

# ESRD NETWORK 2017 ANNUAL REPORT

Description of the patient and facility population in the ESRD (End Stage Renal Disease) Network program and the outcomes of the quality improvement activities performed by this Network compared to the Network program performance

ESRD Network 6

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# ESRD DEMOGRAPHIC DATA

## Introduction

The IPRO End-Stage Renal Disease (ESRD) Network of the South Atlantic (Network 6) is funded by the federal government to promote the provision of quality healthcare that is safe, effective, efficient, patient-centered, timely, and equitable for all individuals living with ESRD in the states of Georgia, North Carolina, and South Carolina. Network staff members work with patients, providers, and other stakeholders to achieve these objectives by conducting activities consistent with the National Quality Strategy's three broad aims and the Centers for Medicare & Medicaid Services' (CMS') priorities for 2017:

- Better care for the individual through patient- and family-centered care;
- Better health for the ESRD population; and
- Reduced costs of ESRD care by improving care.

The ESRD population in the Network 6 region was the second largest in the country as of December 31, 2017, according to ESRD National Coordinating Center (NCC) end-of-year data.

The Network's 2017 activities supported more than 63,876 patients reported as receiving dialysis treatment for ESRD across 720 dialysis facilities, as well as 10 transplant centers, across North Carolina, South Carolina and Georgia. In 2017, a total of 14,728 individuals (7% of the ESRD population) were transplanted patients, with 42,928 patients receiving in-center dialysis treatment and 6,220 patients receiving dialysis treatment at home.

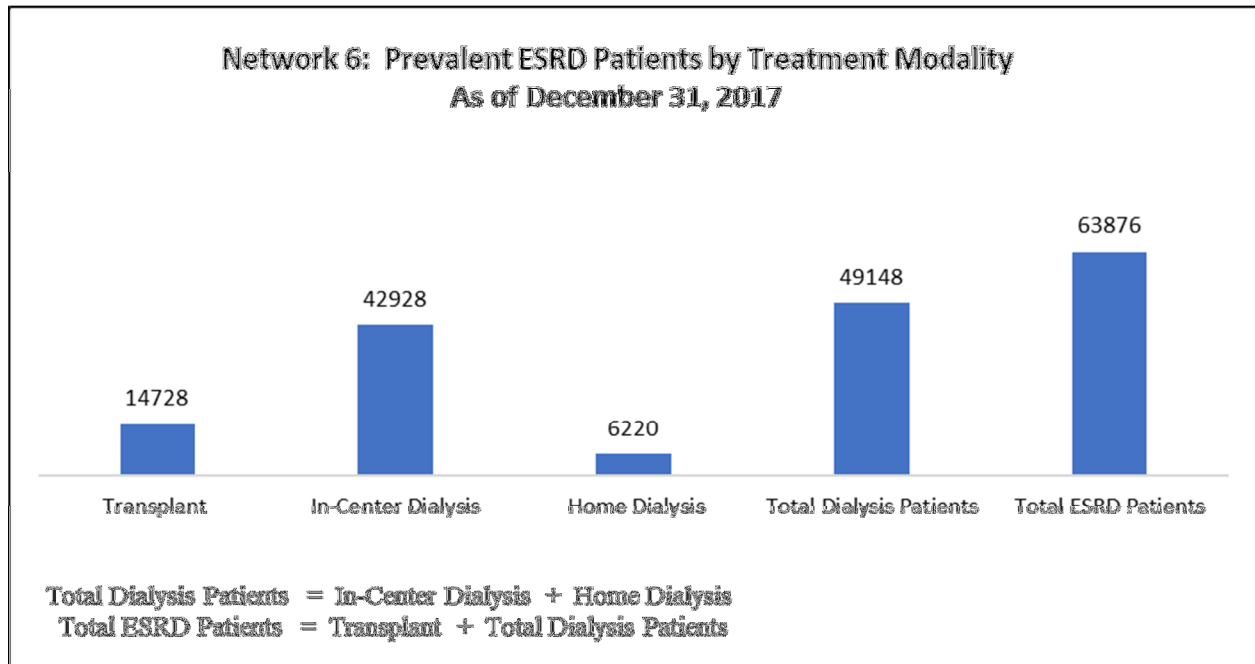
## Network Goals

The Network worked closely with ESRD patients, patients' family members and friends, nephrologists, dialysis facilities, ESRD advocacy organizations, and other ESRD stakeholders to improve care for ESRD patients in the Network 6 region. Network 6's Quality Improvement Activities (QIAs) focused on:

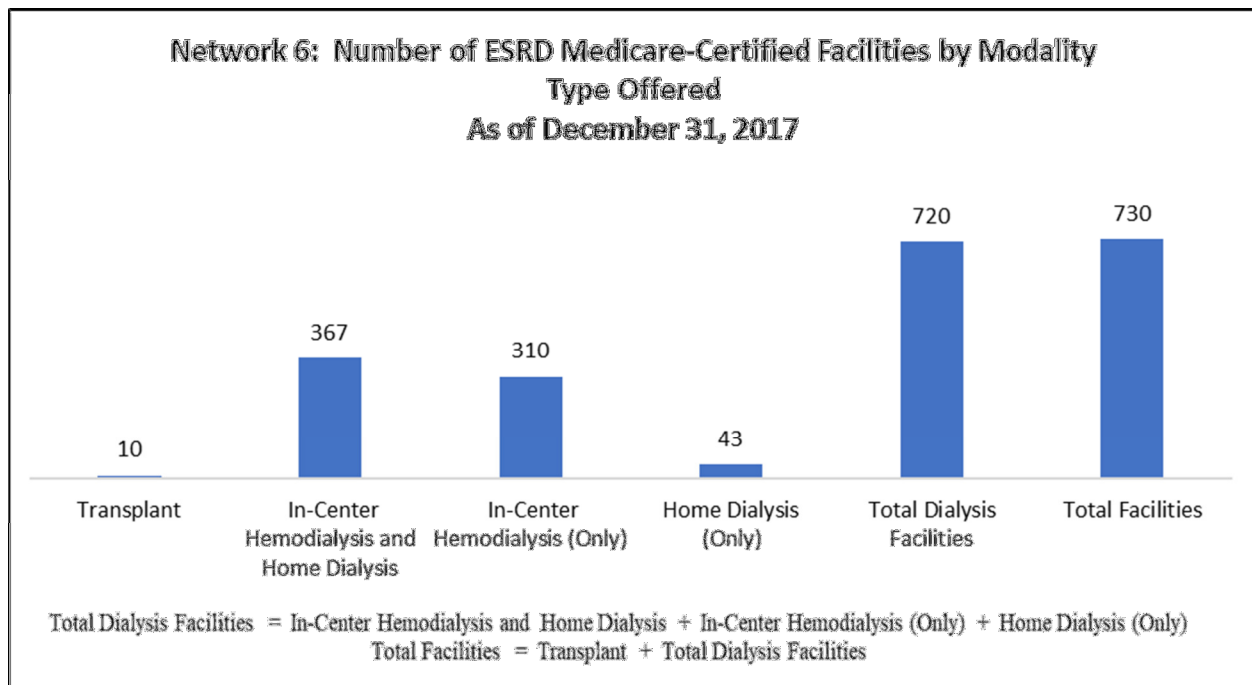
- Improving care for ESRD patients, through initiatives that targeted:
  - Promoting patient- and family-centered care;
  - Responding to grievances about ESRD-related services filed by, or on behalf of, ESRD patients;
  - Supporting improvement in patients' experience of care;
  - Working with dialysis facilities to ensure that all dialysis patients have access to appropriate care;

- Promoting best practices in vascular access management with a focus on reducing the use of catheters; and
- Helping dialysis facilities reduce the incidence of healthcare-associated infections (HAIs).
- Improving the health of the ESRD patient population through activities designed to reduce disparities in ESRD care with a focus on increasing transplant referrals; and
- Reducing the costs of ESRD care by supporting performance improvement at the dialysis facility level and supporting facilities' submission of data to CMS-designated data collection systems.

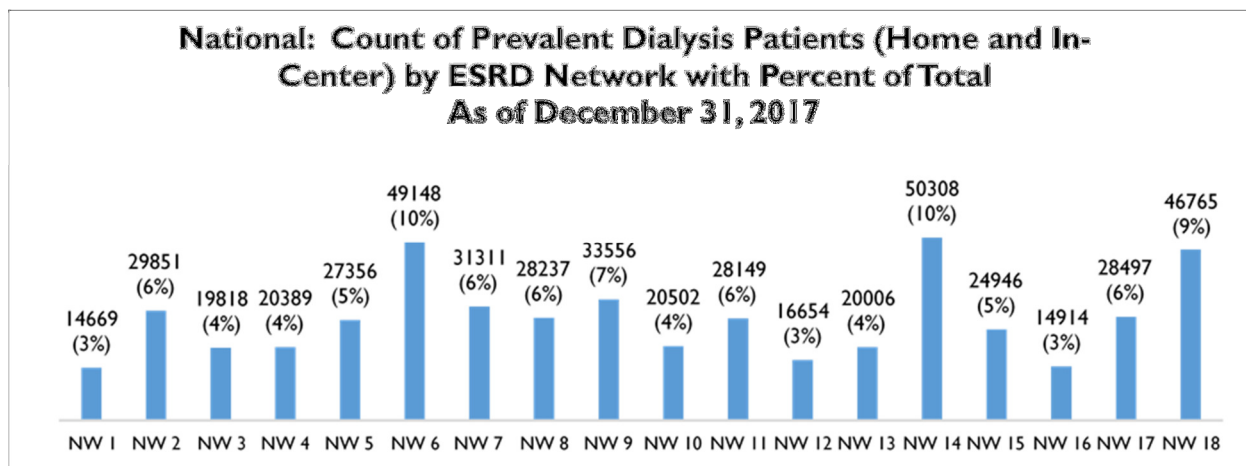
Through collaboration with its Network Council, Medical Review Board, Patient Advisory Committee, Grievance Committee, and Network activity-specific committees, Network staff developed quality improvement projects aligned with the goals identified in the ESRD Network Statement of Work (SOW). The Network deployed interventions that targeted patients, dialysis and transplant providers, and other stakeholders. These interventions, which focused on engaging patients, reducing disparities, and improving quality of care for ESRD patients are detailed in this report.



