

ESRD Network 13

Hemodialysis Vascular Access Management Trends Report

First Quarter 2017

Overview

HSAG: End Stage Renal Disease (ESRD) Network 13 remains an active partner with the renal community to improve permanent vascular access management for all eligible hemodialysis (HD) patients. The Network’s primary role in this effort is to provide the most current technical assistance available for improving vascular access (VA) management within the HD community.

As part of the Network’s technical assistance, this comparative report is supplied to give providers a sense of their performance relative to the performance of other facilities and organizations, both locally and regionally. The information in this report will assist providers in meeting their responsibility to ensure that:

- Optimal HD VA management is being practiced.
- All HD patients have an individualized VA management plan, ensuring the best permanent VA possible for optimal patient care outcomes.

Two regions within Network 13 have currently achieved the national Centers for Medicare & Medicaid Services (CMS) expectation of at least 68% of prevalent HD patients dialyzing with a primary arteriovenous fistula. Table 1 reflects both the national and Network 13-specific expectations regarding HD vascular access management.

Table 1: Expectations for Hemodialysis VA Management in 2017

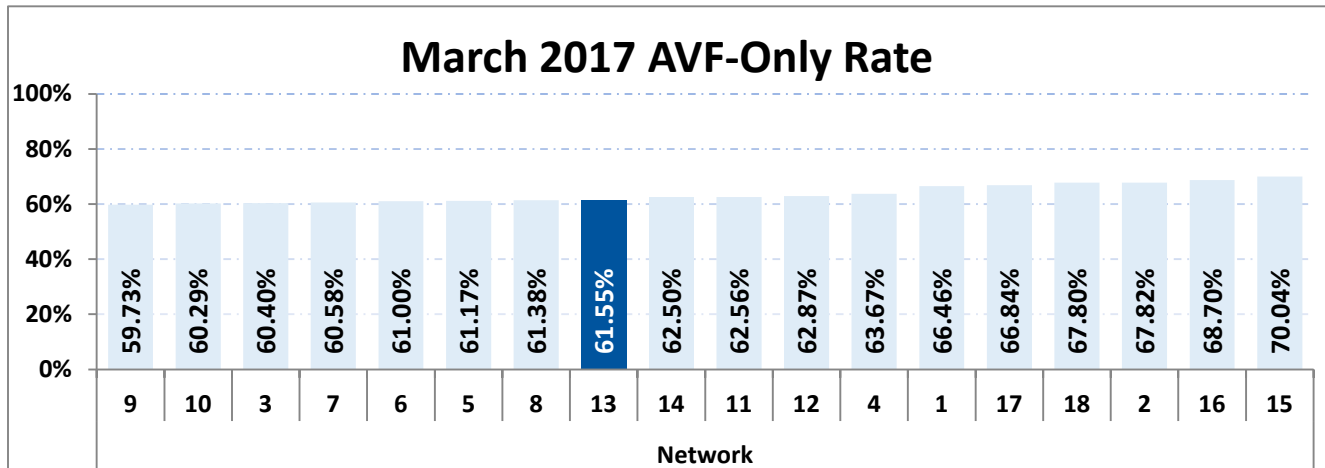
Category/Process	National Expectation	NW 13 Expectation
Arteriovenous Fistula (AVF) Use	In at least 68% of prevalent patients	In at least 64% of prevalent patients, but working toward the national goal
AVF Placement	As appropriate in 50% of all new (incident) HD patients	Same as national
Reduction of Long-term Catheter (LTC) Use (≥ 90 days)	To less than 10% of your prevalent HD patients	Same as national
Process: Written VA Planning and Management	For 100% of your HD patients	Same as national
Process: Monitoring for Access Dysfunction	In 100% of adult HD patients utilizing AVFs or arteriovenous grafts (AVGs) as primary HD VA	Same as Kidney Disease Outcomes Quality Initiative (KDOQI) guidelines

The following pages provide HD VA outcomes for the Network 13 service area. The report includes analyses and information about issues associated with AVF placement and subsequent AVF use, as well as observations about the differences between AVF placement and use. Providers can review and use this information in conjunction with their individual data when addressing HD VA planning and oversight.

The national dashboard comparison of AVF-only rates, by Network, for the month of March 2017 is shown in Chart 1. It indicates that there is room for improvement when comparing Network 13 to the

rest of the ESRD Networks in the United States. As of March 2017, Network 13’s AVF use rate was 61.55%, which is below the national CMS expectation of 68.00%.

Chart 1: Fistula First Catheter Last (FFCL) National Dashboard Results by ESRD Network Prevalent AVF Rates



Data Reporting

CMS’ Consolidated Renal Operations in a Web-Enabled Network (CROWNWeb) system is the data source for all HD VA comparative reporting. This internet-based data input program is the backbone of CMS’ ESRD information system. ESRD Networks and dialysis facilities use CROWNWeb to enter and submit patient and clinical quality of care data for CMS.

As of March 2017, CROWNWeb’s electronic reporting component had not yet achieved 100% of its reporting capability. This does limit comparative reporting to some extent.

The information and data presented in this report are based on data from January 2016 through March 2017, downloaded in mid-July 2017. The Network is sharing the comparative data available at this time to emphasize the importance of ongoing quality improvement (QI) and expectations for delivery of care. Table 2 displays the overall demographics for this reporting.

