



End-Stage Renal Disease
Network of the Ohio River Valley

ESRD Network 2018 Annual Report

ESRD Network 09



Rural Kentucky

June 2019
Prepared by:
IPRO ESRD Network of the Ohio River Valley
network9.esrd.ipro.org

Submitted to:
U.S. Department of Health and Human Services
Centers for Medicare & Medicaid Services
for Contract Number HHSM-500-2016-00009C

Table of Contents

ESRD DEMOGRAPHIC DATA.....	2
ESRD NETWORK GRIEVANCE AND ACCESS TO CARE DATA	9
ESRD NETWORK QUALITY IMPROVEMENT ACTIVITY DATA.....	11
Long Term Catheter (LTC) Quality Improvement Activity.....	12
Blood-Stream Infection Quality Improvement Activity.....	15
Transplant Waitlist Quality Improvement Activity: Improve Transplant Coordination.....	18
Home Therapy Quality Improvement Activity.....	21
Population Health Focus Pilot (PHFP) Project Quality Improvement Activity	23
ESRD NETWORK RECOMMENDATIONS	26
ESRD NETWORK SIGNIFICANT EMERGENCY PREPAREDNESS INTERVENTION	26
ACRONYM LIST APPENDIX.....	26

ESRD DEMOGRAPHIC DATA

The IPRO End-Stage Renal Disease (ESRD) Network of the Ohio River Valley (Network 9) is funded by the federal government to promote the provision of healthcare that is safe, effective, efficient, patient-centered, timely, and equitable for all ESRD patients in Indiana, Kentucky, and Ohio. To achieve this goal, Network staff members work with patients, providers, and other stakeholders toward improving care, engaging and empowering patients as consumers, and conducting activities consistent with the Department of Health and Human Services (HHS) National Quality Strategy (NQS), the HHS Secretary Priorities, and the Centers for Medicare & Medicaid Services (CMS) goals. The combination of the NQS strategy, the HHS priorities, and the CMS goals sets a framework for the ESRD Network to focus on improving the care of individuals with ESRD.

Network 9's service area comprises the states of Indiana, Kentucky, and Ohio. The largest population of patients in our Network service area resides in Ohio, which has approximately three times the patient population of our smallest state, Kentucky.

In 2018, 27 new Medicare-certified dialysis facilities opened in our Network service area, raising the net number of facilities from 611 to 638. Since 2016, Network 9 has added 74 Medicare certified dialysis facilities, which is an 11% increase in the number of facilities across the region. Network 9 also includes 12 Veterans Affairs (VA) hospitals and 14 transplant centers.

Network 9 has the third largest number of ESRD facilities in the nation with only 60-70 facilities less than the largest Network but ranks fourth in patient census. As of December 31, 2018, the Network 9 service area had 33,932 prevalent ESRD dialysis patients. The Network experienced an average growth rate of 2% in prevalent ESRD patients over the past four years, of which 29,620 dialyze in an in-center facility, creating an average patient census of 46 patients per facility.

Eighty percent of the dialysis facilities in Network 9 are managed by a Large Dialysis Organization (LDO). The remaining twenty percent are split between middle and small dialysis organizations and independents.

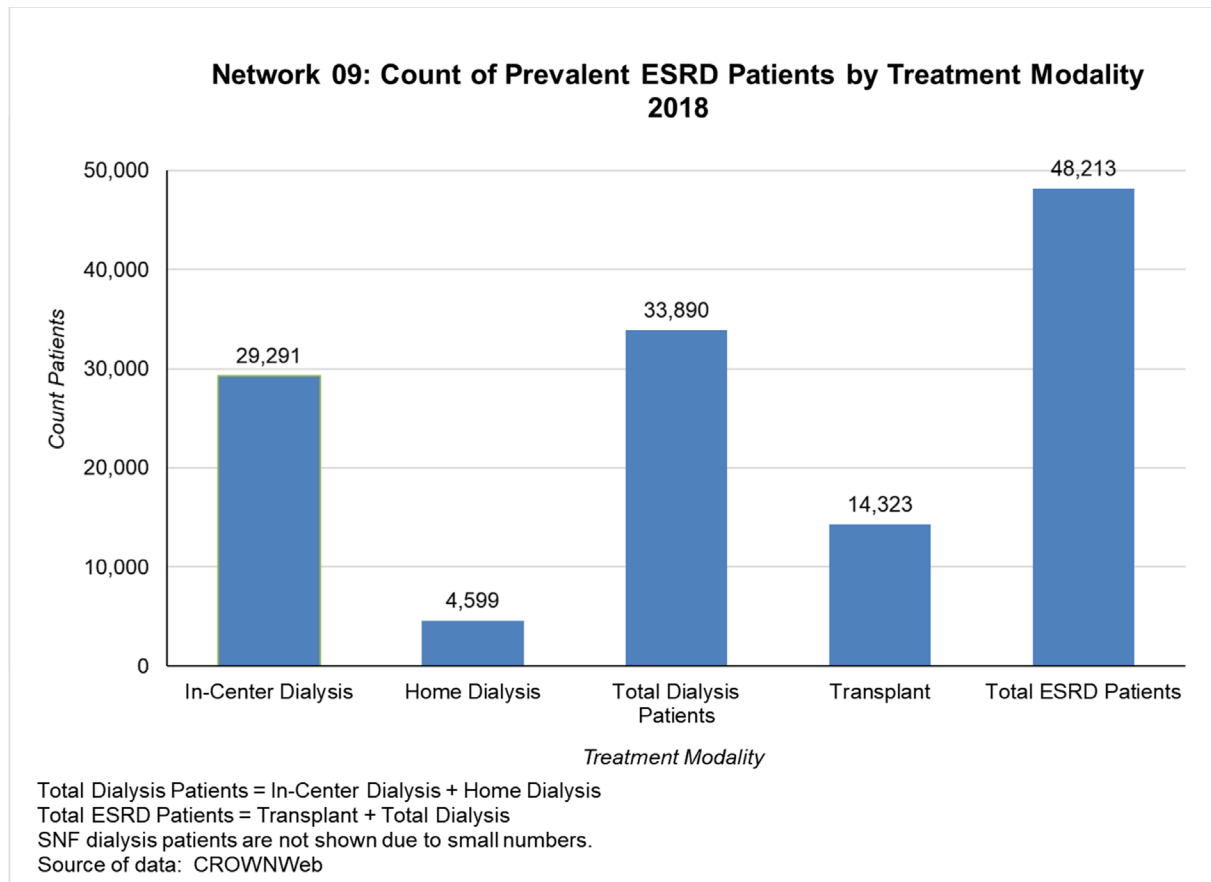
An ongoing characteristic of the Network 9 service area is its high number of facilities, which results in a lower average patient census per facility than most other ESRD Networks. This continues to provide the patients in the region with more options for selecting a facility, dialysis provider, treatment modality and schedule, and medical care. Conversely, the Network observes that the larger number of facilities can lead to staff shortages, leadership transition issues, and frequent retraining due to continual staff recruitment for new facilities. These issues create challenges for the Network as we work to establish continuity in care and to sustain practices for optimal outcomes.

The Healthy People initiative for ESRD care is focused on increasing ESRD patient access to transplant and home dialysis due to the scientifically proven improvement in quality of life, mortality, and morbidity for ESRD patients using these modes of renal replacement therapy over in-center hemodialysis. ESRD Networks are charged with increasing the number of ESRD patients offered and receiving these renal replacement modalities. A number of interesting shifts have begun to emerge in the Network 9 demographics in relation to improving the use of these treatment modalities since 2014, which are noted in this annual report.

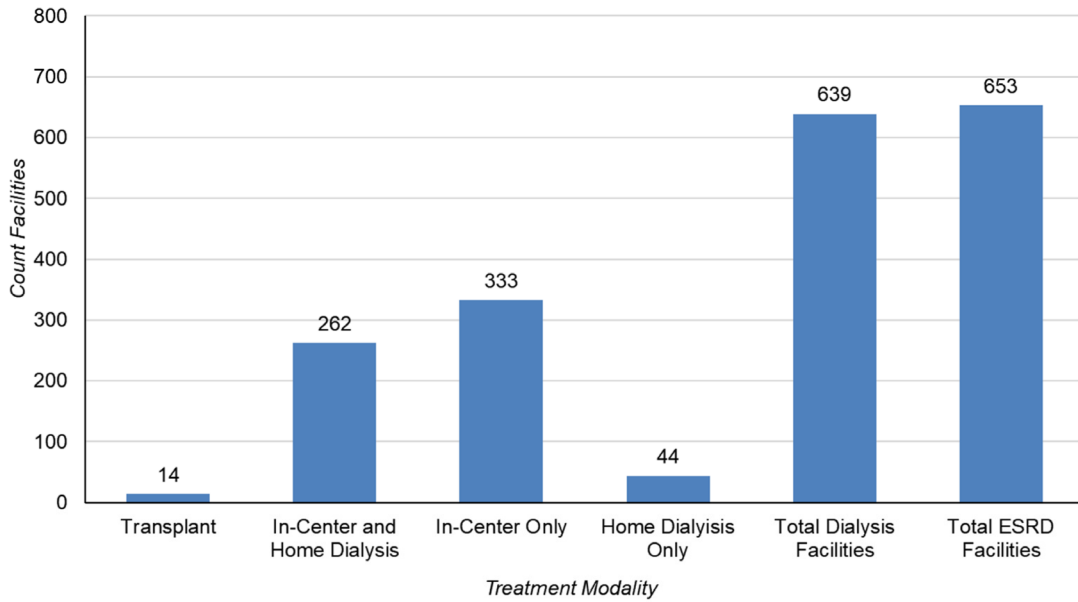
Renal transplant rates within the Network service area, which were negative in 2014 and grew by only 5% in 2015, accelerated to above 10% in both 2017 and 2018, with 1,398 transplants occurring as of December 31, 2018. There has also been continual improvement in the number of patients receiving home dialysis, with a 7.7% increase in 2018 compared to an average rate of increase of

3% from 2014 through 2017. Growth in these preferred renal replacement therapies is in turn decreasing growth of the in-center hemodialysis (ICHD) patient population. From 2017–2018, there was only a 1% growth in the ICHD population of the Network compared to 2014–2016, which saw an average increase of 3%. The Network will continue to work to drive the increased use of these modalities as preferred choices in renal replacement therapy and lower the use of ICHD as the primary option for care.

