (Jan-Dec 2021)		5060	114217
Overall (Jan-Dec 2020)		5502	111113


Procedure Volume by Center in Your Region (Jan-Dec 2021)
Other centers in your region
Your center
1600
1400
1200
1000
800
600
400
200
0
Centers (centers with <10 cases not shown)
22 of 23 centers displayed

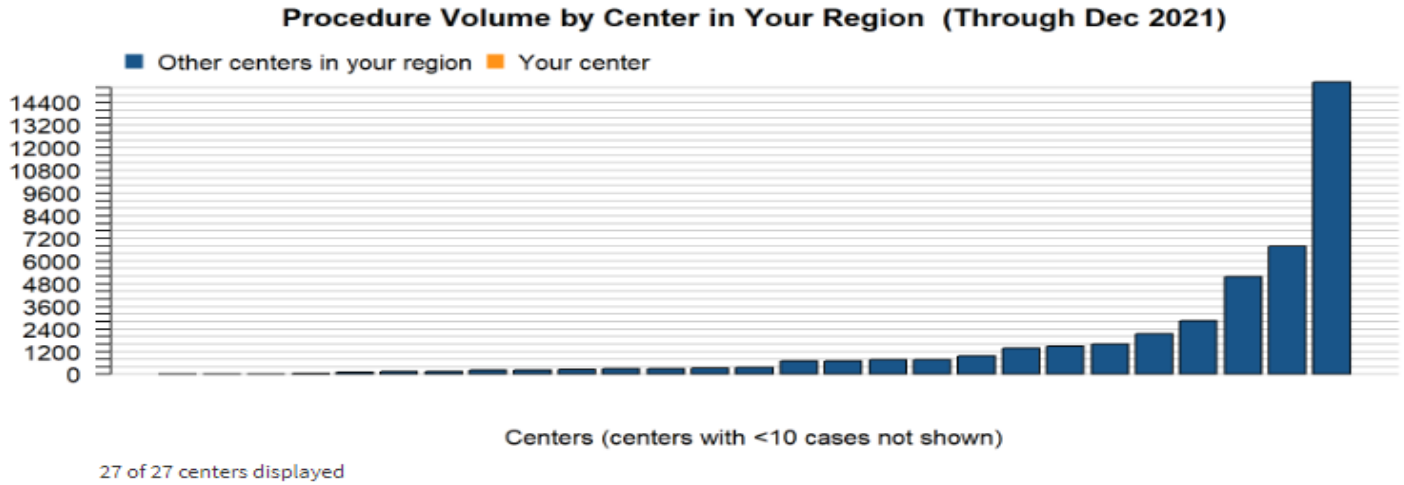

Procedure Volume Across VQI (Jan-Dec 2021)
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Nor. Cal.
So. Cal.
Canada
Pacific NW
MidSouth
Michigan
SoVONet
Midwest
Rocky Mtns.
Mid-America
Up. Midwest
New England
New York
Carolinas
G. Lakes
Mid-Atlantic
Virginias
Southeast
Regions (regions with <3 centers with at least 10 cases not shown)

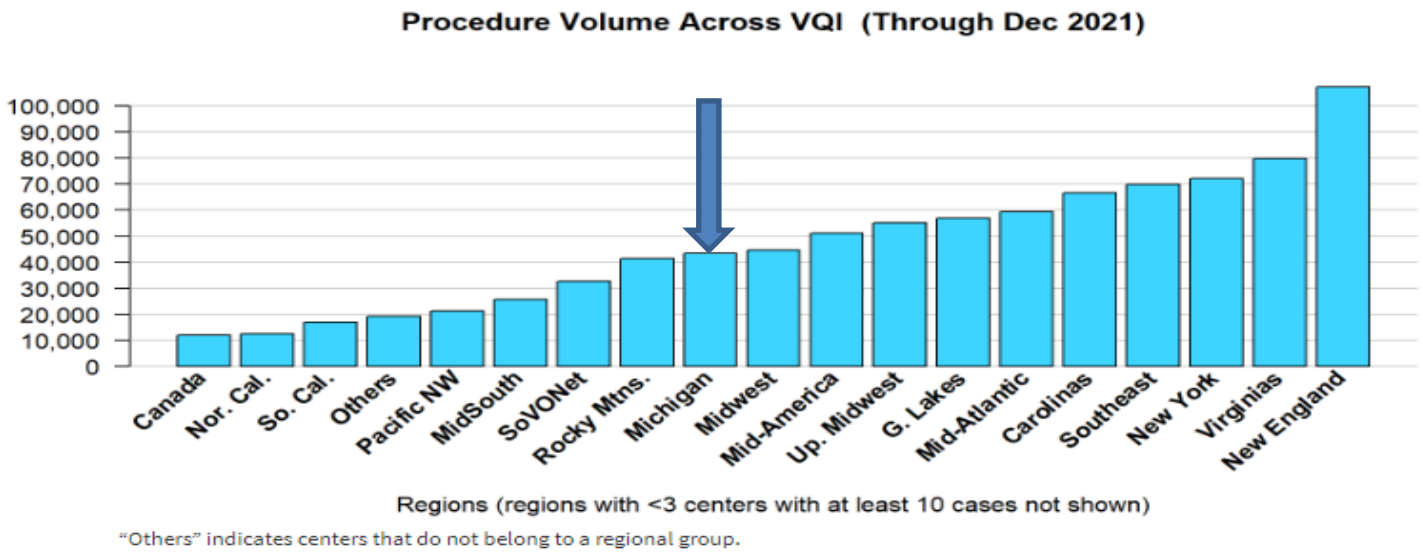
Procedure Volume, All Years

Includes all procedures with procedure date through December 31, 2021

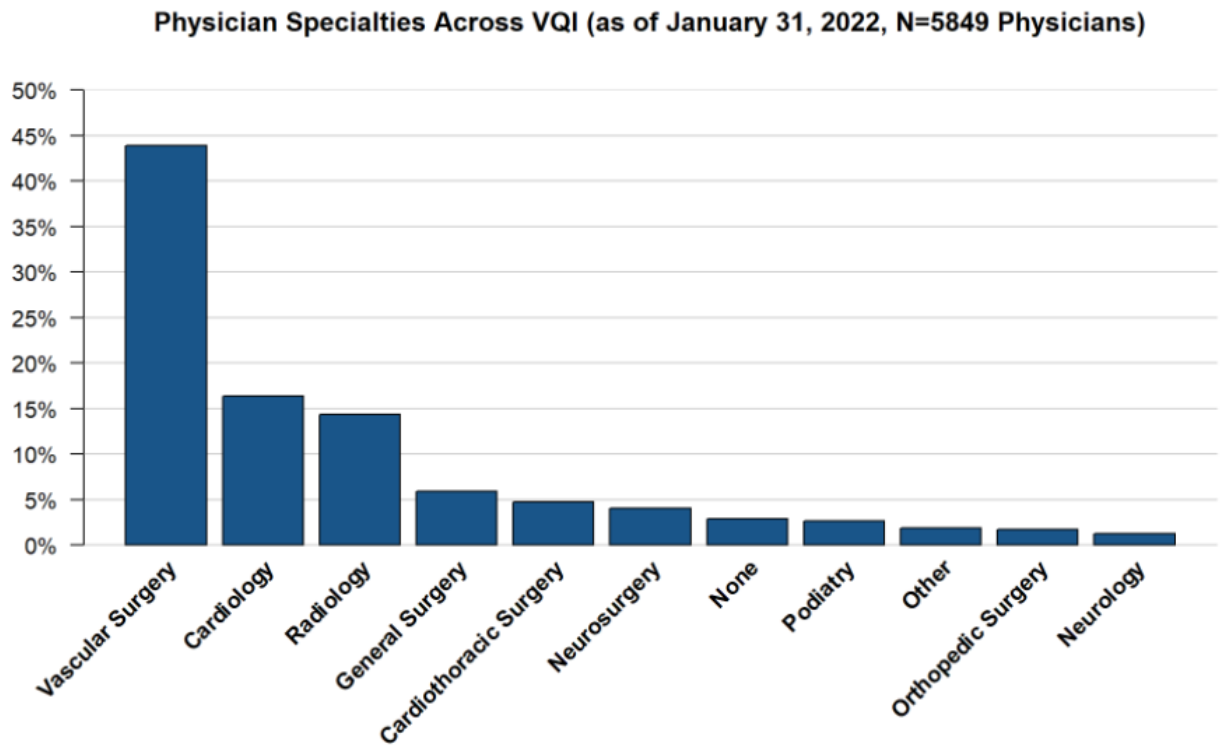
Number of cases entered into the VQI, by registry and overall

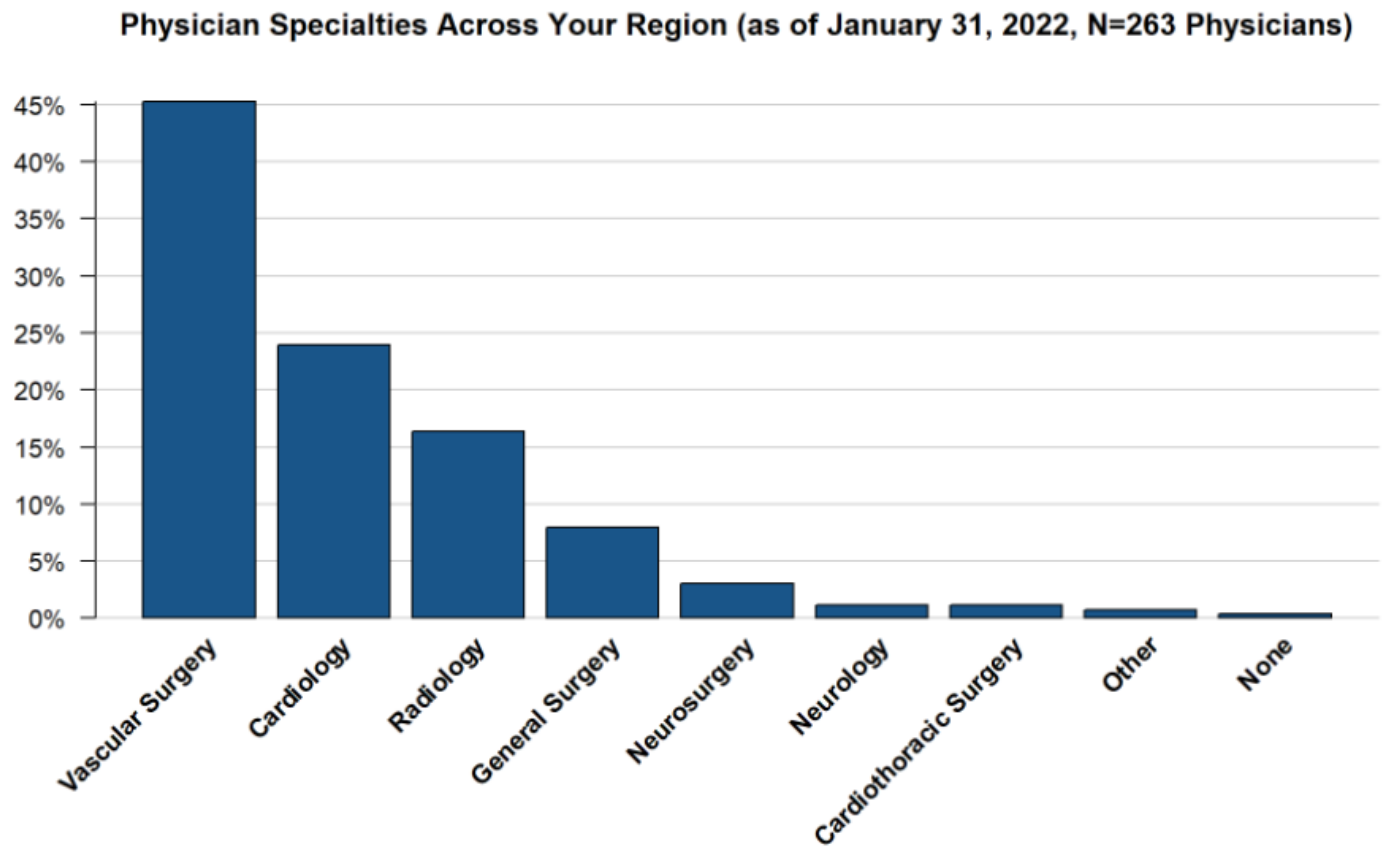
	Your Center (N)	Your Region (N)	VQI Overall (N)
CAS (TFEM CAS & TCAR)		2344	66792
CEA		4538	167675
EVAR		1814	67929
HDA		3326	66228
INFRA		2549	70209
IVCF		873	16522
LEAMP		NA (<3 centers)	23123
OAAA		736	15617
PVI		11307	299452
SUPRA		863	22545
TEVAR		287	22625
Varicose Veins		14195	50680
Overall		43382	889397


Procedure Volume by Center in Your Region (Through Dec 2021)
Other centers in your region
Your center
14400
13200
12000
10800
9600
8400
7200
6000
4800
3600
2400
1200
0
Centers (centers with <10 cases not shown)
27 of 27 centers displayed


Procedure Volume Across VQI (Through Dec 2021)
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Canada
Nor. Cal.
So. Cal.
Others
Pacific NW
MidSouth
SoVONet
Rocky Mtns.
Michigan
Midwest
Mid-America
Up. Midwest
G. Lakes
Mid-Atlantic
Carolinas
Southeast
New York
Virginias
New England
Regions (regions with <3 centers with at least 10 cases not shown)
"Others" indicates centers that do not belong to a regional group.

Physician Specialties




Physician Specialties Across Your Region (as of January 31, 2022, N=263 Physicians)
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Vascular Surgery
Cardiology
Radiology
General Surgery
Neurosurgery
Neurology
Cardiothoracic Surgery
Other
None

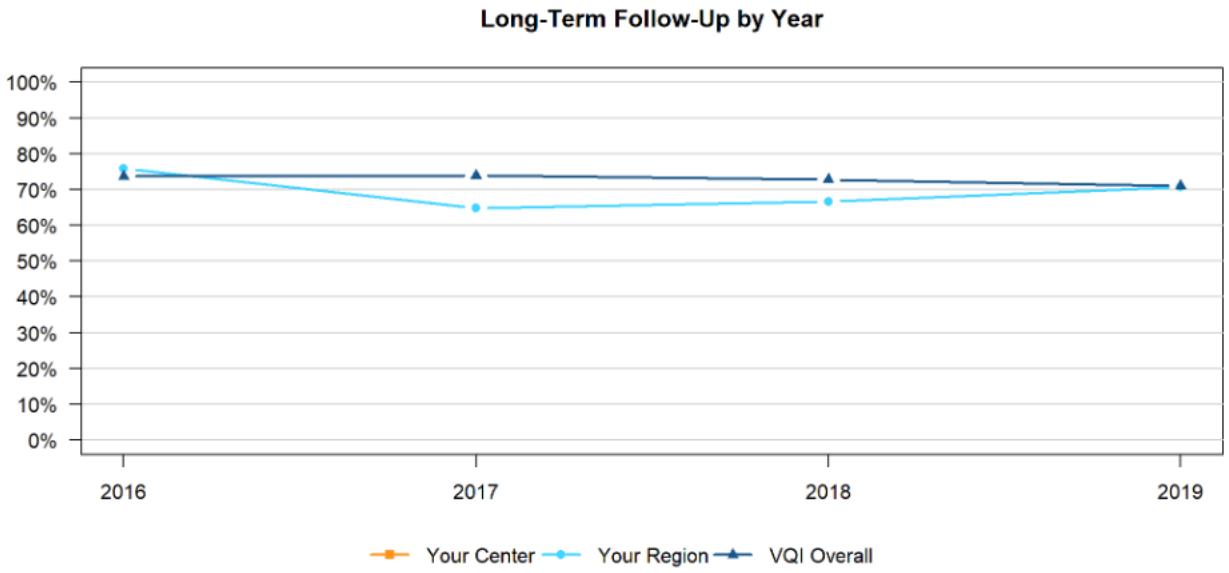
Long-Term Follow-up

Procedures performed between January 1 and December 31, 2019

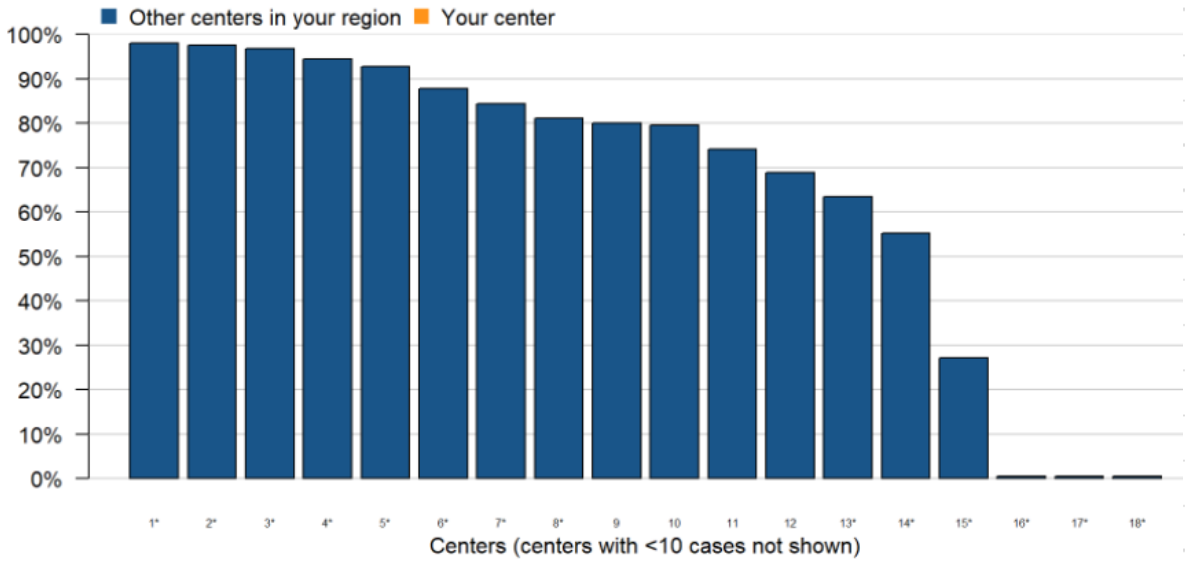
Includes CAS (TFEM CAS and TCAR), CEA, EVAR, HDA, INFRA, IVCF, LEAMP, OAAA, PVI, SUPRA, and TEVAR procedures only. Excludes procedures not eligible for long-term follow-up.

The table below gives the number of procedures meeting the inclusion criteria, and the percentage of those procedures with follow-up recorded between 9 and 21 months post-procedure.

	Your Center	Your Region	VQI Overall
CAS		486 (83%)	11358 (66%)
CEA		464 (72%)	19463 (73%)
EVAR		217 (65%)	7711 (72%)
HDA		NA (<3 centers)	8378 (69%)
INFRA		250 (75%)	7383 (74%)
IVCF		NA (<3 centers)	1887 (76%)
LEAMP		NA (<3 centers)	3199 (72%)
OAAA		70 (67%)	1250 (74%)
PVI		1760 (71%)	40101 (71%)
SUPRA		90 (74%)	2269 (73%)
TEVAR		29 (21%)	2961 (68%)
Overall (Jan-Dec 2019)		3937 (71%)	105960 (71%)
Overall (Jan-Dec 2018)		3645 (67%)	95242 (73%)


Long-Term Follow-Up by Year
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2016
2017
2018
2019
Your Center
Your Region
VQI Overall

Long-Term Follow-Up by Center in Your Region (Jan-Dec 2019)

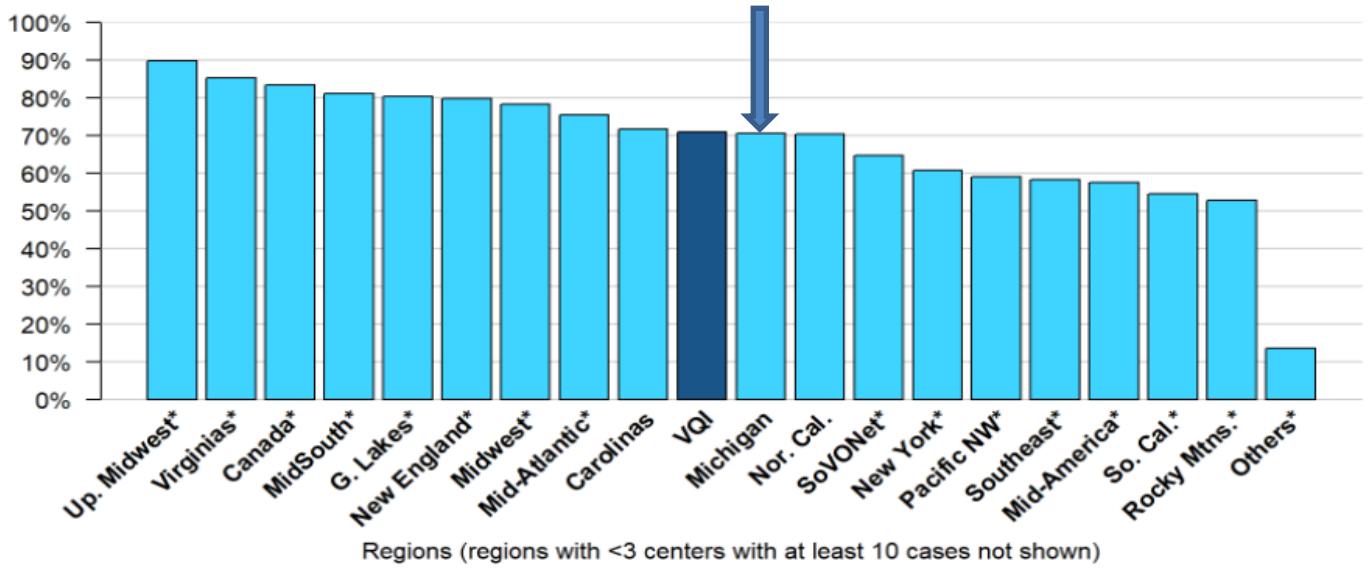


18 of 20 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.

Index	Medical Center Name
1	McLaren Flint
2	McLaren Bay Region
3	Bronson Methodist Hospital
4	Bronson Battlecreek Hospital
5	Ascension Borgess Hospital
6	Ascension St. John Hospital
7	University of Michigan
8	Spectrum Health Hospital
9	McLaren Macomb
10	Covenant Healthcare
11	Michigan Vascular Center
12	St. Joseph Mercy Health System
13	Henry Ford Allegiance Health
14	Beaumont Royal Oak
15	Henry Ford Hospital, Detroit MI
16	McLaren Port Huron
17	McLaren Northern Michigan
18	Vascular Institute of Michigan

Long-Term Follow-Up by Region Across VQI (Jan-Dec 2019)



"*" Indicates region's rate differs significantly from the VQI rate.

"Others" indicates centers that do not belong to a regional group.

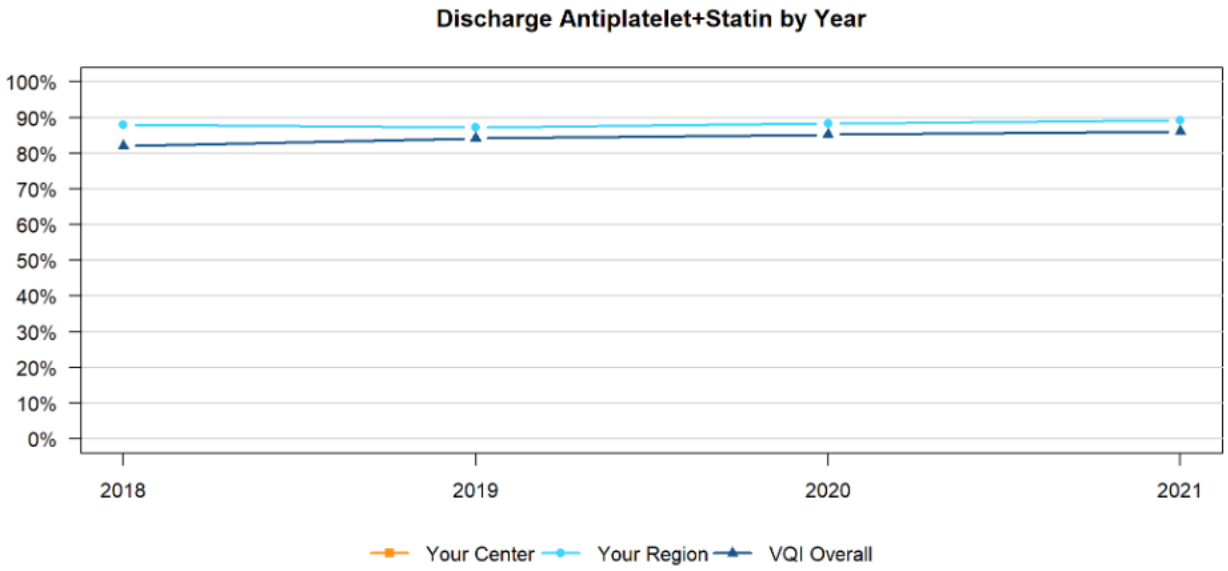
Discharge Medications

Procedures performed between January 1 and December 31, 2021

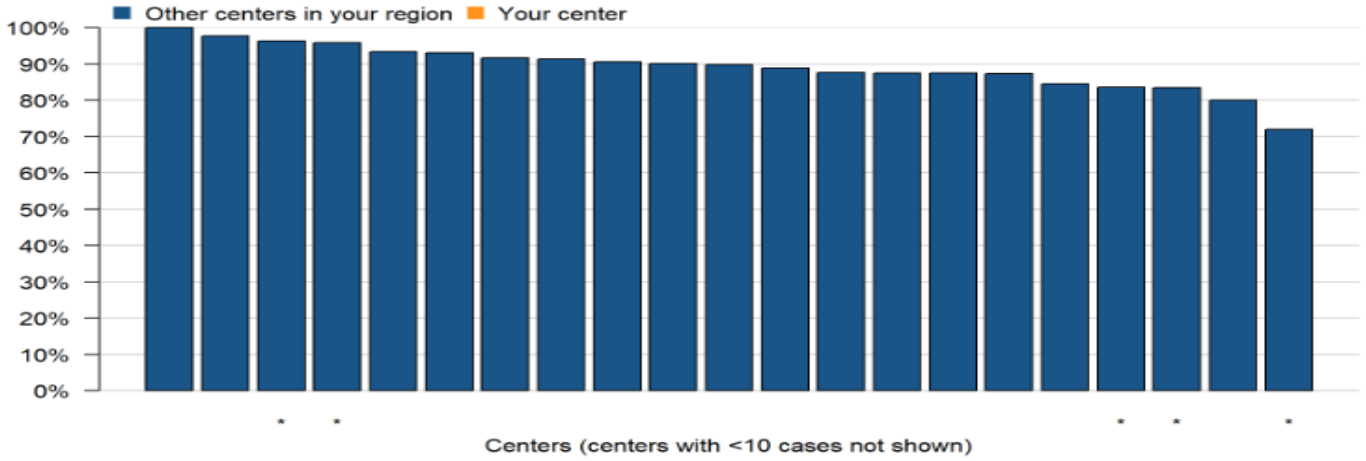
Includes CAS (TFEM CAS and TCAR), CEA, EVAR, INFRA, LEAMP, OAAA, PVI, SUPRA, and TEVAR procedures only. Antiplatelet is defined as ASA or P2Y12 inhibitor. Cases are excluded if (1) Discharge Statin = "No, for medical reason" OR (2) Both Discharge ASA = "No, for medical reason" AND Discharge P2Y12 inhibitor = "No, for medical reason" OR (3) An in-hospital death occurred.

The table below gives the number of procedures meeting the inclusion criteria, and the percentage of those procedures where patients received discharge medications.