Table 2: Numbers of Dialysis Facilities and HD Patients by Affiliations and Network

As of March 2017		
	Facilities	HD Patients
Large Dialysis Organizations	262	15,321
Independent Dialysis	48	2,083
Network 13	310	17,404

A variety of comparative trends and analyses reflecting various degrees of improvement have been incorporated into this report for review and use in facility-specific QI activities. Please note: due to the reporting of some VA types as “other” or “unknown” and rounding, totals may not equal 100%. Where N values are provided, they reference the HD patient population, unless noted otherwise.

As AVF placement requires a maturation period before utilization is possible, it is important to trend both placement and the actual transition to AVF utilization. The difference between placement and utilization (i.e., gap) can provide insight into issues that may be affecting utilization (e.g., surgical placement problems and cannulation difficulties). Those issues can then be addressed with technical assistance. Chart 2 provides an example of such trending.

Chart 2: Network 13 AVF Placement and Utilization Trending

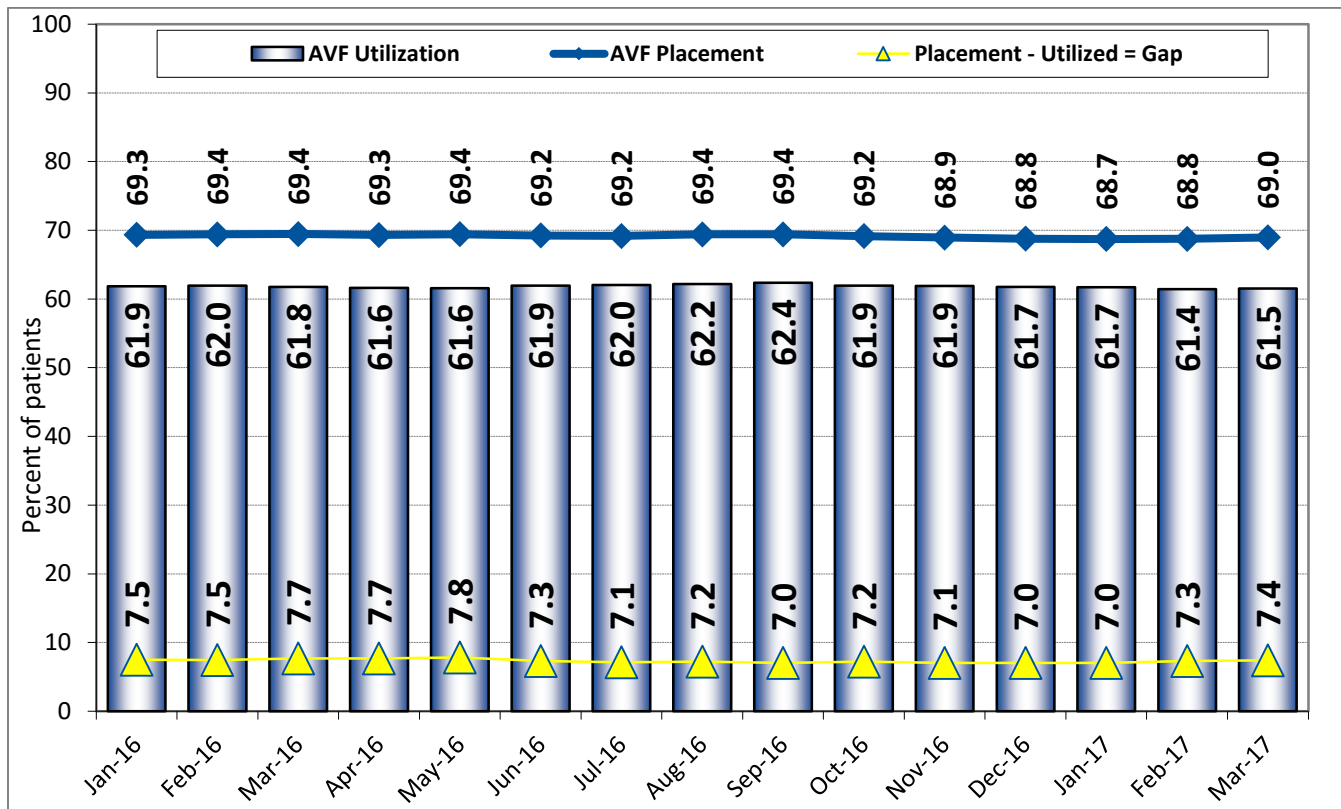


Table 3 provides counts and percentages for all HD VA categories and illustrates the overall HD VA management within Network 13.