Network 9 works to correct disparities in ESRD care where they exist, with our overall goal to improve the care delivered to all patients with ESRD in our region. Seven tables which include the overall demographic data for the Network 9 service area are on found on the next four pages.

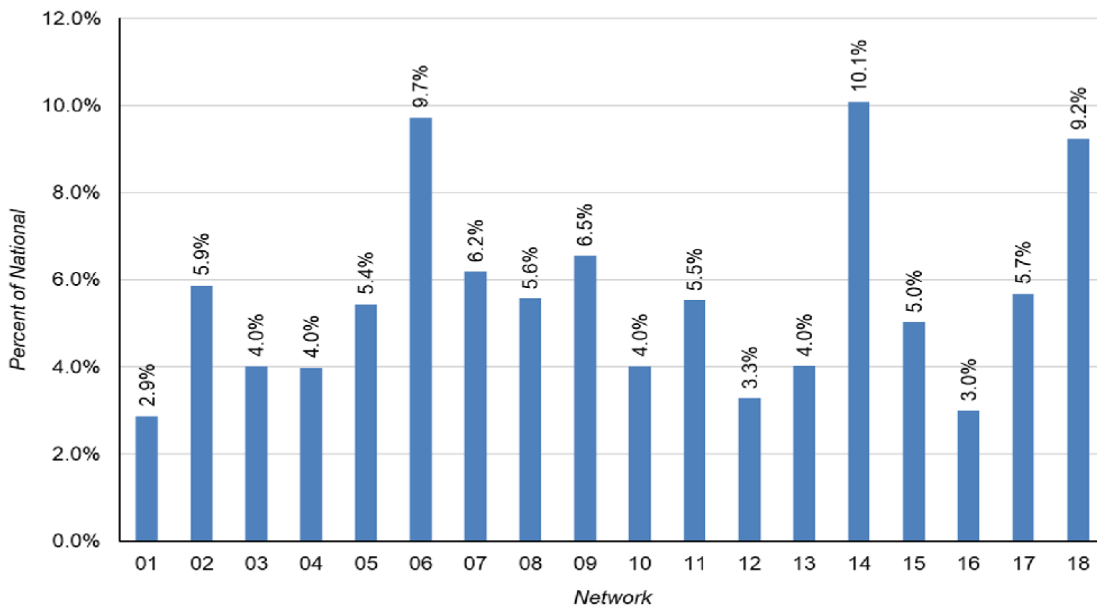


Network 09: Count of Medicare-Certified Facilities by Modality Type Offered 2018

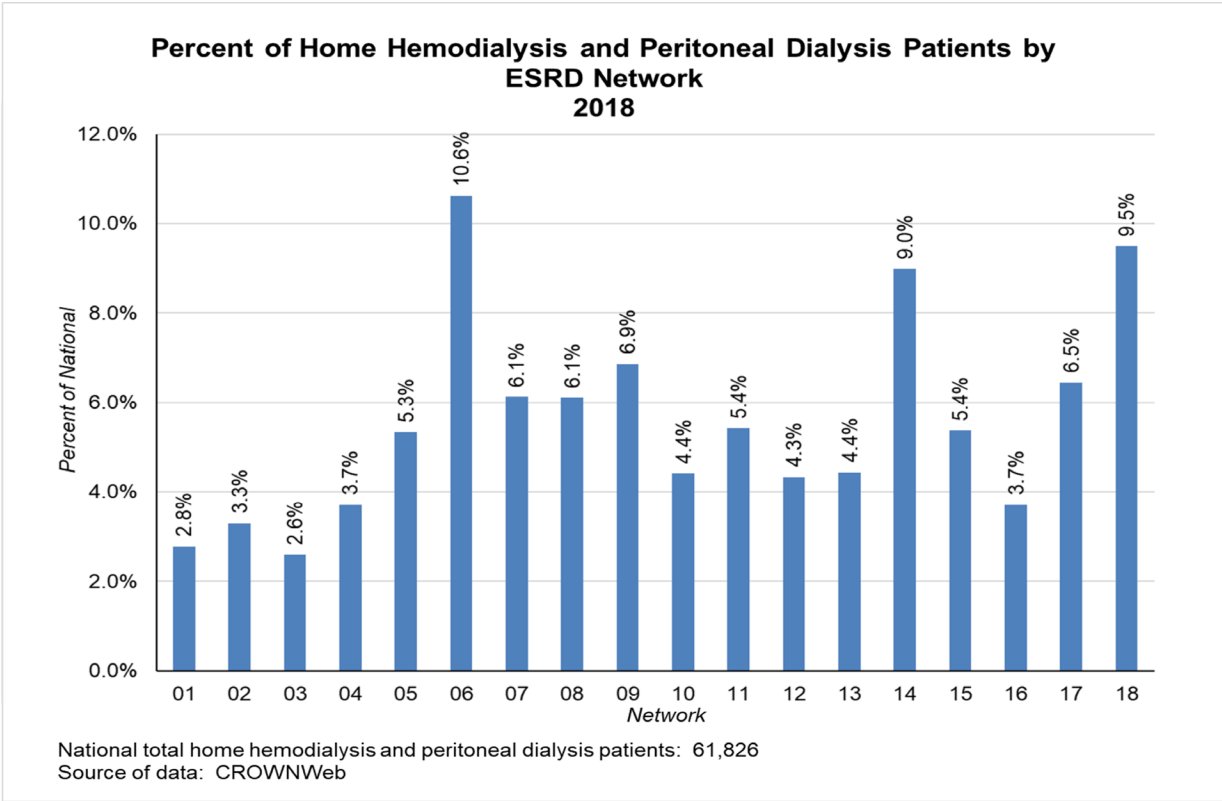
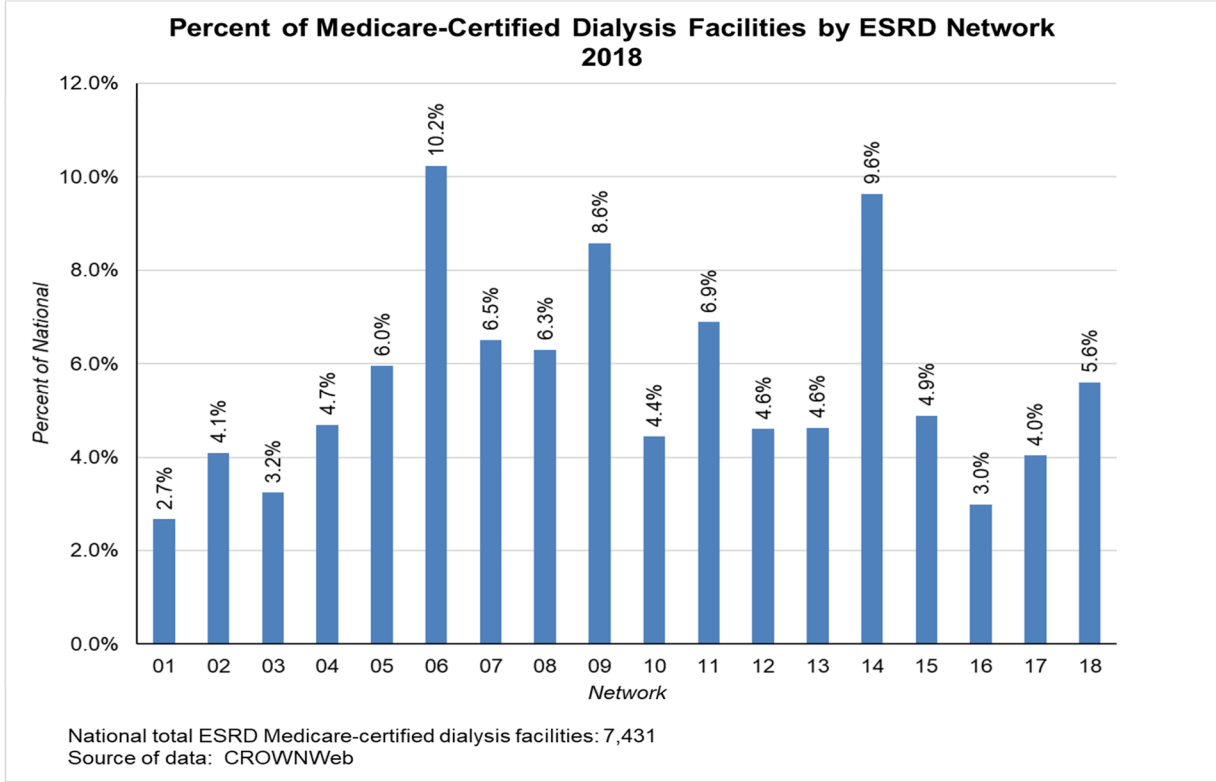


Total Dialysis Facilities = In-Center and Home Dialysis + Home Dialysis only + In-Center Only
 Total ESRD Facilities = Transplant + Total Dialysis Facilities
 Source of data: CROWNWeb