	Number of Procedures at Your Center	Antiplatelet+Statin	Antiplatelet Only	Statin Only	Neither
CAS					
CEA					
EVAR					
INFRA					
LEAMP					
OAAA					
PVI					
SUPRA					
TEVAR					
Your Center Overall					
Your Region Overall	3006	89%	7%	3%	1%
VQI Overall	94988	86%	9%	3%	2%


Discharge Antiplatelet+Statin by Year
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2018
2019
2020
2021
Your Center
Your Region
VQI Overall

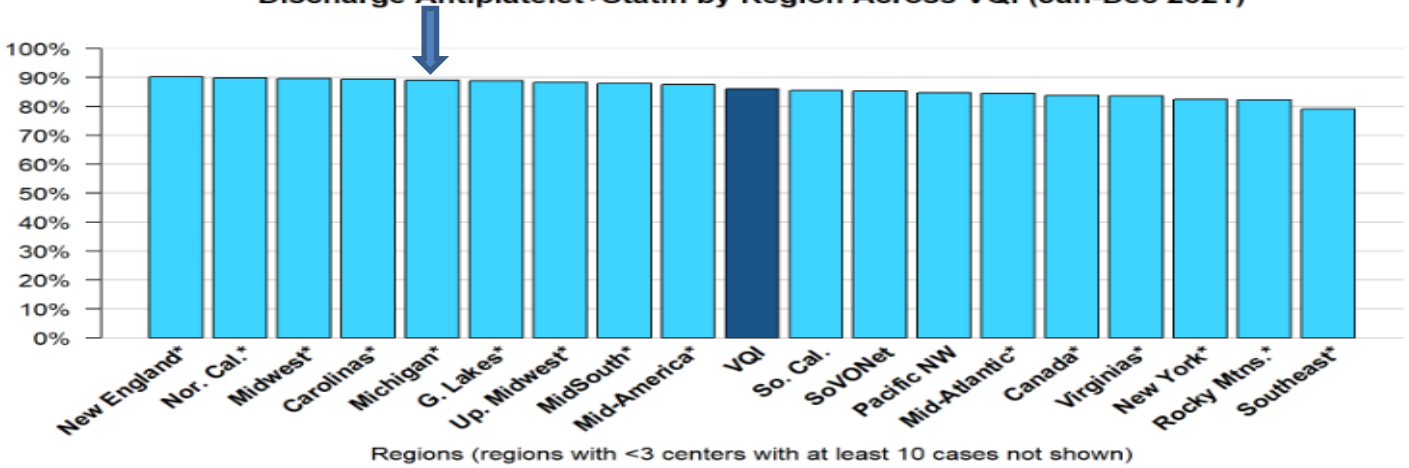
Discharge Antiplatelet+Statin by Center in Your Region (Jan-Dec 2021)



21 of 22 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.

Discharge Antiplatelet+Statin by Region Across VQI (Jan-Dec 2021)



"*" Indicates region's rate differs significantly from the VQI rate.

TFEM CAS ASYMP: Stroke/Death

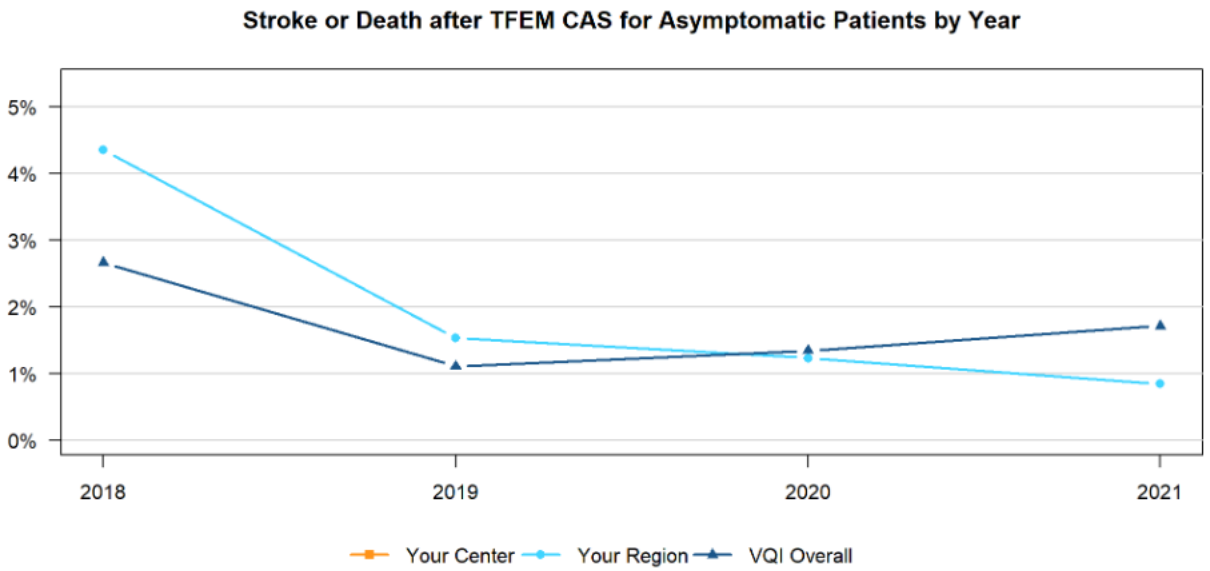
Procedures performed between January 1 and December 31, 2021

Includes Transfemoral Carotid Artery Stenting (TFEM CAS) procedures performed on asymptomatic patients. Asymptomatic patients are patients with no ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Includes procedures utilizing a femoral, brachial, or radial approach. Excludes any patient with prior vertebrobasilar TIA or stroke, prior ipsilateral CAS, CAS for intracranial treatment, or any procedure involving dissection, trauma, FMD, or "Other" lesion types. Procedures with an approach other than femoral, brachial, or radial are also excluded.

The table below gives the number of TFEM CAS procedures (performed on asymptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

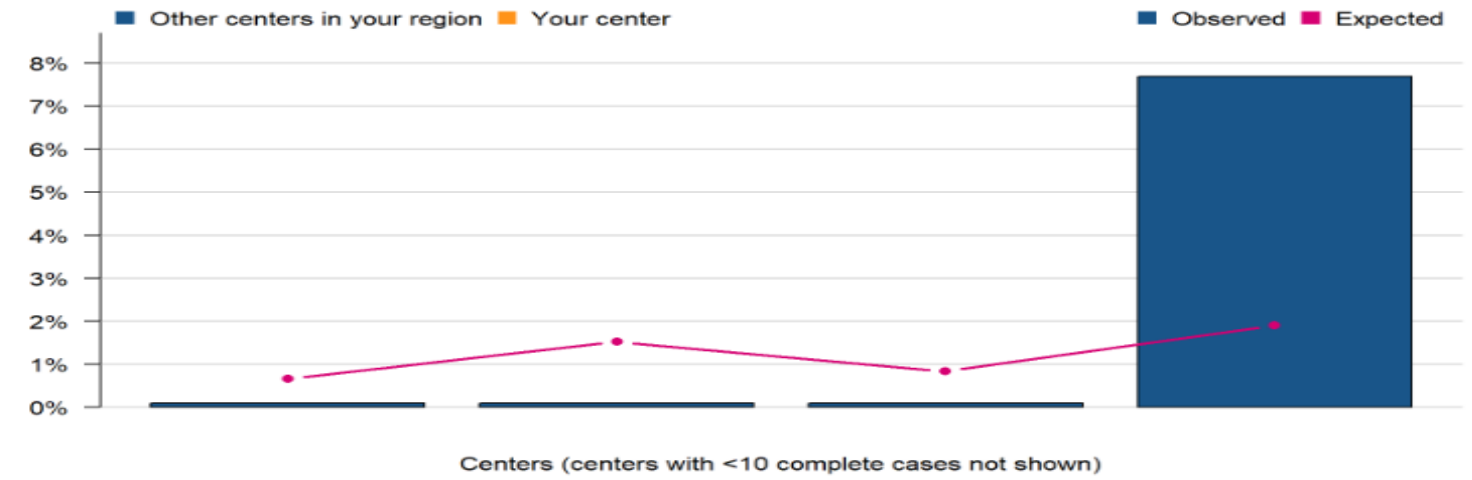
	Your Center	Your Region	VQI Overall
Number of TFEM CAS procedures meeting inclusion criteria		118	2334
Observed rate of stroke or death among procedures meeting inclusion criteria		0.8%	1.7%
Number of procedures with complete data*		109	2125
Observed rate of stroke or death among cases with complete data		0.9%	1.6%
Expected rate of stroke or death among cases with complete data		1.3%	NA
P-value for comparison of observed and expected rates		1	NA

*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.



Rates shown are observed rates among cases meeting inclusion criteria.

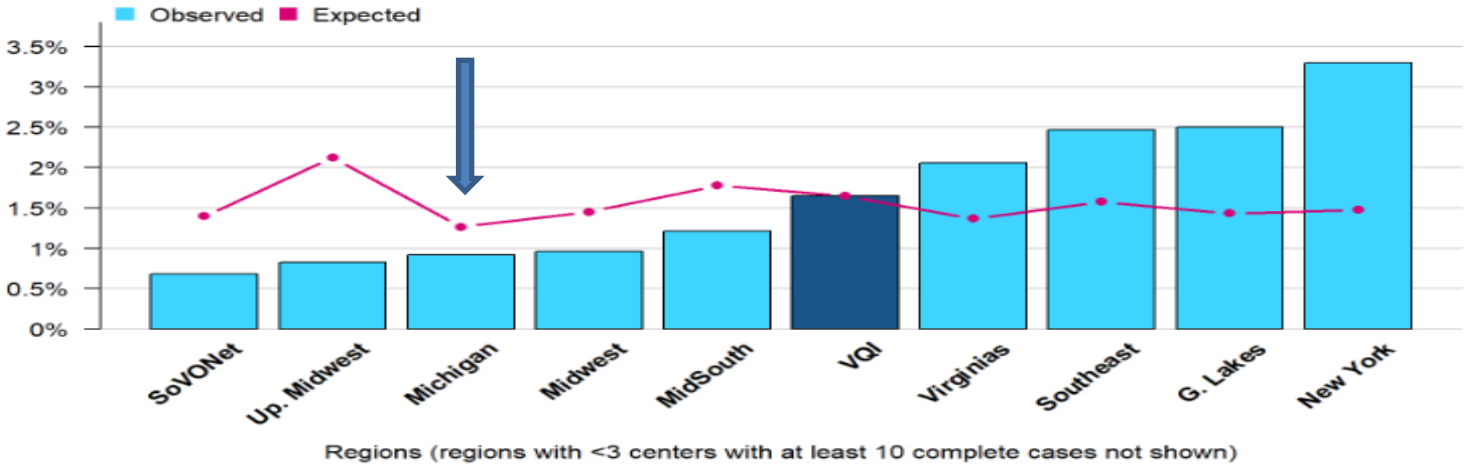
Stroke or Death after TFEM CAS for Asymptomatic Patients in Your Region (Jan-Dec 2021)



4 of 10 centers displayed

Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate

Stroke or Death after TFEM CAS for Asymptomatic Patients by Region Across VQI (Jan-Dec 2021)



Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

TFEM CAS SYMP: Stroke/Death

Procedures performed between January 1 and December 31, 2021

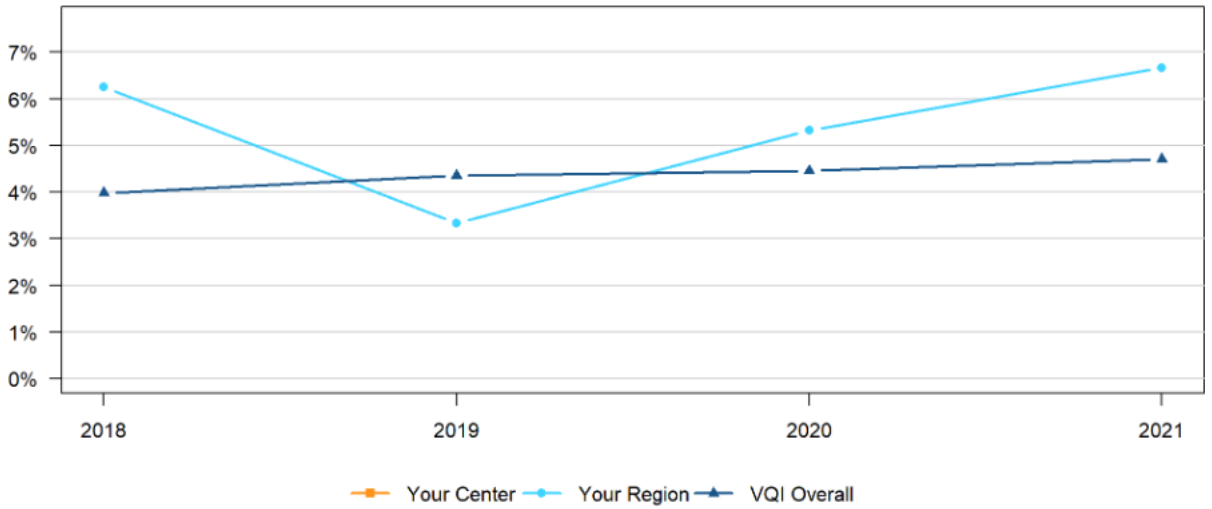
Includes Transfemoral Carotid Artery Stenting (TFEM CAS) procedures performed on symptomatic patients. Symptomatic patients are patients with an ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Includes procedures utilizing a femoral, brachial, or radial approach. Excludes any patient with prior vertebrobasilar TIA or stroke, prior ipsilateral CAS, CAS for intracranial treatment, or any procedure involving dissection, trauma, FMD, or "Other" lesion types. Procedures with an approach other than femoral, brachial, or radial are also excluded.

The table below gives the number of TFEM CAS procedures (performed on symptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your Center	Your Region	VQI Overall
Number of TFEM CAS procedures meeting inclusion criteria		135	2316
Observed rate of stroke or death among procedures meeting inclusion criteria		6.7%	4.7%
Number of procedures with complete data*		122	2135
Observed rate of stroke or death among cases with complete data		6.6%	4.5%
Expected rate of stroke or death among cases with complete data		4.6%	NA
P-value for comparison of observed and expected rates		0.28	NA

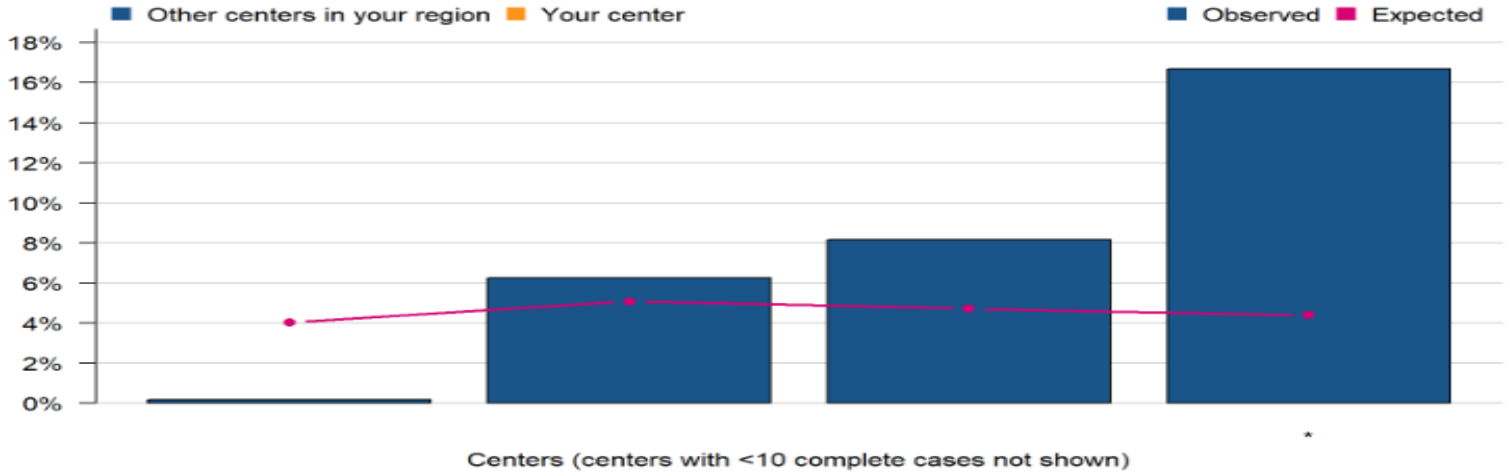
*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.

Stroke or Death after TFEM CAS for Symptomatic Patients by Year



Rates shown are observed rates among cases meeting inclusion criteria.

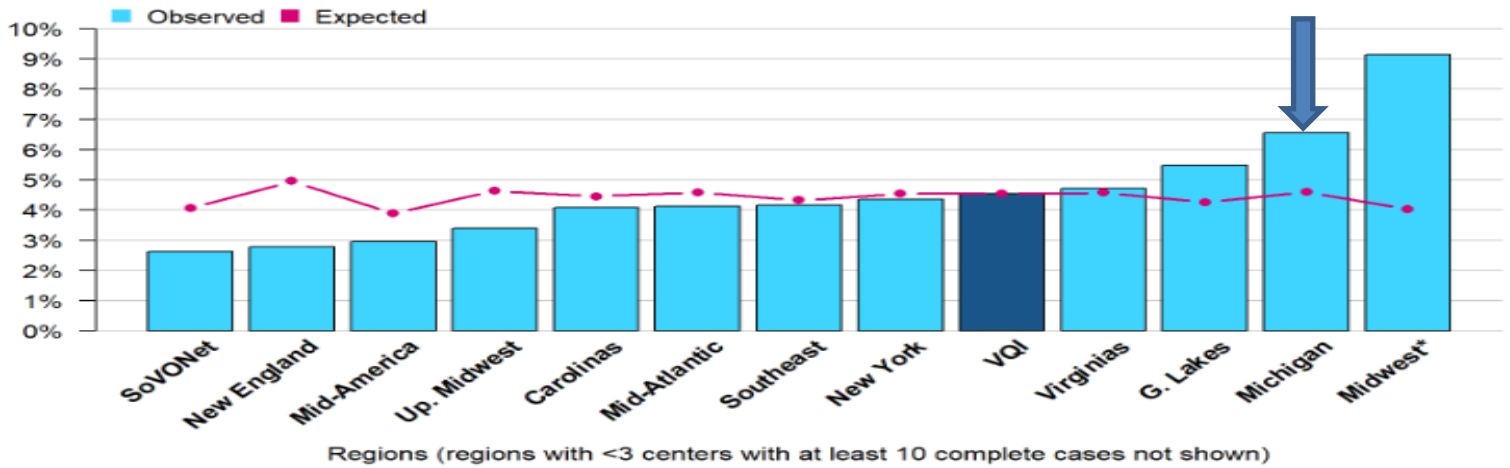
Stroke or Death after TFEM CAS for Symptomatic Patients in Your Region (Jan-Dec 2021)



4 of 12 centers displayed

Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate

Stroke or Death after TFEM CAS for Symptomatic Patients by Region Across VQI (Jan-Dec 2021)



Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

TCAR ASYMP: Stroke/Death

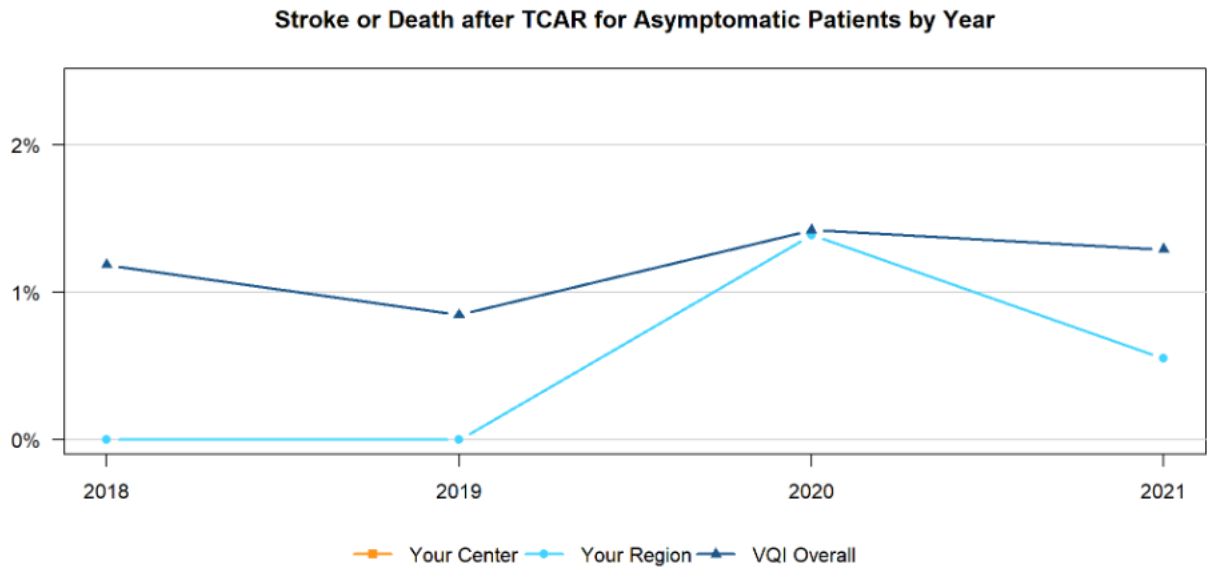
Procedures performed between January 1 and December 31, 2021

Includes TransCarotid Artery Revascularization (TCAR) procedures performed on asymptomatic patients. Asymptomatic patients are patients with no ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar TIA or stroke, prior ipsilateral CAS, CAS for intracranial treatment, or any procedure involving dissection, trauma, FMD, or "Other" lesion types. Procedures with an approach other than carotid percutaneous or carotid open are also excluded.

The table below gives the number of TCAR procedures (performed on asymptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

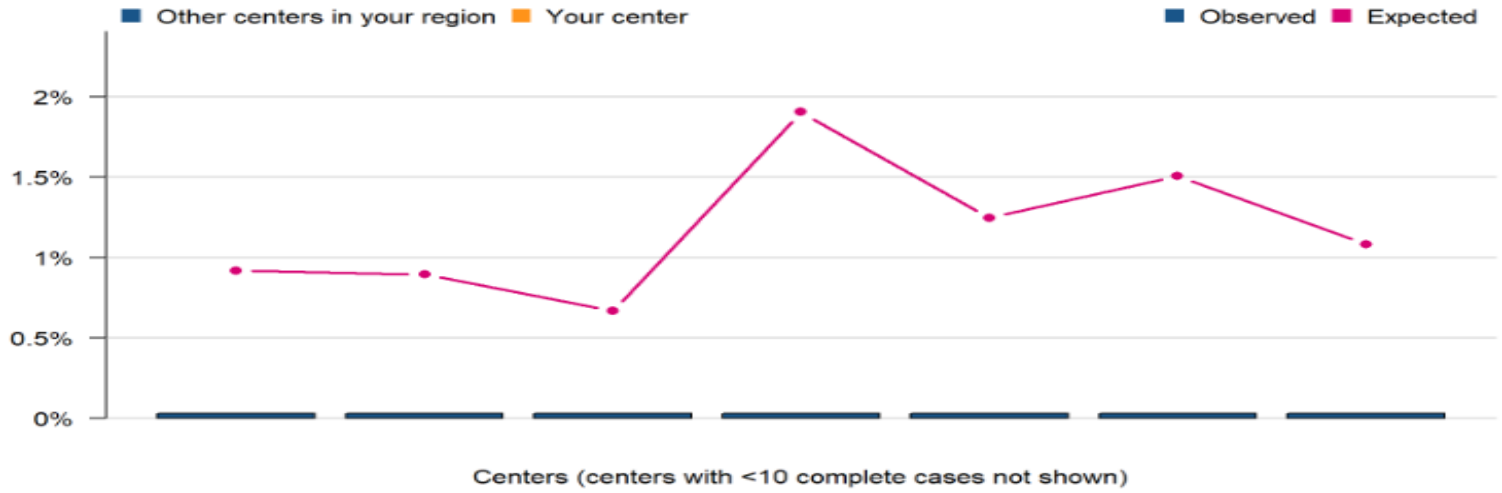
	Your Center	Your Region	VQI Overall
Number of TCAR procedures meeting inclusion criteria		181	5108
Observed rate of stroke or death among procedures meeting inclusion criteria		0.6%	1.3%
Number of procedures with complete data*		170	4840
Observed rate of stroke or death among cases with complete data		0.6%	1.2%
Expected rate of stroke or death among cases with complete data		1.1%	NA
P-value for comparison of observed and expected rates		1	NA

*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.



Rates shown are observed rates among cases meeting inclusion criteria.

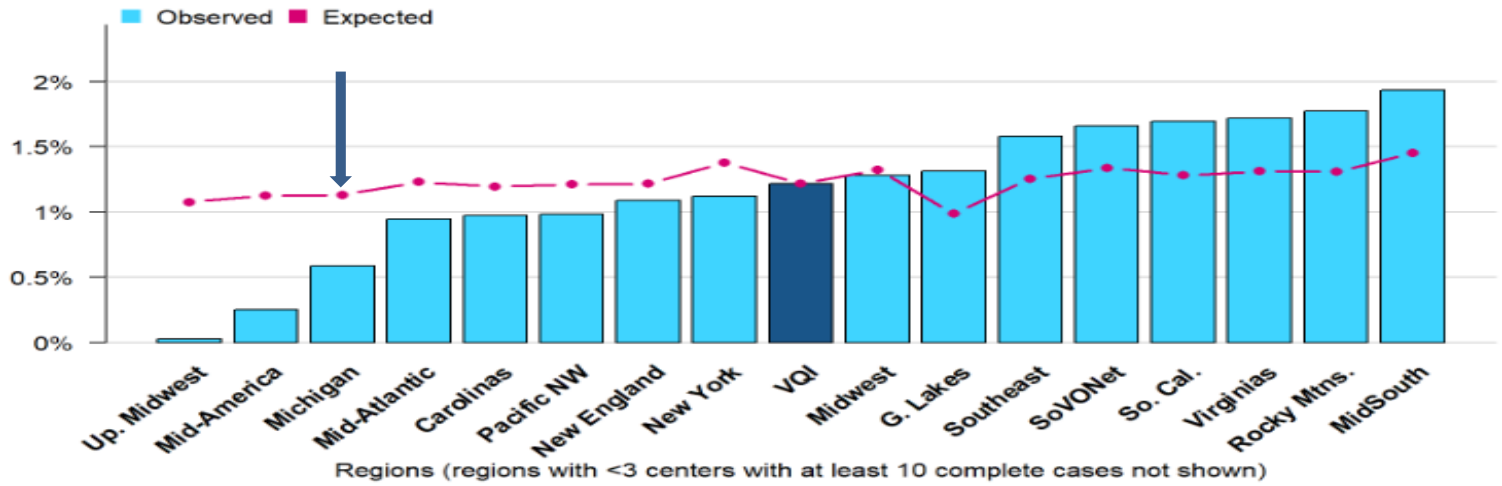
Stroke or Death after TCAR for Asymptomatic Patients in Your Region (Jan-Dec 2021)



7 of 16 centers displayed

Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate

Stroke or Death after TCAR for Asymptomatic Patients by Region Across VQI (Jan-Dec 2021)



Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

TCAR SYMP: Stroke/Death

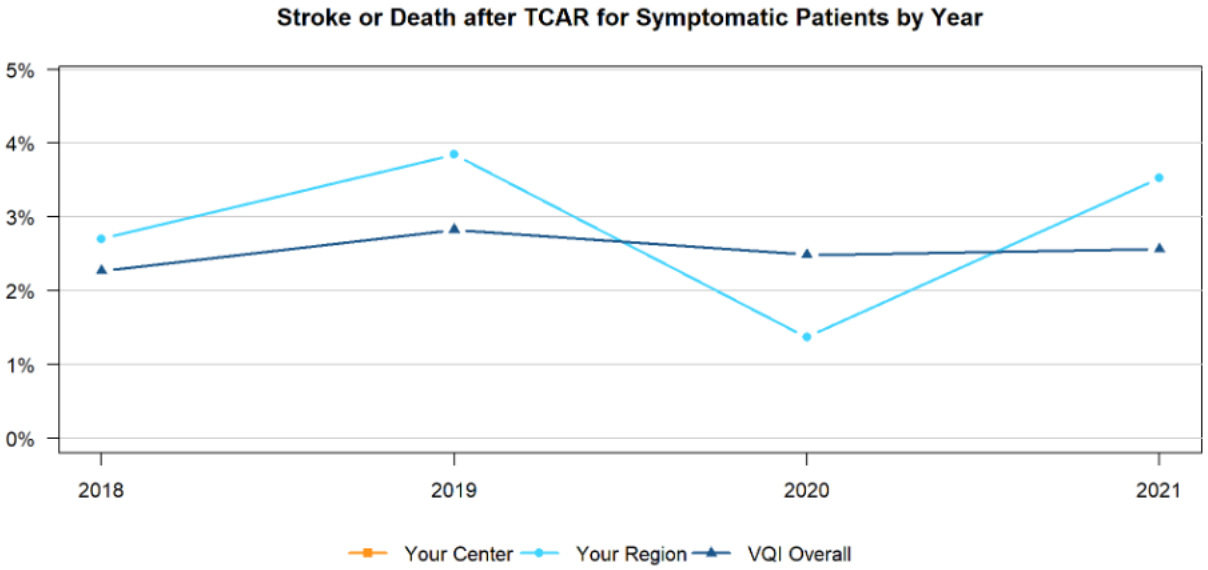
Procedures performed between January 1 and December 31, 2021

Includes TransCarotid Artery Revascularization (TCAR) procedures performed on symptomatic patients. Symptomatic patients are patients with an ipsilateral or contralateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar TIA or stroke, prior ipsilateral CAS, CAS for intracranial treatment, or any procedure involving dissection, trauma, FMD, or "Other" lesion types. Procedures with an approach other than carotid percutaneous or carotid open are also excluded.