Table 3: HD VA Utilization Rates in Network 13

	January 2017		February 2017		March 2017	
	N	%	N	%	N	%
Certified In-center Dialysis Facilities	309		309		310	
Registered HD Patient Census	17,522	N/A	17,588	N/A	17,576	N/A
Patients Missing VA Data	134	0.8%	61	0.3%	67	0.4%

	January 2017		February 2017		March 2017	
	N	%	N	%	N	%
Patients w/ NA Checked	114	0.7%	107	0.6%	105	0.6%
AVF Only	10,658	61.7%	10,703	61.4%	10,711	61.5%
AVG Only	3,162	18.3%	3,195	18.3%	3,180	18.3%
AVG + AVF Maturing	19	0.1%	22	0.1%	24	0.1%
Catheter < 90 days	1,213	7.0%	1,247	7.2%	1,231	7.1%
Catheter ≥ 90 Days	1,895	11.0%	1,920	11.0%	1,924	11.1%
Catheter + AVF Maturing	260	1.5%	261	1.5%	249	1.4%
Catheter + AVG Maturing	60	0.3%	66	0.4%	78	0.4%
Port Only	2	<0.1%	3	<0.1%	2	<0.1%
Unknown/Other	3	<0.1%	2	<0.1%	4	<0.1%
Patients w/VA Reported	17,274	100%	17,420	100%	17,404	100%

Dialysis Facility Performance

The Network recognizes that consistent and coordinated efforts are needed to achieve established HD VA performance goals, so Network 13 is pleased to see 94 dialysis facilities (31.1%) achieving the National CMS AVF utilization expectation of 68% (Table 4).

TABLE 4: Percent of AVF Use within Network 13 Dialysis Facilities

Facility AVF Utilization Rates	Network 13					
	January 2017		February 2017		March 2017	
	# of Facilities	% of Facilities	# of Facilities	% of Facilities	# of Facilities	% of Facilities
No Data Reported	1	0.3%	0	0.0%	0	0.0%
<50	45	14.6%	47	15.2%	49	15.8%
50–59	81	26.2%	81	26.2%	78	25.2%
60–67	92	29.8%	93	30.1%	90	29.0%
68 +	90	29.1%	88	28.5%	93	30.0%
Total	309	100.0%	309	100.0%	310	100.0%

Acknowledgement

Network 13 would like to acknowledge the following dialysis units for their current outstanding achievements. **Congratulations** to the dialysis units listed below for their sustained accomplishments in the area of VA management for the time frame of October 2016–March 2017.

Table 5: Dialysis Facilities (34) Sustaining Both AVF in-Use Rates ≥ 68% and LTC rates < 10%

CCN	FACNAME	CCN	FACNAME	CCN	FACNAME
042536	DAVITA - SOUTH ARKANSAS DIALYSIS	192681	DAVITA - RIVER PARISHES DIALYSIS	372568	DAVITA - CINEMA DIALYSIS
042560	DAVITA - ASHLEY DIALYSIS CTR	192693	FMCNA - SLIDELL	372569	DAVITA - GREENWOOD DIALYSIS
042576	DAVITA - BRADLEY COUNTY DIALYSIS	372527	DAVITA - NORMAN	372572	DAVITA - CHICKASHA DIALYSIS CTR
192501	FMCNA - BATON ROUGE	372545	DAVITA - STILWELL DIALYSIS	372573	FMCNA - ADA DIALYSIS CTR
192524	FMCNA - MANCUSO	372558	FMCNA - ENID DIALYSIS CTR	372574	SOONER DIALYSIS - LAWTON
192568	FMCNA - WESTPORT	372562	DAVITA - SOONER DIALYSIS CTR - NORMAN	372575	DAVITA - ANADARKO
192592	FMCNA - ZACHARY CROSSROAD	372565	DAVITA - DURANT DIALYSIS	372586	DAVITA - ROSE ROCK DIALYSIS
192611	FMCNA - EAST NATCHITOCHE DIALYSIS	372567	DAVITA - SOUTHCREST	372590	DAVITA - GROVE DX
192674	SNG-ST TAMMANY DX CTR, LP				

Table 6: Dialysis Facilities (56) Sustaining AVF in-Use Rates ≥ 68%

CCN	FACNAME	CCN	FACNAME	CCN	FACNAME
042536	DAVITA - SOUTH ARKANSAS DIALYSIS	192674	SNG-ST TAMMANY DX CTR, LP	372567	DAVITA - SOUTHCREST
042549	DAVITA - SILOAM SPRINGS	192681	DAVITA - RIVER PARISHES DIALYSIS	372568	DAVITA - CINEMA DIALYSIS
042554	DAVITA - JACKSON COUNTY DX	192693	FMCNA - SLIDELL	372569	DAVITA - GREENWOOD DIALYSIS
042557	DAVITA - INDEPENDENCE COUNTY DX	192700	ST JAMES DIALYSIS	372572	DAVITA - CHICKASHA DIALYSIS CTR
042560	DAVITA - ASHLEY DIALYSIS CTR	192710	SNG-ABITA SQUARE DIALYSIS, LLC	372573	FMCNA - ADA DIALYSIS CTR
042576	DAVITA - BRADLEY COUNTY DIALYSIS	372512	DAVITA - TAHLEQUAH	372574	SOONER DIALYSIS - LAWTON
190048	LADY OF THE SEA DIALYSIS CTR	372527	DAVITA - NORMAN	372575	DAVITA - ANADARKO
192501	FMCNA - BATON ROUGE	372529	DAVITA - PRYOR	372583	US RENAL CARE - GROVE
192524	FMCNA - MANCUSO	372536	HEARTLAND MIAMI DX LLP	372584	PHYSICIANS CHOICE DIALYSIS OF BRISTOW, LLC
192556	DAVITA - SLIDELL KIDNEY CARE	372545	DAVITA - STILWELL DIALYSIS	372585	DAVITA - OWASSO DIALYSIS
192568	FMCNA - WESTPORT	372547	DAVITA - TRI-STATE DIALYSIS	372586	DAVITA - ROSE ROCK DIALYSIS
192574	FMCNA - THIBODAUX	372558	FMCNA - ENID DIALYSIS CTR	372590	DAVITA - GROVE DX
192575	DCI - TULANE-NEW ORLEANS	372560	DAVITA - SAPULPA DIALYSIS	372592	DAVITA - REDBIRD SMITH DX
192592	FMCNA - ZACHARY CROSSROAD	372562	DAVITA - SOONER DIALYSIS CTR - NORMAN	372596	FMCNA - SAPULPA DIALYSIS
192593	VACHERIE DX	372563	SNG SEMINOLE DIALYSIS CENTER, LP	372597	FMCNA - JANE PHILLIPS
192611	FMCNA - EAST NATCHITOCHE DIALYSIS	372565	DAVITA - DURANT DIALYSIS		