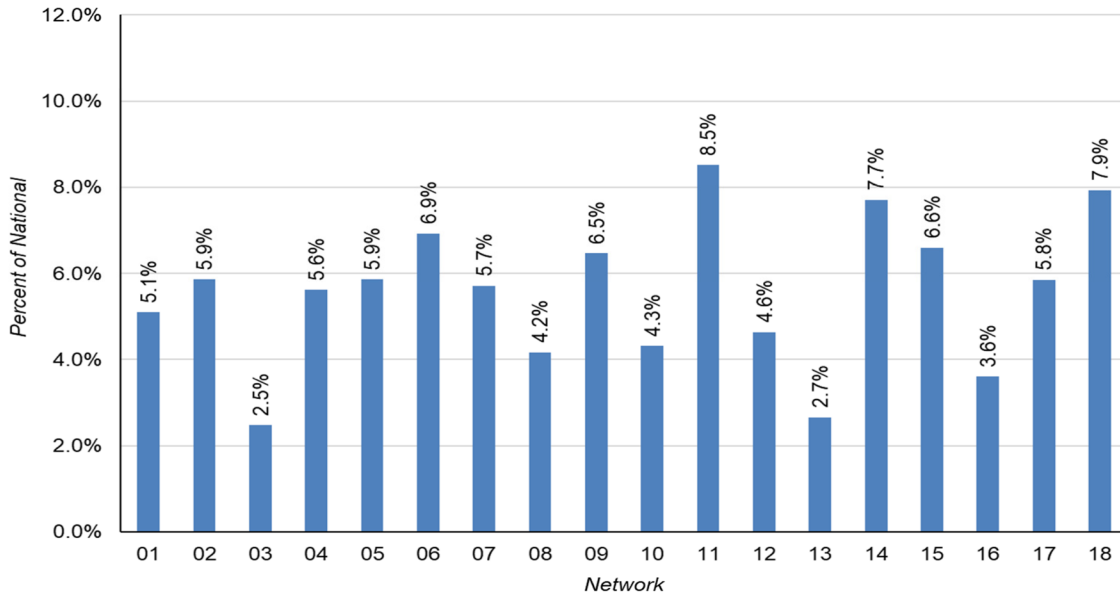
Percent of Prevalent Dialysis Patients by ESRD Network 2018



National total dialysis patients: 518,106
 Source of data: CROWNWeb

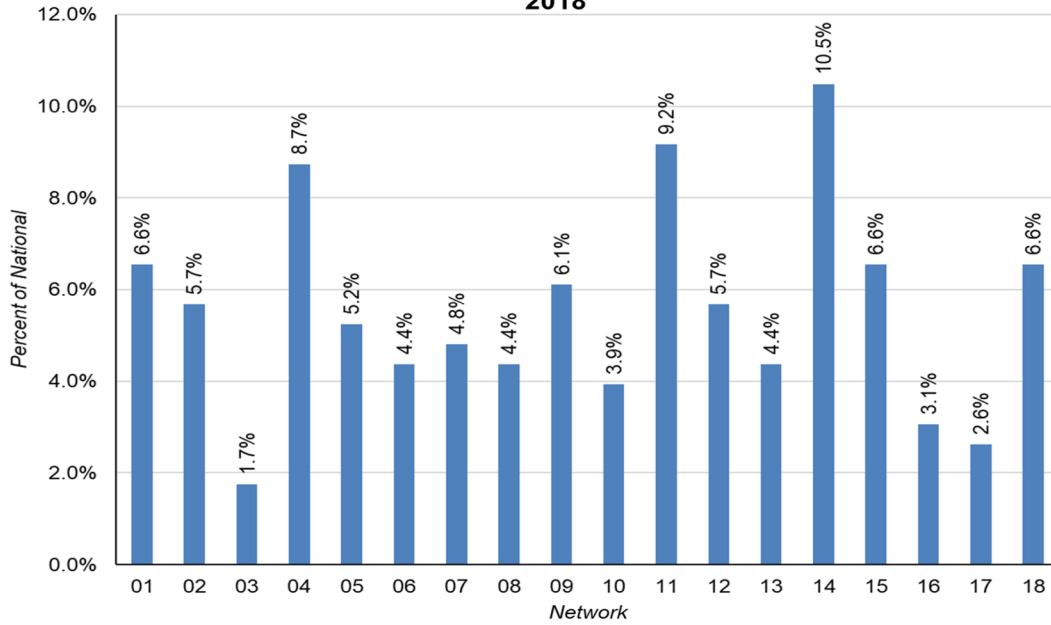


**Percent of Transplant Patients by ESRD Network
2018**



National total transplant patients: 221,497
Source of data: CROWNWeb

**Percent of Medicare-Certified Kidney Transplant Facilities by
ESRD Network
2018**



National total ESRD Medicare-certified kidney transplant facilities: 229
Source of data: CROWNWeb

ESRD NETWORK GRIEVANCE AND ACCESS TO CARE DATA

In 2018, 63 grievances were reported to the Network by patients and/or patient representatives. The most reported areas of concern related to the patient's treatment and quality of care (scheduling and transportation issues, physician's orders, and policy and procedures), staff and interpersonal related conflicts (professionalism, clinical competency, staff/patient ratio, and communication), and clinical quality of care (infection control, patient safety, access site issues, and prescribed physician orders). The Network investigated all grievances using a patient-centered approach.

Interventions and efforts to resolve the grievances included Network mediation, initiating and participating in interdisciplinary conference calls, review of patient medical records, discussing appropriate communication techniques, referring providers to additional resource materials and trainings, seeking clinical input from the Network's Quality Improvement team, and collaborating with the Network's Medical Review Board.

During each grievance investigation, the Network educated patients on their rights and responsibilities, the role of the Network, and how the grievance process works. Patients were also given resources on these topics to reference as needed. Exhibit 1 below shows the breakdown of facility concerns versus grievance data in 2018.

The number of facilities that discharged patients involuntarily from their care doubled in 2018, resulting in 41 involuntary discharges (IVDs). Of these IVDs, 23 were related to severe threat or ongoing disruptive behavior. The remaining 18 were split between issues related to failure to pay, facility failure to meet medical need, and termination of physician services. The high level of violence and disruptive behavior-related IVDs led to failure to place for 17 of the 23 patients (please see Exhibit 2 for a listing of all incidents captured in the Patient Contact Utility database). These individuals will have to rely on emergent dialysis versus being placed at an outpatient dialysis facility. The Network responded by initiating development of a toolkit and program aimed at assisting hospital systems, dialysis providers, and patients in achieving placement at an outpatient facility for long term care.

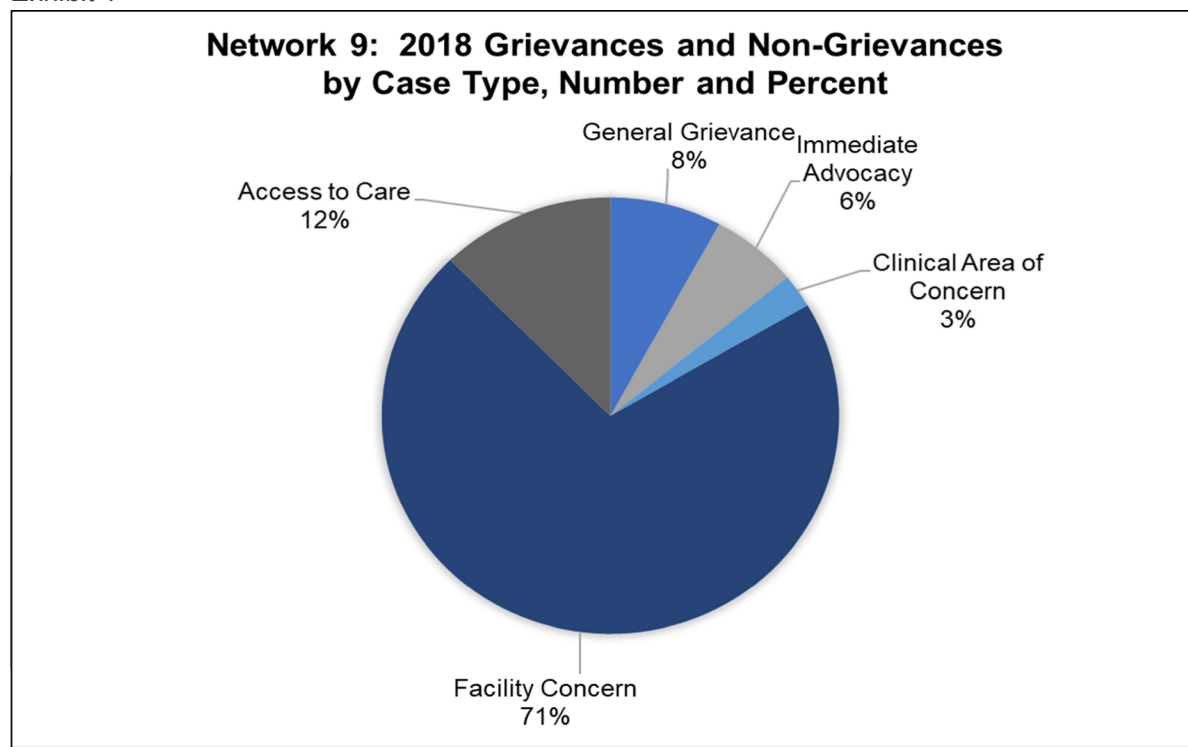
Continuing from the previous year, the Network helped facilities to address issues related to non-adherent patients and patients at risk for access to care concerns. In total, the Network provided technical assistance and guidance to address 272 facility concerns such as lack of treatment attendance and managing the disruptive patient population. Facilities were encouraged to look at all dimensions of patient care to determine the root cause for patients' disruptive behavior. The Network provided a variety of resources to educate facilities and enhance their skills in addressing these issues such as *Preventing the Involuntary Discharge of Dialysis Patients Facility Guide and Checklist*, the *Voluntary Discharge Procedure* promoted by the Network and CMS, *Decreasing Patient Conflict: Pathway to Resolution* algorithm, and the case comparison chart, which differentiates the procedures for a lost to follow-up, voluntary discharge or discontinuation, and involuntary discharge.

The Network works one on one with all patients who call in with concerns or access to care issues, often serving as mediator between the facility and patient. We also educate and promote the use of *The Patient Grievance Toolkit* issued by ESRD Forum's Patient Advisory Committee (PAC) to assist patients with communicating and managing concerns with their care.

The Network has assembled these tools on our website, creating a family of materials accessible by providers at their convenience. The Network's goal continues to be to lower the number of potential and actual access to care issues by providing technical assistance combined with education and

support for the patient and provider community. Additionally, the Network aims to encourage the ESRD beneficiary to become an active member of their care team.