The table below gives the number of TCAR procedures (performed on symptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

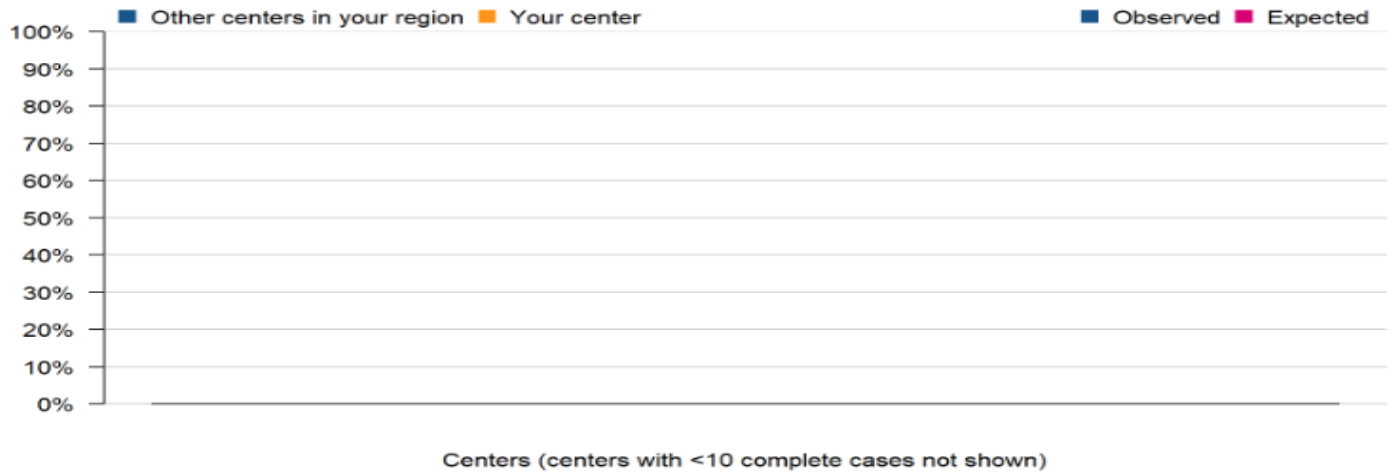
	Your Center	Your Region	VQI Overall
Number of TCAR procedures meeting inclusion criteria		85	2611
Observed rate of stroke or death among procedures meeting inclusion criteria		3.5%	2.6%
Number of procedures with complete data*		80	2498
Observed rate of stroke or death among cases with complete data		2.5%	2.6%
Expected rate of stroke or death among cases with complete data		2.8%	NA
P-value for comparison of observed and expected rates		1	NA

*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.



Rates shown are observed rates among cases meeting inclusion criteria.

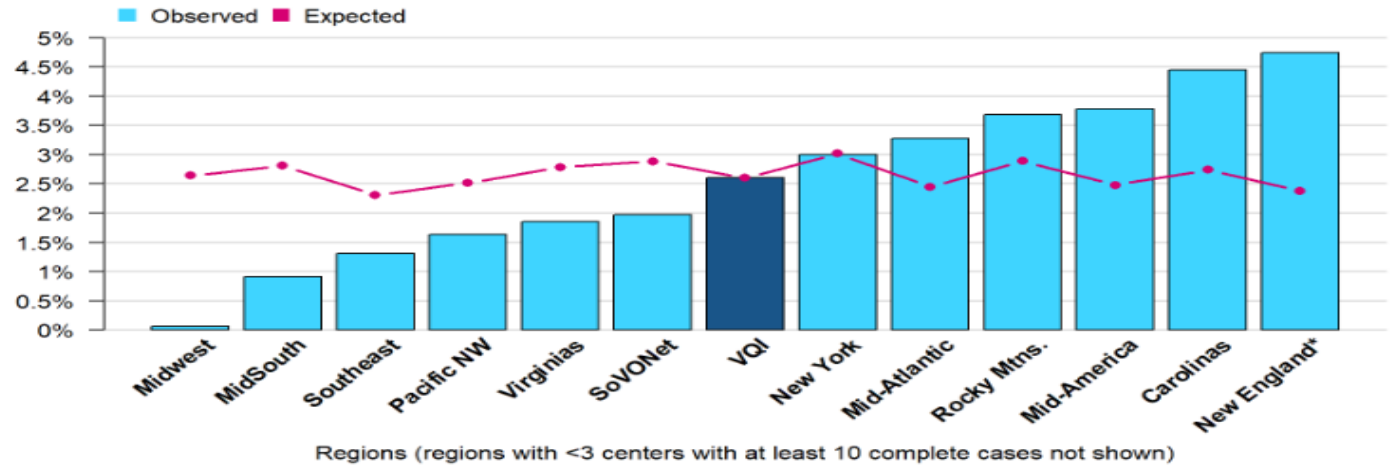
Stroke or Death after TCAR for Symptomatic Patients in Your Region (Jan-Dec 2021)



0 of 13 centers displayed

Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate

Stroke or Death after TCAR for Symptomatic Patients by Region Across VQI (Jan-Dec 2021)



Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

CEA ASYMP: Stroke/Death

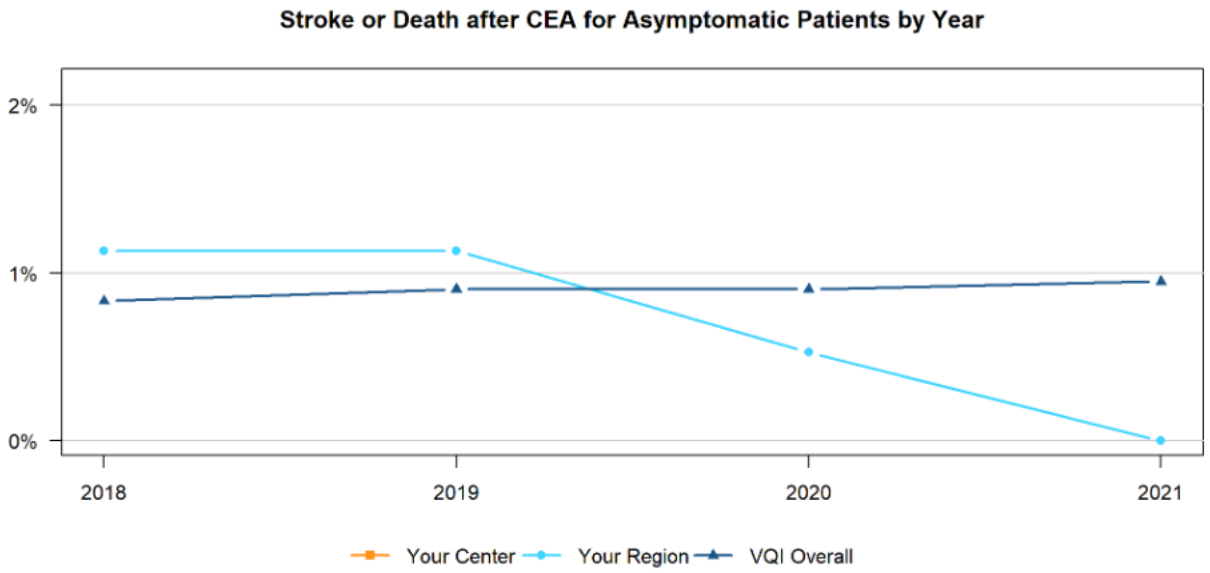
Procedures performed between January 1 and December 31, 2021

Includes Carotid Endarterectomy (CEA) procedures performed on asymptomatic patients. Asymptomatic patients are patients with no ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral CEA or CAS, or any procedure with a concomitant CABG, proximal endovascular, distal endovascular, or "Other" arterial procedure.

The table below gives the number of CEA procedures (performed on asymptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

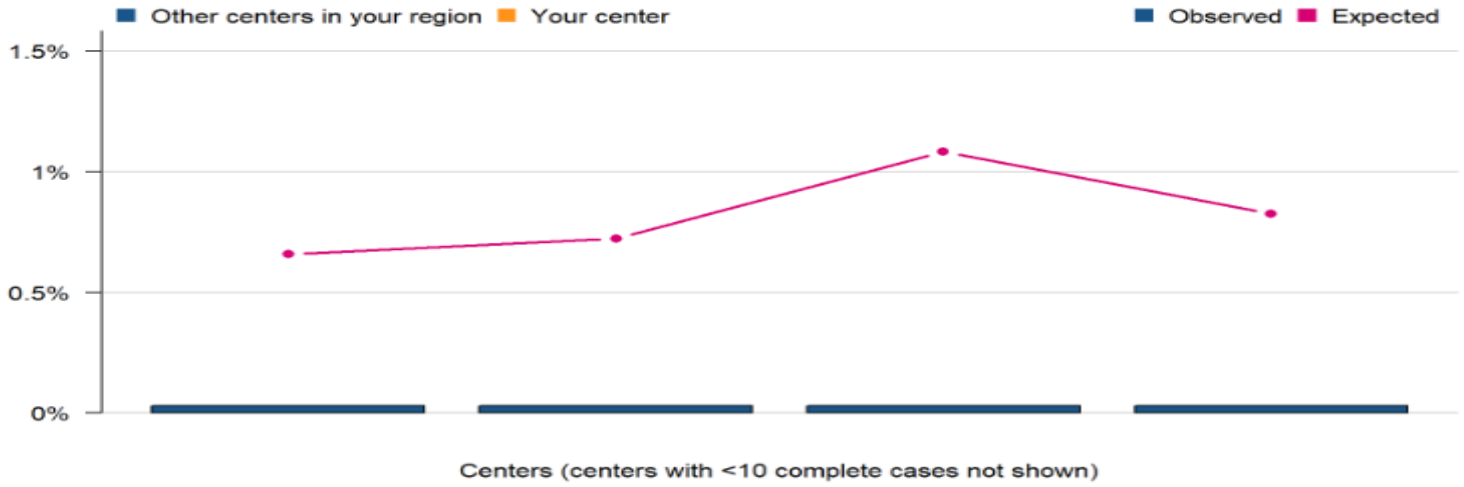
	Your Center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria		159	10107
Observed rate of stroke or death among procedures meeting inclusion criteria		0%	0.9%
Number of procedures with complete data*		152	9627
Observed rate of stroke or death among cases with complete data		0%	1%
Expected rate of stroke or death among cases with complete data		0.8%	NA
P-value for comparison of observed and expected rates		0.64	NA

*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.



Rates shown are observed rates among cases meeting inclusion criteria.

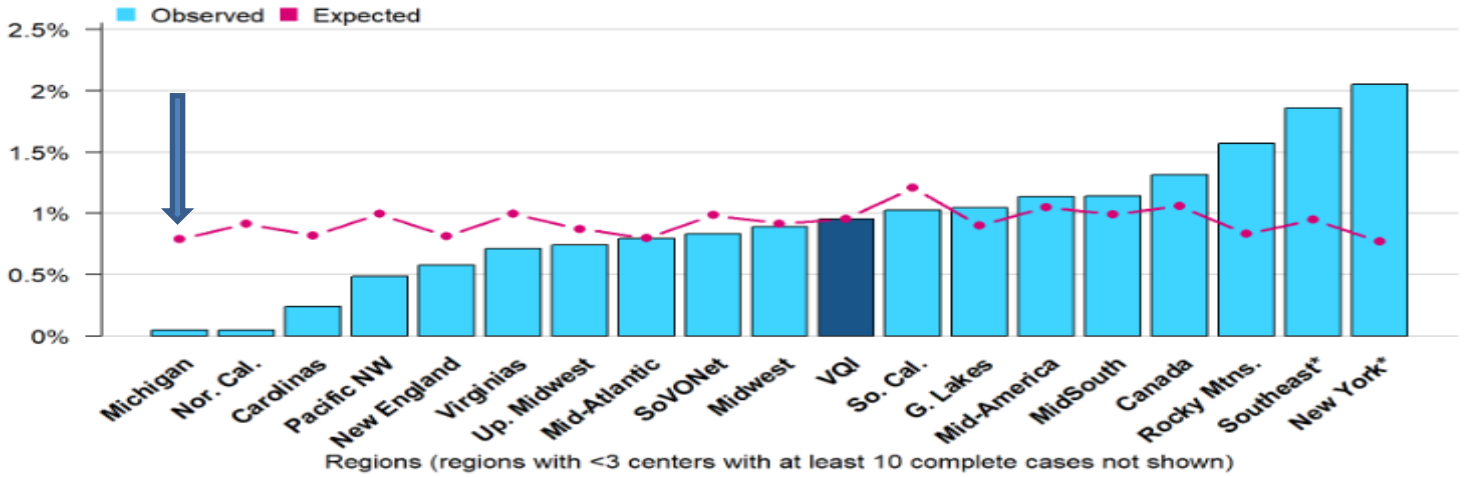
Stroke or Death after CEA for Asymptomatic Patients in Your Region (Jan-Dec 2021)



4 of 6 centers displayed

Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate

Stroke or Death after CEA for Asymptomatic Patients by Region Across VQI (Jan-Dec 2021)



Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

CEA ASYMP: Postop LOS>1 Day

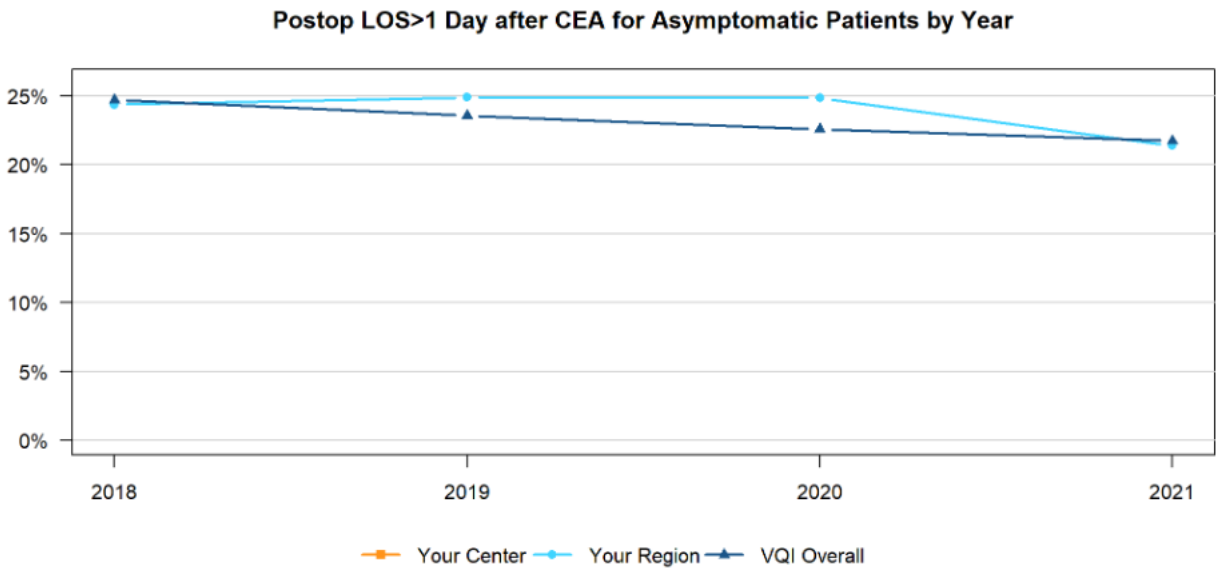
Procedures performed between January 1 and December 31, 2021

Includes Carotid Endarterectomy (CEA) procedures performed on asymptomatic patients. Asymptomatic patients are patients with no ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral CEA or CAS, or any procedure with a concomitant CABG, proximal endovascular, distal endovascular, or "Other" arterial procedure. Procedures where in-hospital death occurred with postoperative LOS≤1 day are also excluded. Postoperative LOS is based on the midnight rule used for hospital billing.

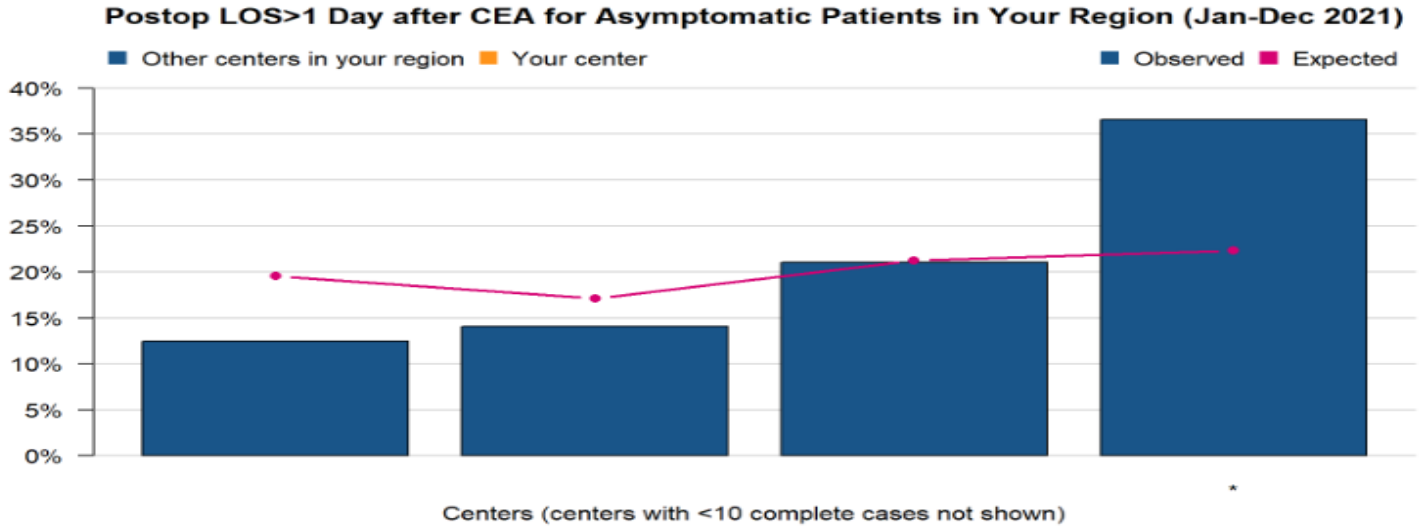
The table below gives the number of CEA procedures (performed on asymptomatic patients) meeting the inclusion criteria, and the observed and expected rates of postoperative LOS>1 Day for those cases.

	Your Center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria		159	10111
Observed rate of LOS>1 day among procedures meeting inclusion criteria		21.4%	21.7%
Number of procedures with complete data*		152	9628
Observed rate of LOS>1 day among cases with complete data		20.4%	21.6%
Expected rate of LOS>1 day among cases with complete data		19.4%	NA
P-value for comparison of observed and expected rates		0.76	NA

*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.

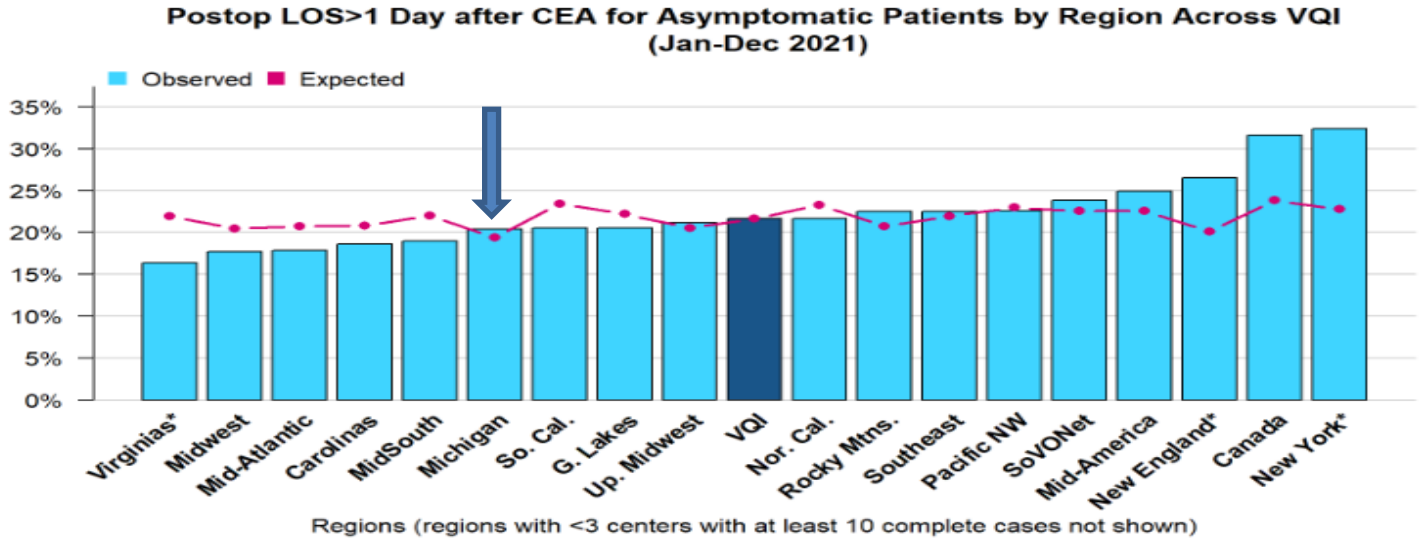


Rates shown are observed rates among cases meeting inclusion criteria.



4 of 6 centers displayed

Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate



Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

CEA SYMP: Stroke/Death

Procedures performed between January 1 and December 31, 2021

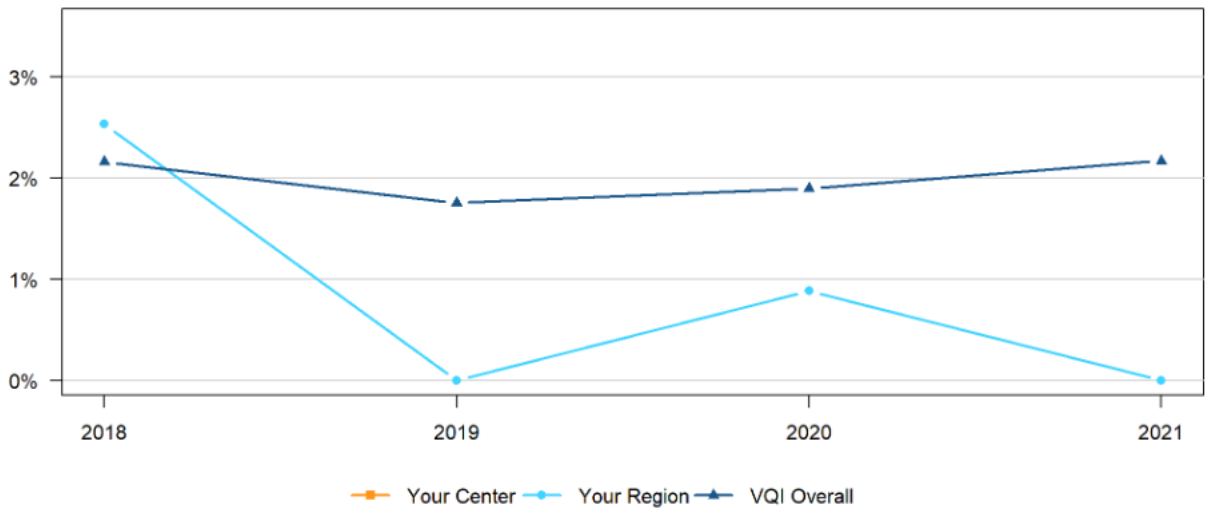
Includes Carotid Endarterectomy (CEA) procedures performed on symptomatic patients. Symptomatic patients are patients with an ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral CEA or CAS, or any procedure with a concomitant CABG, proximal endovascular, distal endovascular, or "Other" arterial procedure.

The table below gives the number of CEA procedures (performed on symptomatic patients) meeting the inclusion criteria, and the observed and expected rates of in-hospital stroke or death for those cases.

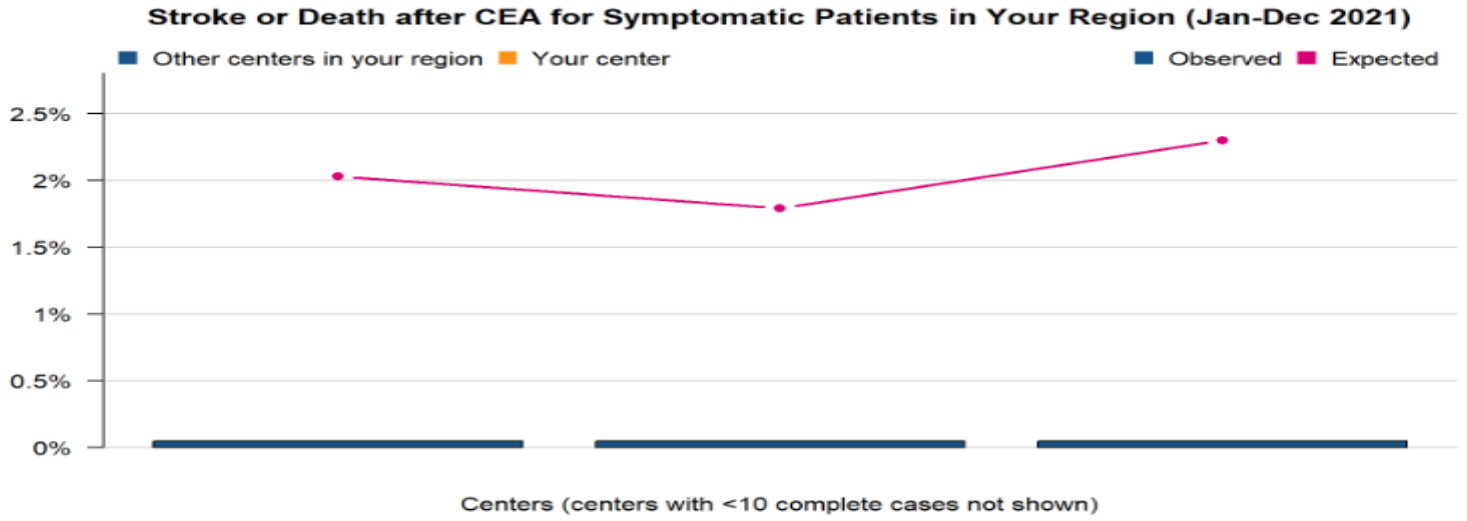
	Your Center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria		82	5069
Observed rate of stroke or death among procedures meeting inclusion criteria		0%	2.2%
Number of procedures with complete data*		81	4888
Observed rate of stroke or death among cases with complete data		0%	2.2%
Expected rate of stroke or death among cases with complete data		2%	NA
P-value for comparison of observed and expected rates		0.41	NA

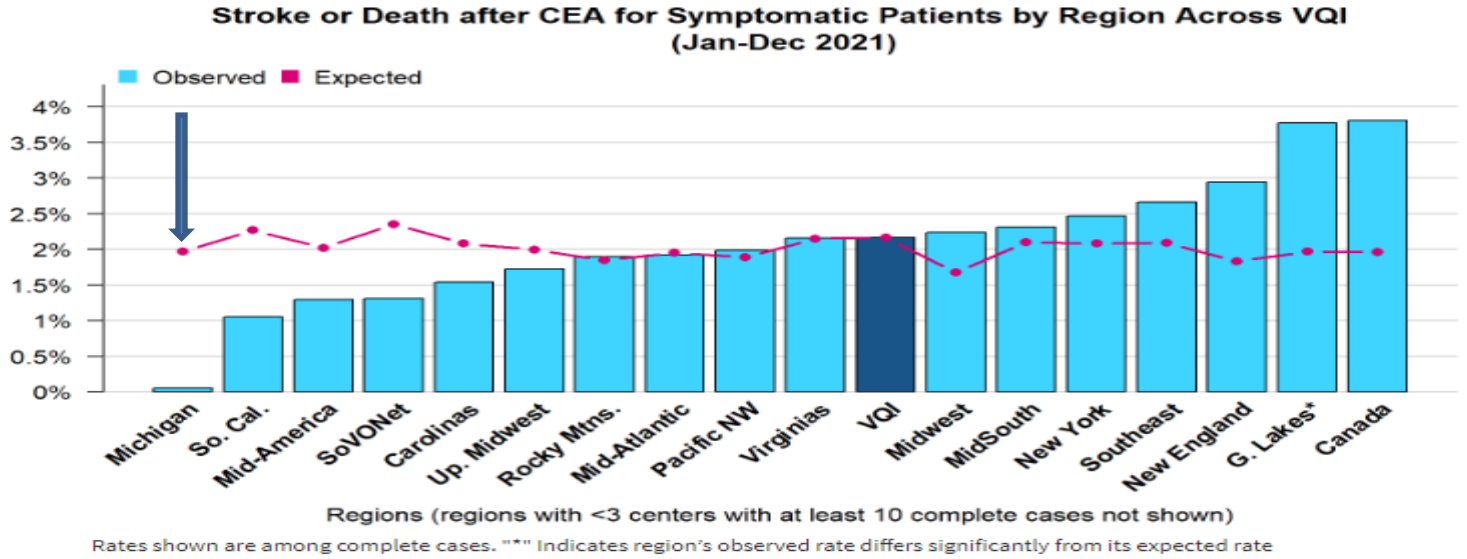
*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.