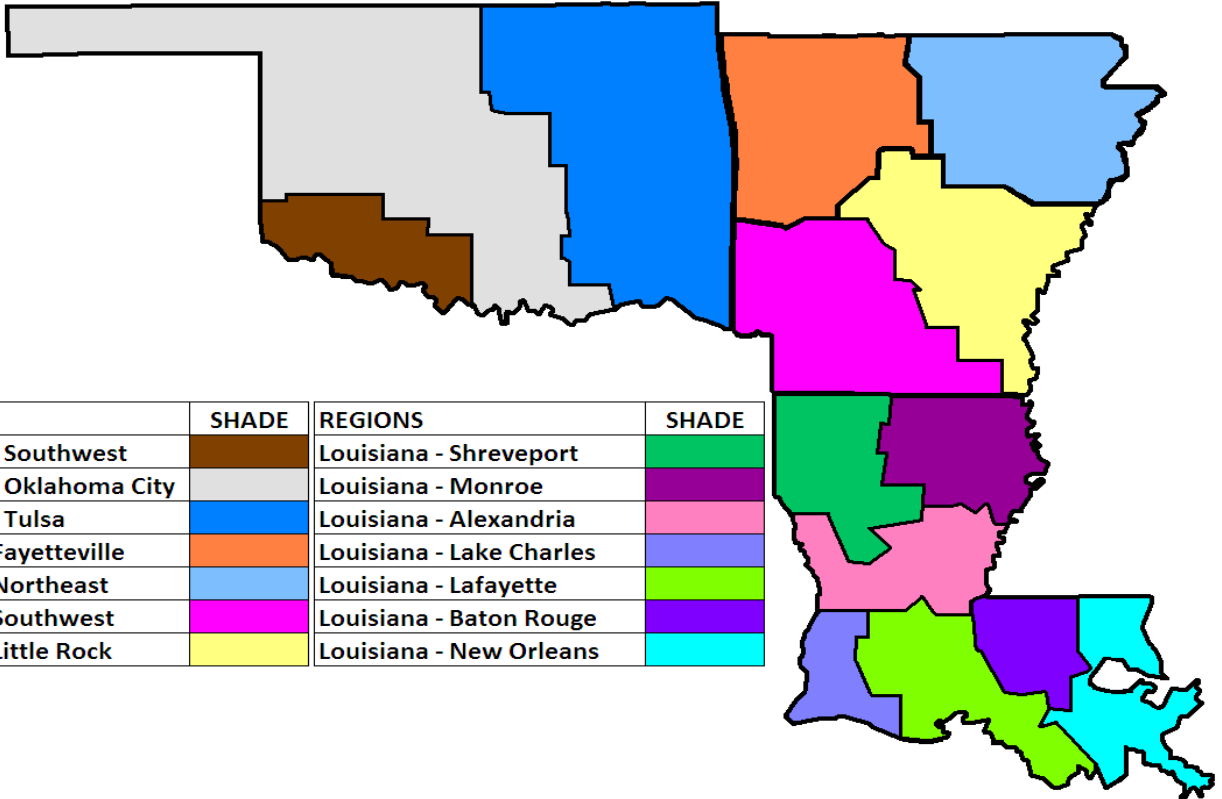
Table 7: Dialysis Facilities (91) Sustaining LTC Rates < 10%