Exhibit 1



Source of data: Patient Contact Utility (PCU)

Exhibit 2

Category	Cases
Grievance Cases	63
General Grievance	31
Immediate Advocacy	25
Clinical Area of Concern	7
Non-Grievance Cases	313
Facility Concern	272
Access to Care: Confirmed Involuntary Transfer/Discharge (IVT/IVD) *Note: Two Facility Concerns have the patient as Discharged and are recorded here.	41
Additional Case Information	
Averted IVT/IVD	4
Failure to Place	17
Total Cases 2017	376
Note: Revised cases were placed in those revised categories. 4 cases were excluded because the grievance category was not provided.	

ESRD NETWORK

QUALITY IMPROVEMENT ACTIVITY DATA

The Network worked closely with ESRD patients, family members and caregivers, nephrologists, dialysis facilities, advocacy organizations, and other stakeholders to improve care for ESRD patients in its service area. In 2018, the Network conducted quality improvement activities (QIAs) focused on improving care for ESRD patients through initiatives that targeted:

- Promoting patient- and family-centered care;
- Responding to grievances about ESRD-related services filed by, or on behalf of, ESRD patients;
- Supporting improvement in patients' experience of care;
- Working with dialysis facilities to ensure that all dialysis patients have access to appropriate care;
- Improving transplantation coordination;
- Increasing home modality referrals;
- Promoting best practices in vascular access management;
- Helping dialysis facilities reduce the incidence of healthcare-associated infections (HAIs);
- Assisting dialysis facilities to enroll in electronic health information exchange (HIE); and
- Supporting the use of the National Health and Safety Network (NHSN) as required by the Centers for Disease Control and Prevention (CDC).

Incorporating the Patient's Voice

Throughout 2018, the Network effectively promoted integration of the National Quality Strategy in supporting improvements in care for patients living with ESRD. All Network programs and activities integrate the patient voice and patient-centered care through inclusion of a patient representative as a team member or advisor and, in some cases, as a project lead or Patient Ambassador.

The Patient Ambassador role was introduced into all QIAs in 2018. The Network asked each facility participating in a QIA to select a patient to serve in this role. Within our QIAs, we engaged 224 active Patient Ambassadors. Their tasks included assisting the facility with distributing project materials, serving as peer mentors for other patients, participating in facility quality assurance and performance improvement (QAPI) meetings to report QIA progress, and participating in lobby days or other promotional activities.

The Network's Patient Advisory Committee (PAC) continues to advise on and support our QIA activities. This group is composed of active dialysis patients, transplant recipients, care partners, and family members who volunteer within their facilities or throughout the community to promote communication between patients and staff; inform patients about the ESRD Network and its programs and resources; and serve as a link between patients and the Network. PAC members' efforts also focus on engaging their peers, sharing educational materials, and assisting the Network in planning and releasing tools and resources to their peers.

The Network works continuously to expand PAC membership. In 2018, the Network recruited and engaged a record number of PAC representatives—98 patient volunteers at 83 unique facilities resulting in active patient representation in 14% of the dialysis facilities in the Network service area

Additionally, in 2018, the Network recruited six new patient Subject Matter Experts (SMEs) who provide the patient voice in all Network QIAs at the national level by serving as Network representatives to the Forum of ESRD Networks and the ESRD National Coordinating Center (NCC) and Kidney Community Emergency Response (KCER) program.

Long Term Catheter (LTC) Quality Improvement Activity

Background

Patients with LTCs are defined as those with a catheter in use for dialysis treatments for 90 days or longer. Network 9 data corroborates the CDC's 2013 findings that 80% of the incident population, i.e., patients who initiated hemodialysis within the past 90 days, are starting with a catheter.

Research shows that patient morbidity and mortality rates are related to the type of vascular access used for dialysis, with a higher infection rate associated with use of an LTC as compared to fistula use among eligible adult (≥ 18 years of age) in-center hemodialysis patients (Foley & Lok, 2013).

The work of this QIA is to drive change in access placement practices toward lowering the rate of LTCs in use in outlier facilities with high LTC rates as compared to other facilities within the region.

Targeted Facilities

The Network worked with 74 facilities and 4,070 patients in its service area to implement the QIA. Each facility targeted had an LTC rate in their prevalent patient population of greater than 15%, as reported in the September 2017 Fistula First Catheter Last (FFCL) data provided by the ESRD National Coordinating Center (NCC).

Goals and Outcomes

The project baseline LTC rate (19.97%) was derived from September 2017 ESRD NCC FFCL data. An intervention period of seven months (January 2018–July 2018) was established, with final data available in September 2018.

The primary project goal was to reduce the rate of LTCs by 2%. A secondary goal was to achieve a 95% reporting rate for these facilities in CROWNWeb, the ESRD national data base.

The 74 participating facilities achieved a 4.03% reduction in LTC use, reducing the overall average LTC rate to 15.94%, surpassing CMS' goal of a 2% reduction. They also achieved a reporting rate of more than 95% in CROWNWeb.

Interventions

The Network initiated a number of interventions to achieve the project goal including, but not limited to:

- Identifying and engaging a **lead facility contact and Patient Ambassador** in each targeted facility to assist in implementing opportunities for education, communication, and interventions, to facilitate improvements at the facility level;
- Sharing **educational materials and resources** from access management specialists within the Network community and from national resources;
- Sharing **best practices** identified through the Plan-Do-Study-Act (PDSA) process;
- Creating a **knowledge portal** of compiled resources;
- Developing and providing a **template for root cause analysis (RCA)** of LTC usage at the facility level to assist providers in identifying and implementing interventions to decrease

catheter usage;

- Educating **providers on the use of CROWNWeb reports** to promote accurate reporting of patient primary access;
- Providing **ongoing data surveillance and communication** of progress toward accomplishing goals through September 2018;
- Implementing a **quarterly progress report** for facilities to communicate the following to the Network:
 - The LTC rate in prevalent patients;
 - A list of interventions undertaken within the facility to reduce catheter rates;
 - A facility-based patient level action list to achieve catheter removal; and
 - Any key observations the facility discussed during QAPI meetings as barriers to achieving the facility goal of less than a 10% catheter rate.

In addition, the Network **implemented individualized intervention models** for identified groups of facilities within the QIA, which called for the active involvement of regional and corporate level management to assure an intensive focus. The two group intervention approaches are described below:

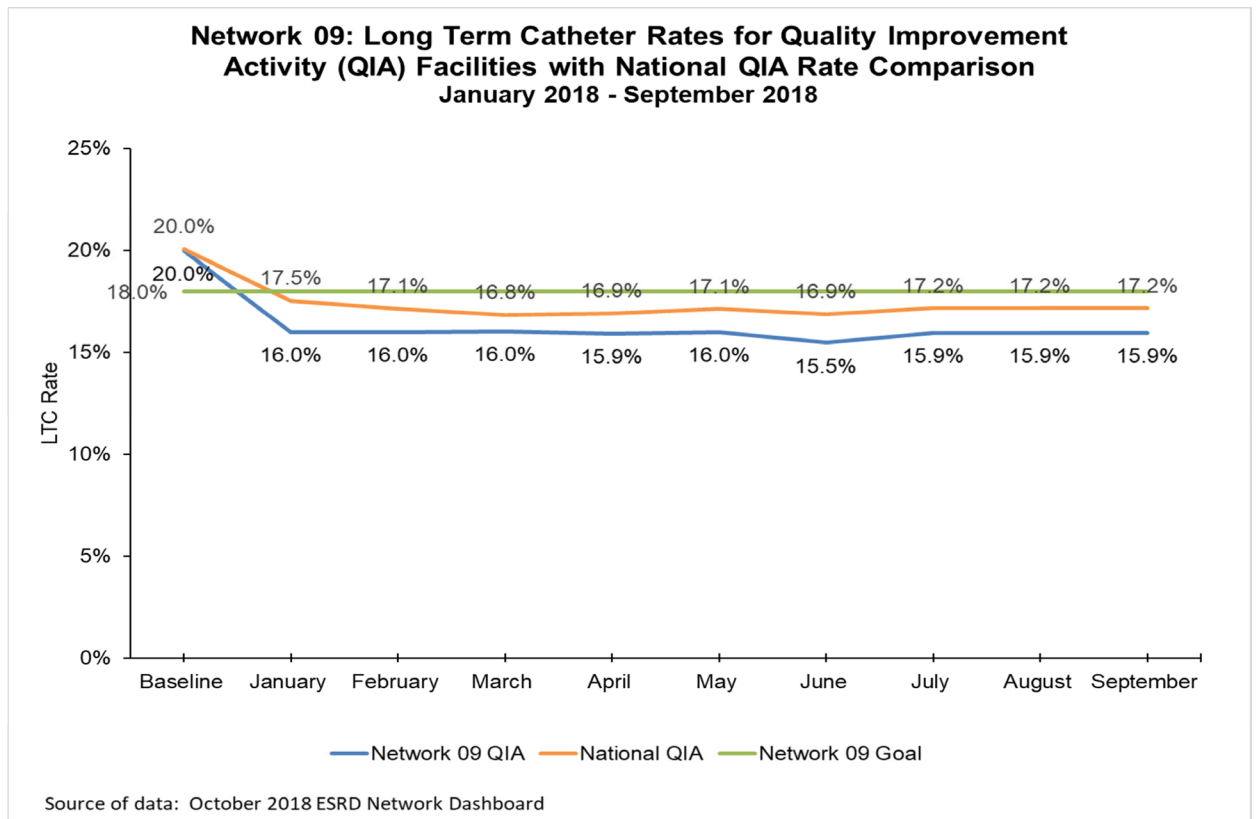
- The Network identified two low performing geographic regions and conducted individual virtual site visits involving the active participation of facility staff, medical directors, and LDO regional operations managers. The Network assisted in conducting RCA to identify barriers specific to each region and developed focused interventions to remove these barriers, providing for sustained reduction of catheter placements within the region. This intensive intervention decreased the LTC rate in the region-specific QIA clinics from 40% to 20% within four months.
- The Network developed an in-depth plan for rapid and sustained LTC reduction in the 31 facilities participating in the 2018 LTC Reduction QIA project and in the Healthcare-Associated Infection-Bloodstream Infection (HAI-BSI) project. Given the strong correlation between increased LTC use and increased incidence of BSIs, the Network promoted aggressive LTC reduction efforts within each facility, which led to their corresponding reductions in BSI rates.