Stroke or Death after CEA for Symptomatic Patients by Year



Rates shown are observed rates among cases meeting inclusion criteria.


Stroke or Death after CEA for Symptomatic Patients in Your Region (Jan-Dec 2021)
Other centers in your region
Your center
Observed
Expected
2.5%
2%
1.5%
1%
0.5%
0%
Centers (centers with <10 complete cases not shown)
3 of 5 centers displayed
Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate


Stroke or Death after CEA for Symptomatic Patients by Region Across VQI (Jan-Dec 2021)
Observed
Expected
4%
3.5%
3%
2.5%
2%
1.5%
1%
0.5%
0%
Michigan
So. Cal.
Mid-America
SoVONet
Carolinas
Up. Midwest
Rocky Mtns.
Mid-Atlantic
Pacific NW
Virginias
VQI
Midwest
MidSouth
New York
Southeast
New England
G. Lakes*
Canada
Regions (regions with <3 centers with at least 10 complete cases not shown)
Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

CEA SYMP: Postop LOS>1 Day

Procedures performed between January 1 and December 31, 2021

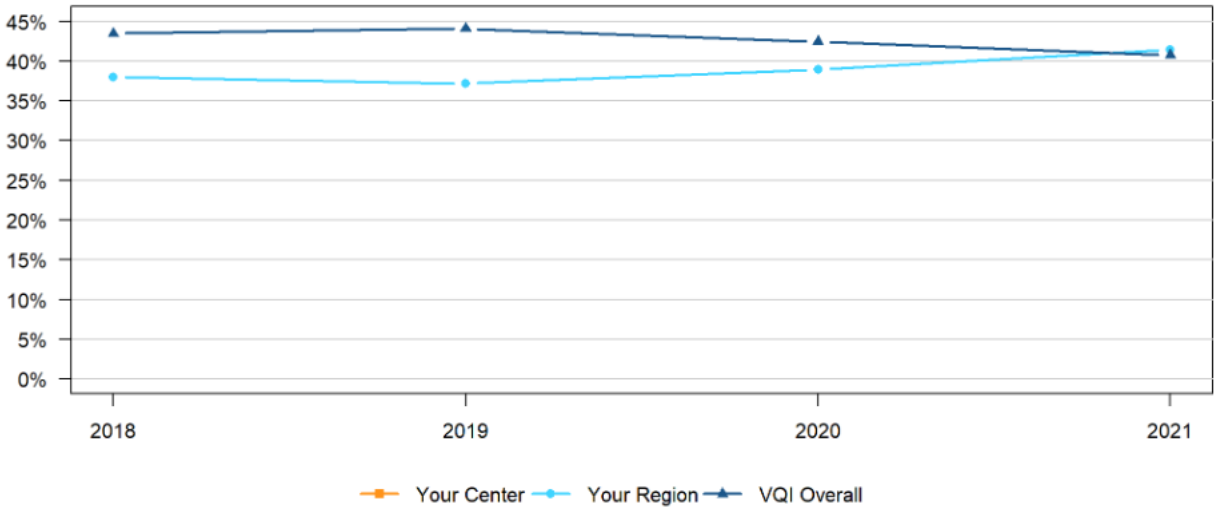
Includes Carotid Endarterectomy (CEA) procedures performed on symptomatic patients. Symptomatic patients are patients with an ipsilateral retinal or cortical TIA or stroke within 180 days prior to surgery. Excludes any patient with prior vertebrobasilar or non-specific TIA or stroke, prior ipsilateral CEA or CAS, or any procedure with a concomitant CABG, proximal endovascular, distal endovascular, or "Other" arterial procedure. Procedures where in-hospital death occurred with postoperative LOS≤1 day are also excluded. Postoperative LOS is based on the midnight rule used for hospital billing.

The table below gives the number of CEA procedures (performed on symptomatic patients) meeting the inclusion criteria, and the observed and expected rates of postoperative LOS>1 Day for those cases.

	Your Center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria		82	5069
Observed rate of LOS>1 day among procedures meeting inclusion criteria		41.5%	40.8%
Number of procedures with complete data*		81	4888
Observed rate of LOS>1 day among cases with complete data		42%	40.9%
Expected rate of LOS>1 day among cases with complete data		40.8%	NA
P-value for comparison of observed and expected rates		0.82	NA

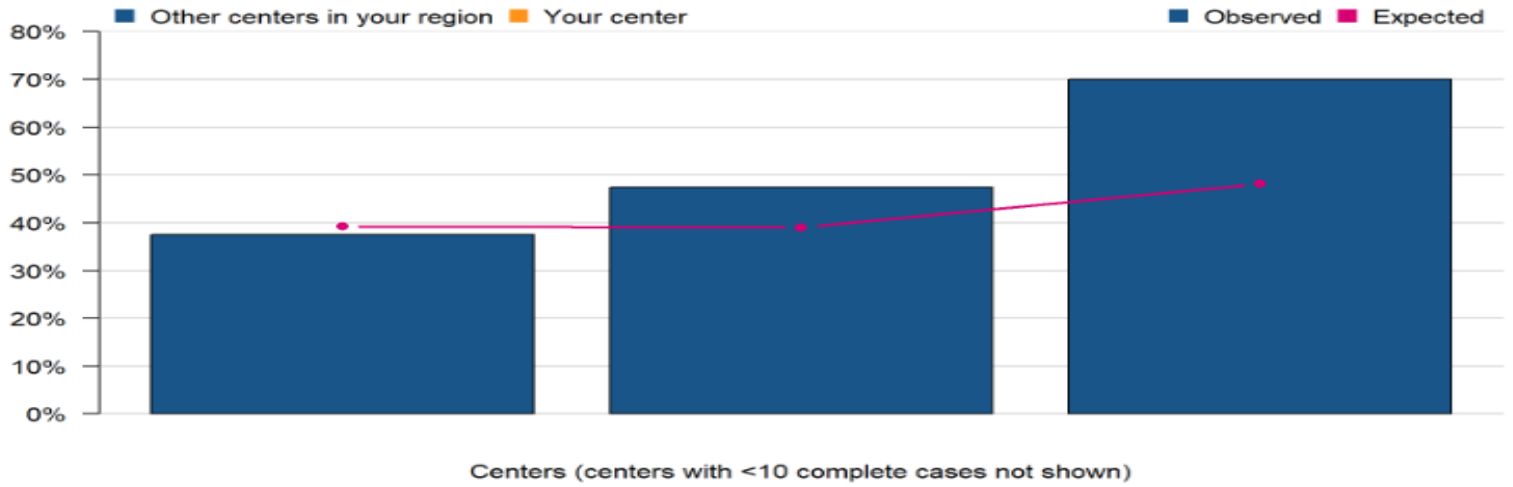
*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.

Postop LOS>1 Day after CEA for Symptomatic Patients by Year



Rates shown are observed rates among cases meeting inclusion criteria.

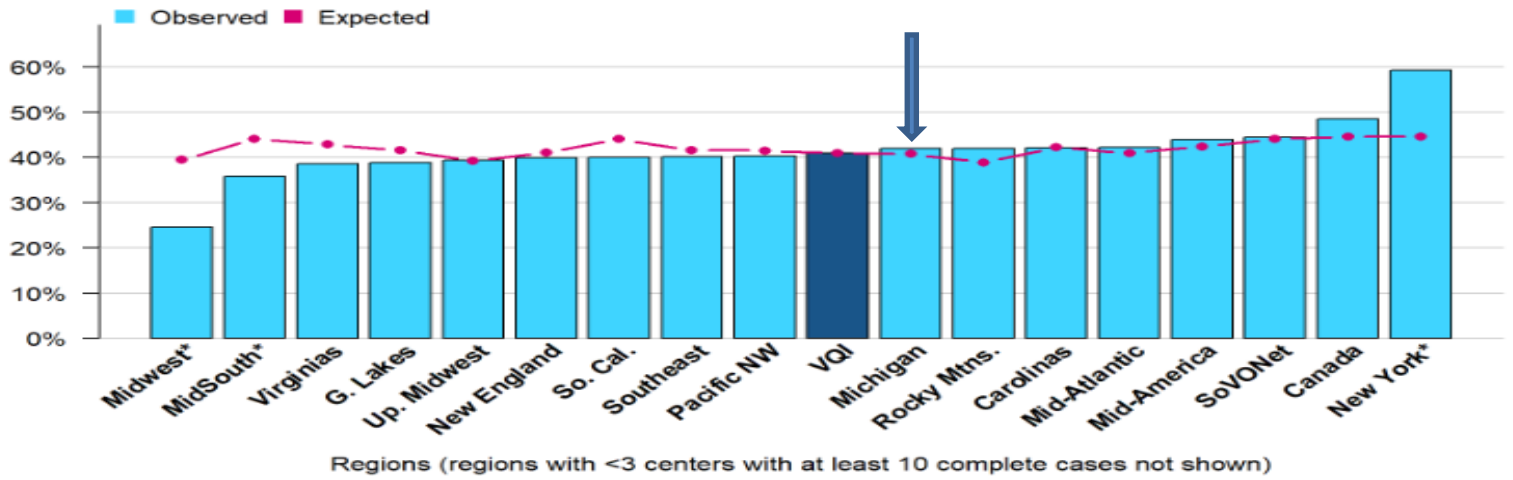
Postop LOS>1 Day after CEA for Symptomatic Patients in Your Region (Jan-Dec 2021)



3 of 5 centers displayed

Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate

Postop LOS>1 Day after CEA for Symptomatic Patients by Region Across VQI (Jan-Dec 2021)



Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

EVAR: Postop LOS>2 Days

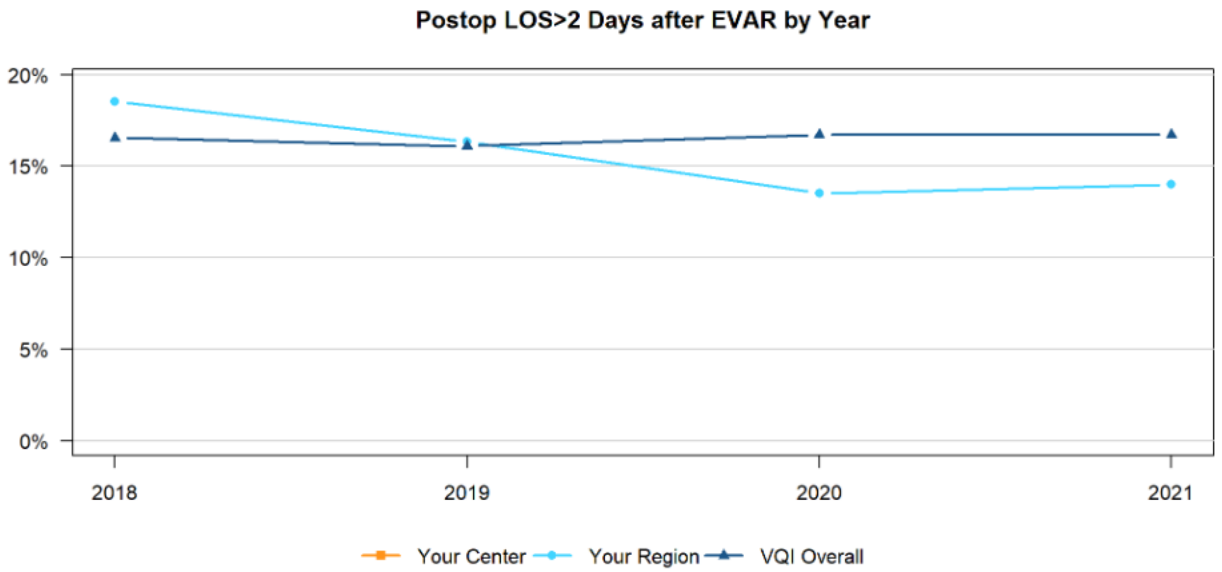
Procedures performed between January 1 and December 31, 2021

Includes Endovascular AAA Repair (EVAR) procedures. Excludes any procedure with ruptured aneurysm. Procedures where in-hospital death occurred with postoperative LOS≤2 days are also excluded. Postoperative LOS is based on the midnight rule used for hospital billing.

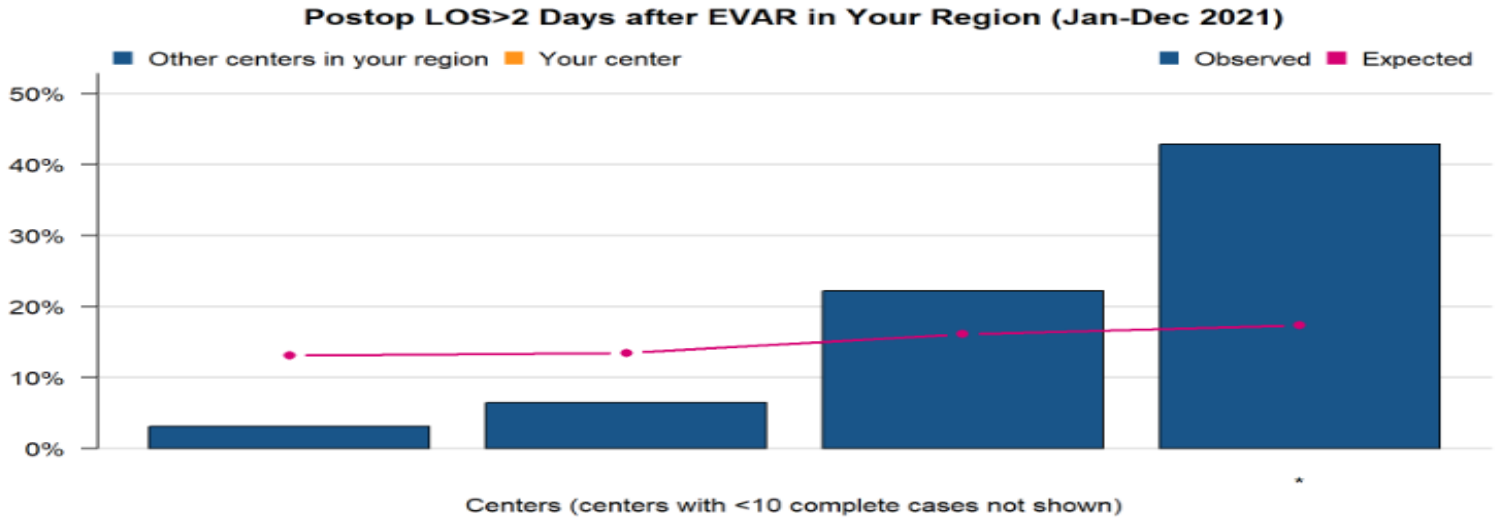
The table below gives the number of EVAR procedures meeting the inclusion criteria, and the observed and expected rates of postoperative LOS>2 Days for those cases.

	Your Center	Your Region	VQI Overall
Number of EVAR procedures meeting inclusion criteria		150	7138
Observed rate of LOS>2 days among procedures meeting inclusion criteria		14%	16.7%
Number of procedures with complete data*		137	6628
Observed rate of LOS>2 days among cases with complete data		14.6%	16.7%
Expected rate of LOS>2 days among cases with complete data		14.7%	NA
P-value for comparison of observed and expected rates		1	NA

*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.

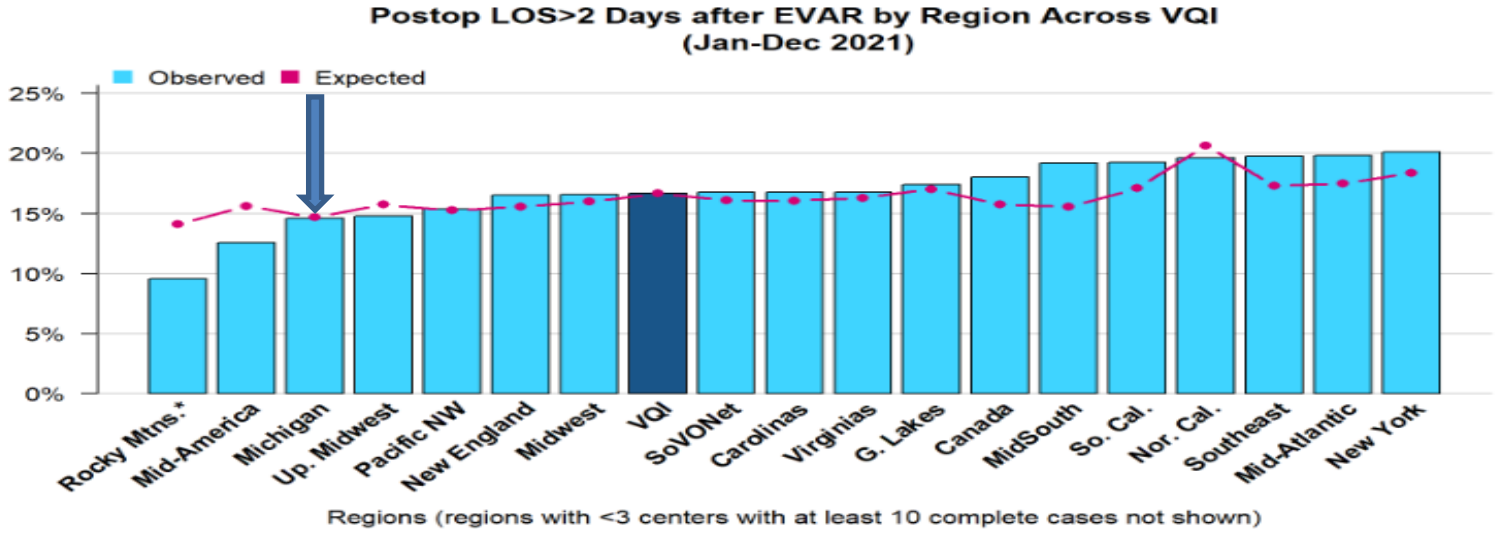


Rates shown are observed rates among cases meeting inclusion criteria.



4 of 4 centers displayed

Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate



Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

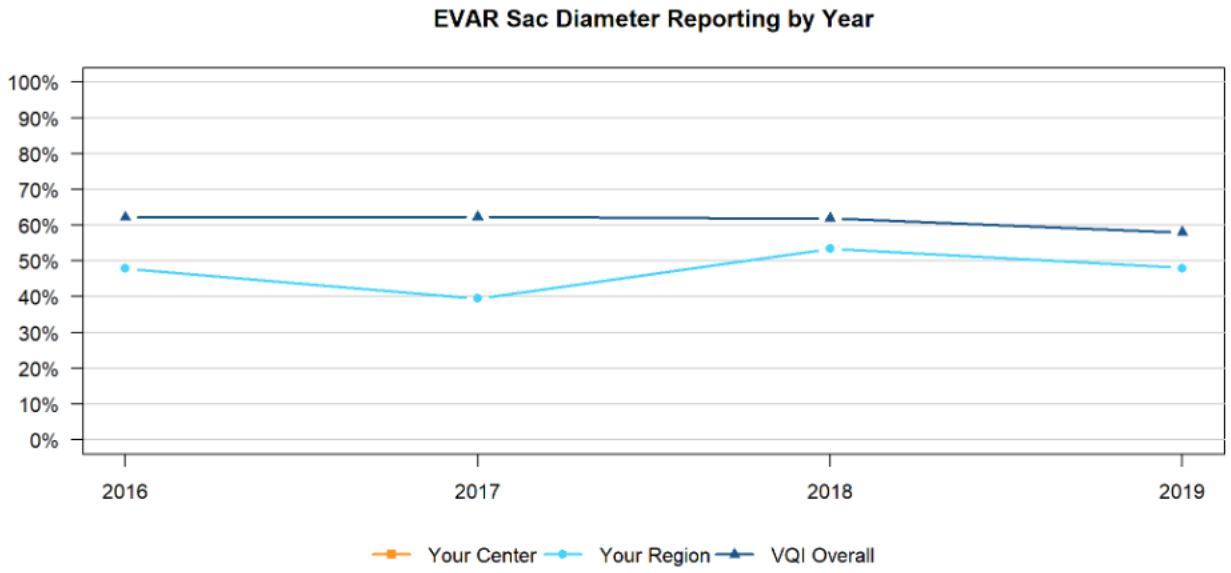
EVAR: Sac Diameter Reporting

Procedures performed between January 1 and December 31, 2019

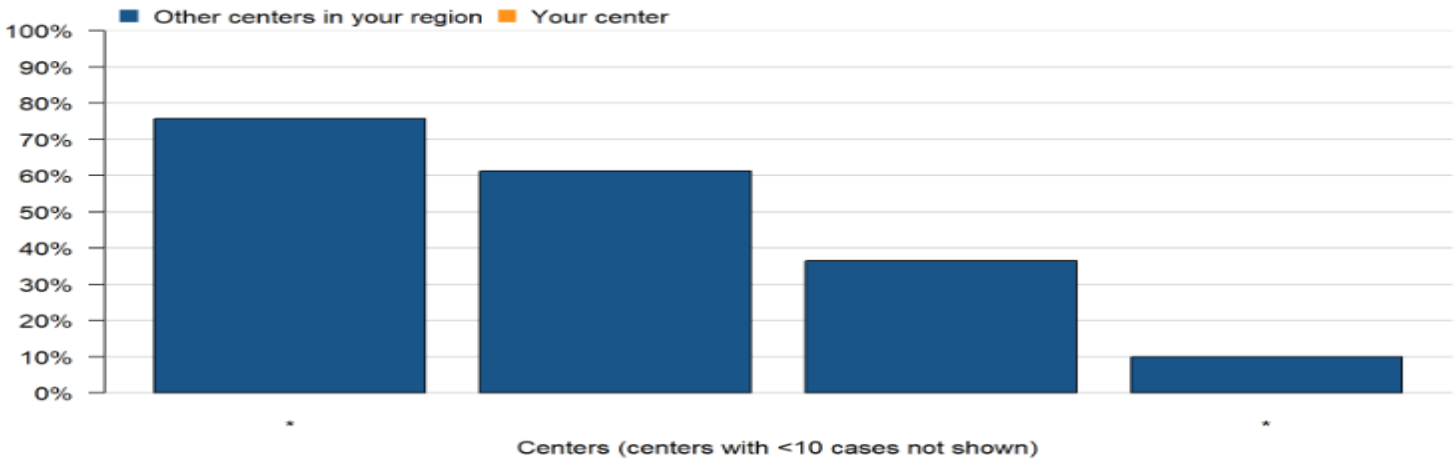
Includes Endovascular AAA Repair (EVAR) procedures. Excludes patients who were converted to open or died within 21 months of surgery.

The table below gives the number of EVAR procedures meeting the inclusion criteria, and the percentage of those procedures where a sac diameter was reported between 9 and 21 months post-procedure.

	Your Center	Your Region	VQI Overall
Number of EVAR procedures meeting inclusion criteria		200	7112
Percentage with sac diameter reported between 9 and 21 months post-procedure		48%	58%


EVAR Sac Diameter Reporting by Year
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2016
2017
2018
2019
Your Center
Your Region
VQI Overall

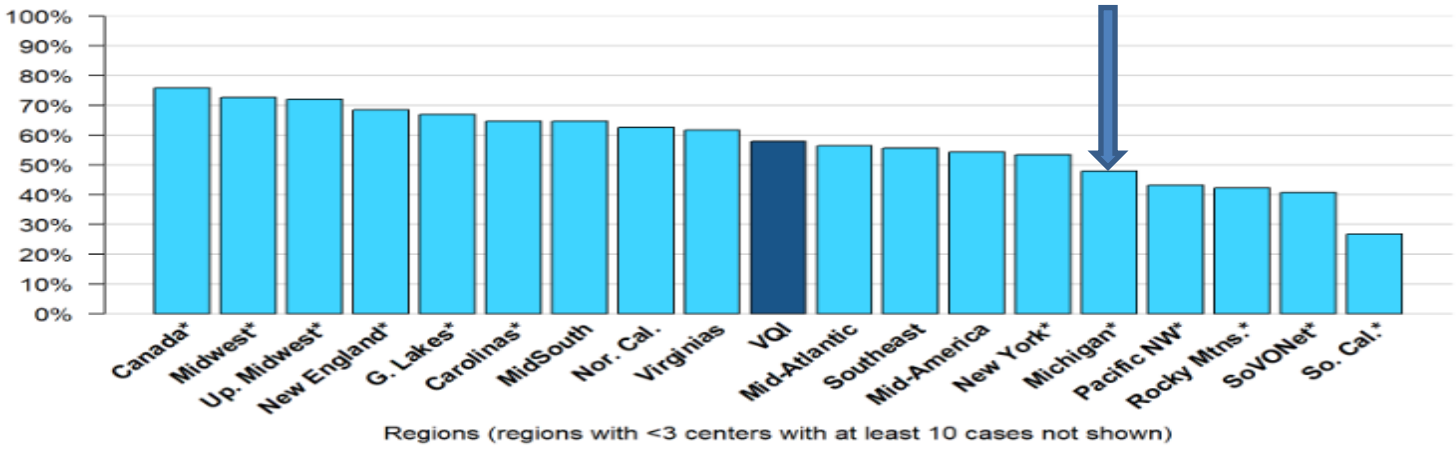
EVAR Sac Diameter Reporting in Your Region (Jan-Dec 2019)



4 of 4 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.

EVAR Sac Diameter Reporting by Region Across VQI (Jan-Dec 2019)



"*" Indicates region's rate differs significantly from the VQI rate.