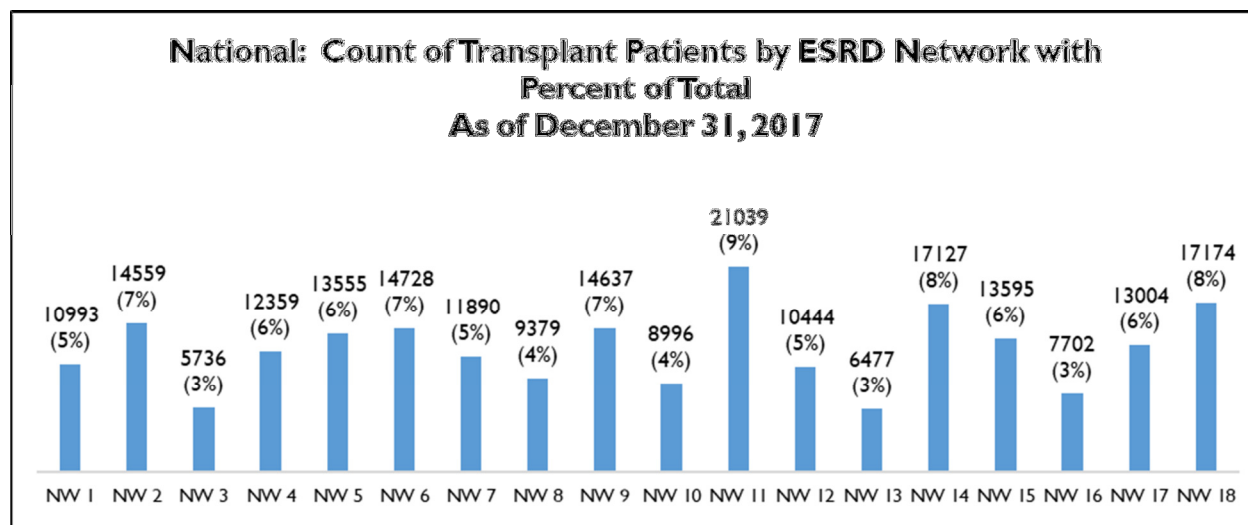
Source of data: CROWNWeb



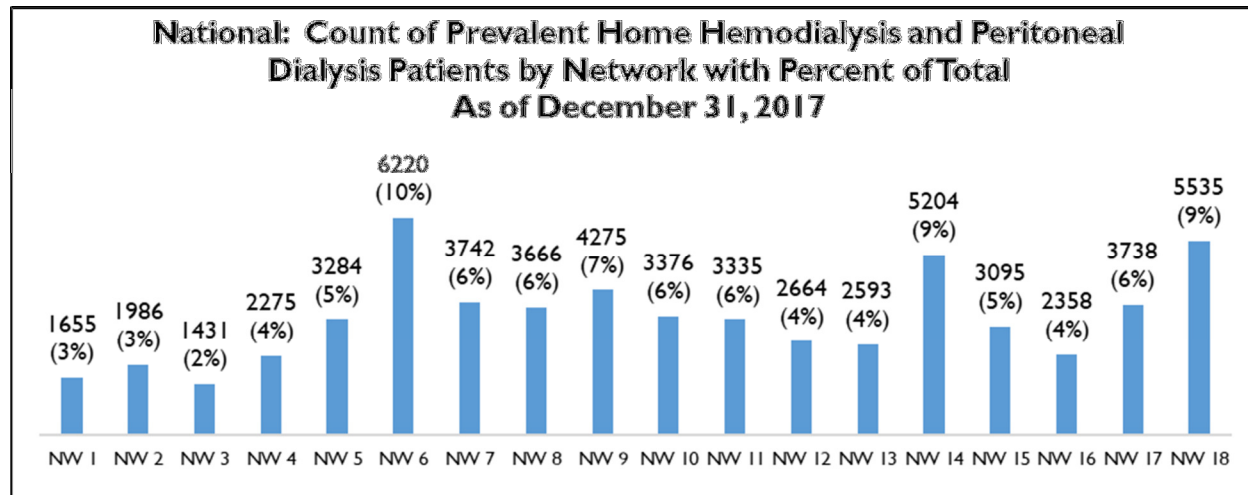
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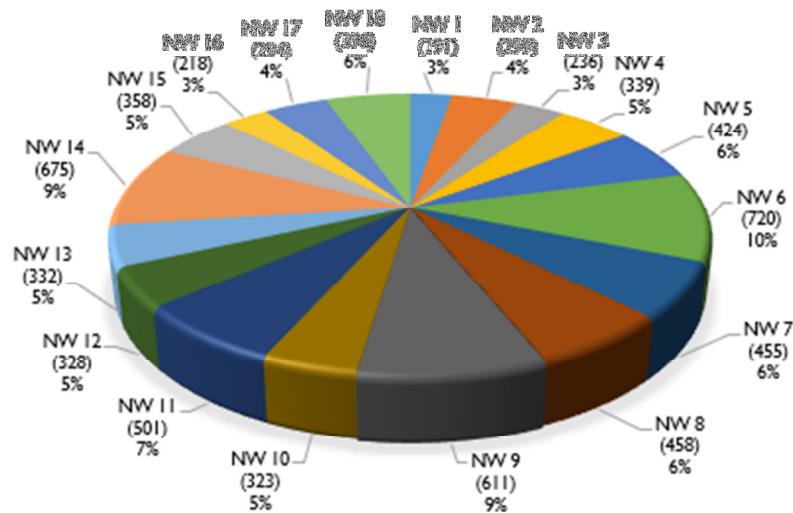


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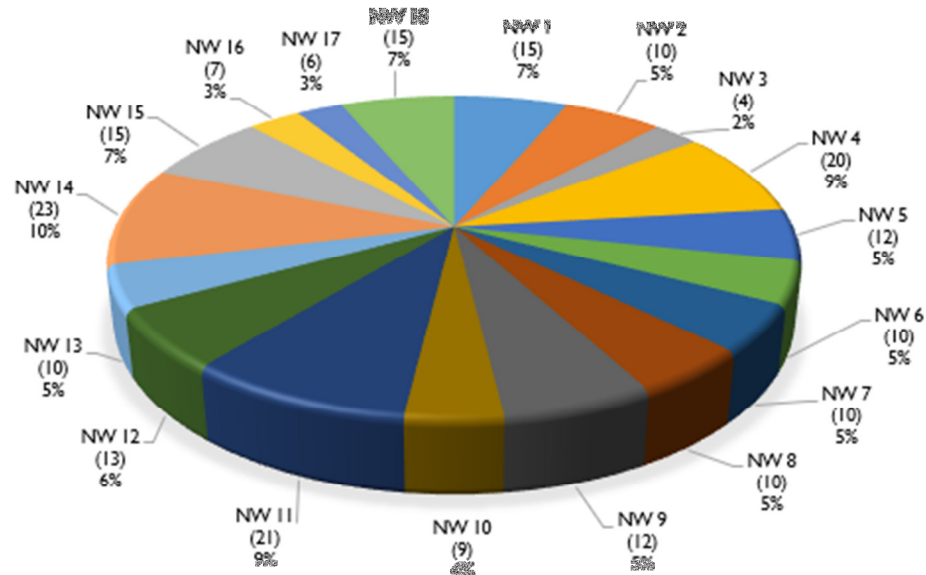
Source of data: CROWNWeb

**National: Count of ESRD Medicare-Certified Dialysis Facilities by ESRD Network with Percent of Total  
As of December 31, 2017**



Source of data: CROWNWeb

**National: Count of ESRD Medicare-Certified Kidney Transplant Facilities by ESRD Network with Percent of Total  
As of December 31, 2017**



Source of data: CROWNWeb

## Incorporating the Patient's Voice

Throughout 2017 the Network effectively supported improvements in care for patients living with ESRD. All Network programs and activities integrated the patient voice and the concept of patient-centered care through the inclusion of patient representatives in CMS projects and incorporating their viewpoints in the development and implementation of facility interventions.

The ESRD Network of the South Atlantic Patient Advisory Committee (PAC) is a group of active dialysis patients, transplant recipients, care partners, and family members who are committed to improving the quality of life for ESRD patients across the Network region. PAC Representatives are volunteers who have been selected by their facility social workers to promote communication among patients and staff; inform patients about the ESRD Network and its programs and resources; and serve as a link between patients, their facility, and the ESRD Network. PAC members' efforts focus on engaging their peers and sharing educational materials focused on quality improvement goals.

In 2017, the Network recruited and engaged 169 PAC Participants. PAC Participants are individuals who have expressed an interest in learning and becoming advocates. Participants are encouraged to take an active role in their healthcare team and educate themselves about ESRD care and outcomes. The Network's 35 PAC Representatives have the primary role of providing a link between patients and unit staff, promoting positive communications between patients, staff and the ESRD Network.

These representatives also serve as Patient Subject Matter Experts (SMEs) who provide the patient voice in all Network QIAs, and serve as Network representatives for national initiatives with the Forum of ESRD Networks, the ESRD NCC and the Kidney Community Emergency Response (KCER) program. The five PAC Chairpersons are regional patient leaders who coordinate activities, perform outreach to dialysis facilities, support educational efforts at the facility level, and participate in ESRD stakeholder organization activities.

The Network launched a Patient Peer Mentorship Program in the summer of 2017. The program was offered to approximately 90 facilities participating in QIA projects throughout the three states of our region. The program provided training modules that included: *Talking Effectively with Another Patient*, *Mentoring to Support Choices*, *Vascular Access Planning*, and *Transplant Options*. The program trained 60 patient peer mentors to work within their facilities with other patients in order to share information using Network-created education toolkits on Vascular Access Planning and Transplant. Following the success of this program, peer members were asked to partner with the Network as SMEs on QIAs related to vascular access, bloodstream infections, home dialysis, vocational rehabilitation, and transplant referral.