Best Practices Spread to Achieve Goals

- Development of an individual plan of care for each patient with an LTC to move them toward permanent access placement;
- Early patient education to promote timely scheduling of access procedures;
- Engagement of a vascular access manager to promote decreased catheter and increased fistula rates;
- Nephrologists and dialysis facilities developing new referral patterns for more timely vascular access intervention and creation; and
- Engagement of a Patient Ambassador to educate patients with an LTC on permanent access placement.

Noted Barriers in Achieving Goals

- Medical directors were often reluctant to obtain vascular access consults outside of their practice groups despite poor service and increased wait times for permanent access; and
- Facilities did not have a specified vascular access manager, creating difficulties in following up on the planning of permanent access placement for patients with LTCs.



Reduce Blood-Stream Infection Quality Improvement Activity

Background

Dialysis patients are at higher risk than the general population for acquiring healthcare-associated infections (HAIs)—specifically, bloodstream infections (BSIs)—due to the regular and frequent use of catheters and other forms of access to their bloodstream while dialyzing. The physical and emotional toll of such infections on patients and their care partners/families is immeasurable, and the financial cost is staggering. Published reports estimate that HAIs are responsible for more than \$28 billion in yearly national healthcare expenditures. According to the Dialysis Facility Report (DFR) for Fiscal Year (FY) 2017, 12.5% of dialysis patients in the Network’s service area were hospitalized due to BSIs, compared to the national average of 11.2%. In the same report, the mortality rate due to infections was 8.25% in the Ohio River Valley states, compared to the national average of 10.9%.

Targeted Facilities

The Network worked with 20% of facilities in its service area that reported high BSI rates in NHSN. Based on our comprehensive analysis of this data, the Network selected 120 facilities that reported infection rates ranging from 8.11 to .96 per 100 patient months and with between one and 14 BSIs in the first and second quarters of 2017.

Goals and Outcomes

The goal of this QIA was to increase awareness and reporting of BSIs in at least 20% of the facilities in the Network's service area, while decreasing rates of dialysis events, specifically BSIs. Baseline metrics were taken from NHSN BSI data for the first and second quarters of 2017. The six-month intervention period was from January 2018–June 2018. The objective was to achieve a 5% relative reduction in the pooled mean BSI rate (calculated by adding the mean, multiplied by the sample size for each sample, and dividing the number by the sum of the sample sizes) for the targeted facilities' re-measurement period of January 2018–June 2018.

The Network's interventions were successful in decreasing the pooled mean BSI rate from 1.456% at baseline to .640% at re-measurement, yielding a 56% relative reduction in BSIs and surpassing the CMS target of 1.159% average BSIs or less.

Interventions

Prior to designing QIA interventions, the Network worked with targeted facilities to complete an RCA "autopsy" for each infection identified during the baseline period of January 2017–June 2017. The information gained through these analyses determined the focus of interventions based on cause categories and guided the selection of appropriate CDC Core Interventions. The Network collected best practices, barriers, and RCAs from all targeted facilities on a quarterly basis via Redcap, a HIPAA compliant electronic data platform. The interventions focused on:

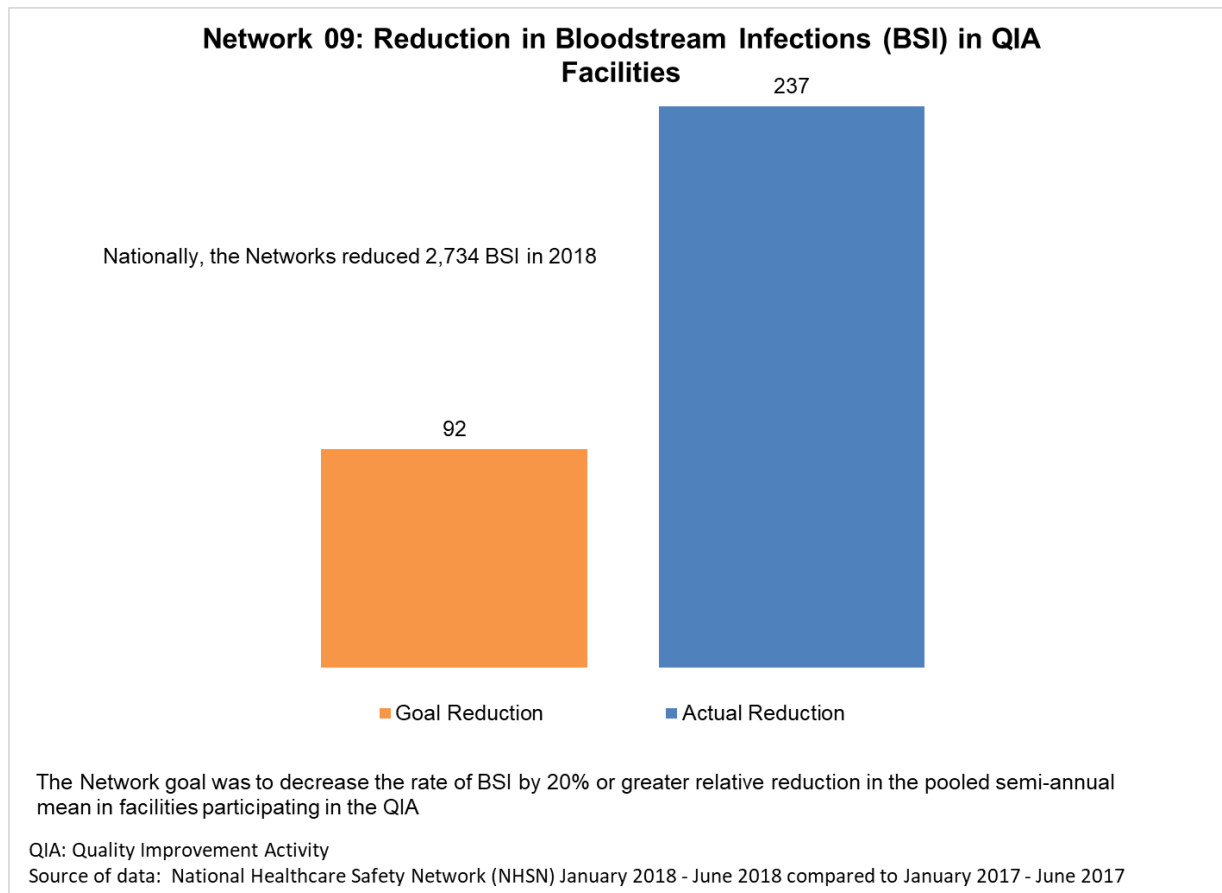
- Promoting the exchange of knowledge, use of CDC educational resources, and spreading of best practices through the HAI Learning and Action Network (LAN);
- Identifying and capitalizing on opportunities to promote facility-specific BSI education; and
- Working with each facility to establish and engage lead facility contacts and Patient Ambassadors to:
 - Work with facility leadership to gain buy in;
 - Create auditing tools and educational programming to promote patient involvement; and
 - Provide a template for evaluation of BSIs at the facility level to assist in the implementation of CDC tools and resources.

Best Practices Spread to Achieve Goals

- Virtual site visits with low performing clinics to design and deploy clinic-specific interventions;
- Use of Patient Ambassadors to educate on infection and sepsis, and conduct CDC Core Intervention audits;
- Promotion of a regional collaboration with corporate leadership teams in 31 facilities participating in both the LTC reduction and HAI BSI QIAs to concentrate their efforts with QAPI teams and LDO leadership;
- Use of a HIPAA compliant electronic data platform to collect patient-specific infection data on a quarterly basis in all target facilities; and
- Sharing of best practices using a WebEx platform.

Noted Barriers in Achieving Goals

- Facility staff lacked knowledge related to reporting in NHSN;
- Multiple changes in facility leadership hindered progress to achieving goals; and
- Aggregated infection rates were skewed by including non-dialysis related BSIs.



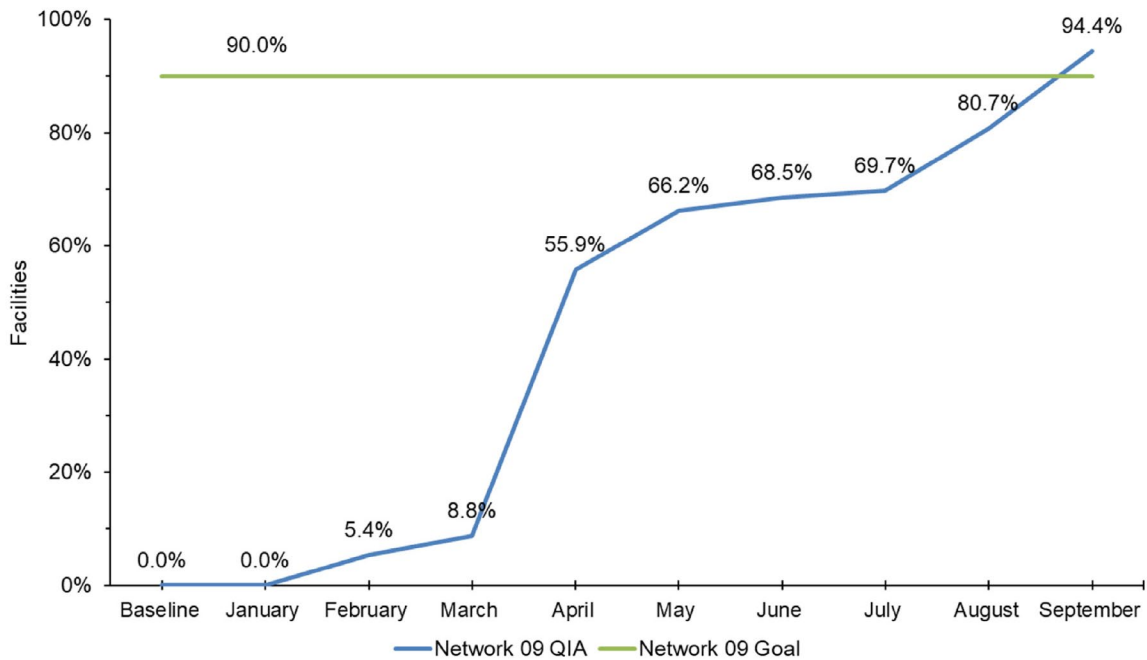
Additional Reduce Blood Stream Infection Quality Improvement Activities

Lowering blood stream infections takes a coordinated approach that involves not only the direct actions of the facilities with high BSI rates but also requires ongoing education of the ESRD provider community and good communication processes in transitions of care. In order to support those two processes CMS asked that the Networks to conduct two other activities within the Reduce BSI QIA as described below.