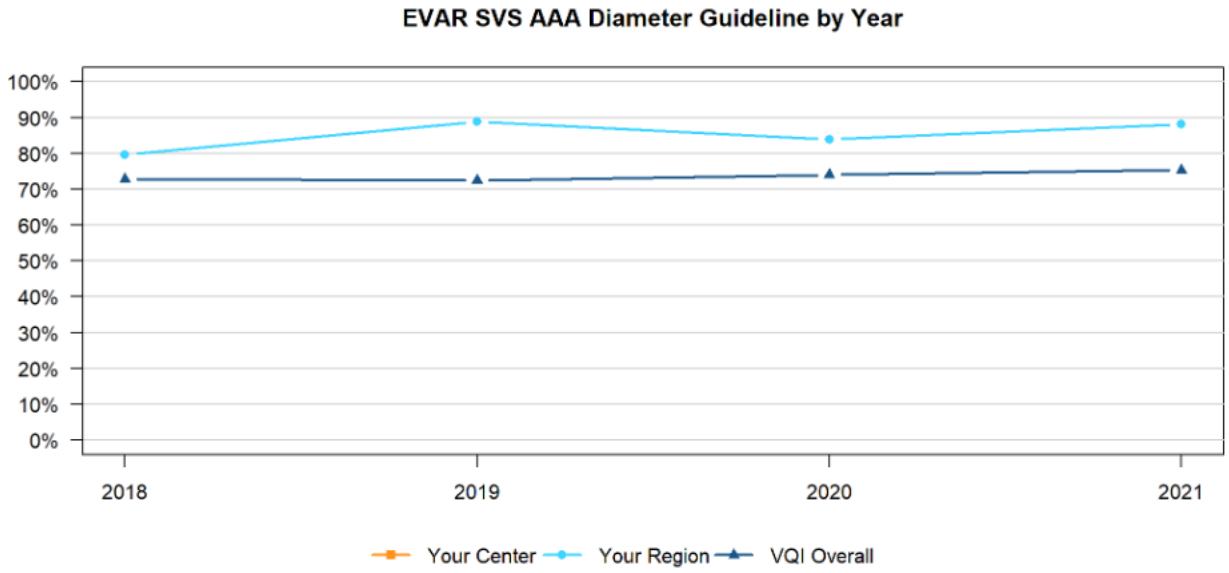
EVAR: SVS AAA Diameter Guideline

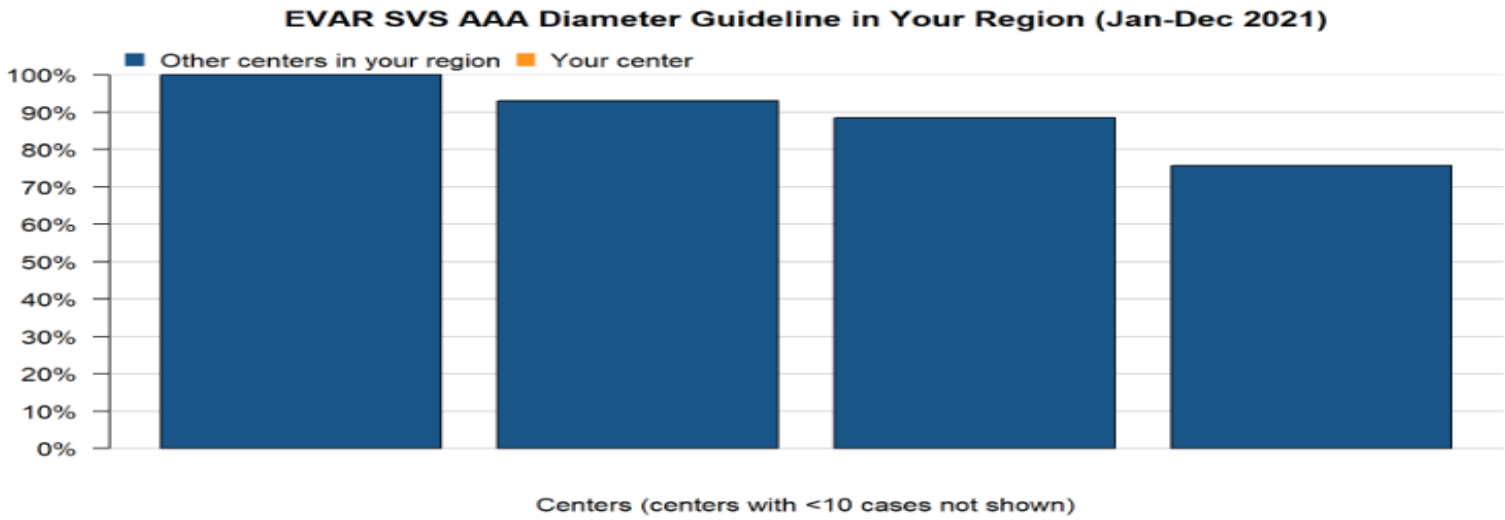
Procedures performed between January 1 and December 31, 2021

Includes Endovascular AAA Repair (EVAR) procedures. Excludes any non-elective procedure. SVS AAA diameter guideline is ≥5 cm for Women and ≥5.5cm for men. If the patient has any iliac aneurysm, the guideline is considered met regardless of AAA diameter.

The table below gives the number of EVAR procedures meeting the inclusion criteria, and the percentage of those procedures meeting the SVS AAA diameter guideline.

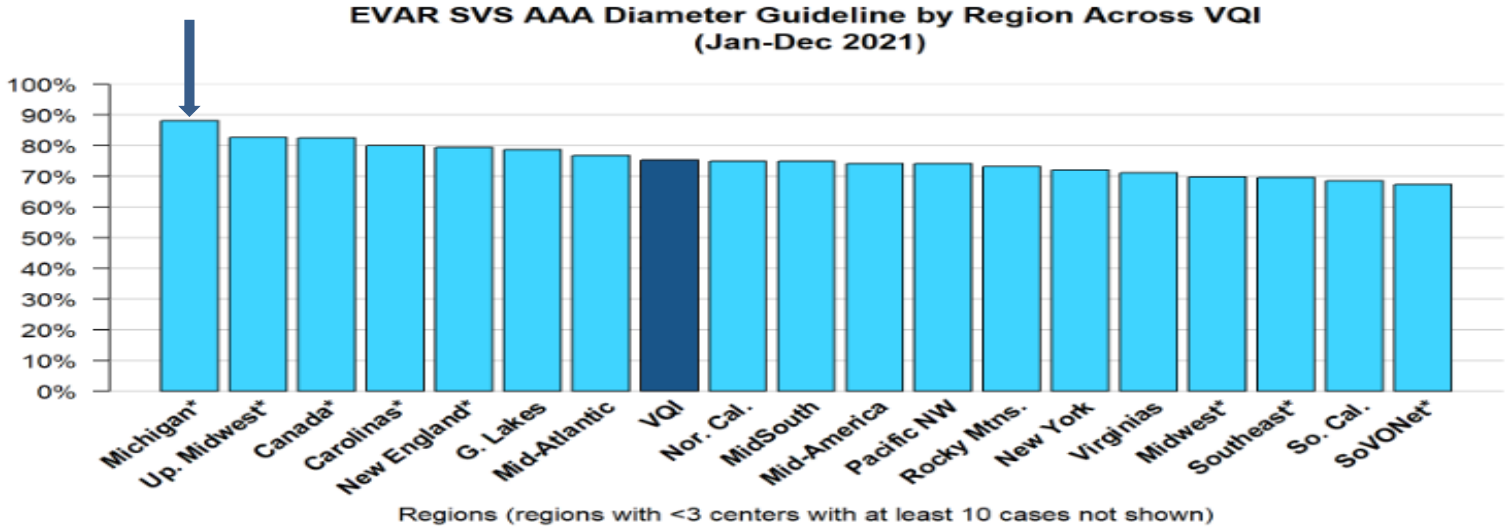
	Your Center	Your Region	VQI Overall
Number of EVAR procedures meeting inclusion criteria		135	6335
Percentage meeting SVS AAA diameter guideline		88.1%	75.3%


EVAR SVS AAA Diameter Guideline by Year
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2018
2019
2020
2021
Your Center
Your Region
VQI Overall



4 of 4 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.



"*" Indicates region's rate differs significantly from the VQI rate.

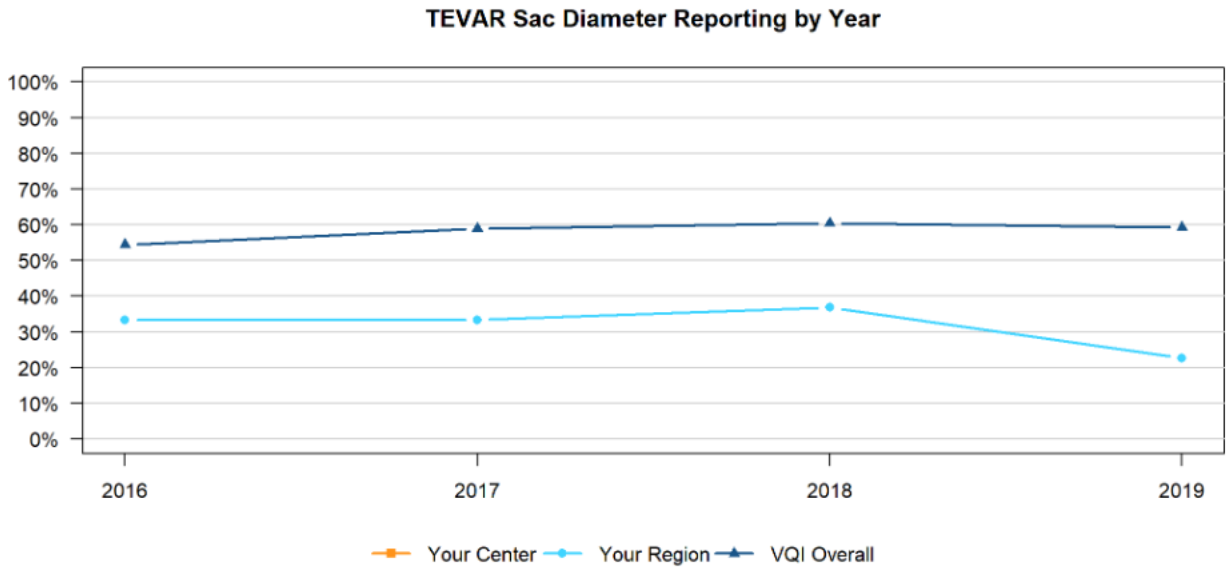
TEVAR: Sac Diameter Reporting

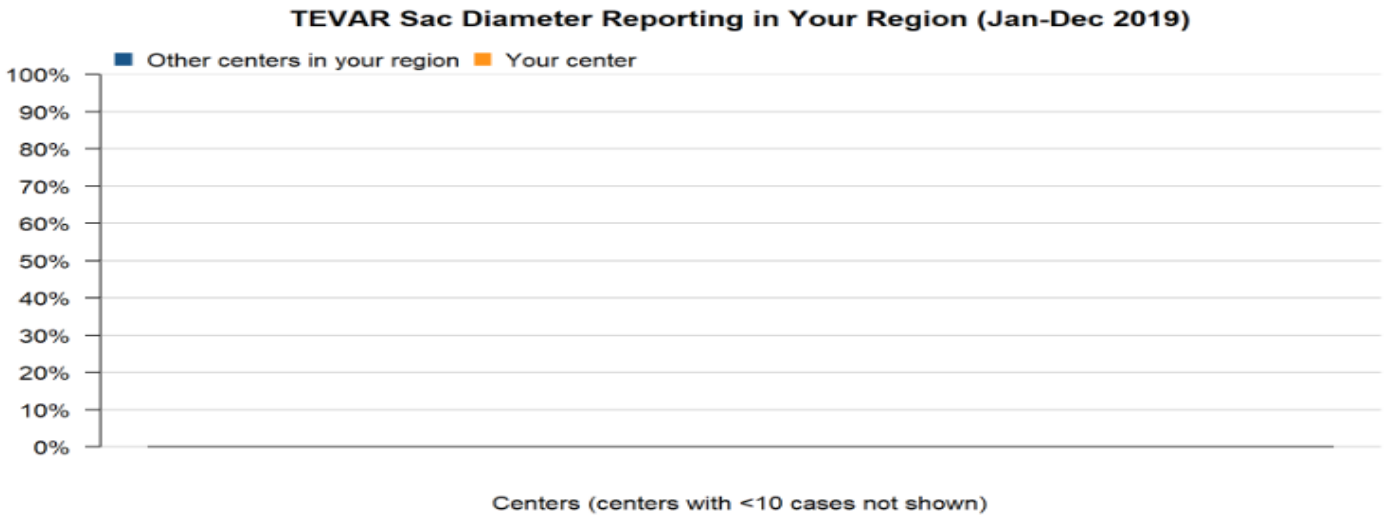
Procedures performed between January 1 and December 31, 2019

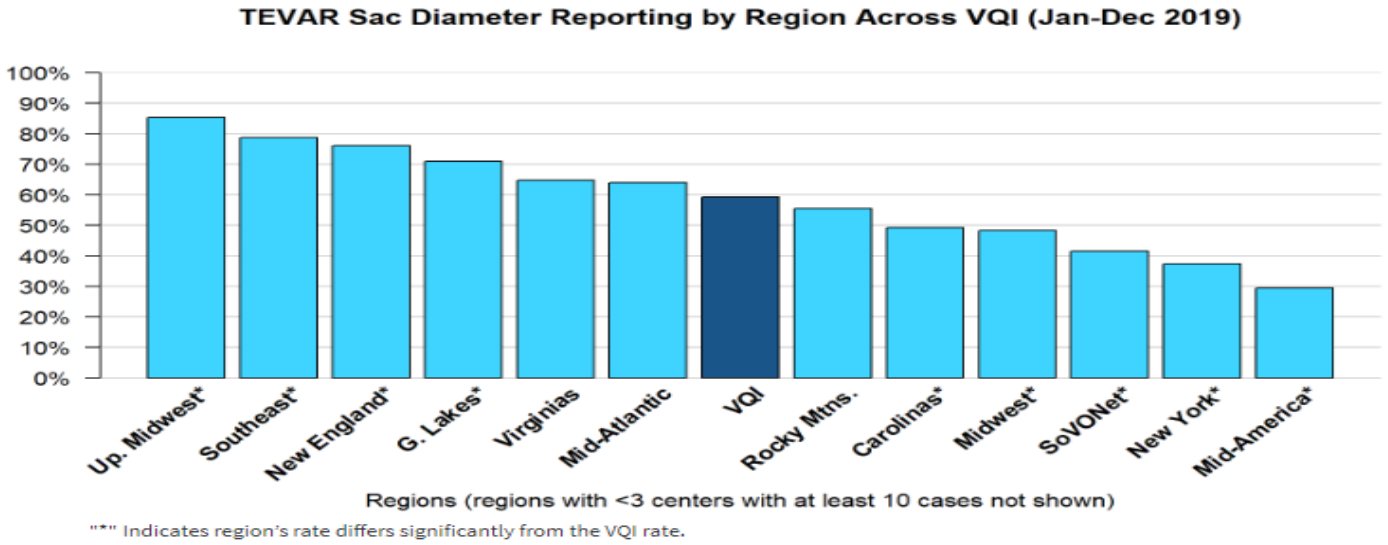
Includes Thoracic Endovascular Aortic Repair (TEVAR) procedures for aneurysm or aneurysm from dissection. Excludes procedures where no aortic device was implanted or patients who were converted to open or died within 21 months of surgery.

The table below gives the number of TEVAR procedures meeting the inclusion criteria, and the percentage of those procedures where a sac diameter was reported between 9 and 21 months post-procedure.

	Your Center	Your Region	VQI Overall
Number of TEVAR procedures meeting inclusion criteria		22	1703
Percentage with sac diameter reported between 9 and 21 months post-procedure		22.7%	59.3%


TEVAR Sac Diameter Reporting by Year
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2016
2017
2018
2019
Your Center
Your Region
VQI Overall


TEVAR Sac Diameter Reporting in Your Region (Jan-Dec 2019)
Other centers in your region
Your center
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Centers (centers with <10 cases not shown)
0 of 3 centers displayed
"*" Indicates center's rate differs significantly from the regional rate.


TEVAR Sac Diameter Reporting by Region Across VQI (Jan-Dec 2019)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Up. Midwest*
Southeast*
New England*
G. Lakes*
Virginias
Mid-Atlantic
VQI
Rocky Mtns.
Carolinas*
Midwest*
SoVONet*
New York*
Mid-America*
Regions (regions with <3 centers with at least 10 cases not shown)
"*" Indicates region's rate differs significantly from the VQI rate.

OAAA: In-Hospital Mortality

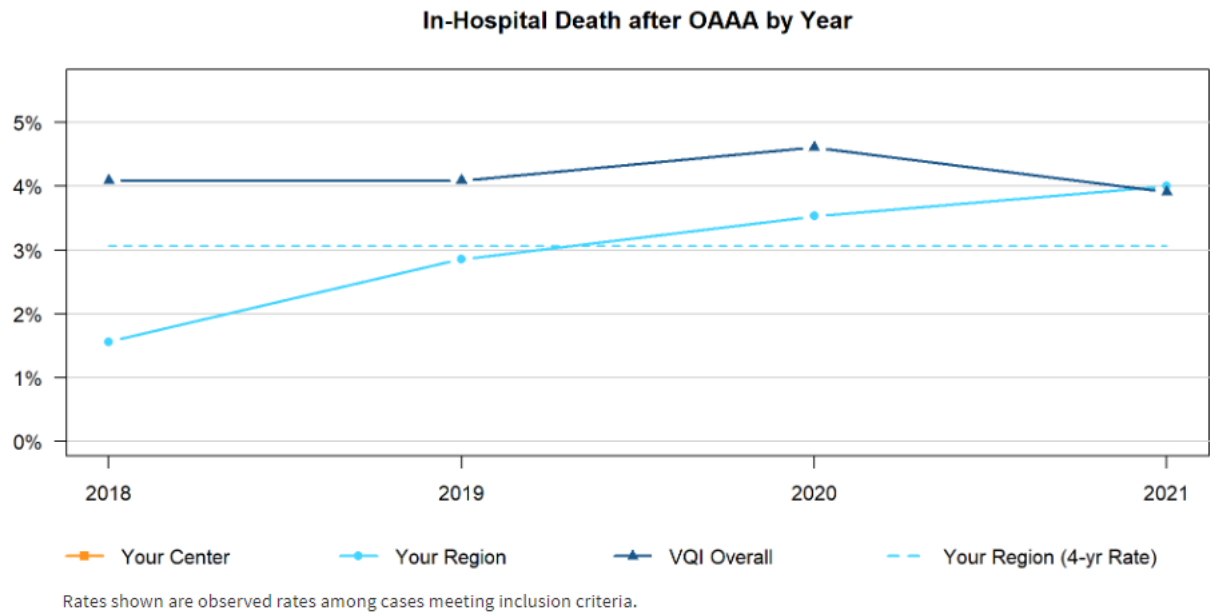
Procedures performed between January 1, 2018 and December 31, 2021

Includes Open AAA (OAAA) procedures. Excludes any patient with a ruptured aneurysm.

The table below gives the number of OAAA procedures meeting the inclusion criteria, and the observed and expected rates of in-hospital death for those cases.

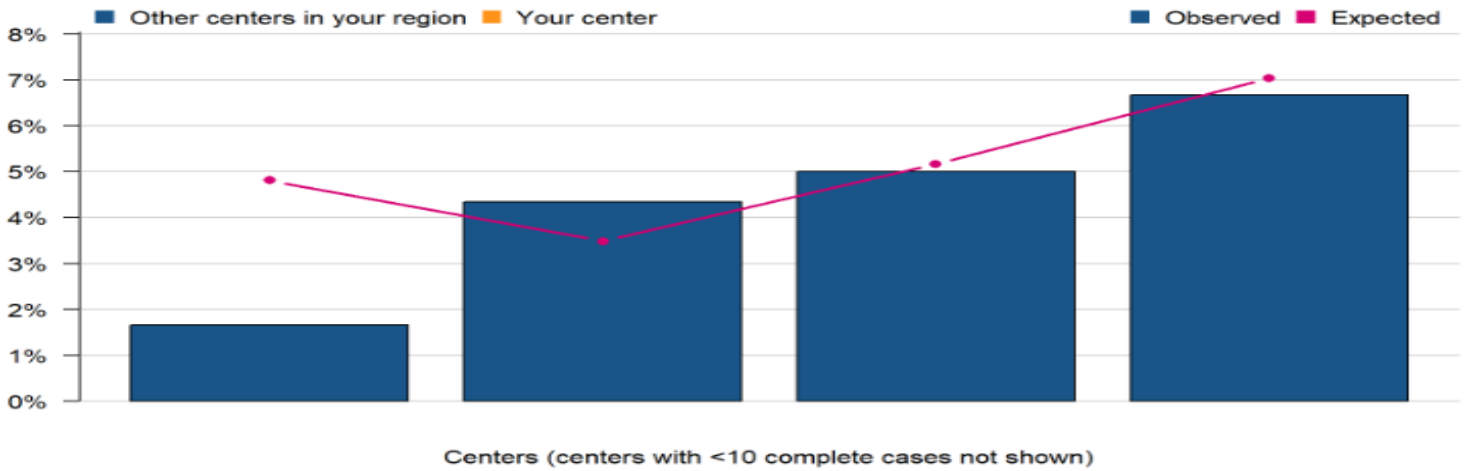
	Your Center	Your Region	VQI Overall
Number of OAAA procedures meeting inclusion criteria		294	4503
Observed rate of In-Hospital Mortality among procedures meeting inclusion criteria		3.1%	4.2%
Number of procedures with complete data*		278	4201
Observed rate of In-Hospital Mortality among cases with complete data		3.2%	4%
Expected rate of In-Hospital Mortality among cases with complete data		4.5%	NA
P-value for comparison of observed and expected rates		0.38	NA

*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.



Rates shown are observed rates among cases meeting inclusion criteria.

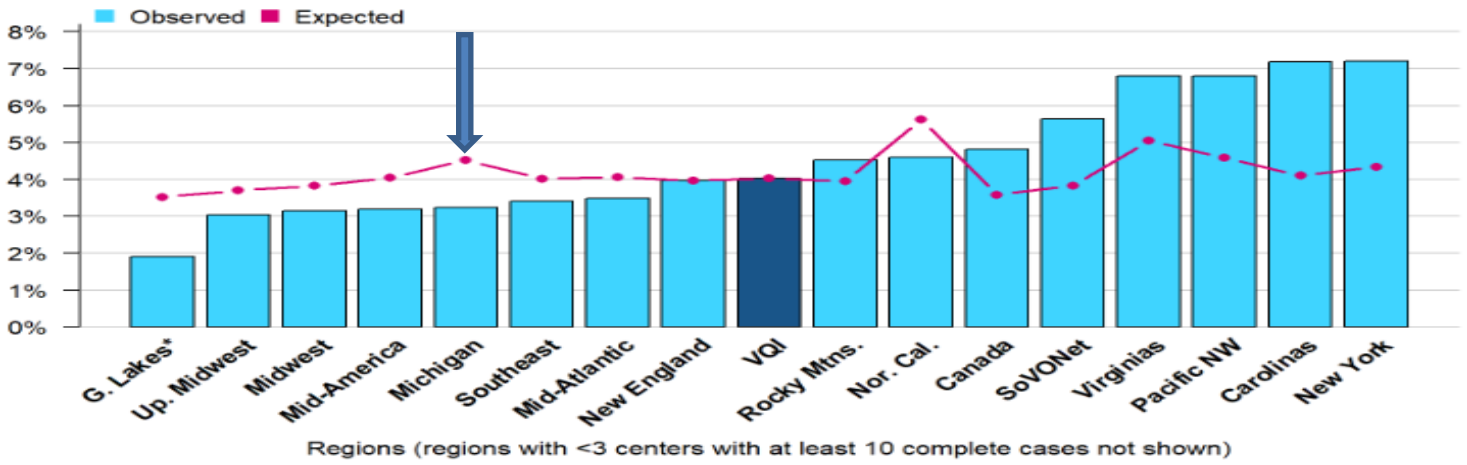
In-Hospital Death after OAAA in Your Region (Jan 2018-Dec 2021)



4 of 6 centers displayed

Rates shown are among complete cases. "*" Indicates center's observed rate differs significantly from its expected rate

In-Hospital Death after OAAA by Region Across VQI (Jan 2018-Dec 2021)



Rates shown are among complete cases. "*" Indicates region's observed rate differs significantly from its expected rate

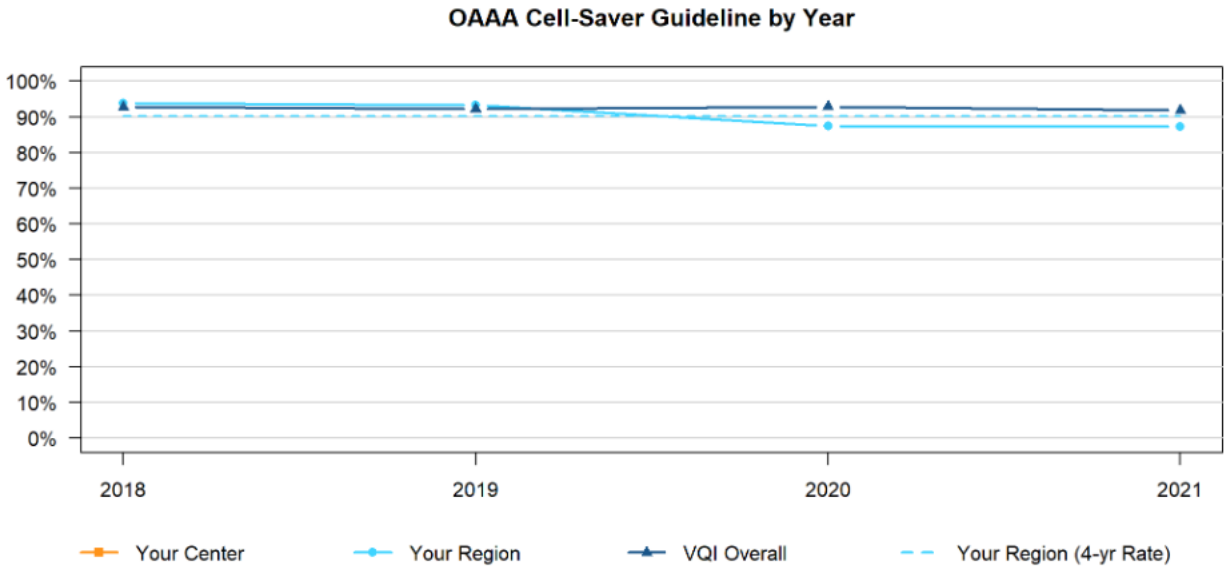
OAAA: SVS Cell-Saver Guideline

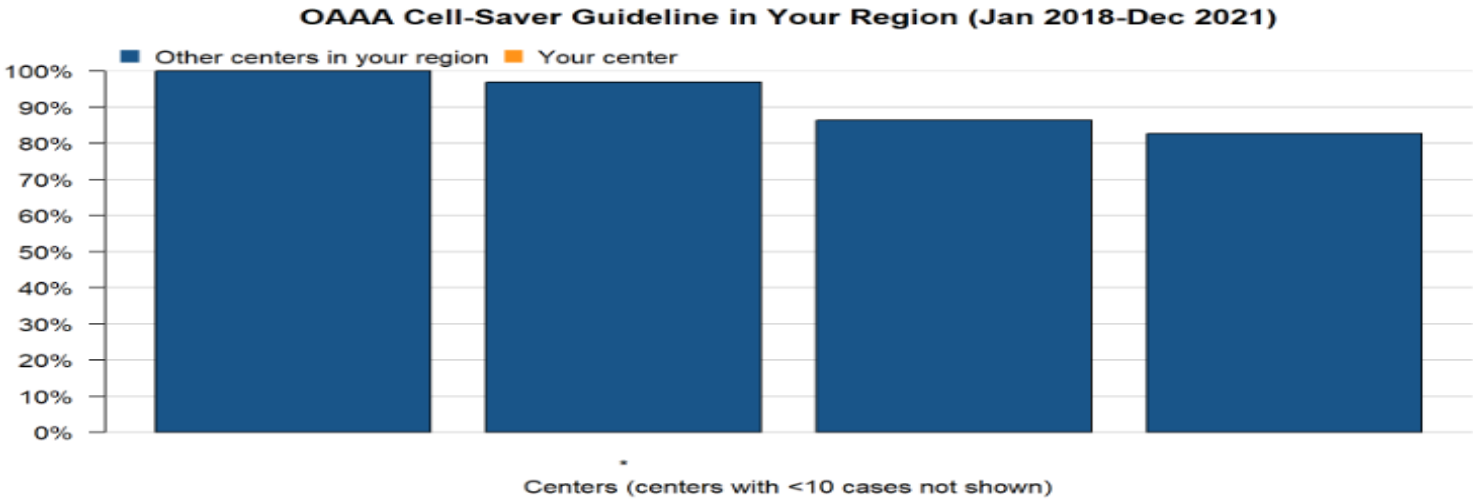
Procedures performed between January 1, 2018 and December 31, 2021

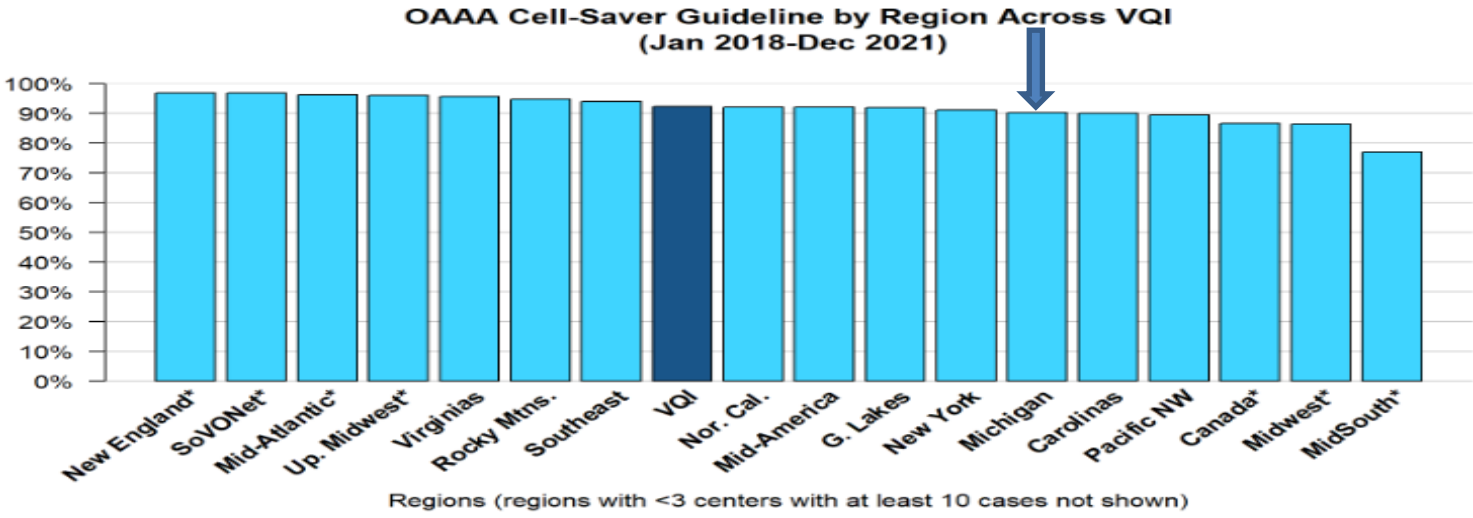
Includes Open AAA (OAAA) procedures. Excludes any patient with EBL≤500 ml. SVS cell-saver guideline is met if cell salvage or ultrafiltration device was used.