CCN	FACNAME	CCN	FACNAME	CCN	FACNAME
042508	DAVITA - RIVER VALLEY DIALYSIS	192589	FMCNA - PICARDY KIDNEY CTR	192706	FMCNA - HOWELL PLACE
042512	DAVITA - DEGRAY KIDNEY CTR	192592	FMCNA - ZACHARY CROSSROAD	192707	DAVITA - RIVER BEND DIALYSIS
042513	DAVITA - SPRINGHILL DIALYSIS	192597	DAVITA - LAKE CHARLES SOUTHWEST DIALYSIS	192712	FMCNA - SOUTH MONROE
042517	DAVITA - CONWAY DIALYSIS CTR	192602	FMCNA - NEW ROADS	192715	DAVITA - NOLA
042525	DAVITA - OUACHITA VALLEY DIALYSIS	192606	FMCNA - PLAQUEMINE	192716	DAVITA - ESSEN LANE DIALYSIS
042531	DAVITA - HOT SPRINGS DIALYSIS	192610	FMCNA - AIRLINE	192720	DAVITA - SCOTLANDVILLE DX
042534	DAVITA - OSCEOLA RENAL CTR	192611	FMCNA - EAST NATCHITOCHE DIALYSIS	192723	FMCNA - JH LEE
042535	DAVITA - PULASKI COUNTY DX	192618	FMCNA - VILLE PLATTE	192729	DAVITA - WALKER DIALYSIS
042536	DAVITA - SOUTH ARKANSAS DIALYSIS	192632	FMCNA - NORTH BOULEVARD	372511	DAVITA - MIDWEST CITY
042560	DAVITA - ASHLEY DIALYSIS CTR	192633	FMCNA - FARMERVILLE	372524	DAVITA - ALTUS
042570	DAVITA - MALVERN DIALYSIS	192640	FMCNA - KENTWOOD	372527	DAVITA - NORMAN
042573	DAVITA - RENAL CARE OF MARION	192644	FMCNA - ASCENSION	372533	FMCNA - SHAWNEE
042576	DAVITA - BRADLEY COUNTY DIALYSIS	192651	DCI - KIDNEY CARE OF ACADIANA-LAFAYETTE	372545	DAVITA - STILWELL DIALYSIS
042582	DAVITA - MENA DIALYSIS	192652	FMCNA - FELICIANAS DIALYSIS CTR	372557	FMCNA - LAWTON EAST
042585	DAVITA - FORREST CITY	192653	FMCNA - OCHSNER-ST CHARLES	372558	FMCNA - ENID DIALYSIS CTR
190111	WILLIS KNIGHTON MED CTR-DIALYSIS	192656	DCI - CROWLEY	372562	DAVITA - SOONER DIALYSIS CTR - NORMAN
192501	FMCNA - BATON ROUGE	192665	DCI - OPELOUSAS	372565	DAVITA - DURANT DIALYSIS
192507	DAVITA - WESTBANK CHRONIC RENAL CTR	192670	FMCNA - WESTBANK	372567	DAVITA - SOUTHCREST
192522	FMCNA - NEW IBERIA	192671	FMCNA - DIALYSIS SERVICES OF BON CARRE	372568	DAVITA - CINEMA DIALYSIS
192524	FMCNA - MANCUSO	192674	SNG-ST TAMMANY DX CTR, LP	372569	DAVITA - GREENWOOD DIALYSIS
192543	LAPLACE DIALYSIS CTR	192678	DAVITA - METAIRIE	372572	DAVITA - CHICKASHA DIALYSIS CTR
192551	DAVITA - MAGNOLIA DIALYSIS	192680	FMCNA - MID-CITY	372573	FMCNA - ADA DIALYSIS CTR
192558	FMCNA - FOSTER DR DIALYSIS SVCS	192681	DAVITA - RIVER PARISHES DIALYSIS	372574	SOONER DIALYSIS - LAWTON
192568	FMCNA - WESTPORT	192687	DCI - JENNINGS	372575	DAVITA - ANADARKO
192572	FMCNA - DONALDSONVILLE	192688	FMCNA - RUSTON	372582	DAVITA - ARDMORE DIALYSIS RANCH
192580	FMCNA - NORTH LAFAYETTE	192693	FMCNA - SLIDELL	372586	DAVITA - ROSE ROCK DIALYSIS
192581	DAVITA - NEW ORLEANS UPTOWN DIALYSIS	192694	DAVITA - MARRERO DIALYSIS CENTER	372590	DAVITA - GROVE DX
192582	FMCNA - OUACHITA DIALYSIS	192696	DAVITA - CRESCENT CITY	372600	FMCNA - IDABEL DX

Regional Comparative Analysis

The majority of VA placement in our Network occurs in urban settings. The Network recognizes that regional practices vary within the service area, so regional comparative analysis was established by our Medical Review Board (MRB) by reviewing the ‘who and where’ of VA placement by dialysis facilities. The mapping below reflects this.

Map 1: NW 13-Defined Regions for VA Analysis and Reporting



The Network has seen a decrease in missing VA data from January–March 2017, as evidenced in Table 8. The QI department continues to actively work with facilities to ensure access data is being entered completely and accurately.