Documenting Facility Annual Completion of NHSN Dialysis Events Surveillance Training

National Health Surveillance Network (NHSN) is the CDC infection reporting data base. Appropriate data entry to capture infection related data is mandatory to effectively managing a reduction in BSIs. Not all facilities in the Network are required to participate in NHSN; those excluded are home-only, pediatric, and Veterans Affairs dialysis centers. Each participating facility is required to complete Annual Dialysis Event Surveillance training to assure accurate documentation and reporting of infection events. The Network was requested by CMS to obtain documentation to assure a training completion rate of 90% of all eligible facilities. The Network superseded this goal with a final completion rate reported in September of 2018 of 94.4%

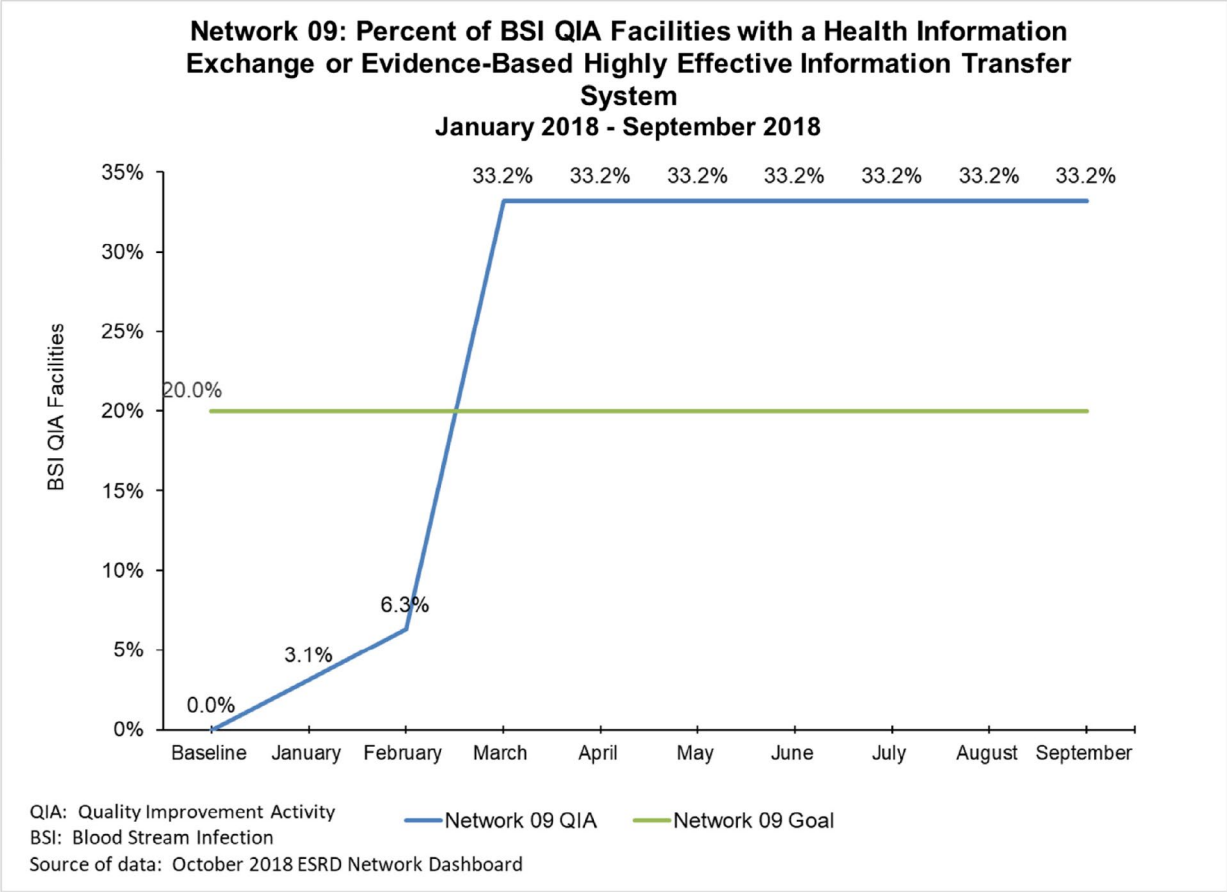
Network 09: Percent of Dialysis Facilities that Have At Least One Person Who Has Completed the NHSN Dialysis Event Surveillance Training
January 2018 - September 2018



Source of data: October 2018 ESRD Network Dashboard

Increase Enrollment in a Health Information Exchange (HIE)

Effective communication during transitions of care between chronic and acute facilities is critical to tracking the origin of a blood infection. At CMS' request, the Network worked with facilities with the highest BSI rates that were not already enrolled in an HIE to increase participation in an effective electronic information transfer system. Facility participation promotes increased communication between care partners related to BSI information and improves continuity of care. CMS tasked the Network to enroll 20% of (or 63) facilities that are participating in the BSI QIA. The Network was successful in enrolling 33% (or 95) of the targeted facilities, exceeding the CMS goal by 13%.



Transplant Waitlist Quality Improvement Activity: Improve Transplant Coordination

Background

Patients with ESRD have several options for renal replacement therapy: in-center or home hemodialysis, peritoneal dialysis, and transplantation. While dialysis offers life-sustaining treatment, transplantation offers the opportunity for better clinical outcomes, including reduced mortality and morbidity, improved patient quality of life, lower healthcare costs, and improved survival rates (Meier-Kriesche, Ojo, Port, Arndorfer, Cibrik, D. M., & Kaplan, 2010; Wolfe, et al., 1999).

According to the 2016 United States Renal Data System (USRDS), kidney transplantation rates increased while the number of patients being waitlisted for a kidney transplant continued to decline across the country. The 2008 CMS Conditions for Coverage for ESRD Facilities require dialysis providers to educate their patients about treatment modalities, including transplant. Despite this requirement, many facilities in the Network continue to operate with a lower than expected number of patients on a transplant waitlist.

A patient’s eligibility for transplant varies depending on the transplant center, the patient’s health status, the physician’s perception of the patient’s eligibility for transplant, and the patient’s financial status. The evaluation process for transplant is further hindered by numerous barriers and process changes that require improved communication between the dialysis facilities, transplant centers, and patients.

The goal of this quality improvement activity was to increase the aggregate number of waitlisted patients by 10% in 30% of the Network's facilities.

Targeted Facilities

The Network's evaluation of transplant waitlist data in DFRs revealed that of the 33,270 patients in its service area, only 3,959 (11.9% of the patient population) are on the transplant waitlist. The Network identified 185 facilities for inclusion in the project with a total combined census of 9,250 patients. Selection was based on potential for improvement, patient impact, and proximity to strong transplant programs to promote growth and change.

Goals and Outcomes

The participating facilities achieved a 4.5% increase in waitlisted patients (or 130 patients) in 2018, which fell short of the CMS target of 10%. Other improvements were achieved:

- 130 more patients were waitlisted than in previous years. Fifty-five percent of the participating facilities provided data on ineligible patients to the NCC for denominator counts.
- One hundred sixty-eight facilities tracked and reported the number of eligible patients in the seven steps of the transplant work up process.

Interventions and Tools

The Network structured interventions to ensure that providers understood the United Network for Organ Sharing (UNOS) allocation system criteria, as well as efficient techniques for speaking with patients about transplant as an option.

The Network implemented a number of interventions and tools engaging facility staff. This included initiating a small test of change (STOC) intervention model whereby we identified a low performing geographic region and performed virtual site visits that involved facility staff, medical directors, and LDO regional operations managers. An RCA was performed to identify and address barriers and create unit-specific interventions to reduce transplant waitlist rates and create sustainable changes in practices in areas characterized by low wait listing. Additional facility staff focused interventions included:

- Educating staff through site visits, brochures, and other informational materials;
- Use of the Transplant Center specific selection criteria grid;
- Use of effective transplant education tools from known sources;
- Collection and analysis of ineligible patient data;
- Use of patient testimonials to promote living donation and paired kidney exchange;
- Identification of barriers;
- Collaboration with organ procurement organizations to promote living donation; and
- Establishing Patient Ambassadors in each target facility.