The table below gives the number of OAAA procedures meeting the inclusion criteria, and the percentage of those procedures meeting the SVS cell-saver guideline.

	Your Center	Your Region	VQI Overall
Number of OAAA procedures meeting inclusion criteria		268	4576
Percentage meeting SVS cell-saver guideline		90.3%	92.4%


OAAA Cell-Saver Guideline by Year
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2018
2019
2020
2021
Your Center
Your Region
VQI Overall
Your Region (4-yr Rate)


OAAA Cell-Saver Guideline in Your Region (Jan 2018-Dec 2021)
Other centers in your region
Your center
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
*
Centers (centers with <10 cases not shown)
4 of 6 centers displayed
"*" Indicates center's rate differs significantly from the regional rate.


OAAA Cell-Saver Guideline by Region Across VQI
(Jan 2018-Dec 2021)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
New England*
SoVONet*
Mid-Atlantic*
Up. Midwest*
Virginias
Rocky Mtns.
Southeast
VQI
Nor. Cal.
Mid-America
G. Lakes
New York
Michigan
Carolinas
Pacific NW
Canada*
Midwest*
MidSouth*
Regions (regions with <3 centers with at least 10 cases not shown)
"*" Indicates region's rate differs significantly from the VQI rate.

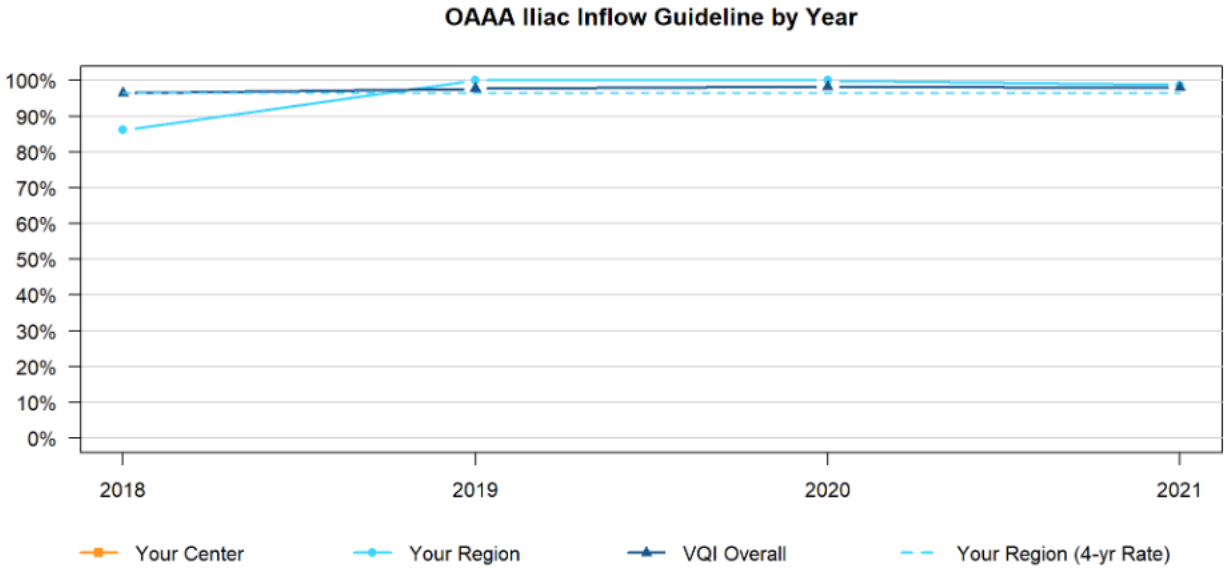
OAAA: SVS Iliac Inflow Guideline

Procedures performed between January 1, 2018 and December 31, 2021

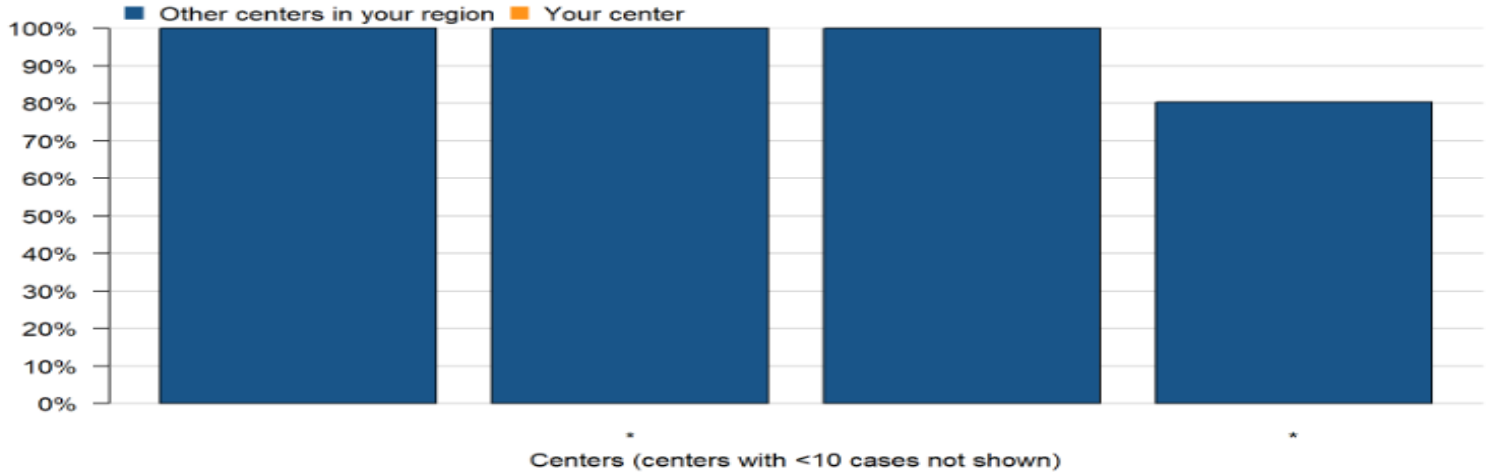
Includes Open AAA (OAAA) procedures. SVS iliac inflow guideline is met if preservation of flow was maintained to at least one internal iliac artery.

The table below gives the number of OAAA procedures meeting the inclusion criteria, and the percentage of those procedures meeting the SVS iliac inflow guideline.

	Your Center	Your Region	VQI Overall
Number of OAAA procedures meeting inclusion criteria		313	5134
Percentage meeting SVS iliac inflow guideline		96.5%	97.6%


OAAA Iliac Inflow Guideline by Year
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2018
2019
2020
2021
Your Center
Your Region
VQI Overall
Your Region (4-yr Rate)

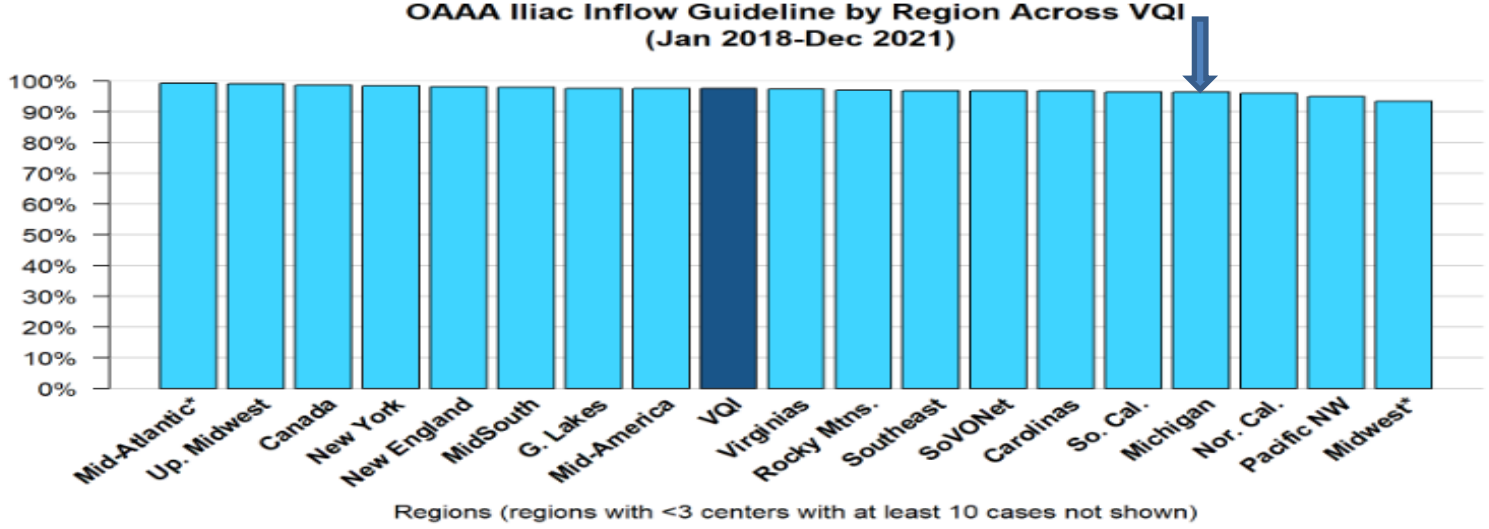
OAAA Iliac Inflow Guideline in Your Region (Jan 2018-Dec 2021)



4 of 6 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.

OAAA Iliac Inflow Guideline by Region Across VQI (Jan 2018-Dec 2021)



"*" Indicates region's rate differs significantly from the VQI rate.

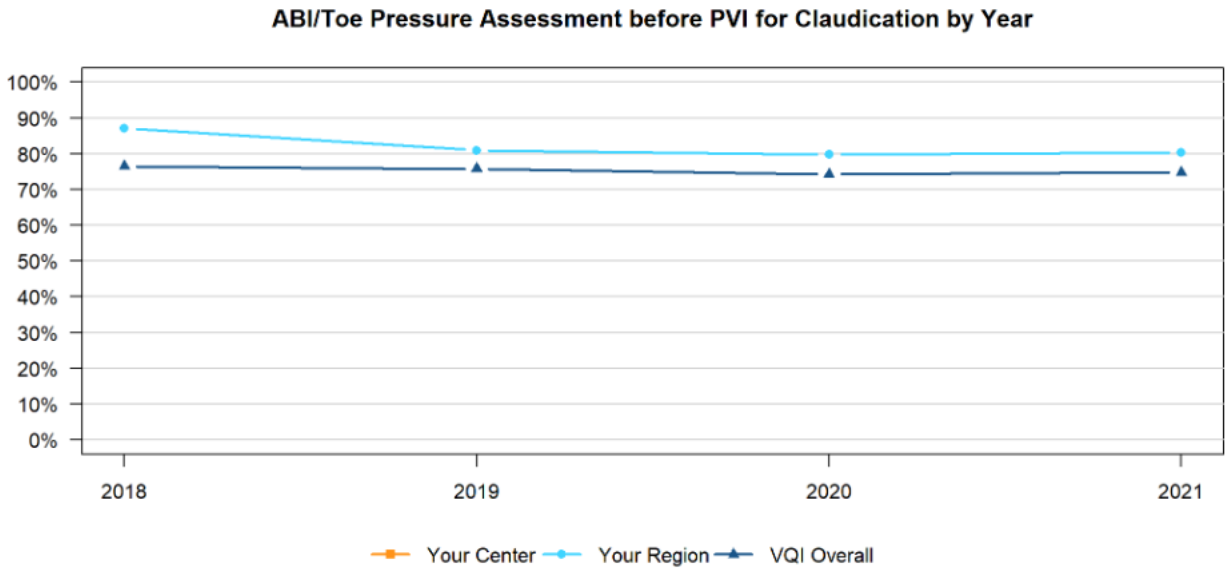
PVI CLAUD: ABI/Toe Pressure

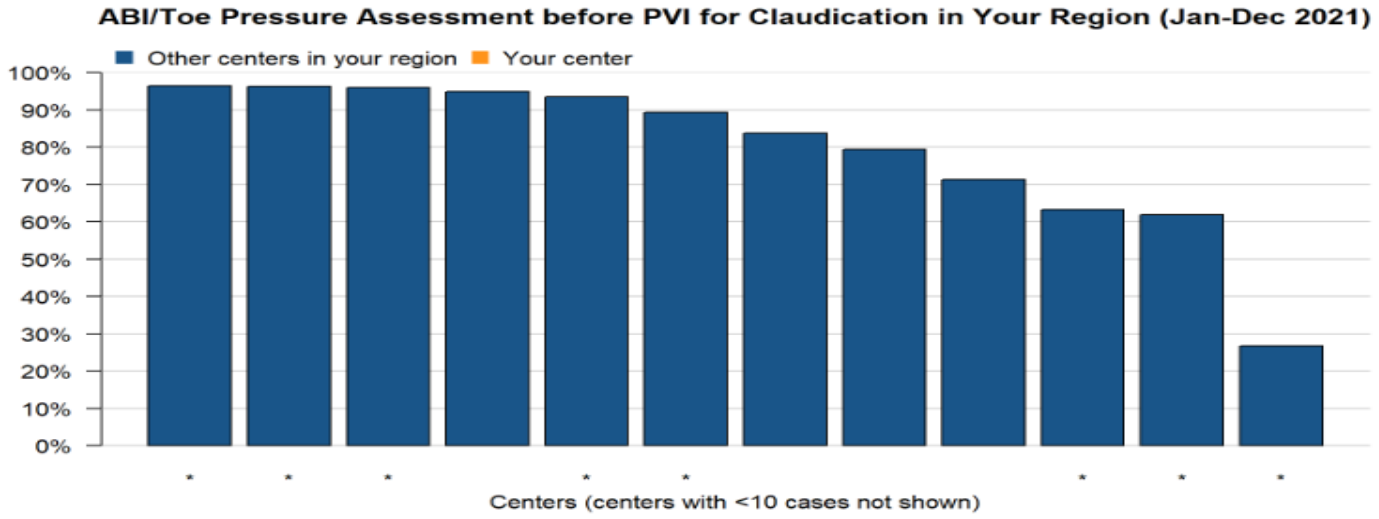
Procedures performed between January 1 and December 31, 2021

Includes Peripheral Vascular Intervention (PVI) procedures for mild, moderate, or severe claudication. "ABI/Toe Pressure Assessment" indicates at least one ABI or toe pressure assessment was made prior to PVI for the side of the procedure, or on both sides for bilateral and aortic procedures.

The table below gives the number of PVI procedures meeting the inclusion criteria, and the percentage of those procedures in which an ABI or toe pressure was assessed prior to PVI.

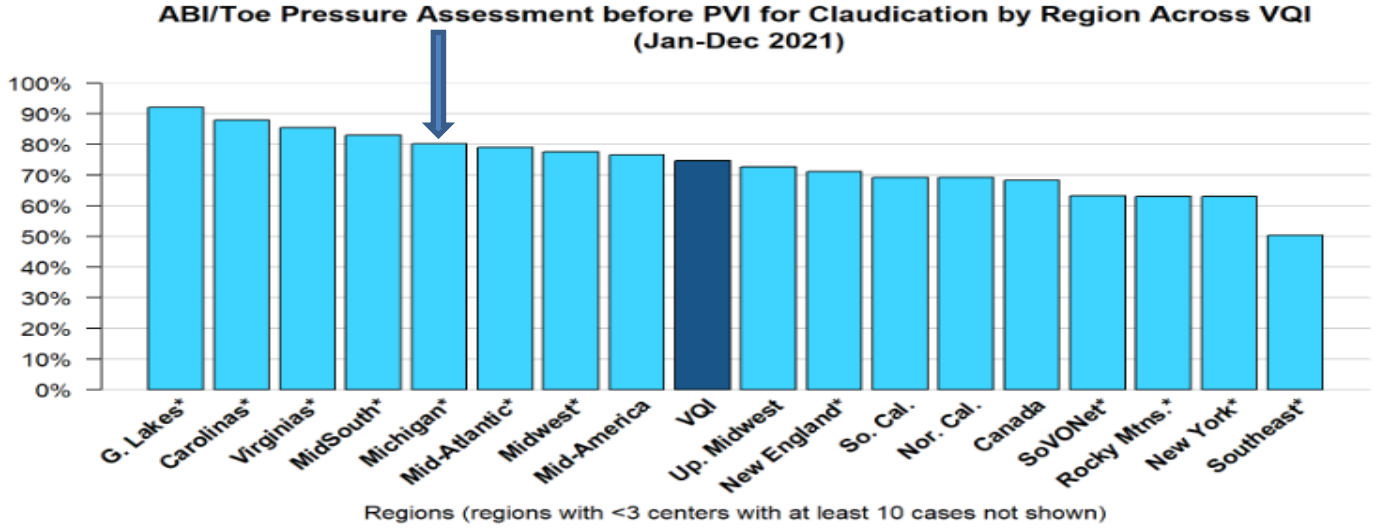
	Your Center	Your Region	VQI Overall
Number of PVI procedures meeting inclusion criteria		613	14657
Percentage with ABI/toe pressure assessment		80.3%	74.8%


ABI/Toe Pressure Assessment before PVI for Claudication by Year
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2018
2019
2020
2021
Your Center
Your Region
VQI Overall



12 of 15 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.



"*" Indicates region's rate differs significantly from the VQI rate.

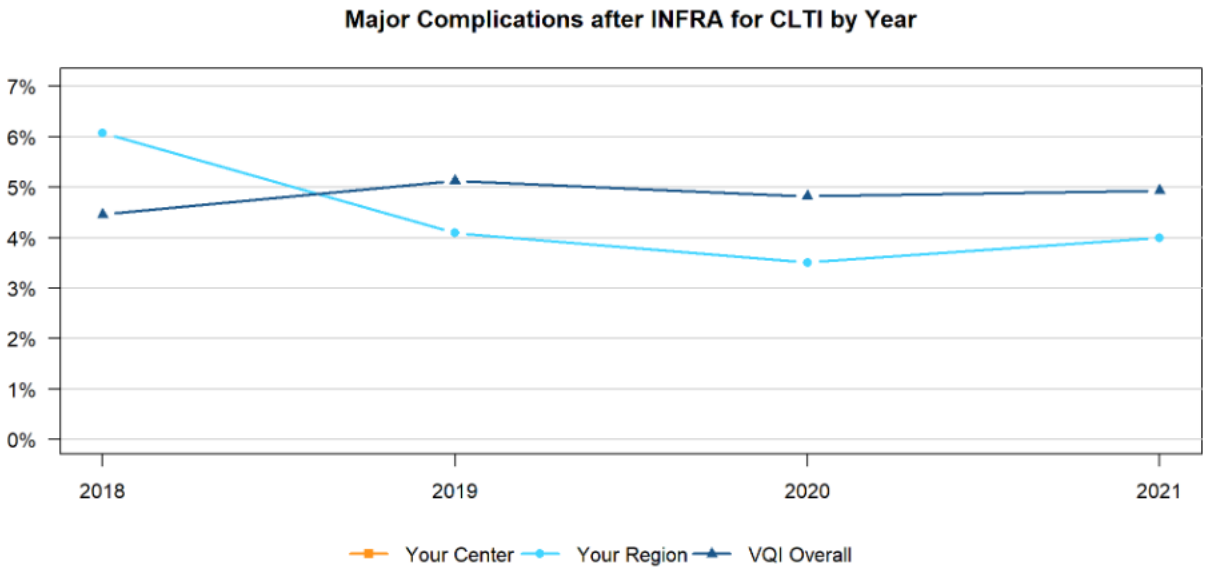
INFRA CLTI: Major Complications

Procedures performed between January 1 and December 31, 2021

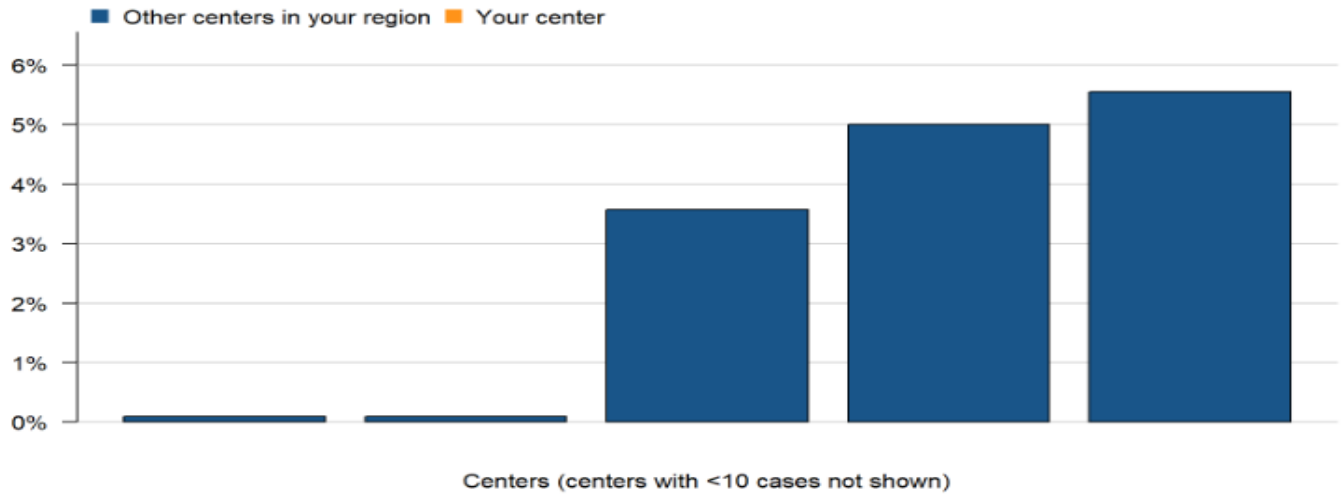
Includes Infrainguinal Bypass (INFRA) procedures for rest pain, tissue loss, or acute ischemia. Major complications are defined as in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

The table below gives the number of INFRA procedures meeting the inclusion criteria, and the percentage of those procedures that resulted in in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

	Your Center	Your Region	VQI Overall
Number of INFRA procedures meeting inclusion criteria		125	5187
Percentage with major complications		4%	4.9%


Major Complications after INFRA for CLTI by Year
7%
6%
5%
4%
3%
2%
1%
0%
2018
2019
2020
2021
Your Center
Your Region
VQI Overall

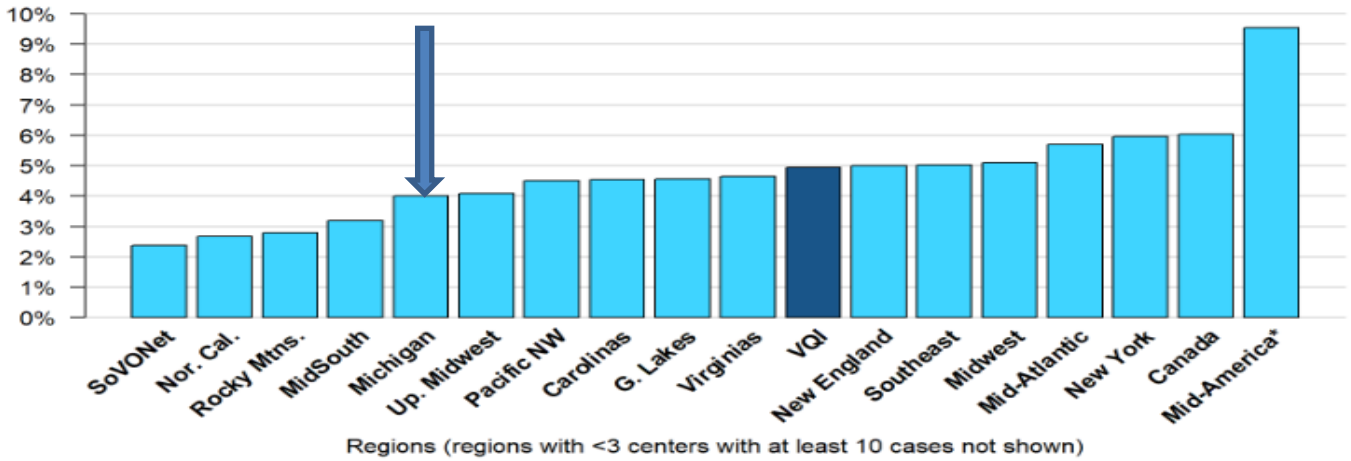
Major Complications after INFRA for CLTI in Your Region (Jan-Dec 2021)



5 of 5 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.

Major Complications after INFRA for CLTI by Region Across VQI (Jan-Dec 2021)



"*" Indicates region's rate differs significantly from the VQI rate.

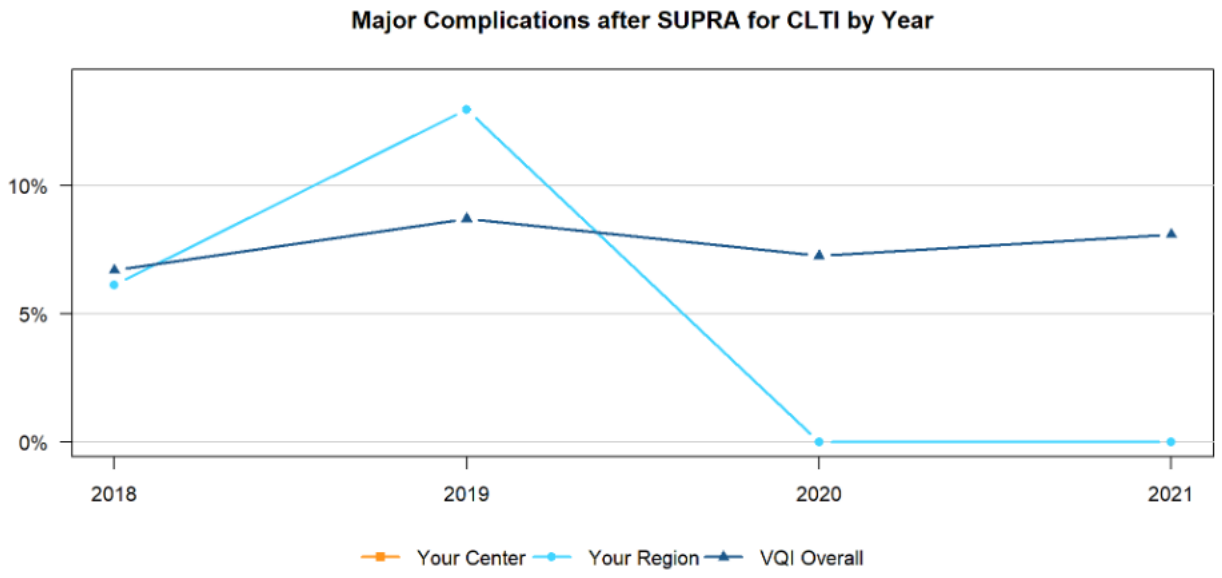
SUPRA CLTI: Major Complications

Procedures performed between January 1 and December 31, 2021

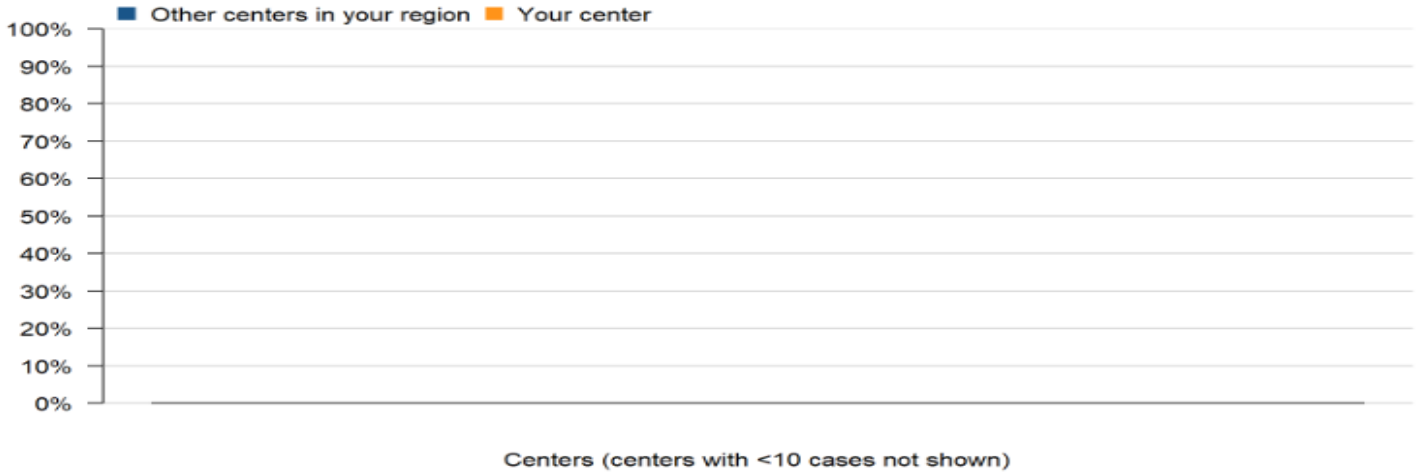
Includes Suprainguinal Bypass (SUPRA) procedures for rest pain, tissue loss, or acute ischemia. Major complications are defined as in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

The table below gives the number of SUPRA procedures meeting the inclusion criteria, and the percentage of those procedures that resulted in in-hospital death, ipsilateral BK or AK amputation, or graft occlusion.