Table 8: HD VA Management by Region

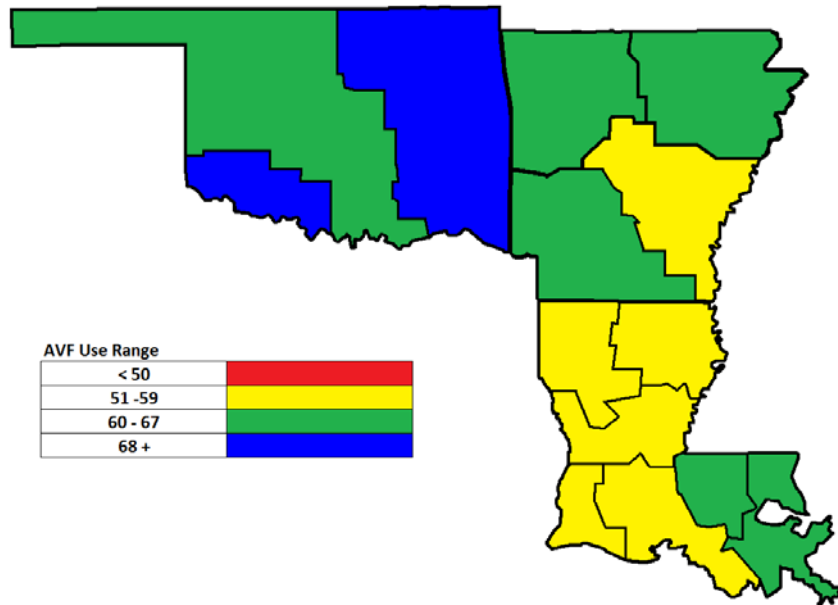
	January 2017					
	Patients w/ VA Reported	AVF Rates	# of FAC	AVG Rates	Catheter Rates	*Missing VA Data
Arkansas - Fayetteville	799	63.0%	11	9.9%	27.0%	0.1%
Arkansas - Little Rock	1,271	51.5%	24	24.2%	24.4%	0.8%
Arkansas - Northeast	816	61.4%	17	14.0%	24.6%	0.2%
Arkansas - Southwest	775	65.9%	15	19.2%	14.8%	0.0%
Louisiana - Alexandria	552	55.6%	7	17.8%	26.6%	0.2%
Louisiana - Baton Rouge	1,504	67.4%	27	26.0%	6.6%	0.3%
Louisiana - Lafayette	1,300	55.0%	25	24.4%	20.6%	0.2%
Louisiana - Lake Charles	374	52.7%	8	25.1%	22.2%	19.0%
Louisiana - Monroe	905	54.6%	17	27.2%	18.2%	0.0%
Louisiana - New Orleans	2,923	62.8%	55	20.7%	16.4%	0.4%
Louisiana - Shreveport	1,531	54.6%	24	20.7%	24.6%	0.0%
Oklahoma - Oklahoma City	2,075	67.8%	35	12.0%	20.2%	0.2%
Oklahoma - Southwest	282	70.6%	6	9.6%	19.9%	0.0%
Oklahoma - Tulsa	2,167	68.6%	38	8.7%	22.7%	0.5%
Network 13	17,274	61.7%	309	18.4%	19.9%	0.8%
	March 2017					
Arkansas - Fayetteville	814	63.3%	11	9.5%	27.3%	0.4%
Arkansas - Little Rock	1,315	51.4%	24	24.6%	24.0%	0.7%
Arkansas - Northeast	812	61.3%	17	13.9%	24.6%	0.5%
Arkansas - Southwest	771	65.8%	15	18.9%	15.3%	0.1%
Louisiana - Alexandria	541	55.5%	7	18.7%	25.9%	0.6%
Louisiana - Baton Rouge	1,507	66.6%	28	25.8%	7.5%	0.3%
Louisiana - Lafayette	1,298	56.5%	25	24.2%	19.3%	0.1%
Louisiana - Lake Charles	458	50.0%	8	24.2%	25.5%	0.9%
Louisiana - Monroe	902	55.4%	17	26.2%	18.4%	0.0%
Louisiana - New Orleans	2,921	62.5%	55	21.5%	16.1%	0.3%
Louisiana - Shreveport	1,541	54.2%	24	19.7%	26.2%	0.1%
Oklahoma - Oklahoma City	2,098	66.4%	35	11.9%	21.7%	0.4%
Oklahoma - Southwest	279	73.5%	6	10.4%	16.1%	1.1%
Oklahoma - Tulsa	2,147	69.4%	38	8.7%	21.8%	0.7%

January 2017						
	Patients w/ VA Reported	AVF Rates	# of FAC	AVG Rates	Catheter Rates	*Missing VA Data
Network 13	17,404	61.5%	310	18.4%	20.0%	0.4%

*Missing Vascular Data percentage generated from Registered Patient HD Census

The regions appear to be improving or holding ground in regard to AVF use, as indicated in Map 2. The map no longer includes any red, indicating that AVF Use rates across the region are all $\geq 50\%$.

MAP 2: AVF Use by Region, Mar 2017



It is important to note the HD VA practice patterns from January 2016 (Chart 3) through March 2017 (Chart 4). Optimal permanent VA management (e.g., AVFs *‘preferred,’* AVGs *‘acceptable,’* LTCs *‘option of last resort’*) can be achieved through coordinated efforts and effective communications. However, as focus intensifies on reducing the use of LTCs, placement practices must be reviewed and process updates explored. In the areas of both incident and prevalent permanent VA placement, should an AVF or AVG be used in lieu of placing catheters?