The Network also deployed patient-facing interventions and tools, such as:

- Educating patients through site visits, brochures, patient testimonials, and educational materials;
- Advisory Committee input and feedback;
- Providing transplant education tools from known sources;

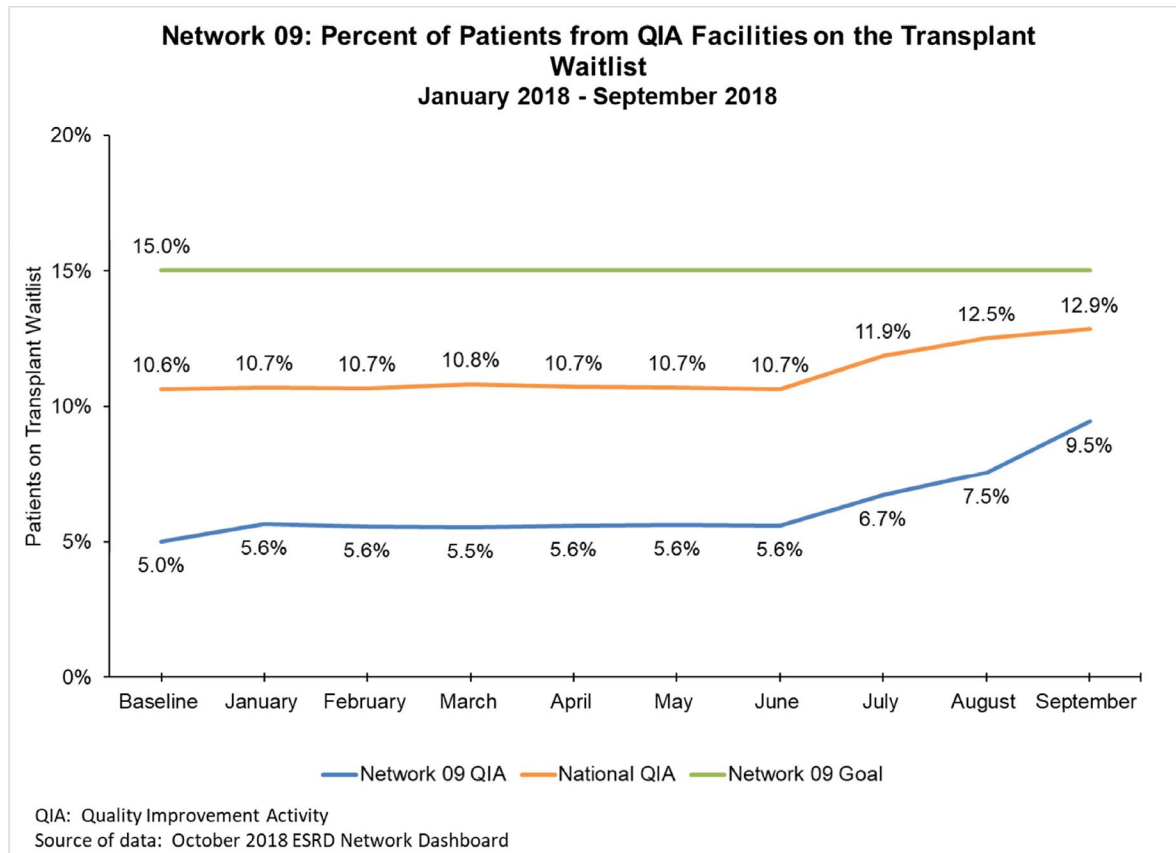
- Use of Patient Ambassadors in each target facility to educate patients on transplant wait-listing and SME's to create patient education toolkit materials.

Best Practices Spread to Achieve Goals

- Improved communication between transplant centers and dialysis facilities in selected geographic regions, utilizing a small test of change model
- Use of decision-making algorithm to identify eligible patients for transplant referral;
- Use of patient testimonials to promote living donation and paired kidney exchange;
- Distribution of a table with absolute and relative criteria for all transplant centers in our area;
- Educating dialysis facility staff to assist patients in identifying a living donor; and
- Increasing self-referrals by disseminating transplant contact information.

Noted Barriers in Achieving Goals

- Lack of consistency in wait listing guidelines;
- Varying levels of patient assistance thought the transplant workup process;
- Transplant center benchmark of one-year kidney graft survival impedes patient wait listing;
- Lack of accessible and affordable dental care;
- Lack of transplant candidate required support person;
- Difficulty scheduling transplant workup appointment around other medical and dialysis appointments; and
- Lack of communication between transplant centers and dialysis facilities on transplant workup process.



Home Therapy Quality Improvement Activity

Background

Home hemodialysis and peritoneal dialysis are alternate forms of renal replacement therapy available to patients with ESRD. There is a growing body of evidence supporting the benefits of home dialysis including improved clinical outcomes, higher quality of life, decreased mortality and morbidity, and improved transplantation rates, which in turn lowers healthcare costs (Meceier-Kriesche, Ojo, Port, Arndorfer, Cibrik, D. M., & Kaplan, 2010; Wolfe, et al., 1999).

According to the 2016 USRDS report, the use of home dialysis modalities has increased 85.6% from the year 2007. This trend supports the continued focus on improving access to home ESRD therapies with the ultimate goal of having 30% of the prevalent population on home dialysis in the year 2020 to achieve the Healthy People initiative in ESRD.

In 2018, CMS directed ESRD Networks to focus one of their main QIA efforts on improving the number of patients who initiated a home therapy. The goal of the QIA was to increase the target facilities' aggregate number of patients who initiated home modalities by 10% from baseline in 30% of the Network facilities.

Targeted Facilities

The Network's evaluation of home modality waitlist data from NCC received from CROWNWeb (October 2017–June 2017) revealed that of the 33,270 patients in the Network's service area, only 2,661 patients, or 8% of the patient population, are performing dialysis at home.

The Network identified 185 facilities for inclusion in the project with a total combined census of 9,250 patients. Selection was based on the facilities' potential for improvement, patient impact, and proximity to strong home training facilities.

Goals and Outcomes

The Network achieved a 6.2 % increase in patients initiating home dialysis in the project period, falling short of the 10% goal. The Network was able to meet other important outcomes in achieving the goal:

- The Network trended above the national facility Home QIA initiation rate
- The Network initiated the tracking of 7 step data leading to home initiation

Interventions and Tools

The Network structured interventions to ensure that providers understood the importance of home therapy and patient selection in initiating home therapies. We implemented a regionally focused intervention model to address area-specific obstacles and provide individualized solutions with the goal of creating interventions leading to sustained changes in area home initiation rates. The Network identified a low performing geographic region and performed virtual site visits that involved facility staff, medical directors, and LDO regional operations managers. Working together, we performed RCA to identify and remove barriers and created unit specific interventions to increase the use of home therapies.

Additional facility staff facing interventions and tools included:

- Providing staff education through virtual site visits and distribution of brochures and other informative materials;
- Providing education on appropriate home candidate selection;
- Providing home modality education tools from known sources;
- Establishing Patient Ambassadors in each target facility; and
- Providing patient SME testimonials.

Patient-facing interventions and tools included:

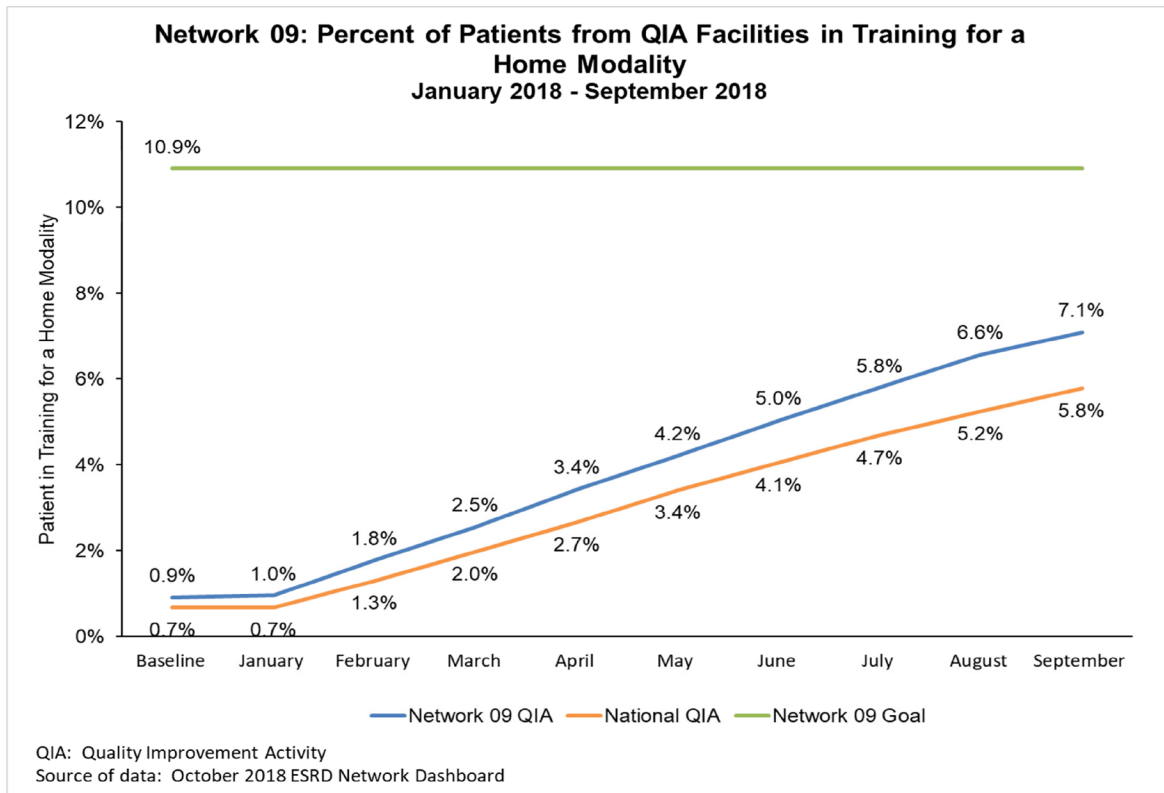
- Patient education through the distribution of brochures, patient testimonials, and educational materials;
- Soliciting Advisory Committee members for input and suggestions;
- Home modality education tools, including modality comparison tools, from known sources; and
- Using Patient Ambassadors to share information and connect patients in a facility with Home Modality program leads.

Best Practices Spread to Achieve Goals

- Incident patient education on home modalities;
- Promotion of the use of home champions;
- Promotion of transitional care models;
- Physician education on home modality candidate selection and dialysis prescription; and
- Development of professional education for chairside staff.

Noted Barriers in Achieving Goals

- Lack of infrastructure to support home program growth;
- Lack of physician buy in; and
- Decreased understanding and promotion of home therapies by in-center hemodialysis staff.



Population Health Focus Pilot (PHFP) Project Quality Improvement Activity

Background

The QIA Support Gainful Employment of ESRD Patients is designed to ultimately increase overall referrals to employment networks and vocational rehabilitation (VR) services and enhance the number of patients utilizing those services while reducing an identified disparity in the referral process. The Network staff conducted an RCA as the first step in identifying where barriers existed in VR referrals and use, which was then followed with a plan-do-study act cycle (PDSA) to test processes initiated to overcome those barriers.