# **ESRD NETWORK**

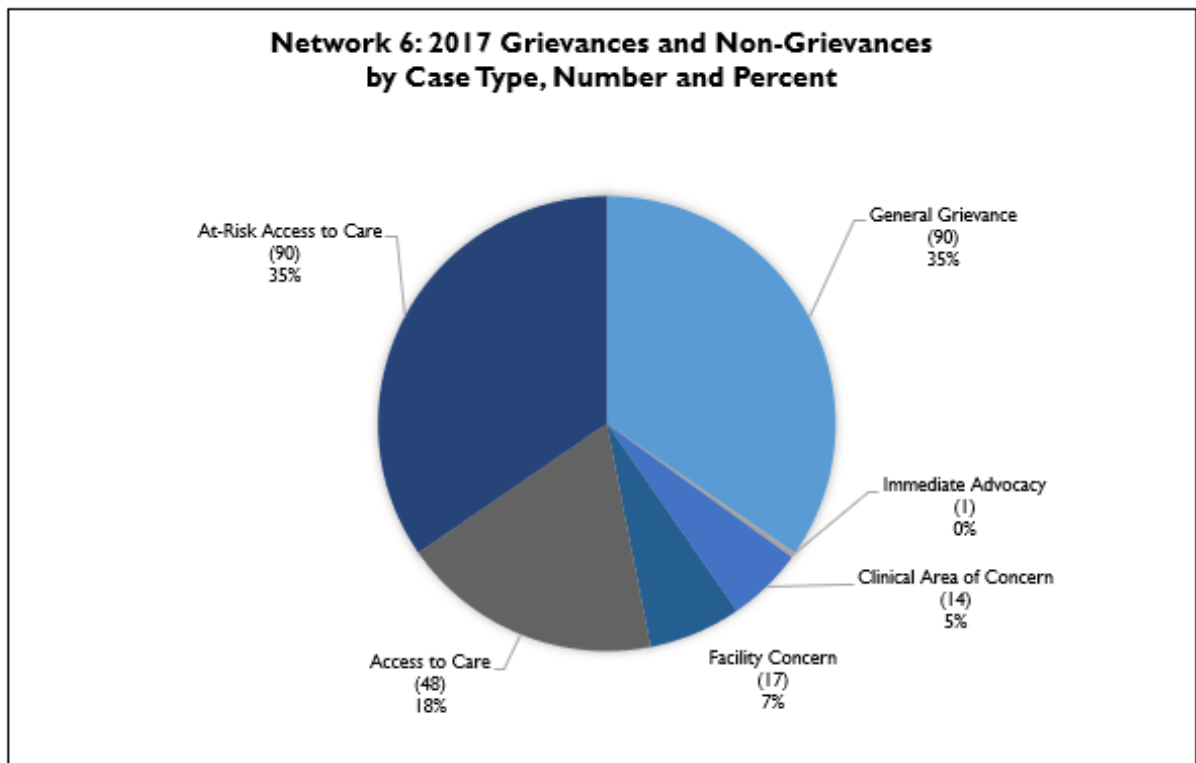
# **GRIEVANCE AND ACCESS**

# **TO CARE DATA**

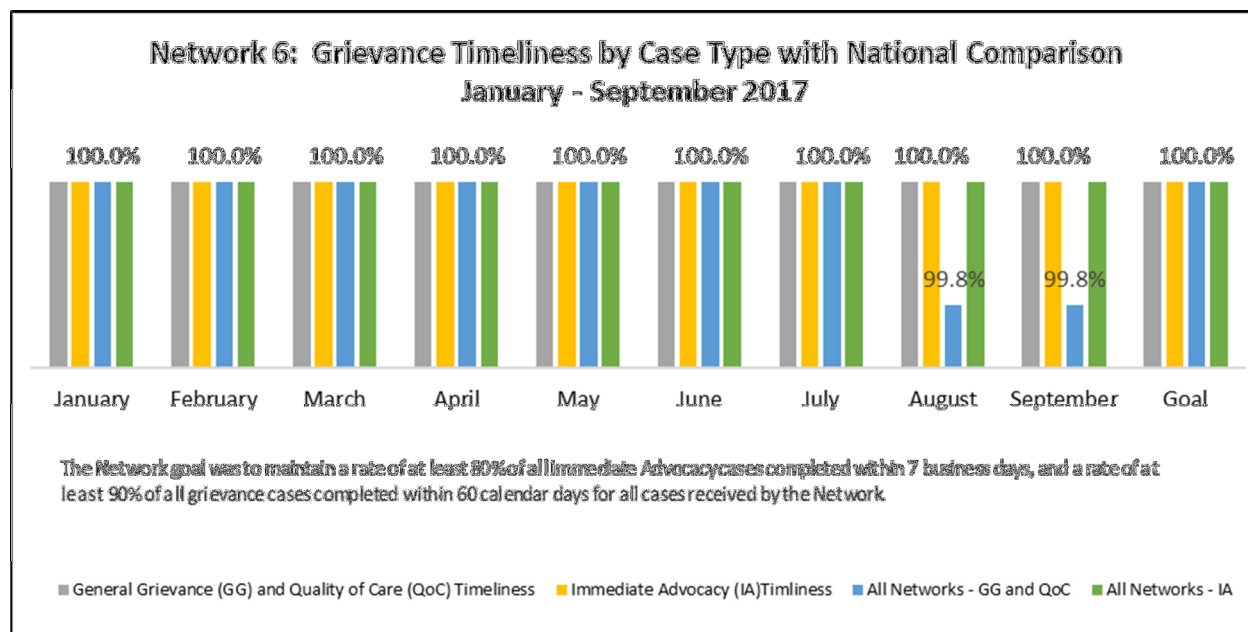
### Network 6: Grievance Data for Calendar Year 2017

Category	Cases
<b>Grievance Cases</b>	<b>105</b>
General Grievance	90
Immediate Advocacy	1
Clinical Area of Concern	14
<b>Non-Grievance Cases</b>	<b>155</b>
Facility Concern	17
Access to Care: Confirmed Involuntary Transfer/Discharge (IVT/IVD)	48
At-Risk Access to Care	90
<b>Additional Case Information</b>	
Averted IVT/IVD	3
Failure to Place	3
<b>Total Cases 2017</b> Note: Revised cases were placed in those revised categories. And 1 Case was excluded as it did not have a grievance category.	<b>260</b>

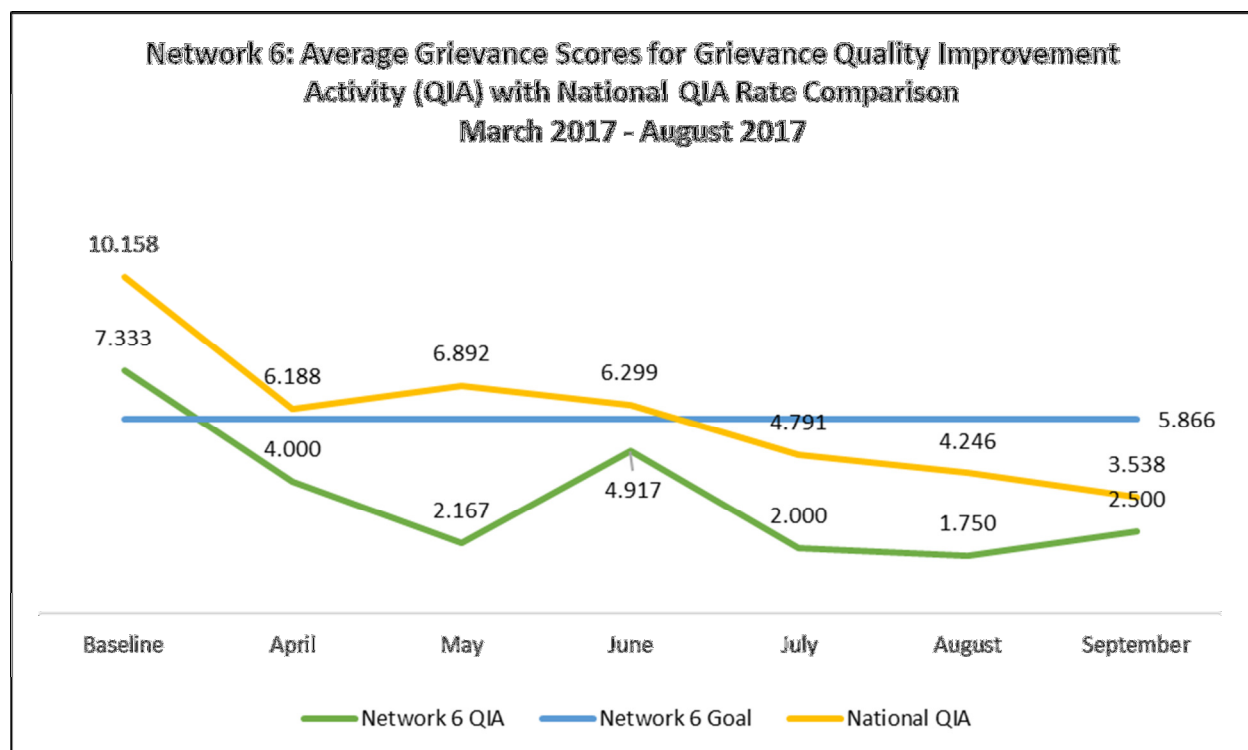
Source of data: Patient Contact Utility (PCU)



Source of data: Patient Contact Utility (PCU)



Source of data: October 2017 ESRD Network Dashboard



Source of data: October 2017 ESRD Network Dashboard

## Background

A comprehensive analysis of grievances occurring in the Network's service area revealed that the most prevalent issues were staff related, in the areas of poor communication, lack of an established grievance process and an operational culture that did not use shared decision-making techniques. Review of access-to-care issues identified that the most prevalent issues involved involuntary discharges as a result of violence.

The emphasis of this QIA was to educate staff and empower patients on ways to improve and eliminate communications in the facility between staff and patients and to sustain this improvement through defined grievance processes.

## Targeted Facilities

The Network worked with 12 facilities in its service area that had the most grievances and access-to-care issues based on March 2017 data. Each facility participating in the QIA had two or more grievances (immediate advocacy, general, or quality of care) and one or more access-to-care issues reported to the Network.

## Goals and Outcomes

The Network's primary goal was to achieve a 20% relative reduction in participating facilities' average grievance scores from baseline (March 2017) to remeasurement (September 2017), based on weighted scoring. Improvement was measured by a decrease from baseline to remeasurement in the level of grievances, using the CMS defined five-point scale.