	Your Center	Your Region	VQI Overall
Number of SUPRA procedures meeting inclusion criteria		28	1162
Percentage with major complications		0%	8.1%


Major Complications after SUPRA for CLTI by Year
10%
5%
0%
2018
2019
2020
2021
Your Center
Your Region
VQI Overall

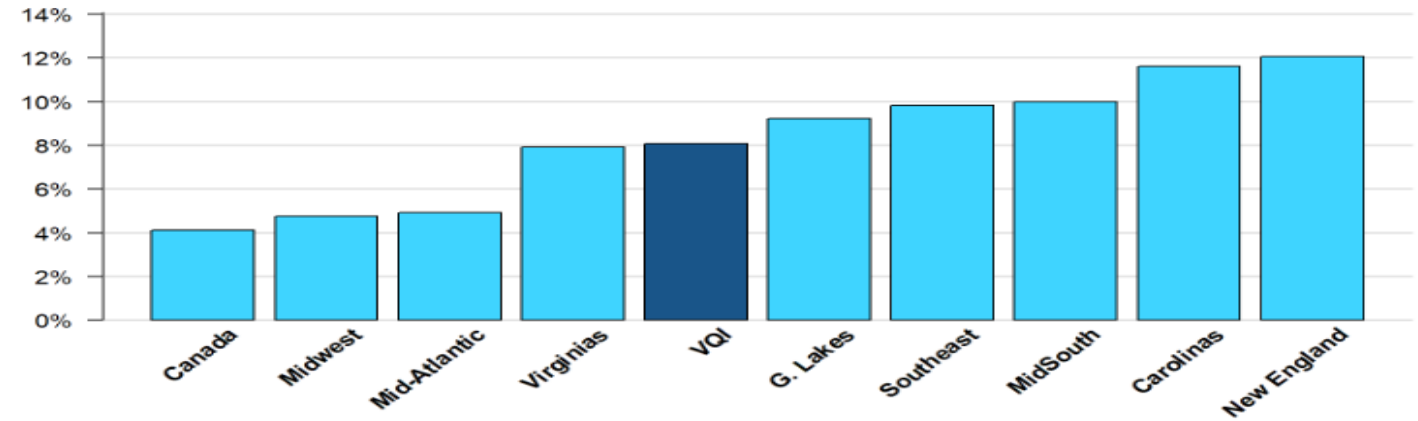
Major Complications after SUPRA for CLTI in Your Region (Jan-Dec 2021)



0 of 4 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.

Major Complications after SUPRA for CLTI by Region Across VQI (Jan-Dec 2021)



"*" Indicates region's rate differs significantly from the VQI rate.

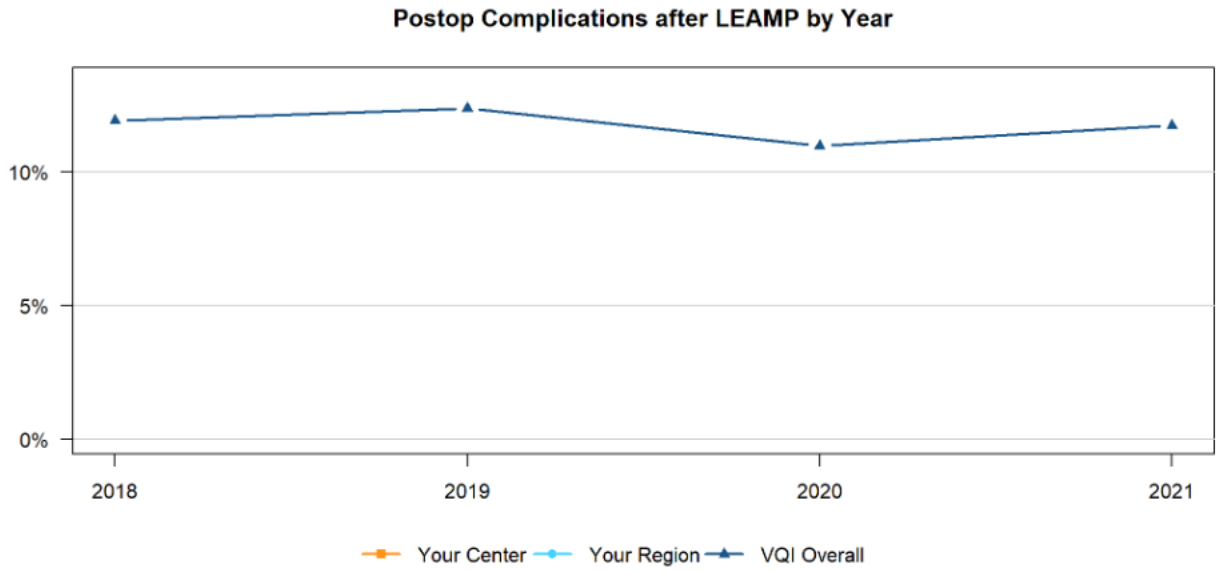
LEAMP: Postop Complications

Procedures performed between January 1 and December 31, 2021

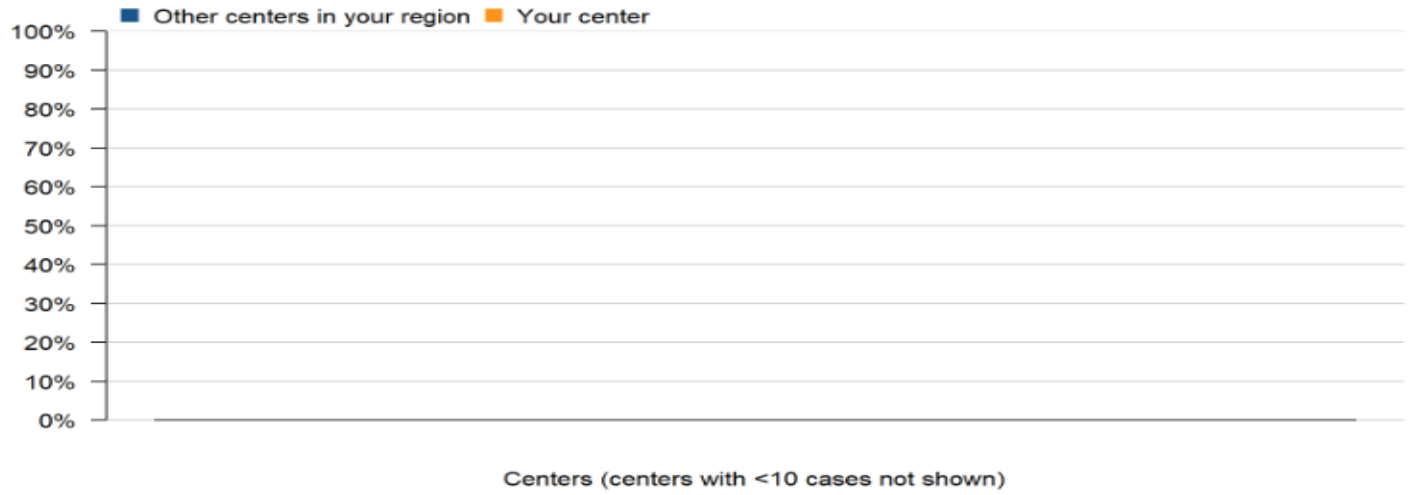
Includes Lower-Extremity Amputation (LEAMP) procedures. Postoperative complications are defined as myocardial infarction, dysrhythmia, congestive heart failure, surgical site infection, renal complication, or respiratory complication.

The table below gives the number of LEAMP procedures meeting the inclusion criteria, and the percentage of those procedures that resulted in a postoperative complication.

	Your Center	Your Region	VQI Overall
Number of LEAMP procedures meeting inclusion criteria		NA (<3 centers)	3080
Percentage with postoperative complications			11.7%


Postop Complications after LEAMP by Year
10%
5%
0%
2018
2019
2020
2021
Your Center
Your Region
VQI Overall

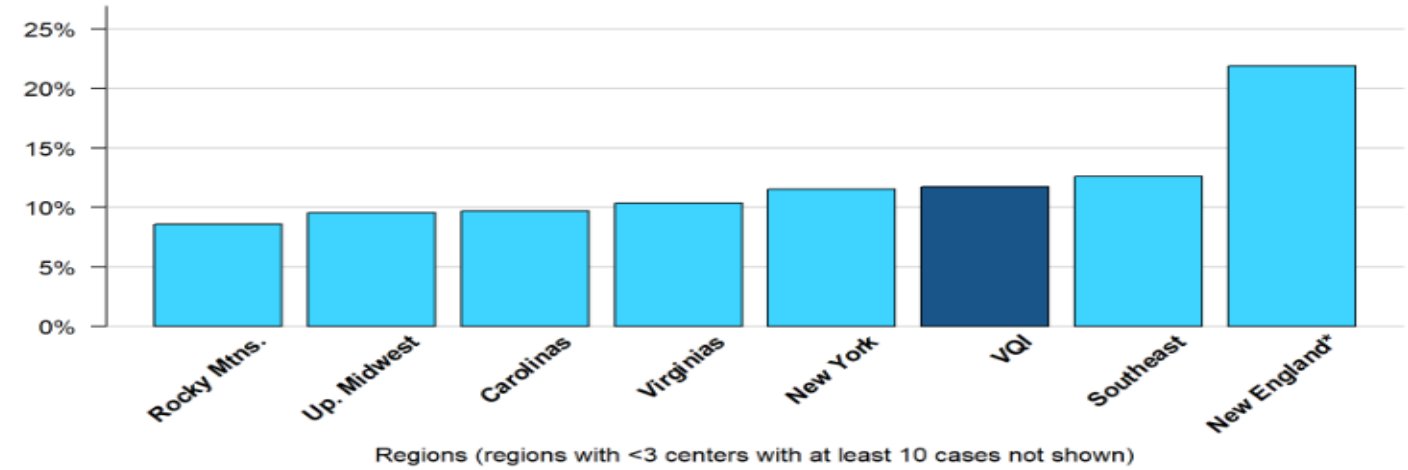
Postop Complications after LEAMP in Your Region (Jan-Dec 2021)



0 of 1 centers displayed

"*" Indicates center's rate differs significantly from the regional rate.

Postop Complications after LEAMP by Region Across VQI (Jan-Dec 2021)



"*" Indicates region's rate differs significantly from the VQI rate.

Regional Improvement Projects

SVS | VQI
In collaboration with NCDR®

Ashraf Mansour, MD

Timothy Nypaver, MD

- Brainstorming for new Regional Quality Improvement Projects

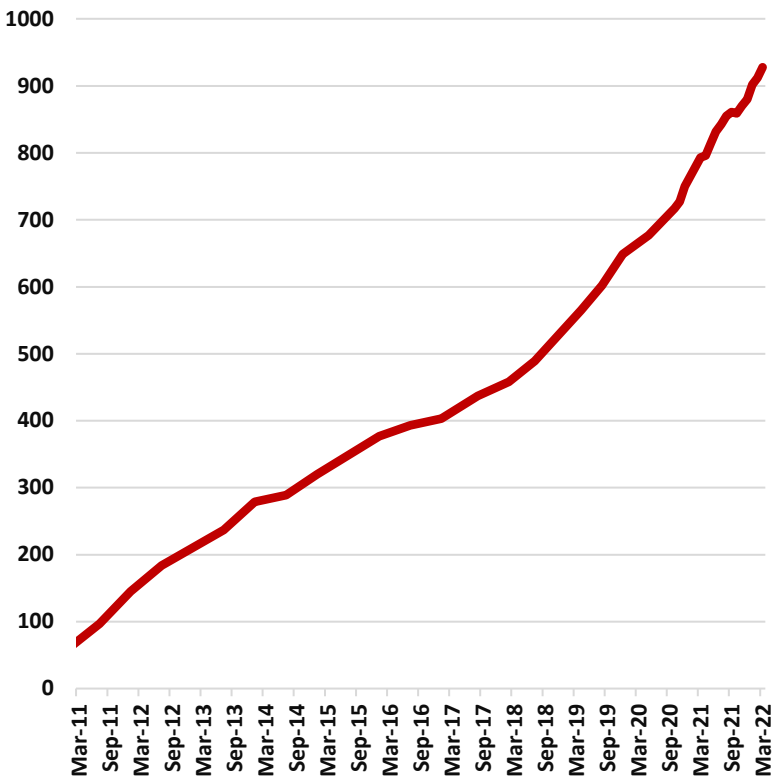
National VQI Update

Jim Wadzinski
SVS PSO Deputy Executive Director

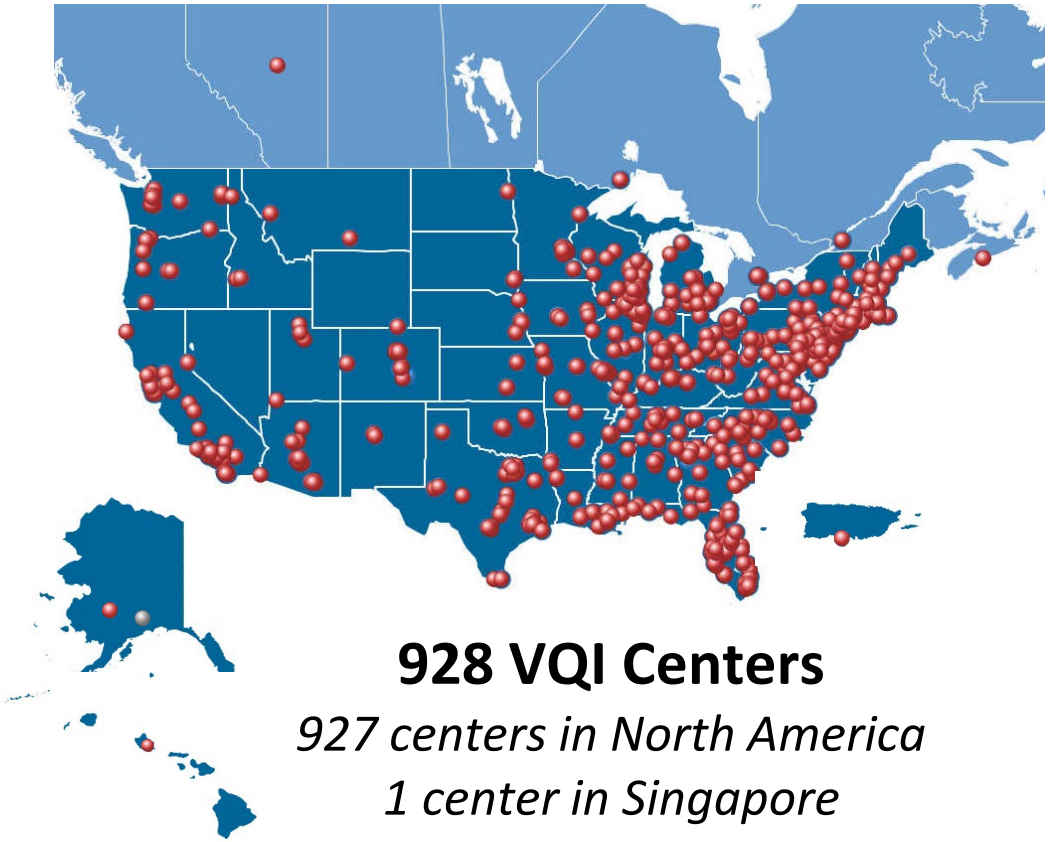
SVS | Society for Vascular Surgery
American Venous Forum
fivos
Society for Vascular Medicine
VASA
SVU Society for Vascular Ultrasound

SVS | VQI
In collaboration with NCDR®

Number of Participating Centers



Location of VQI Participating Centers



928 VQI Centers

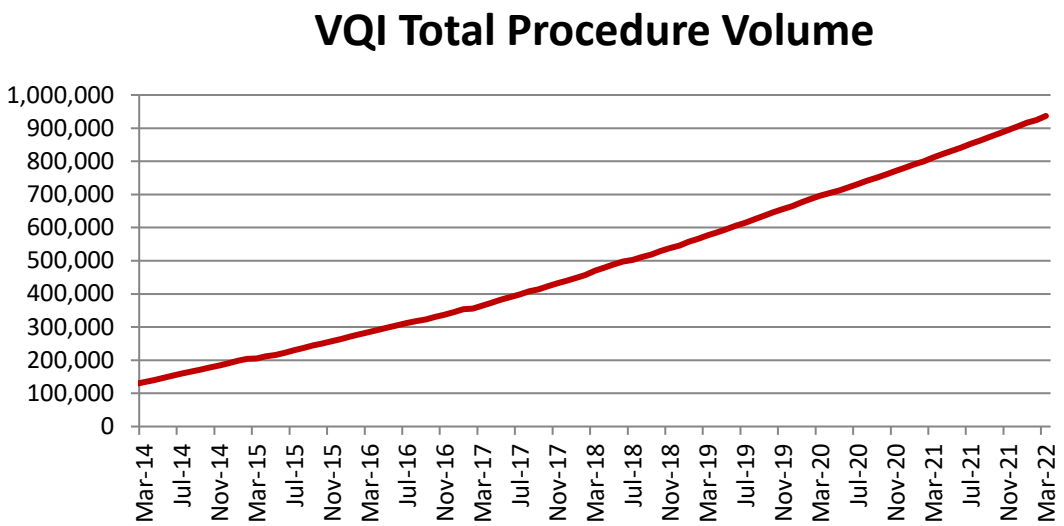
927 centers in North America

1 center in Singapore

SVS | Society for Vascular Surgery · American Venous Forum · fivos · Society for Vascular Medicine · VASA · SVU

SVS | VQI
In collaboration with NCDR®

Total Procedures Captured (as of 4/1/2022)	936,887
Peripheral Vascular Intervention	317,955
Carotid Endarterectomy	172,414
Infra-Inguinal Bypass	73,346
Endovascular AAA Repair	71,506
Hemodialysis Access	69,705
Carotid Artery Stent	72,267
Varicose Vein	53,246
Supra-Inguinal Bypass	23,646
Thoracic and Complex EVAR	24,435
Lower Extremity Amputations	24,459
IVC Filter	17,117
Open AAA Repair	16,188
Vascular Medicine Consult	527
Venous Stent	76



(Through March 31, 2022)

Total Procedure Volume tab reflects net procedures added to the registry for the month

SVS Society for Vascular Surgery | American Venous Forum | fivos | Society for Vascular Medicine | VASA | SVU

VQI @ VAM 2022

SVS | VQI
In collaboration with NCDR®

2022 VQI Annual Meeting at VAM

Dates:

Tuesday afternoon, June 14, 2022,
12PM – 6:30PM ET

Wednesday, June 15, 2022,
8AM – 5PM ET

Location:

Hynes Convention Center, Boston, MA

Poster Presentation and Networking Reception
Tuesday, June 14, 2022
5:00PM to 6:30PM

Hope to see you there!!!

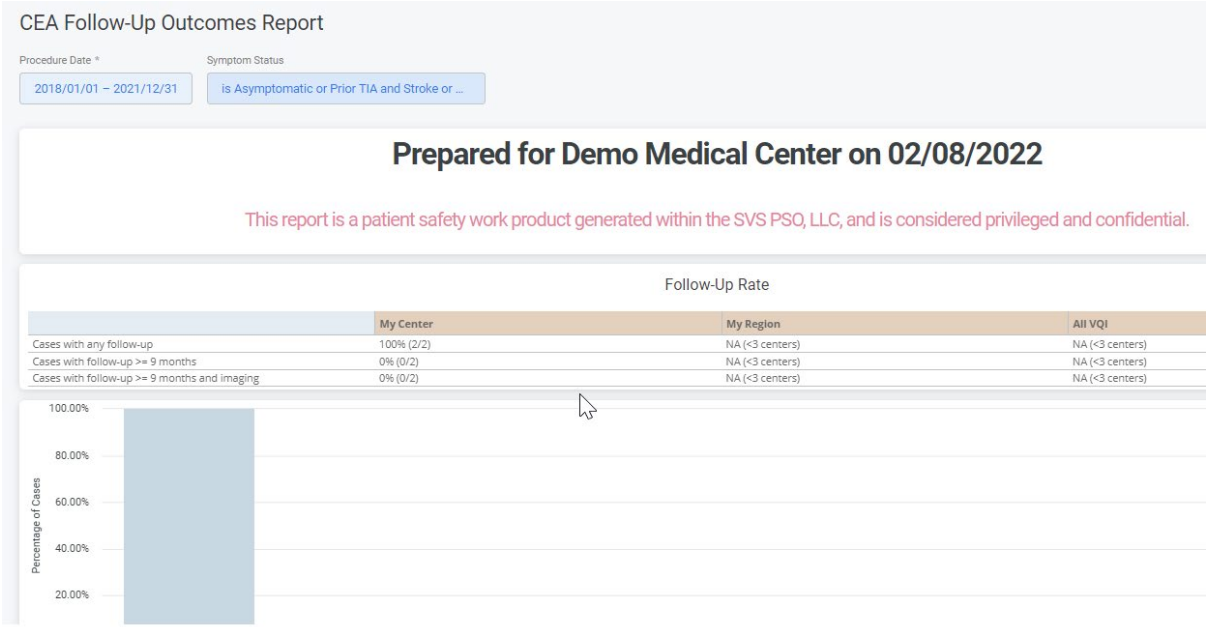
SVS Society for Vascular Surgery | American Venous Forum | fivos | Society for Vascular Medicine | VASA | SVU

Long Term Follow Up Reports

SVS | VQI
In collaboration with NCDR®

Currently available:

- EVAR, CAS, CEA
- Soon to be released PVI, TEVAR, IVC, HDA……



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Pilot Extension

SVS | VQI
In collaboration with NCDR®

My PAD

My Peripheral Arterial Disease Pilot

- Quality of Life survey for the PVI Registry
- Extending pilot to new interested centers
- Start up education and promotional documents will be provided
- For questions or interest please contact cmorgan@svspso.org

Regional Lead Data Managers

- Volunteer position
- Help to organize/coordinate Regional Meetings
- Disseminate information gathered from RLDM quarterly meetings with the SVS PSO staff to your region's Data Managers
- Strategies for recruitment & filling vacant positions

Website Redesign

SVS | VQI
In collaboration with NCDR®

- A new VQI.org experience is coming!
- New look and feel, fresh content, and improved navigation.
- Our goal is to showcase the new site at VQI@VAM

VQI Mobile App

- The SVS PSO is pursuing the creation of a brand new VQI Mobile App that could be used on your personal device.
- We hope this will allow us to get information to you more effectively and efficiently.
- The VQI Mobile App will start out as a communication tool, and hopefully grow from there.

Conclusions:

Endologix AFX has history of increased Type III endoleaks –

- Panel expressed concerns about role of AFX 2
- Mitigation efforts taken
- Further steps underway with FDA, industry and VQI

Real World Evidence plays an important role in analyzing EVAR

- Follow up 5-10 years
- Needs support

- Clinical Registry – VQI
- Vascular Research Collaborative (VRC)
- VISION - CMS claims linkage

Trainee Program Update

SVS | VQI
In collaboration with NCDR®

- Mentor based 12–18-month program
- Regional meetings, center data review
- Quality and research opportunities
- VQI@VAM
- Chance to be selected for scholarship
- Quarterly check-ins with SVS PSO staff
- Satisfaction surveys, feedback
- GLemmon@svspso.org or bwymer@svspso.org

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2022 PARTICIPATION AWARDS PROGRAM

The four domains for the 2022 Participation Awards criteria:

Domain 1 – LTFU – 40% weighted
Domain 2 – Regional Meeting Attendance – 30% weighted
Domain 3 – QI Project – 20% weighted
Domain 4 – Registry Subscriptions – 10% weighted

The final score is calculated as follows:

Total points = 4 x LTFU score + 3 x Attendance score + 2 x QI score + 1 x registry score

Participation Awards

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- https://www.vqi.org/wp-content/uploads/2022-Participation-Award-Points.pdf

Domain – QI Project – 20% weighted

Scoring on 0 – 6-point scale to keep consistent with other measures. This gives centers options for getting **6 maximum QI points**.

- Initiation of a QI Project, evidenced by submitting a Project Charter to QI@SVSPSO.ORG or bwymer@svspso.org (2 points). **One charter per year.**
- Presenting a QI Project (presentation or poster) at a Regional VQI, *Regional Society Meeting, or *Hospital **Board** meeting (2 points) *When presenting at succinct regional meetings, project slides must reflect a change or update in status.*
- Presenting a QI Project (presentation or poster) at the National VQI or *Vascular Annual Meeting (2 points)
- *Publish a **VQI quality improvement** article in a Peer Reviewed Journal (2 points)
- Centers with significant improvement or excellent performance rates on National QI Initiatives will receive one additional point (per initiative), for a maximum of 6 QI points

* Please send attestation (proof) to bwymer@svspso.org on or before December 31, 2022.