Research has indicated a patient's ability to work is intertwined with one's sense of self-worth. Originally, the intent of the Medicare End Stage Renal Disease (ESRD) Program was to keep dialysis patients employed and productive (Website: Nephrology News and Issues, January 2016, Unemployment among dialysis patients is a complex issue). Creating processes that refocus patients on the ability to obtain employment could lead to the patients experiencing an improved perception of their overall quality of life ultimately leading to more employment within this group.

The Network encouraged participating facilities to engage and educate patients on the benefits of working with a vocational rehabilitation/employment network agency (VR/EN). Through the RCA and PDSA model, facilities identified the barriers keeping patients from pursuing vocational rehabilitation.

Targeted Facilities

Sixty-two facilities (10% of the Network population) were selected to participate in this project. The ESRD NCC supplied the baseline data to the Network. Review of the data between October 2016 and June 2017 determined facility selection. Facilities that had less than 0.5% of their patients referred to VR services and no patients enrolled in a vocational rehabilitation program were chosen to participate. The total census, which included patients between the ages of 18 and 54, was 1,974.

Goals and Outcomes

The primary goal of the project was to increase the referral rates to VR/EN agencies by 5% or more in 10% of Network facilities, and to achieve a 2% increase in the number of patients receiving VR/EN services in those facilities. Network interventions led to the following outcomes, which exceeded CMS' targets:

- Referrals increased by 21%, from 0.49% to 24.1%.
- Patients who received VR/EN services in the targeted facilities increased from 0.0% to 2.7%.

Interventions and Tools

To overcome barriers discovered by RCA and facilitate progress toward the patient elicited VR goals, the Network utilized the project interventions listed below:

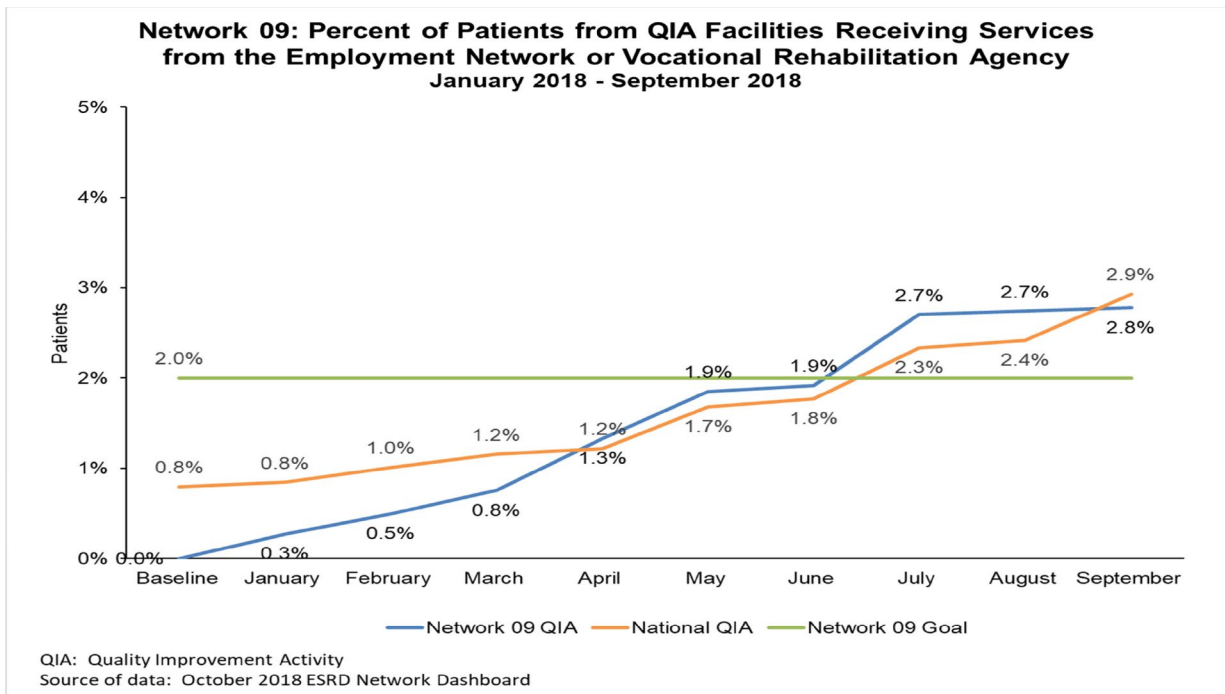
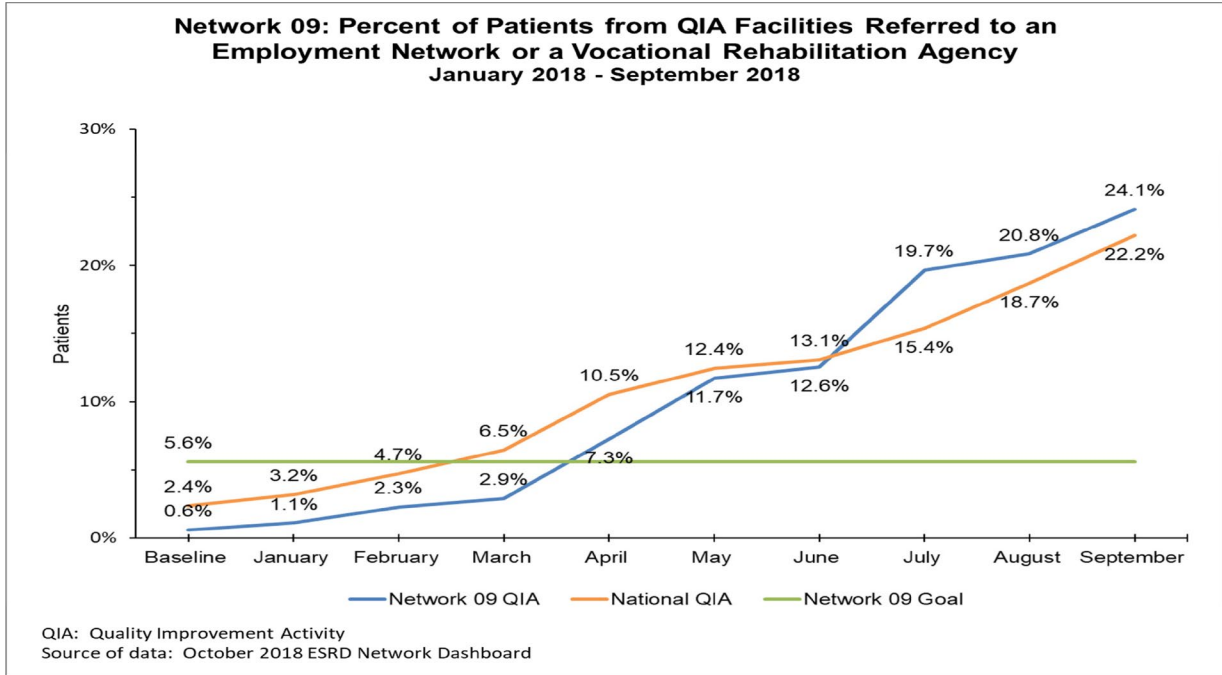
- Distributed educational materials about vocational rehabilitation/employment networks to facilities;
- Developed the vocational rehabilitation brochure and the *Learn the Terms: Vocational Rehabilitation Word Search* as an additional resource to educate patients.
- Educated facilities on a clear definition of the referral process with the VR/EN agencies;
- Presented CROWNWeb guidelines for documentation of patients receiving VR/EN services and worked with LDO leadership to improve data entry to effectively capture data using systems currently in place;
- Assisted facilities with implementing a streamlined process for reporting in CROWNWeb and for implementing a monthly reporting tool to track progress with referrals;
- Supported the use of the RCA process and tools to assist facilities with identifying barriers to low patient involvement in VR/EN services;
- Worked with patient SMEs and targeted facilities to identify and implement solutions to barriers identified during the RCA using the PDSA cycle to test and determine effectiveness;
- Supported the ESRD NCC PHFP LAN in sharing national information and best practices;
- Worked through Patient Ambassadors to initiate peer-to-peer conversations about vocational rehabilitation; and
- Collaborated with employment networks and vocational rehabilitation organizations to maximize patient education and follow-up.

Best Practices Spread to Achieve Goals

- Having patient representatives share success stories about the VR process;
- Facilitating access to VR resources at the state and national levels;
- Creating a facility job aid to assist CROWNWeb users with the upkeep of patient VR data;
- Informing facilities and patients about potential work incentives associated with VR programs; and
- Curating a sustainable VR toolkit for facilities to utilize when assessing eligible patients.

Noted Barriers in Achieving Goals

- Gaining and sustaining patient interest in VR services;
- Overcoming the patient's fear of loss of benefits; and
- Encouragement of facilities to upkeep CROWNWeb data for patient VR status.



ESRD NETWORK RECOMMENDATIONS

The IPRO ESRD Network of the Ohio River Valley did not have any services or facilities that they recommended for sanctions in 2018.

ESRD NETWORK SIGNIFICANT EMERGENCY PREPAREDNESS INTERVENTION

For individuals who have been diagnosed with ESRD, missed dialysis treatments can have serious adverse health effects. This makes the ESRD patient population especially vulnerable during emergencies and disasters. The Network relies on longstanding partnerships with state and city health departments, Offices of Emergency Management, and emergency preparedness coalitions to ensure safety and continuity of care for ESRD patients throughout the Network 9 service area.

In 2018, Network 9 only had one significant emergency incident within the region that required reporting. The report was in regards to a severe winter storm warning in January. Ten facilities reported a schedule change. No facilities were affected permanently and all patients were accounted for throughout the event. Facilities communicated with the Network either via phone or reporting their status electronically. Additional follow up was provided to facilities as needed.

ACRONYM LIST APPENDIX

This appendix contains an [acronym list](#) created by the KPAC (Kidney Patient Advisory Council) of the National Forum of ESRD Networks. We are grateful to the KPAC for creating this list of acronyms to assist patients and stakeholders in the readability of this annual report. We appreciate the collaboration of the National Forum of ESRD Networks especially the KPAC.