Chart 3: HD VA Management by Region, January 2016

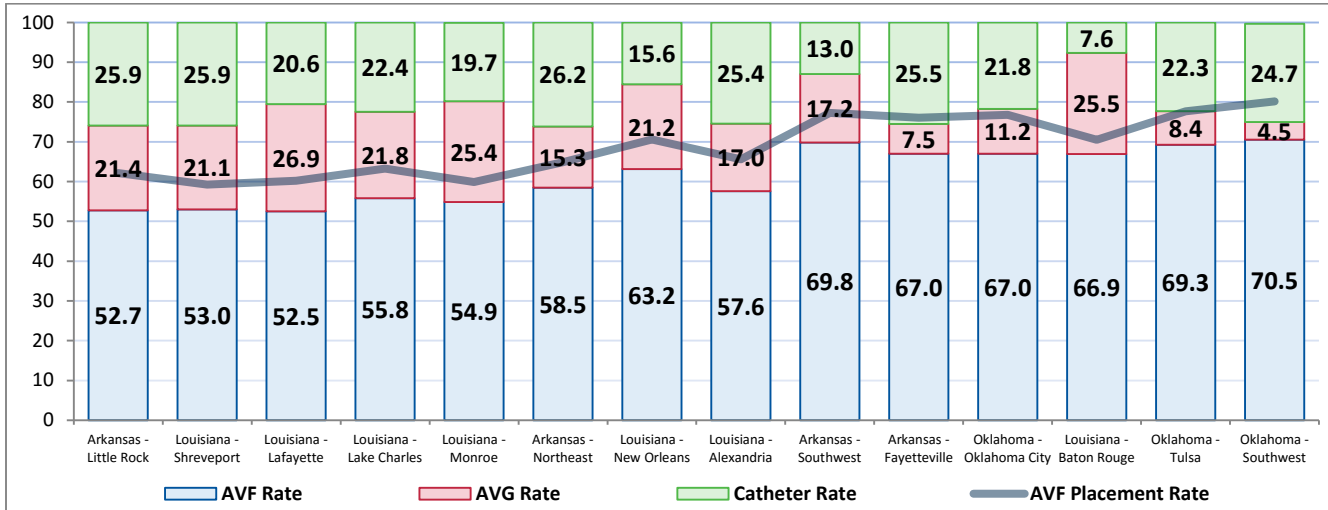
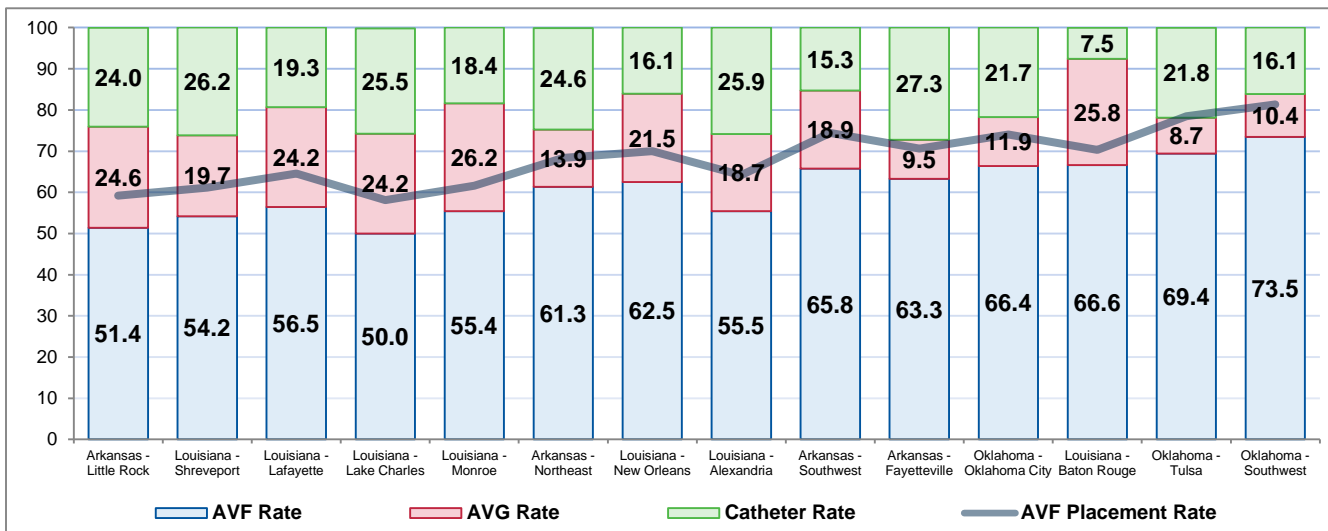


Chart 4: HD VA Management by Region, March 2017



State and Affiliation Vascular Access Data

VA management comparisons are provided in the areas of state and affiliation-specific outcomes in Charts 5 and 6.