Participation Award Results

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McLaren Flint
University of Michigan
Ascension Borgess Hospital
McLaren Bay Region

Henry Ford Hospital, Detroit MI
Spectrum Health Hospital
Bronson Battle Creek Hospital
Bronson Methodist Hospital
Covenant Healthcare

Michigan Vascular Center
Beaumont Royal Oak
DMC Harper University Hospital
McLaren Macomb
Munson Medical Center

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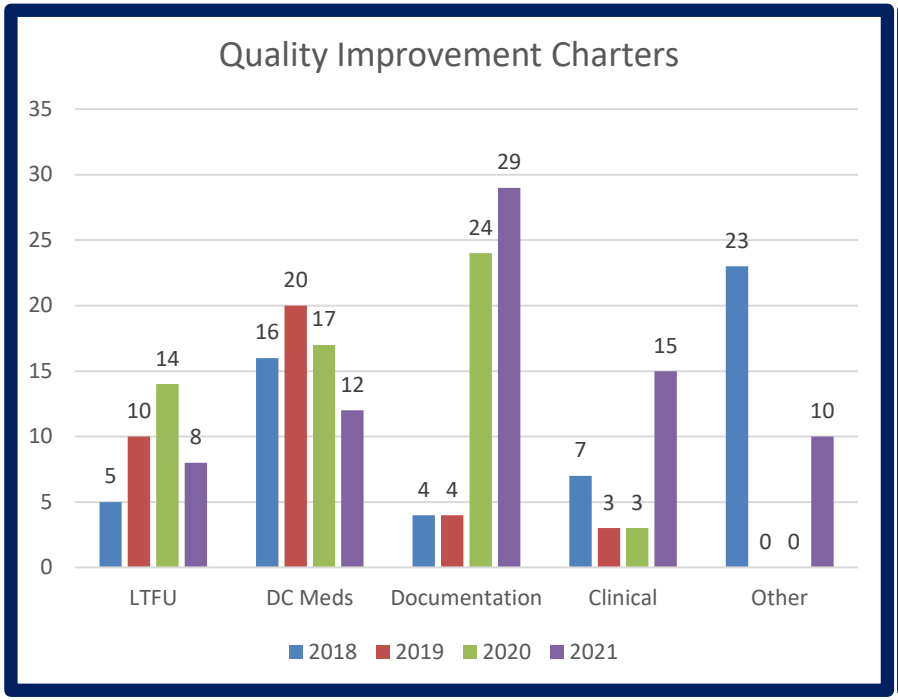
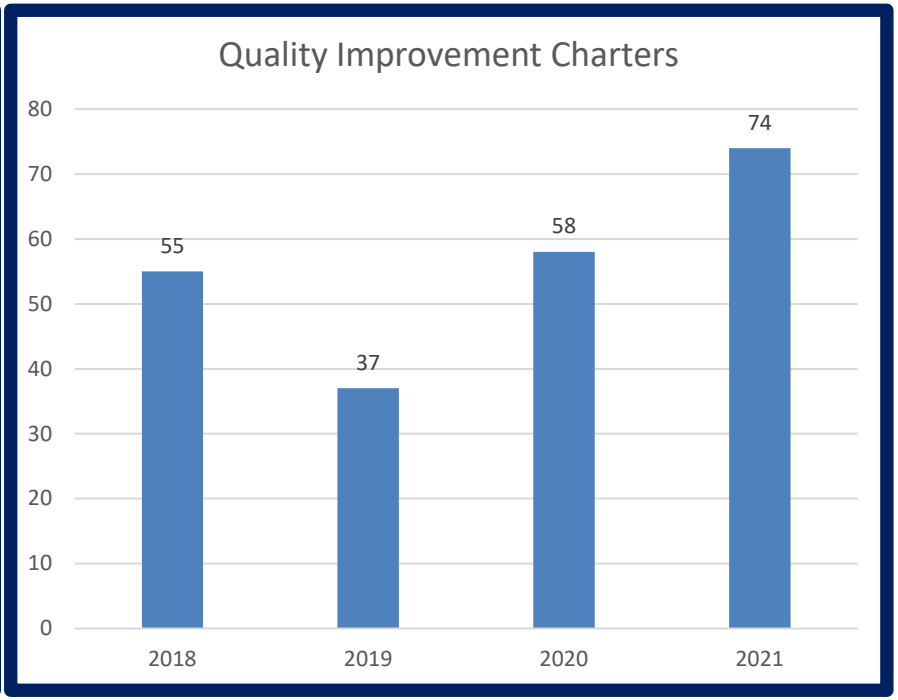
Charter Historical Review





Quality Improvement Updates

SVS | VQI
In collaboration with NCDR®

- How to Begin a Charter
  - Attend Charter Focus Calls
  - Listen to Prior Webinars
    - www.vqi.org
  - Review Sample Charters
    - https://www.vqi.org/quality-improvement/qi-projects/
  - Network with colleagues
  - 1:1 Meeting
    - bwymer@svspso.org

Quality Improvement Updates

SVS | VQI
In collaboration with NCDR®

- Charter Focus Calls
  - New format
- Quarterly Webinars
- Monthly VQI Newsletter
- Sample Charters
- Overview of QI Tools
- https://www.vqi.org/quality-improvement/

Arterial Quality Council:

Mitchell Weaver, MD

SVS | Society for Vascular Surgery
American Venous Forum
fivos
Society for Vascular Medicine
VASA
SVU

Spring 2022 AQC Update

SVS | VQI
In collaboration with NCDR®

- Discussion for development of new National Quality Initiatives
  - Discharge Mediation measure placed in maintenance mode due to high compliance
  - EVAR Sac Diameter – need for continued efforts to improve compliance
- National LTFU Survey creation & results
- VQI Risk Calculators
- Harmonization of Urgency variables as much as possible across “like” registries

Venous Quality Council:

Jennifer Watson, MD

Spring 2022 VQC Update

SVS created a separate Venous RAC

The Vascular Quality Initiative - National Venous RAC Schedule (vqi.org)

2021: 3 proposals

- Incidence of venous thromboembolic events (VTE) after endovenous ablation in patients with venous stasis ulcers (C6 disease): Jaime Benarroch-Gampel
- Impact of Treatment Length and Treatment Region on Clinical Outcomes after Varicose Vein Procedures: Halbert Bai
- Safety and efficacy of endovenous ablation in patients with a history of DVT: Mikel Sadek

- AVF meeting
  February 23rd - 26th, 2022

Ideas for Venous Registry Specific Metrics:

- Anticoagulation after venous stents?
- C2 disease for varicose veins?
- IVC temporary filter retrieval ?
- IDEAS???

Arterial Research Advisory Council:

Jim Wadzinski

Spring 2022 RAC Reminders

SVS | VQI
In collaboration with NCDR®

Dr. Leila Mureebe,

SVS PSO Associate Medical Director

- Creating videos on how to submit a RAC Proposal for “success”
- Creating useful tools and tips to train new investigators

2021 Top 10 VQI Publications

SVS | VQI
In collaboration with NCDR®

1. Management and treatment outcomes of patients undergoing endovenous ablation are significantly different between Intersocietal Accreditation Commission-accredited and nonaccredited vein centers
Andrea T Obi , Sophia Afridi , Fedor Lurie DOI: 10.1016/j.jvsv.2020.07.007

2. Transcarotid artery revascularization versus carotid endarterectomy and transfemoral stenting in octogenarians
Ambar Mehta, Priya B Patel, Danielle Bajakian, Richard Schutzer, Nicholas Morrissey, Mahmoud Malas, Marc Schermerhorn, Virendra I Patel DOI: 10.1016/j.jvs.2021.05.028

3. Percutaneous brachial access associated with increased incidence of complications compared with open exposure for peripheral vascular interventions in a contemporary series Charles DeCarlo, Christopher A Latz, Laura T Boitano, Anna A Pendleton, Jahan Mohebali, Mark F Conrad, Matthew J Eagleton, Samuel I Schwartz DOI: 10.1016/j.jvs.2020.08.143

4. A comparison of administrative data and quality improvement registries for abdominal aortic aneurysm repair Kirsten D Dansey, Livia E V M de Guerre, Nicholas J Swerdlow, Chun Li, Jinny Lu, Priya B Patel, Salvatore T Scali, Kristina A Giles, Marc L Schermerhorn DOI: 10.1016/j.jvs.2020.06.105

5. Perioperative Outcomes for Centers Routinely Admitting Postoperative Endovascular Aortic Aneurysm Repair to the ICU Thomas W Cheng, Alik Farber, Scott R Levin, Mahmoud B Malas, Karan Garg, Virendra I Patel, Ahmed Kayssi, Denis Rybin, Rebecca B Hasley Jeffrey J Siracuse
DOI: 10.1016/j.jamcollsurg.2021.03.035

2021 Top 10 VQI Publications Cont.

SVS | VQI
In collaboration with NCDR®

6. The impact of COVID-19 pandemic on vascular registries and clinical trials Faisal Aziz, Christian-Alexander Behrendt, Kaity Sullivan, Adam W Beck, C Barry Beiles, Jon R Boyle, Kevin Mani, Ruth A Benson, Max V Wohlauer, Manar Khashram, Jens Eldrup Jorgensen, Gary W Lemmon DOI: 10.1053/j.semvascsurg.2021.04.001

7. Lower Extremity Revascularization for Chronic Limb-Threatening Ischemia among Patients at the Extremes of Age Tanner I Kim, Edouard Aboian, Uwe Fischer, Yawei Zhang, Raul J Guzman, Cassius Iyad Ochoa Chaar DOI: 10.1016/j.avsg.2020.08.135

8. Stress testing before abdominal aortic aneurysm repair does not lead to a reduction in perioperative cardiac events Jesse A Columbo, Falen Demsas, Zachary J Wanken, Bjoern D Suckow, Jocelyn M Beach, Stanislav Henkin, Philip P Goodney, David H Stone DOI: 10.1016/j.jvs.2021.02.032

9. Contemporary outcomes of endovascular abdominal aortic aneurysm repair in patients deemed unfit for open surgical repair Heepeel Chang, Caron B Rockman, Glenn R Jacobowitz, Bhama Ramkhelawon, Neal S Cayne, Frank J Veith, Virendra I Patel, Karan Garg DOI: 10.1016/j.jvs.2020.08.147

10. Endovascular interventions for claudication do not meet minimum standards for the Society for Vascular Surgery efficacy guidelines Jonathan Bath, Peter F Lawrence, Dan Neal, Yuanyuan Zhao, Jamie B Smith, Adam W Beck, Michael Conte, Marc Schermerhorn, Karen Woo DOI: 10.1016/j.jvs.2020.10.067

Spring 2022 RAC Submission Reminders

SVS | VQI
In collaboration with NCDR®

- Ensure your RAC submission is complete
  - Data Tables
  - Full Research proposal
  - CV
  - Regional RAC Review

- Your center must participate in the registry related to your research proposal

Spring 2022 RAC Proposal Process:

SVS | VQI
In collaboration with NCDR®

1. Review list of projects:

https://www.vqi.org/data-analysis/rac-approved-project-search/

2. Submit proposal online:

http://abstracts123.com/svs1/meetinglogin

3. Deadlines for submissions:

The Vascular Quality Initiative | National Arterial and Venous RAC Schedules (vqi.org)

SVS Society for Vascular Surgery | American Venous Forum | fivos | Society for Vascular Medicine | VASA | SVU

Nominations Venous RAC

SVS | VQI
In collaboration with NCDR®

- Call for nominations to fill vacancy for the Mid-South Venous Research Advisory Council.
  - Three-year term with one additional renewal
  - Email notification to the region Sent March 11, 2022, of officer nominations.
  - Region will be permitted a period of one week to nominate individuals.
  - Regional EC will be given three weeks to vote for their member of choice.
  - All nominations will be conducted in the spring.

Governing Council:

Ashraf Mansour, MD

Spring 2022 GC Update

SVS | VQI
In collaboration with NCDR®

- Dr. Lemmon provided an updated on the VQI Fellows in Training program
- The Governing Council provided input on the PSO 2022/2023 software development activities
- Dr. Jorgensen provided an update on the FDA panel discussions regarding type 3 endoleaks
- Kristopher Huffman presented the PSO's strategy around the development and maintenance of Risk Calculators

Updates for Spring 2022 VQI Regional Meeting

PATHWAYS Support

Claims Validation

The annual claims validation process is intended to ensure that all eligible cases have been captured in the registry and is a requirement of participation in the VQI.

The 2020 Claims Validation process was launched in September 2021.

- The deadline to finish was 12/31/21.
- PATHWAYS Support is here to help you. Please reach out if your center was selected to participate in the audit and would like assistance.

The selection and launch of **2021 Claims Validation is coming soon**! Stay tuned!

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PATHWAYS Support

What's New?

Please check out recent enhancements in the PATHWAYS Support tab designed to improve your experience. Let us know what you think!

- **Documents**– Easy access to important abstraction documents.
  - **Code List** – Complete list of current VQI Eligible ICD-10 and CPT codes.
  - **Data Dictionary** – Ability to download data variables by procedure or all procedures.
  - **Inclusion/Exclusion Criteria** – Defines the procedures that are eligible for Inclusion/Exclusion in the registry.
  - **Paper Form** – Paper form for data abstraction.
- **Release Notes** - Access details on historical registry updates and other important announcements.
- **Training Schedule** – List of upcoming training opportunities and registration links for new staff and experienced abstractors.

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PATHWAYS Support

Coming Soon...

The Support Team continues to work on implementing enhanced tools and training opportunities for new and existing PATHWAYS users to learn more about PATHWAYS functionality.

More details to come!

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Technology Updates for VQI

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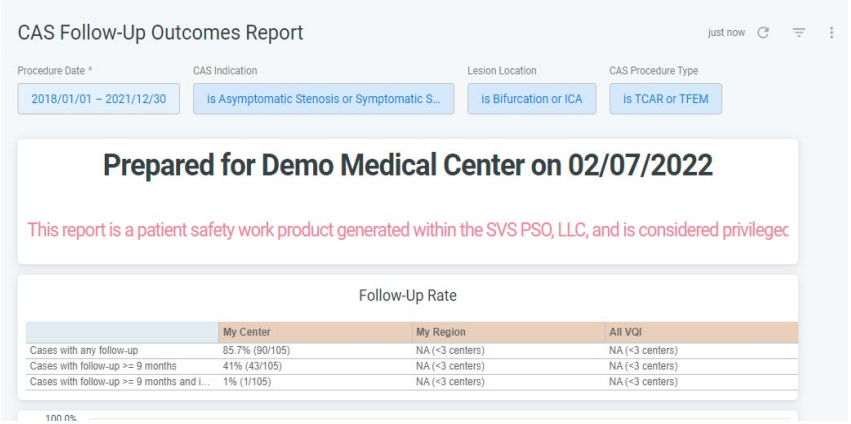
Released in Q3 2021

- CAS Follow-up Outcomes Report
  - A new 'Follow-up Outcomes Report' for the CAS registry, developed by the SVS PSO, is now available in the PATHWAYS Reporting tab. The report will provide key follow up metrics for VQI sites with center data as well as regional and all VQI benchmarking and includes drill down capabilities to better understand center data at the procedure level.



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Released in Q3 2021

- Infra Opioid Pilot
  - Infra-inguinal Bypass registry was updated to include new Opioid fields for all participating sites. The fields appear on their own tab at the end of the procedure and follow-up forms.
  - Procedure variables were added to the Procedure form in a tab called “Opioid”. The tab contains both Demographics and Post-Op variables.
  - Follow-up variables are in the 30-day follow-up and long-term follow-up forms for Infra-inguinal Bypass procedures.
  - Discharge and follow-up opioid detail columns display dynamically depending on type(s) of opioids selected.

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Released in Q3 2021

- Infra Opioid Pilot, cont.
  - Follow-up medications also include reference columns so the user can see the number of pills/patches and refills originally prescribed at discharge. These reference columns automatically populate based on data entered in the procedure form, or display N/A if there is no discharge information available.
  - For discharge and follow-up opioids, the Morphine Equivalent (MME) column is automatically calculated using medication-specific factors. MME is calculated as Dose x Frequency x Conversion Factor. We will not calculate the MME value if the medication type is Other, and/or if the frequency is PRN. Please note that for Methadone the conversion factor increases at higher doses and for Fentanyl it is dosed in mcg/hr instead of mg/day.

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Released in Q3 2021

- TEVAR revisions - New dependency for LTFU Entry Flow and Dissection Date and Type
  - TEVAR LTFU Entry Flow:
    - A change was made to the dependency for Entry Flow on the TEVAR follow-up form. The field ‘Entry Flow’ no longer displays when imaging is equal to ‘None’.
  - TEVAR Dissection Date and Type:
    - There was formerly no validation between Dissection Onset Date and Procedure Date, or between Dissection Onset Date and Dissection Type. As such, it was possible to enter a Dissection Date that is after Procedure Date, as well as record a Dissection Date that does not match the selected type (Acute or Chronic). Validation was added so if this mismatch occurs, users must correct either the ‘Dissection Date’ or the ‘Dissection Type’ before being allowed to submit the procedure form.

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Released in Q3 2021

- CEA revisions
  - New fields associated with imaging were added.
  - New dependencies were added to the Modified Rankin Score fields so they will display on the form only when the patient had a stroke.
  - The layout of the Pre-op Imaging section was changed slightly in order to harmonize the format with other registries where Right and Left sides are displayed separately in two columns.
  - The Stenosis fields being retired were mapped to new fields.

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Released in Q3 2021

- CAS revisions
  - New event fields and fields associated with imaging were added in order to collect more granular information.
  - Modified fields - Lesion Stenosis L1 and L2 have updated min/max ranges from 0-99 to 0-100.
  - The Other Imaging Stenosis fields were retired and replaced with fields that are specific to each imaging type.

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Released in Q3 2021

- VMC revisions
  - New fields were added to the VMC registry to capture Peak Systolic Velocity and End Diastolic Velocity Stenosis Events in the Procedure and Long-Term Follow-up.
  - The response options for the Carotid Stenosis Right and Carotid Stenosis Left in both the Procedure and the Follow-up forms were revised.
  - The Carotid PSV Right and Carotid PSV Left data collection fields were retired. The layout of the Carotid Disease section of the Procedure Form will be changed slightly in order to harmonize the format with other registries where Right and Left sides are displayed separately in two columns.

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Released in Q3 2021

- IVC Filter revisions
  - The registry consolidated the “Other” IVC filter device options into a single option for both retrievable and permanent devices. All of the “Other” temporary and retrievable devices (select options 20 through 39 in the IVC_FILTER_TYPE field) were retired and a new 99 = Other field was created which will open the existing Other field (IVC_FILTER_TYPE_OTHER).

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Released in Q3 2021

- Add comment to completed record
  - Users are now able to append additional comments without making changes to original data in the form. The Comments field now includes a new button labelled “Update Comments” that initially appears as grayed out. If users change or add any information in the Comments field, the button becomes active and allows the user to save the changes without reverting the form.

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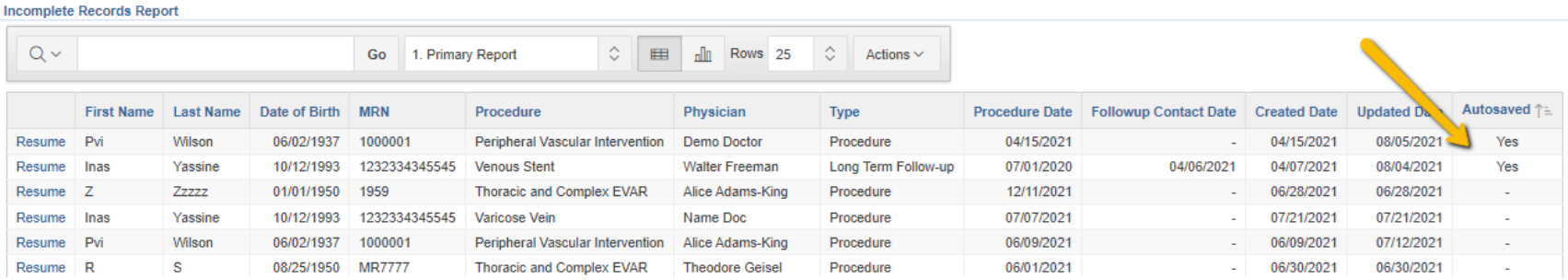
Released in Q3 2021

- Auto-save before timeout
  - Formerly, if users were logged out of PATHWAYS due to inactivity, any data entry changes they have made were lost. This feature will automatically save changes to records and will flag the record accordingly in the record information table.


Incomplete Records Report

Go | 1. Primary Report | Rows 25 | Actions

	First Name	Last Name	Date of Birth	MRN	Procedure	Physician	Type	Procedure Date	Followup Contact Date	Created Date	Updated Da	Autosaved
Resume	Pvi	Wilson	06/02/1937	1000001	Peripheral Vascular Intervention	Demo Doctor	Procedure	04/15/2021	-	04/15/2021	08/05/2021	Yes
Resume	Inas	Yassine	10/12/1993	1232334345545	Venous Stent	Walter Freeman	Long Term Follow-up	07/01/2020	04/06/2021	04/07/2021	08/04/2021	Yes
Resume	Z	Zzzzz	01/01/1950	1959	Thoracic and Complex EVAR	Alice Adams-King	Procedure	12/11/2021	-	06/28/2021	06/28/2021	-
Resume	Inas	Yassine	10/12/1993	1232334345545	Varicose Vein	Name Doc	Procedure	07/07/2021	-	07/21/2021	07/21/2021	-
Resume	Pvi	Wilson	06/02/1937	1000001	Peripheral Vascular Intervention	Alice Adams-King	Procedure	06/09/2021	-	06/09/2021	07/12/2021	-
Resume	R	S	08/25/1950	MR7777	Thoracic and Complex EVAR	Theodore Geisel	Procedure	06/01/2021	-	06/30/2021	06/30/2021	-

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Released in Q4 2021

- EVAR and TEVAR revisions: Convert "Aptus HeliFX" device name to "HeliFX"
  - The manufacturer name was removed from the response options for the “Anchors Type” field. Therefore the “Aptus Heli-FX” device name was converted to “Heli-FX”. This change affected both the procedure and long-term follow-up (LTFU) forms.

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Released in Q4 2021

- EVAR Follow-up Outcomes Report
  - The existing EVAR Follow-up Outcomes report was moved from Insights to the Reporting tab in PATHWAYS. As a result, the Report Privileges in the User Information page under the Admin tab replaced the current Insights section.
  - The report was updated to include Kaplan Meier rates of occurrence for Stroke, Myocardial Infarction, Mortality, and Re-intervention at 1 year.
  - At the time of release, all users who currently had access to the Insights version of the report will automatically have the permission enabled for the updated version.

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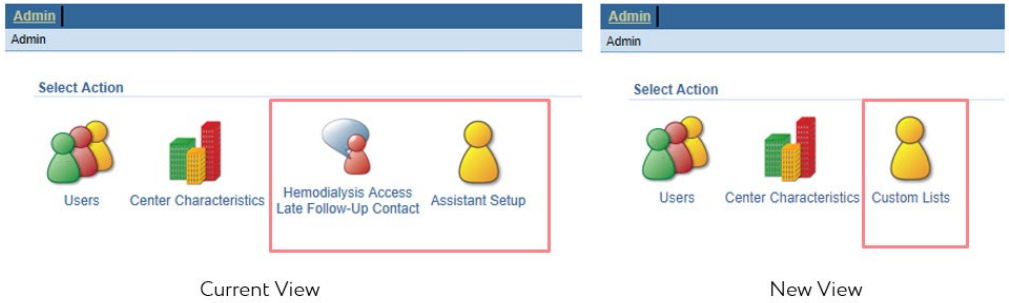
Released in Q4 2021

- Custom Lists
  - A new “Custom Lists” button was added to the Admin tab in PATHWAYS. The existing “Assistant Setup” and “Hemodialysis Access Late Follow-up Contact” icons under the Admin tab were transitioned to the “Custom Lists” functionality. Custom Lists will allow users to create Assistants, Trainees and Hemodialysis Access late Follow-Up Contacts



Current View

New View

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Released in Q4 2021

- Infra Opioid Updates
  - Antidepressant option was removed from the Non-Opioid Pain Med Use variables.
  - The Number of Pills Prescribed fields was modified to accept 3 digits instead of 2.
  - The “Number of Refills Since Procedure” labels was changed to “Number of New Prescriptions Since Procedure.”
  - The Dose, frequency, number of pills/patches, and number of new prescriptions fields will be optional in the 30-day follow-up form.
  - The Dose, frequency, number of pills/patches, and number of new prescriptions fields will remain required on the Long-Term Follow-up (LTFU) but will not be mandatory for follow-up credit.
  - The LTFU Completion Rate will be recalculated. LTFU records submitted before the release that meet the updated mandatory field requirements will be flagged as valid and included in the calculation for successful follow-up.

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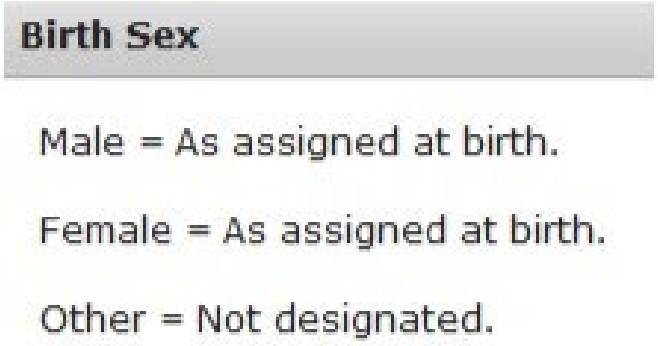
Released in Q4 2021

- VQI Across Registry Revisions - Gender to Sex
  - The label for the “Gender” data collection field will be changed across all VQI registries to “Birth Sex” and a new response option, “Other”, will be added. The help text will be updated to reflect this change:



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Released in Q4 2021

- New COVID Vaccination fields
  - Four new data collection fields will be added under the Procedure tab in PATHWAYS to collect information about COVID-19 vaccines

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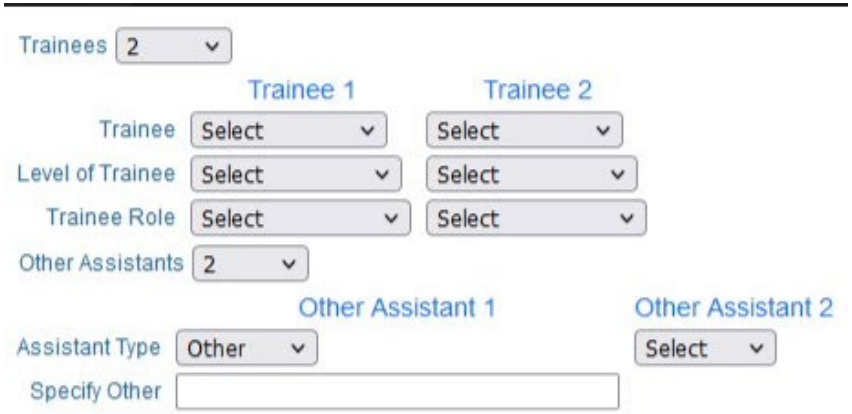
Released in Q4 2021

- New Trainee and Other Assistant fields
  - PATHWAYS Admin section of PATHWAYS was updated to introduce new Trainee fields to the VQI registries. This release allows trainee and other assistant information and retires the Assistant field previously used to collect similar information.



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Released in Q4 2021

- EVAR/TEVAR revisions
  - **EVAR**
    - The min/max range for Largest Sheath Size Right and Largest Sheath Size Left will be changed from 7-24 to 6-24.
    - The help text will be updated to reflect the change in the min/max range, and the existing EVAR Devices graph will be removed.
  - **TEVAR**
    - The min/max range for Largest Sheath Size Right and Largest Sheath Size Left will be changed from 16-30 to 6-30.
    - The help text will be updated to reflect the change in the min/max range, and the existing TEVAR Devices graph will be removed.

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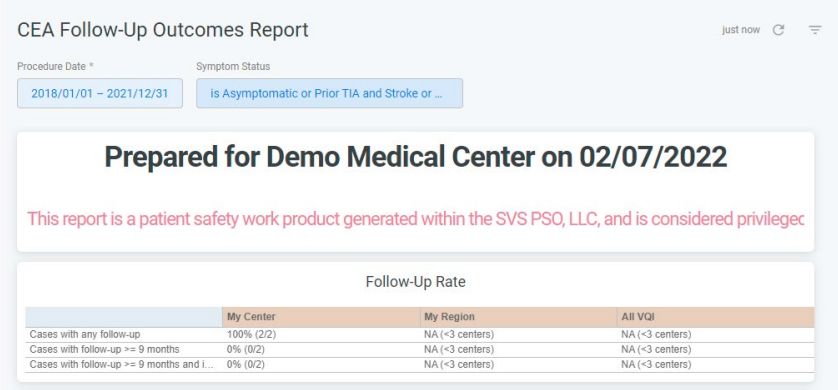
Released in Q4 2021

- CEA Follow-up Outcomes Report
  - A new 'Follow-up Outcomes Report' for the CEA registry, developed by the SVS PSO, is now available in the PATHWAYS Reporting tab. The report will provide key follow up metrics for VQI sites with center data as well as regional and all VQI benchmarking and includes drill down capabilities to better understand center data at the procedure level.



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Registry Projects

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SVS Post-Market Surveillance Projects

- These projects are conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Medtronic/BARD/Cook/Gore or the FDA. Only standard of care practice is being evaluated. For such PSO activities, patient informed consent and Institutional Review Board review are not required.

- Sites must follow their institutional guidelines.

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TEVAR Dissection Surveillance Project

- The SVS PSO is excited to announce the continuation of the TEVAR Dissection Surveillance Project to evaluate the Cook Zenith Dissection Endovascular System. FDA approval was granted for this device after safety and effectiveness were demonstrated in pre-market studies of complicated dissection with the proviso that the efficacy of TEVAR treatment of descending aortic dissection would be more fully analyzed through post-market surveillance, as was done through VQI for the W. L. Gore and Medtronic devices after their approval.
- Patients will have 30 day, and annual visits for 5 years.
- Total reimbursement of $4,000 per patient for a patient followed annually for 5 years

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TEVAR Dissection Surveillance Project

- 73 of the 180 required patients enrolled (39 potential cases in process)
- Retrospective enrollment allowed- All eligible cases from December 31, 2018 (protocol FDA approval date)
- 34 30-Day visits completed, 18 1-year follow-up visits completed and 1 2-year follow-up visit completed
- All 40 sites enrolled (5 are in contracting)
- This project is conducted within the SVS PSO and only non-identifiable data (removal of patient, center and physician information) will be provided to Cook or the FDA. Only standard of care practice is being evaluated. For such PSO activities, patient informed consent and Institutional Review Board review are not required.

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TEVAR Dissection Surveillance Project

TEVAR Dissection Surveillance
5 Year Project Gore and Medtronic Arm

- Initiated in October 2014, the TEVAR Dissection Surveillance Project Arm evaluates the W.L. Gore and Medtronic devices for treatment of Type B thoracic dissections.
- Meeting FDA requirement
  - 194 chronic and 200 acute patients with device technical success
- Currently in 5-year follow-up phase

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PATHWAYS Support

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Fall 2022 Meeting:

November 5, 2022

Location TBD