1. Major Quality of Care (QoC) or Access to Care issues (e.g., major bleeds, wrong dialyzer, prescription changes without physician order, involuntary discharges (IVDs), either at risk or actual)
2. Minor QoC issues (e.g., simple bleeding after dialysis, minor infection control issues)
3. Operational Issues (e.g., inadequate staffing, other issues related to the operation of the facility).
4. Interpersonal Issues (e.g., conflicts between patients, conflicts between staff and patients)
5. Environmental issues (e.g., facility too cold, basic maintenance issues such as chair, lobby)

As such, the emphasis of this QIA was to educate participating facility staff members to be more proactive in supporting patients in resolving lower-weighted grievances (those that involve interpersonal or environmental issues). In addition, the Network focused on using a team approach to support strengthening of relationships and increased communication among patients and staff, to provide patient-centered care and improve patient self-efficacy in handling concerns through increased knowledge about care within the facility.

For the 12 participating facilities the baseline scores (total coded scores of grievances from grievance logs) for monthly weighted averages were 7.33%. The project goal was a 20% reduction (5.86). The Network was successful in reducing grievances by 66%, resulting in a final grievance score of 2.50.

## Interventions

A key to the success of the project was the creation of an *ACT 2 Resolve Tteam* at each facility, which included representation of staff members and patients, working together to evaluate the facility's internal grievance process and identify improvement opportunities. Teams participated in bimonthly virtual learning sessions, and promoted educational tools and resources targeting both staff members and patients.

The Network implemented strategies to mitigate identified causes. Best practices included:

- Communication techniques that addressed a patient concern or issue in a way that prevented escalation;
- Empowering patients to take a more active role in their care;
- Expanding the focus beyond the patient's physical needs to a holistic patient-centered approach;
- Strengthening patient and provider relationships through a shared decision-making approach; and
- Utilization of the Dialysis Patient Grievance Toolkit in the facility grievance process.

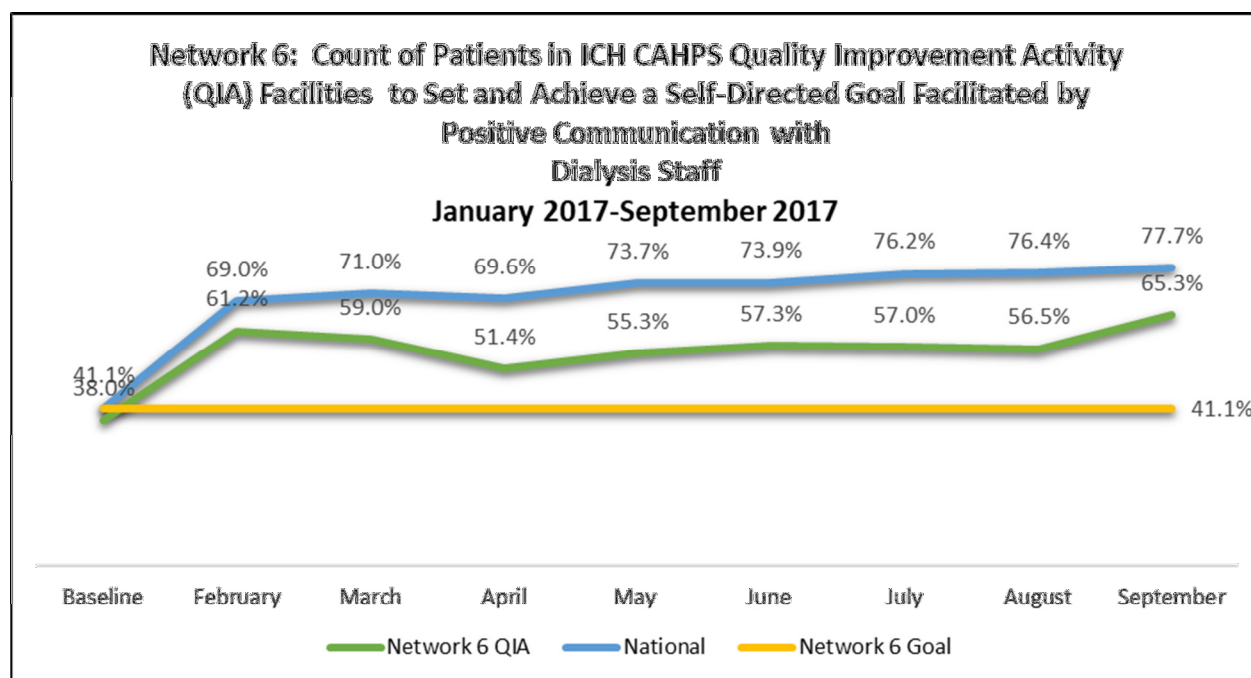
The Network attributes success in meeting project goals to the following approaches:

- Posters that encourage providers to consider care from the patient's perspective, relinquishing their roles as authority figures, in favor of becoming coaches and partners to patients;
- Posters to assist patients with articulating their wishes, goals, and concerns, and allowing providers to hear them, so providers and patients could co-design a care plan around the patient's priorities;
- A Dialysis Patient Grievance Toolkit created by the Kidney Patient Advisory Council of the Forum of ESRD Networks, included resources to support patients' understanding of how and when to escalate issues to a grievance; and
- A poster to create awareness of the resources available in the Dialysis Patient Grievance Toolkit, with a focus on improving communication early in the grievance process.

# **ESRD NETWORK QUALITY**

# **IMPROVEMENT ACTIVITY**

# **DATA**



Source of data: October 2017 ESRD Network Dashboard. Option 1 to use for Networks 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, and 18.

\*In-Center Hemodialysis Consumer Assessment of Healthcare Providers and Systems (ICH CAHPS)

## Background

In order to comply with Centers for Medicare & Medicaid Services (CMS) regulations, chronic outpatient dialysis facilities that treated more than 30 eligible patients during a prior calendar year are required to participate in the In-Center Hemodialysis Consumer Assessment of Healthcare Providers and Systems (ICH CAHPS) survey. The 62-question survey is designed to measure the experiences of people receiving in-center dialysis and focuses on questions that make up four key components: *Kidney Doctors*, *Dialysis Facility Staff*, *The Dialysis Facility* and *Dialysis Treatment*. All ICH CAHPS activities are carried out by third party vendors who administer the survey twice a year (spring and fall).

The ESRD NCC provided results from the administration of the spring 2016 ICH CAHPS to practitioners in the Network area. These results indicated that scores on question #18, which falls within the composite measure of “Dialysis Center Staff,” were the second highest in the region, with a 41.05% negative response. Question #18 asks patients whether, in the last three months, any staff member at the facility asked about how the patient’s kidney disease affected other parts of his or her life.

## Targeted Facilities

Based on spring 2016 scores on ICH CAHPS question #18, 20 facilities serving 2,565 patients (5.5% of the total ESRD patient population in the Network’s service area) were asked to participate in this QIA. Target facilities included those that performed poorest on question #18 and those with a combined patient census of 5% of the total ESRD patient population in the Network’s service area. Among the 20 facilities, 573 individuals responded to question #18, with 330 negative responses.

## Goals and Outcomes

The first goal of this QIA was to achieve a 5% relative improvement in the positive responses of patients intargeted facilities to question #18 from baseline (spring 2016) to remeasurement (September 2017). Additional goals were to promote positive interactions, learning processes and best practices related to the survey and to serve as the foundation for changing staff interactions with patients to a patient-centered approach.

The Network succeeded in achieving the goals of the QIA. While the spring 2016 survey (baseline) responses showed a 38% positive response to questions #18, the rate of positive responses for the September 2017 survey (remeasurement) was 65%, representing a 27% improvement.

## Interventions

Interventions targeting dialysis facility staff included educational training sessions on how to effectively communicate with patients who have a chronic illness, starting by asking, “What matters to you?” in addition to “What is the matter?” Four training sessions presented to dialysis facility nurses, technicians, dietitians and social workers were structured to provide education to 50% of target facility staff, using the train-the-trainer model. Staff members who received training then trained other staff. To reinforce the training, the Network created and distributed communication cards with the purpose of helping dialysis staff become comfortable asking open-ended questions of their patients. These open-ended questions are based on a “What Matters” philosophy, which provides pointers and examples in supporting both positive and negative responses. The goal is to improve communication by raising the awareness of what is important to the patient. In addition, patients should feel comfortable asking any member of the staff for assistance. Facility staff were encouraged to ask patients questions related to



health, such as: “How has your kidney disease affected your ability to travel, your work status, finances, and family relationships?” Staff members were also provided a tool to assist in tracking referrals to other members of the care team based on the patients’ response and staff’s identification of the patients’ holistic needs.

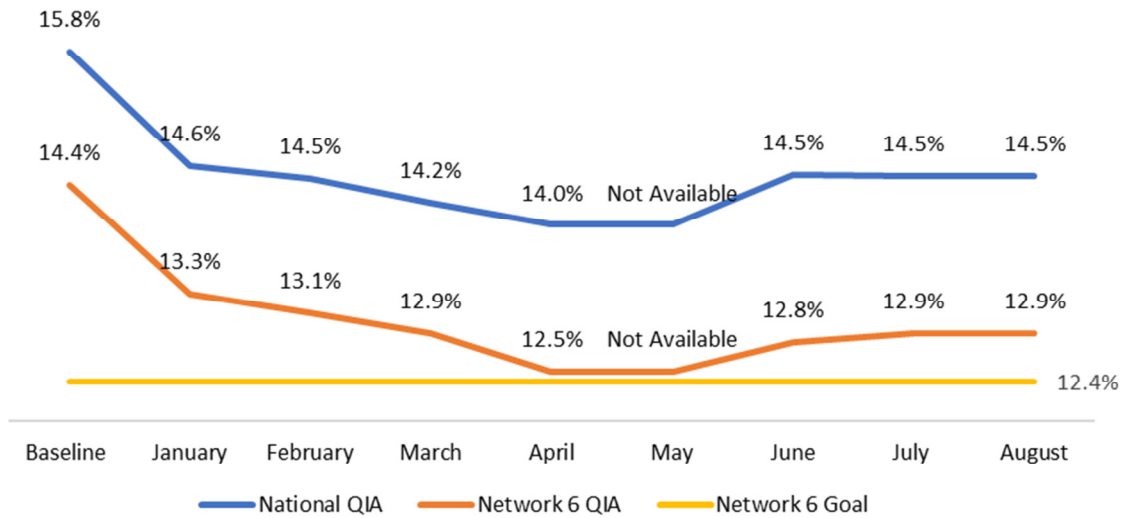
The Network implemented strategies to assist facilities in transitioning to a patient centered culture. Best practices included:

- Patient-focused interventions that featured a campaign to encourage patients to discuss with staff how dialysis has affected their lives and information about resources they might find useful;
- Patient-focused interventions were driven by the recommendations of a committee of Patient SMEs and Network staff members.