Chart 5: HD VA in Use by State and Network

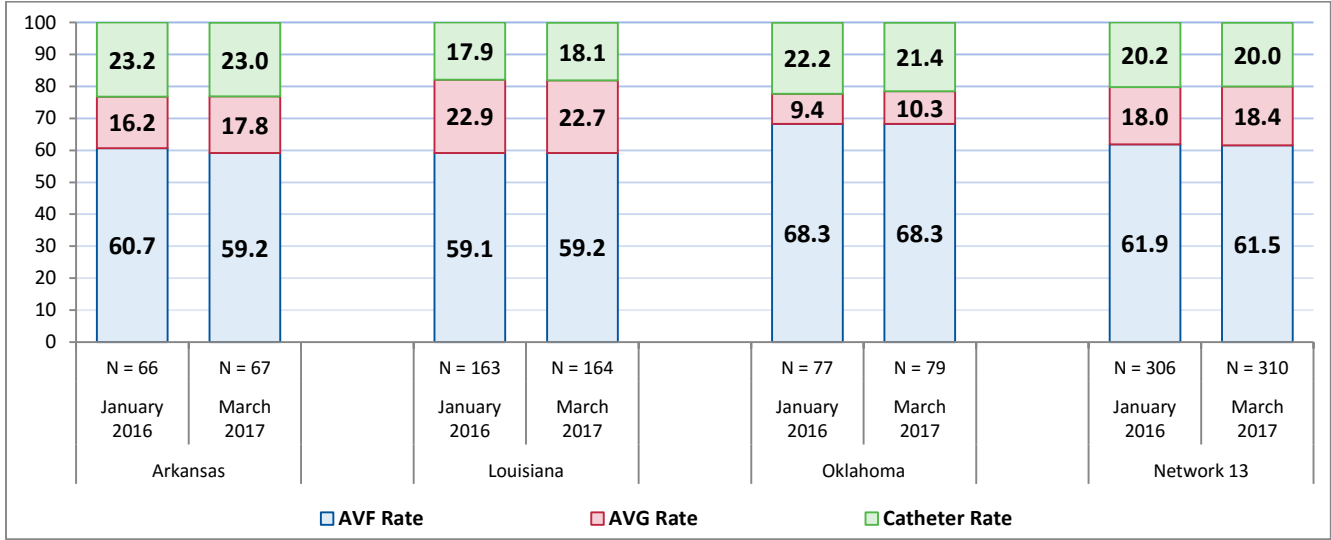
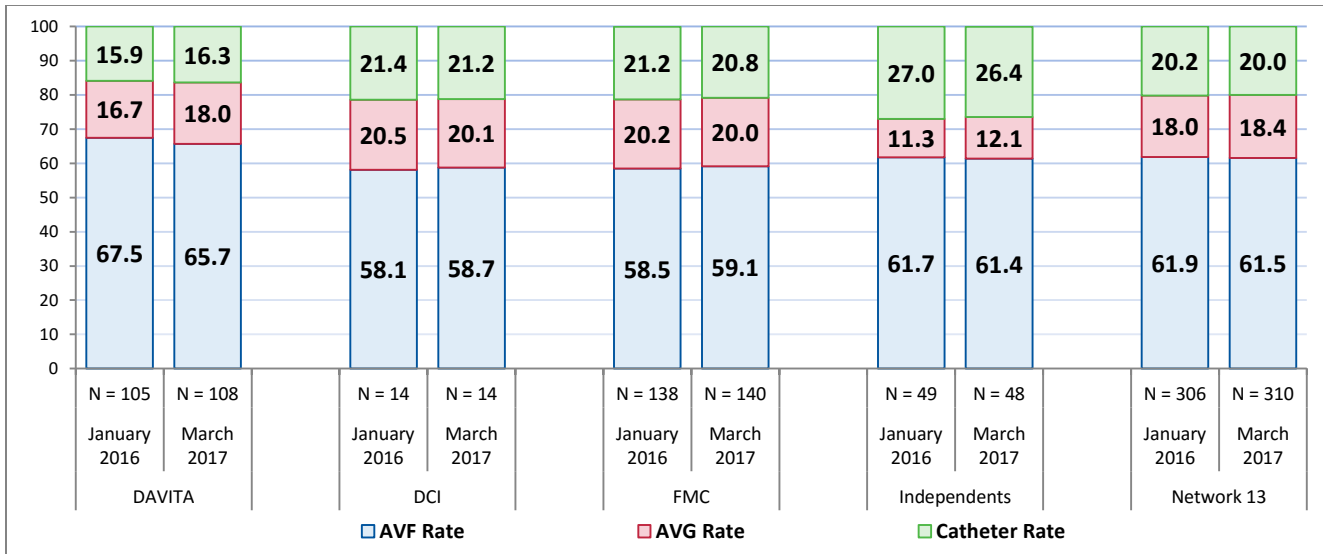


Chart 6: HD VA in Use by Affiliation and Network



Technical Assistance

In conjunction with the VA outcomes reporting activities, Network 13 has a variety of QI and educational activities underway to assist facilities in improving HD permanent VA management processes and outcomes. Requests for Network assistance are welcome.

Educational/Networking Activities and Resources:

- **Cannulation Training Sessions** are geared toward front-line dialysis clinicians (e.g., dialysis nurses, patient care technicians). These sessions offer continuing education (CE) credits, and include pre-/post-event testing for evaluation purposes.
- **Conducting a Quality Improvement Activity (QIA)**, *Reducing Long-Term Catheter (LTC) Rates in the Adult Hemodialysis Population* with a subset of those facilities with LTC rates in excess of 10% of the prevalent hemodialysis population.
- **Physician Education/Networking Sessions** are geared to the audience, as needed or requested (e.g., surgeons, nephrologists, associated healthcare professionals and interventionalists). These sessions are planned and developed with local healthcare professionals and are facilitated by Network 13's QI Director, Lynda Ball. Ms. Ball can be reached at 405.948.2241 or LBall@nw13.esrd.net.
- **ESRD Network 13: Performance Guidance** for VA management can be located online at: www.hsag.com/nw13PerformanceGuidance.
- **ESRD National Coordinating Center (NCC) Website** contains a variety of current FFCL tools and resources: <http://esrdncc.org/ffcl>.

Feedback and Evaluation

Questions, requests, comments, and suggestions are welcome. Network 13 encourages feedback via a brief online evaluation of this report, available at <https://www.surveymonkey.com/r/F5FWL8Y>.

This material was prepared by HSAG: ESRD Network 13, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. OK-ESRD-13A141-08112017-01