The Network attributes the following approaches to the success of the interventions, exceeding project goals:

- Evolving from on “What is the Matter?” to “What Matters to You?” by utilizing the Institute for Healthcare Improvement (IHI) philosophy to create deeply personal engagements with patients and their family members and develop an understanding of what really matters to them. This engagement is the foundation of developing partnerships that can enhance the patient’s relationship with their healthcare provider and results in improved healthcare outcomes.
- Interactive posters for patients and staff to support improved communications;
- Campaigning for all staff to ask open-ended questions along with monthly reporting on staff utilization and comfort with utilizing questions during treatment; and
- Bimonthly Virtual Learning Meetings.

**Network 6: Long-Term Catheter (LTC) Rates for Quality Improvement Activity (QIA) Facilities with National QIA Rate Comparison  
January 2017 - August 2017**



Source of data: CROWNWeb

## Background

While catheters for vascular access are generally described to ESRD patients as a “temporary” solution, once patients become accustomed to them, they sometimes become permanent sources of dialysis access. Research shows that morbidity and mortality rates are related to the type of vascular access used for dialysis, with a higher infection rate associated with use of LTC compared to fistula use among eligible adult ( $\geq 18$  years of age) in-center hemodialysis patients (Foley & Lok, 2013). Patients with LTCs are defined as those with catheters in use (for dialysis treatment) for 90 days or longer.

## Targeted Facilities

The Network worked with 246 facilities in its service area on this QIA. Targeted facilities had an LTC rate greater than 10%, as reported in the September 2016 Fistula First Catheter Last data provided by the ESRD NCC. Targeted facilities were further categorized into two tiers. Tier 1 facilities had LTC rates greater than or equal to 15% (70); Tier 2 facilities had LTC rates greater than 10%, but less than 15% (175).

## Goals and Outcomes

The goal of this project was to achieve a two percentage point decrease of LTC rates in the identified dialysis facilities from baseline, September 2016 (14.4%), through remeasurement, September 2017 (12.9%). The Network attained a 1.5 percentage point reduction in LTC use, but did not meet the goal of the QIA. Network 6 conducted an RCA to determine the factors that contributed to not meeting the goal. The following issues were identified: A large dialysis organization (LDO) with a substantial number of facilities in the Network’s service area changed its reporting structure in May, and there were data errors that resulted in Networks receiving no data for some months during the QIA period.

## Interventions

To understand the barriers to long-term vascular access placement in patients in target facilities, the Network provided facility education on using an RCA tool and creating a corrective action plan specific to the barriers identified in the analysis. Tier 1 facilities reported monthly on Corrective Action Plan (CAP) progress; facilities not making progress in their CAP approach or not improving their LTC rates were given one-on-one coaching calls with the Network to identify strategies to overcome barriers.

Based on the RCA, the Network developed strategies to address identified barriers to long-term access placement. Barriers reported by facilities were:

- Patient financial limitations such as lack of transportation, leading to non-compliance with follow-up referrals, were reported to be high in 58% of responding facilities. This resulted in limited vascular surgeon accessibility.
- Poor access monitoring systems and organizational structure were cited as operational deficiencies in 28% of facilities.
- In general, the lack of staff education due to high turnover at dialysis facilities also resulted in the need for vascular access planning-focused materials.

The Network implemented strategies to address identified barriers. Best practices included:

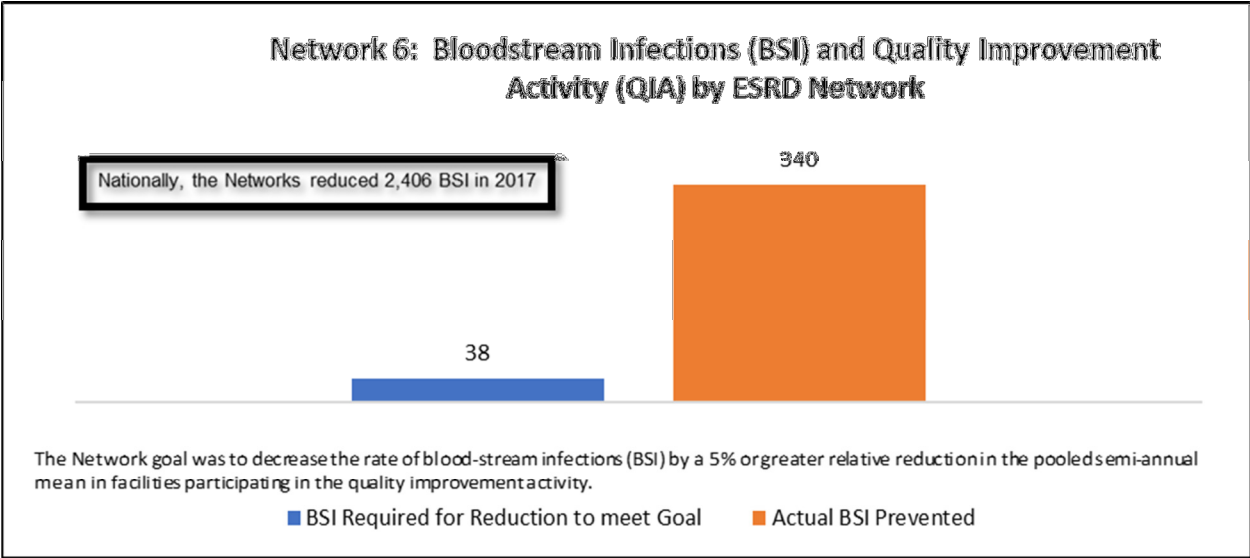
- Distribution of the Vascular Access Planning Guide for Professionals, a guide created by the ESRD NCC. The Network encouraged each facility to identify an interdisciplinary vascular access

planning team. Teams reviewed all patient records and identified patients for whom a vascular access plan should be created.

- Use of a monthly “Vascular Access Placement - Patient Tracking Tool” to track progress of patients’ vascular access step planning and to review any barriers that may be preventing patients from moving to the next step.
- The Network hosted a Technician Training Program, offering CEUs on topics that included vascular access planning and implementing a peer mentoring program. Information and materials from the “Vascular Access Planning Guide for Professionals” and “Planning for Your Vascular Access” were shared to promote communication between patients and technicians, using common terminology and strategies to develop a vascular access plan.
- Quarterly webinars supported information sharing among provider staff. Webinars promoted the spread of best practices employed by facilities that successfully overcame a barrier and/or had a significant decrease in their LTC rates.
- The Network promoted peer mentorship through the ESRD NCC-created Peer Mentoring Program “Helping Peers Plan for Access” as a tool to help train PAC members.
- The Network developed a patient guide, “Planning for Your Vascular Access Guide,” as well as a “Lifeline for a Lifetime” educational poster designed in collaboration with Patient SMEs in order to emphasize to patients the importance of developing an access plan with their care team.

The Network recommends the following approaches in order to continue to strive for reduction in LTC use in the Network’s service area:

- Creation of a vascular access task force, to review the geographic distribution of low performing facilities and work with local healthcare providers to create systematic changes to support improved access to care, particularly in rural areas where access is limited.
- Vascular access planning teams, to focus on establishing access monitoring systems at the facility level to assist patients with navigating the access planning steps, removing barriers at the individual patient level and monthly review of the overall processes at these facilities to promote access-planning best practices.



Source of data: June 2017 NHSN (National Healthcare Safety Network)

## Background

Dialysis patients are at higher risk than the general population for acquiring HAI BSI/sepsis due to the regular and frequent use of catheters and other forms of access to their bloodstream while dialyzing. The physical and emotional cost of these infections for patients and their care partners/families is devastating. In addition, the costs associated with HAI are staggering.

Published reports have estimated that these infections are responsible for more than \$28 billion in yearly national healthcare expenditures. According to the Dialysis Facility Report for Fiscal Year (FY) 2017, 10.1% of dialysis patients in Georgia, 10.5% in North Carolina and 10.7% in South Carolina were hospitalized due to BSIs compared with the Network and National averages of 10.3% and 10.9%, respectively. In the same report the mortality rates for these patients were 8.5% in Georgia, 13.0% in North Carolina and 10.5% in South Carolina, compared with the Network and national averages of 10.6% and 11.7% respectively.

## Targeted Facilities

The Network worked with 20% of facilities in its service area that had high BSI rates reported in the National Health Safety Network (NHSN). After comprehensive analysis of NHSN BSI data from the first and second quarters of 2016, the Network selected 145 facilities with infection rates ranging from 0.33 to 5.16 per 100 patient months and with between three and 14 BSIs during this time period.

## Goals and Outcomes

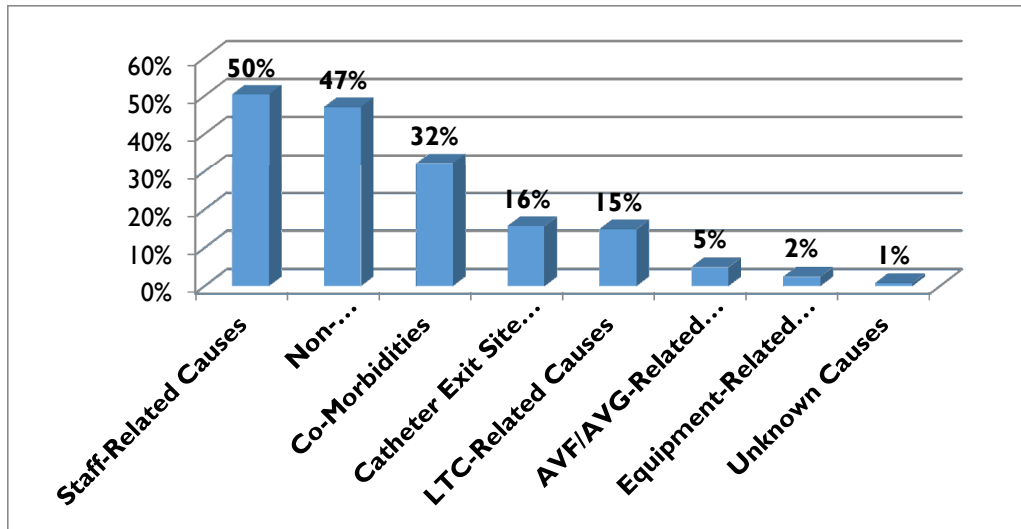
The goal of this QIA was to increase awareness and reporting of BSIs in at least 20% of facilities in the Network's service area, while decreasing rates of dialysis events, specifically bloodstream infections. The QIA incorporated a six-month baseline period (January-June 2016), and a six-month intervention period (January-June 2017) with remeasurement occurring in June of 2017. The goal for this project 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 – June 2017.

The Network's interventions succeeded in decreasing the pooled mean BSI rate from 1.042 at baseline to 0.597 at remeasurement, yielding a 0.684 relative reduction.

## Interventions

Prior to designing QIA interventions, the Network worked with targeted facilities to complete an RCA "autopsy" (using the *5-Whys RCA Tool*) for each infection identified during the baseline period. The information gained through these analyses determined the focus of interventions based on cause categories. The *5-Whys RCA Tool* was also used for each BSI that occurred in targeted facilities during the QIA project period. The *5-Whys* approach allowed users to identify the root cause-and-effect relationships within their facility that lead to BSIs and assisted facility staff in identifying and implementing Centers for Disease Control and Prevention (CDC) tools specific to their facility's identified RCA in order to improve BSI rates.

Based on the RCA, the Network developed strategies to help identify the cause of infections during the baseline period. Identified causes in baseline facilities were:

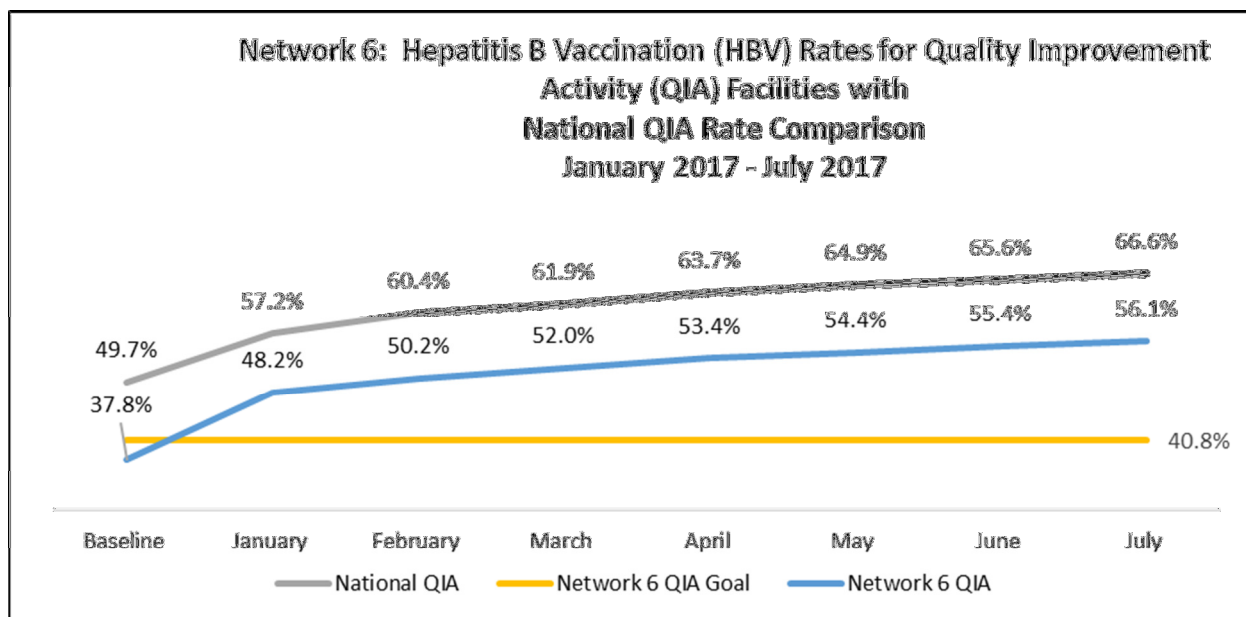


The Network implemented strategies to address identified causes. Best practices included:

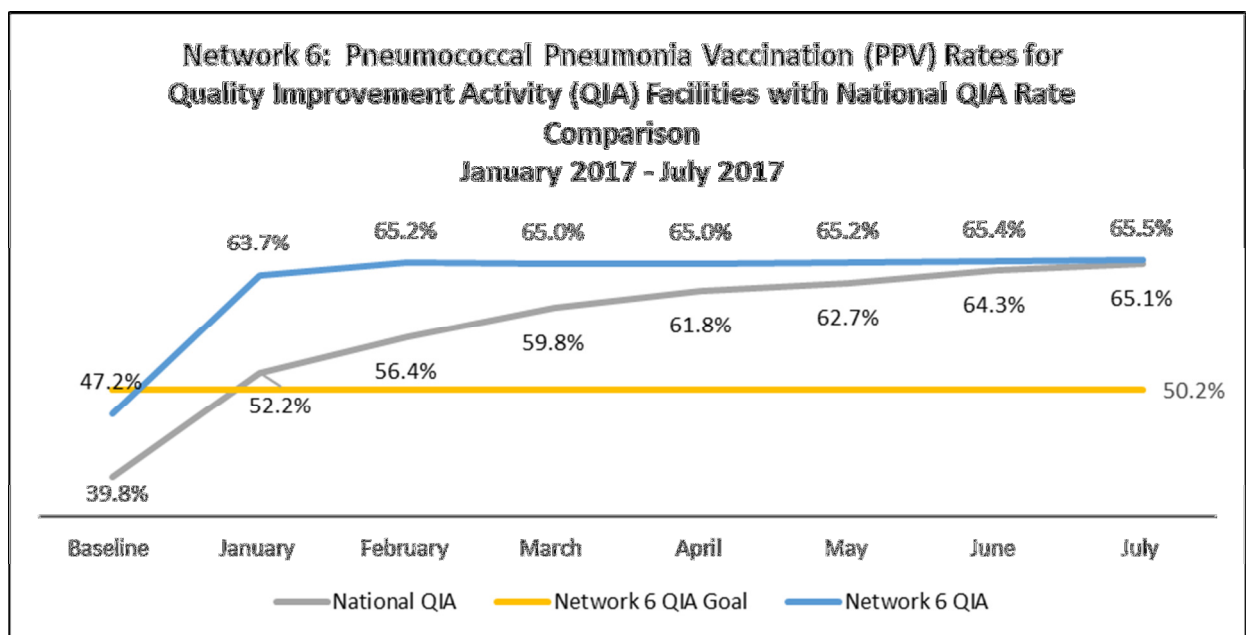
- Implementation of CDC recommended audit tools;
- Involving patient SMEs in collaborating with facilities on infection prevention strategies;
- Creation of an HAI Network LAN to share best practices and address identified causes;
- Collaboration with stakeholders on infection prevention Initiatives that included:
  - 64 facilities participated in dialysis infection prevention training conducted by the Georgia Department of Public Health.
  - 59 North Carolina and 21 South Carolina facilities participated in the Infection Control Assessment and Response (ICAR) Project conducted by the Statewide Program for Infection Control and Epidemiology (SPICE).

The Network attributes its success in meeting the project goal to use of the following methods:

- Conducting feedback audits with facilities to ensure they were using the materials and resources provided;
- Using one-on-one coaching with poor performing facilities;
- Distribution of educational materials and resources from the CDC website; and
- Facilitation of quarterly HAI LAN meetings featuring presentations by experts in BSI reduction and facility best practices, based on data review of monthly reports and 1:1 coaching calls.



Source of data: CROWNWeb



Source of data: CROWNWeb



## Background

Hepatitis B and pneumonia can lead to serious complications and death in the dialysis population. In 2017 the Network worked with facilities in its service area that had low rates of hepatitis B (HBV) and pneumococcal pneumonia vaccinations.

Dialysis patients are at greater risk for complications related to pneumococcal pneumonia and hepatitis B; however, despite the length of time these vaccinations have been available in the U.S. and the high risk to this population, a low percentage of patients are receiving them. Data from the ESRD NCC reveal that the baseline rates for the hepatitis B (HBV) and pneumococcal pneumonia (PPV) vaccines in the Network's service area in September of 2016 were 3.8% and 47.2%, respectively.

## Targeted Facilities

Twenty-five facilities with the lowest vaccination rates were identified and asked to participate in this QIA.

## Goals and Outcomes

The goals of the Healthcare-Associate Infection (HAI) – Vaccination QIA included a facility-specific goal to increase both PPV and HBV vaccination rates at the facility level to greater than 60%, and a Network goal to improve rates for both vaccines by 3% from baseline (September 2016) to remeasurement (February through September 2017).

The Network's interventions succeeded in increasing hepatitis B vaccination rates in target facilities from 37.77% at baseline to 56.1% at remeasurement, resulting in a 35.6% improvement. Thirteen out of 25 (52%) facilities "graduated" from the project with a greater than 60% vaccination rate. Network interventions succeeded in increasing PPV vaccination rates in targeted facilities from 47.2% at baseline to 65.1% at remeasurement: a 17.9% improvement. Fifteen out of 25 (60%) facilities graduated from the project with a greater than 60% vaccination rate.

## Interventions

To identify and address the underlying reasons for these vaccination rate disparities, the Network conducted a community-based RCA, working closely with Patient SMEs and PAC members to identify obstacles in obtaining or recording vaccination rates. The results of this RCA, as well as RCAs conducted at each of the 25 targeted facilities, helped the Network develop interventions to address the barriers to patients receiving vaccinations and the unique issues within these facilities.

Identified causes of low vaccination rates in targeted facilities were as follows:

- Patient refusal/lack of understanding/cultural mistrust was cited most frequently as the patient barrier to vaccination.
- 72% of facilities reported that vaccinations not received at the facility were documented in CROWNWeb.

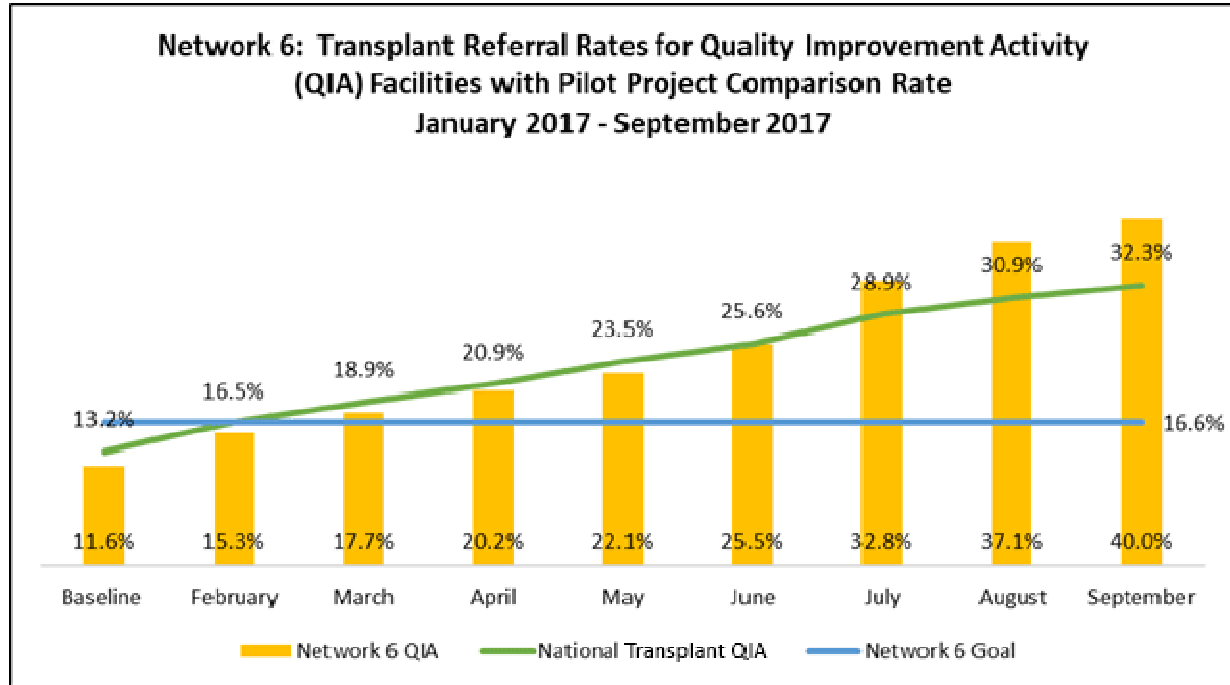
The Network implemented strategies to address identified causes of low vaccination rates. Best practices included:

- Utilization of Patient SMEs to help create a patient-focused education tool to address reasons identified for vaccination refusal, including testimonials from patients of similar cultures sharing experiences in overcoming vaccination myths;
- Patient utilization of Network-created wallet cards to document vaccinations and other important health information needed by the dialysis facility; and
- Facilities monitoring progress toward goals through documentation and improved CROWNWeb reporting.

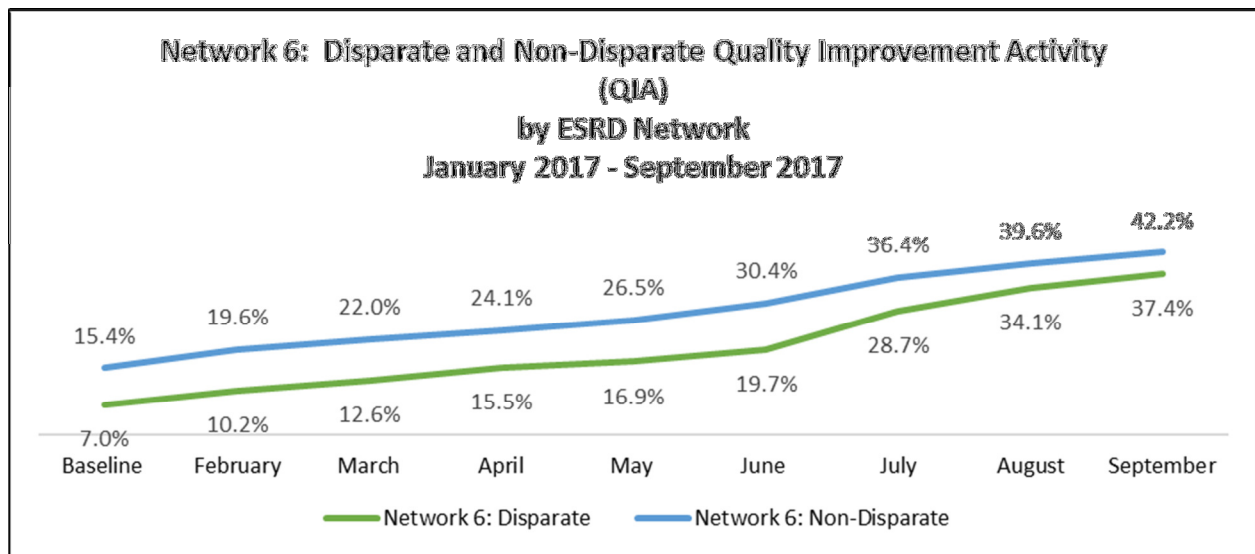
To help achieve success in meeting the project goal, the Network used staff and patient educational resources available from the CDC's "Assessment, Feedback, Incentives, Exchange (AFIX)" program to reduce missed opportunities to vaccinate and improve immunization delivery practices at the provider level.

The CDC AFIX approach was applied to this project in the following manner:

- A: Assessment of the CROWNWeb data and baseline vaccination rates and distribution of this information to facility staff helped to increase awareness of the need to improve their facility's vaccination rates. The assessment was done during the facility selection process.
- F: Feedback about baseline rates was provided to the facility upon notification of inclusion in the project in an effort to help clarify and emphasize the need to take action.
- I: Incentives throughout the project encouraged action toward improvement. Throughout the project, the Network periodically provided staff members with goals, benchmarks and reminders to complete interventions.
- X: Exchange of information via Network-hosted webinars to encourage facilities to share information including best practices and strategies to overcome barriers.



Source of data: October 2017 ESRD Network Dashboard



Source of data: October 2017 ESRD Network Dashboard

\*Disparate population is female and non-disparate population is male.

## Background

Patients with ESRD must be equipped with information that allows them to choose a treatment among the many options available, including renal replacement therapies such as in-center or home dialysis, as well as transplantation. While renal replacement options offer life-sustaining treatment, transplantation offers the opportunity for better clinical outcomes like reduced hospitalizations, mortality and morbidity, improved patient quality of life, and lower medical costs. Network 6 identified transplant coordination as the focus of its PHFPP for 2017.

According to the CMS Conditions for Coverage (CfC) for End Stage Renal Disease Facilities (2008), dialysis providers are responsible for educating their patients about treatment modalities, including transplant. Despite this requirement, several reports indicate that gaps between transplant education and transplant referral. Rates of referral for transplant varies depending on transplant center eligibility criteria, patient health status, physician perception of a patient's healthcare status and the patient's financial status. Although these factors influence all patients, a demonstrably lower number of women are being referred for transplant across the Network region, indicating a disparity in this area.

## Targeted Facilities

After conducting a disparity assessment for race, ethnicity, location, gender, and age using the ESRD Dialysis Prevalence Report from Consolidated Renal Operations in a Web-Enabled Network (CROWNWeb) for the period from April – September 2016 and the United Network for Organ Sharing (UNOS) kidney transplant waiting list data, gender was identified as the key disparity in transplant referrals. Of patients newly added to the waitlist in 2016, 58.75% were males, while only 41.29% were females: a 17.46% difference between these two groups. Twenty-one facilities were selected for participation, based on their referrals for transplant evaluation and the disparate population referral patterns.

## Goals and Outcomes

The Network was successful in achieving the goals of the QIA:

- 1. Goal:** Increase the rate of patient transfer referrals by 5% in the targeted facilities from the baseline period to the remeasurement period (monthly measurements, February to September 2017).  
**Outcome:** The transplant referral rate for the baseline period in the targeted facilities was 11.6%. The transplant referral rate for the remeasurement period (February through September 2017) was 40%, representing a **28.4% increase**.
- 2. Goal:** Decrease the gender disparity gap by 1% in the targeted facilities from baseline to remeasurement.  
**Outcome:** The racial disparity gap for the baseline period in the targeted facilities was 8.4%. The Network's interventions resulted in a 3.6% reduction, to a 4.8% disparity gap.

## Interventions

The Network identified lack of patient and provider education as the primary barrier to transplant referral, so it structured a Transplant Toolkit and webinar for facilities to ensure that providers understood the recent changes to the Kidney Allocation System criteria and the differences in transplant center criteria for waitlisted patients. The Network launched a focused dialysis technician training program on efficient techniques for speaking with patients about transplant as an option. Patient-focused interventions included the pilot launch of a patient peer mentorship program employing the peer mentor training course adapted from materials created by the ESRD NCC as well as a Network-developed toolkit of materials that focused on the promotion of transplant referral for women.

Based on the RCA, the Network developed strategies to address perceived barriers to transplant referral. Identified barriers included:

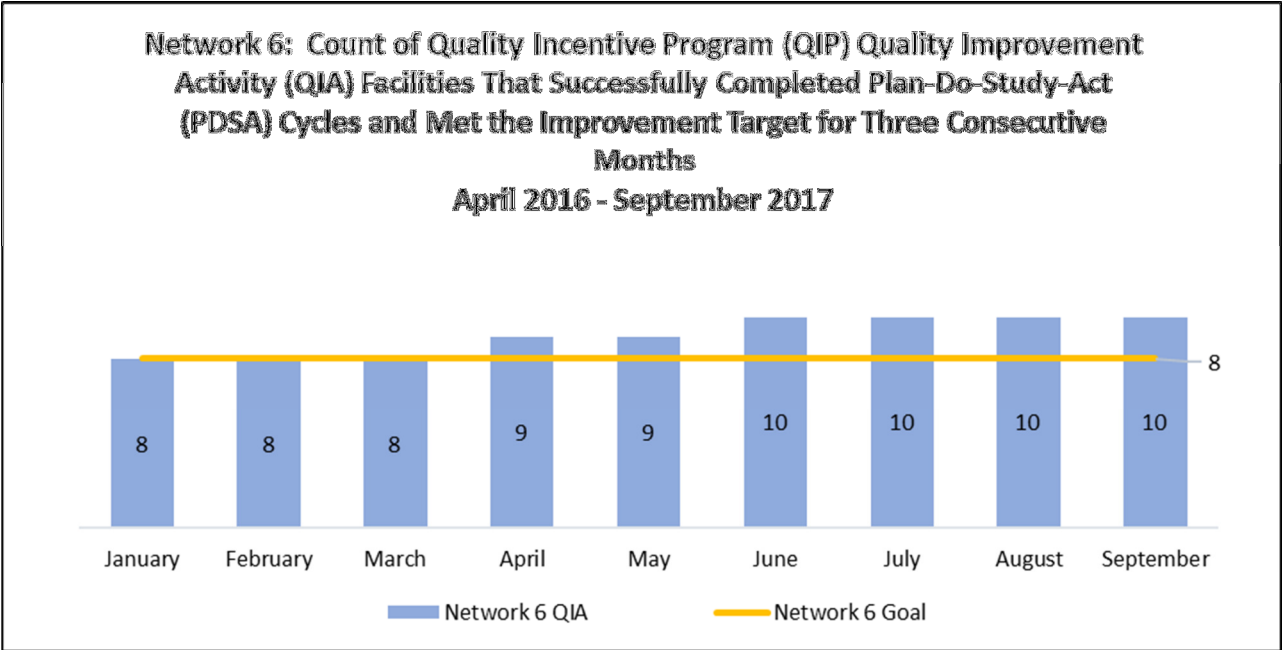
- Definitions of transplant referral vary by provider.
- Lack of promotion of patient self-referral for transplant;
- Presumptions about patient appropriateness and eligibility for transplant;
- Limited understanding of the kidney allocation system;
- Insufficient availability of Spanish-language resources;
- Lack of a central reporting system for tracking transplant referral data. This resulted in data inaccuracies because data were collected and self-reported manually by dialysis facilities. Third-party data systems captured only transplant and waiting list patients, not patient referrals to transplant centers.

The Network implemented strategies to mitigate identified barriers. Best practices included:

- Identification of a transplant lead coordinator and a backup transplant lead coordinator at facilities to assist in identifying opportunities for patient education and to document transplant referrals for patients.
- Creation and distribution of a measurement tracking system for facilities to evaluate their referral patterns and discuss with the care team progress toward meeting both their referral goals and decreasing disparity of referrals between men and women.
- Creation of engaging and informative education stations about the transplant referral process.
- One-on-one patient education sessions to re-educate the patients about transplant, discuss their individual needs and create a plan to overcome their perceived barriers to transplant.
- Implementing a patient peer mentorship program to assist in developing patient led awareness activities and information sharing at the facility level to assist patients with overcoming fears and being learning about transplant as an option from the patient peer perspective.

The Network used the following methods to achieve success in meeting the project goal:

- A Network-developed electronic RCA survey tool, using the *5-Whys* iterative technique to help facilities in exploring the cause-and-effect relationships specific to their facility that led to low transplant referral rates;
- Creation of an educational resource toolkit to support both patient and staff education on the transplant process, with patient materials provided in both English and Spanish;
- Introduction of a Network-adapted peer mentorship training program based on the previous work of the NCC contractor to train patients to be Transplant Navigators who speak with patients about the transplant referral process;
- Creation of a facility technician training program to integrate facility technicians into the process of quality improvement by training them on the benefits of transplant and on how to discuss transplant as an option with patients;
- Creation of a Transplant Advisory Committee to address barriers in data collection, inconsistent reporting, and communication breakdowns between dialysis facilities and transplant centers, and quarterly educational webinars to facilitate sharing of best practice models, educational articles and resources, and recommendations for intervention improvement among participating facilities;
- Virtual and in-person facility site visits to support focused education for both facilities and patients.



Source of data: October 2017 ESRD Network Dashboard

## Background

The ESRD Quality Incentive Program (QIP) is a value-based-purchasing program developed to promote high-quality services for the ESRD community. This program is designed to alter payment based on the quality of care received at outpatient dialysis facilities. Facilities that do not meet or exceed certain performance standards can receive up to a 2% payment reduction for all services provided during the applicable payment year (CMS.gov, 2015).

Adequacy of dialysis is one of the most successful markers for determining patient survival and reducing hospitalizations and mortality. The ESRD QIP includes the Kt/V measure as one of its quality indicators. Clinics performing below standard are presenting risk to their patients and will lose QIP points, which could place them at risk for payment penalties. The indicator is described in the End Stage Renal Disease Prospective Payment Systems (PPS) Final Rule (2015) as the “percentage of all patient months for patients whose average dose of dialysis (either hemodialysis or peritoneal) met the specified threshold during the reporting period.” This measure, if not achieved, can affect a patient’s overall well-being. Most outpatient dialysis facilities have been working on this measure successfully since 2000, when the Kidney Disease Outcomes Quality Initiative (KDOQI) adopted the same measurement to serve as the marker for achieving maximum quality of life for in-center dialysis patients.

The most widely accepted and utilized method to determine dialysis adequacy is Kt/V. In this equation,

- “K” is defined as “clearance of blood urea nitrogen (BUN);
- “t” is defined as “time required in minutes to provide for an adequate drop in pre- and post-BUN;” and
- “V” is defined as “the total body water of the patient to be processed.”

## Targeted Facilities

Facilities participating in this QIA were those in the Network’s service area that lost points on the Kt/V measure for the QIP performance year 2015 (payment year 2017). The Network identified 80 eligible facilities (28.3% of the total facilities in its service area) that lost five or more points for Kt/V under the ESRD QIP. These facilities included outpatient ESRD facilities that were ESRD QIP eligible and had a reduction in QIP points during the 2017 payment year, as well as those showing a continued trend of low Kt/V during the baseline period.

## Goals and Outcomes

The QIA used a baseline period of twelve months (November 2014-October 2015) and an intervention period that concluded in October 2017. Project goals included a 25% relative improvement in rates of Kt/V, from baseline, or the QIP threshold being exceeded for three consecutive months or more, and a minimum of eight facilities completing the Plan-Do-Study-Act (PDSA) cycle by October 2017. Eight of the participating facilities successfully met the requirements of the QIA by October 2017, thereby “graduating.”

## Interventions

Network staff members were aware that factors contributing to underperformance might have included prescriptive measures, blood drawing techniques and human factors-- both patient and caregiver. Staff members in underperforming facilities benefited from education and Network interventions to support achievement of adequate Kt/V for their patients. Network interventions assisted facilities in conducting RCAs and PDSA cycles to identify opportunities for improvement.

Based on the root cause analysis, the Network developed strategies to address perceived barriers to improving rates of Kt/V. Identified barriers included:

- Patient non-compliance with prescribed treatment;
- Limitations at the facility level that inhibit the ability of facility staff to change protocols set by corporations (LDOs); and
- Staff members not following proper procedure for drawing blood post BUN.

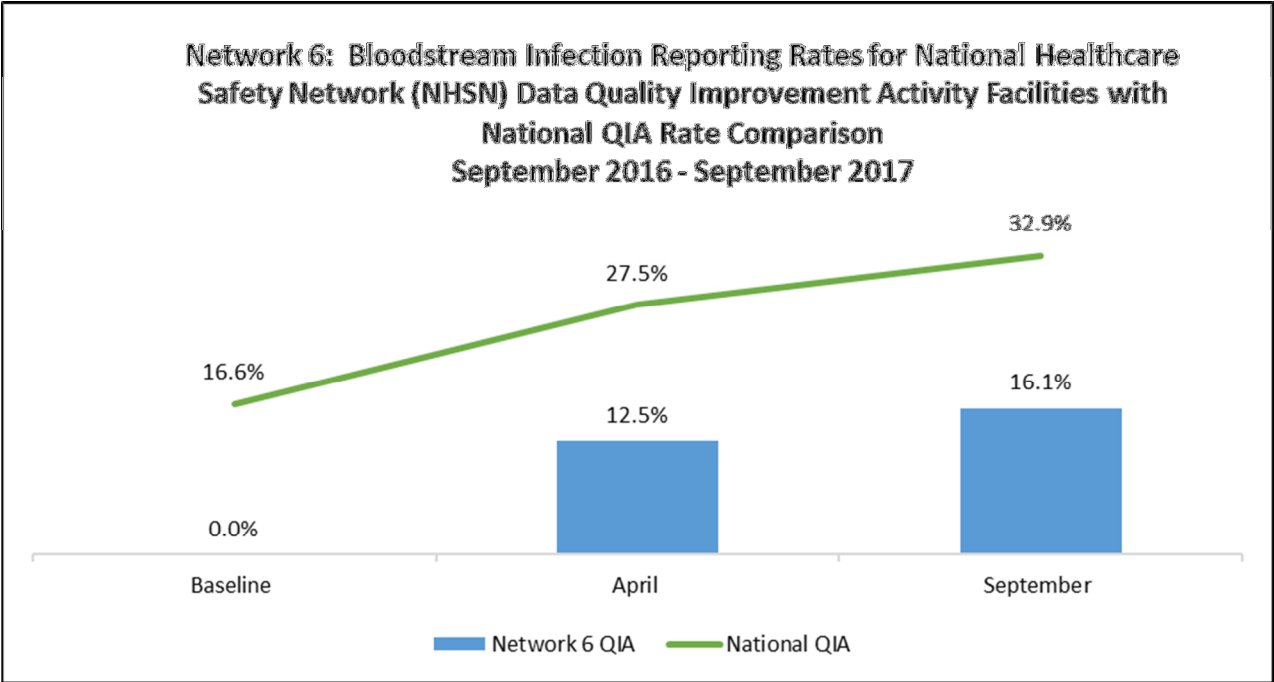
The Network implemented strategies to mitigate identified barriers. Best practices included:

- Providing patients with education about following prescribed treatment and the impact of non-compliance on their health;
- Discussions with LDOs regarding any facilities that may need exception criteria or assistance with protocol development;
- Provision of technical assistance to independent facilities to establish a clear protocol for dialysis adequacy, in order to ensure progress toward the goal; and
- Staff education on the procedure for drawing blood post-BUNs, including provision of the recommended protocol from the KDQOI – Dialysis Adequacy.

The Network attributes its achievement of the project goal to use of the following methods:

- A QIA kick-off webinar for participating facilities highlighting the goals and plans for the project;
- Encouraging a collaborative approach among facilities, to include exchange of information, best practices and benchmarks to help meet goals;
- The provision of tools and resources, including Dialysis Adequacy Management Tools, to help facilities implement rapid cycle improvement and new interventions to overcome barriers;
- Follow-up with facility leads throughout the project to identify key barriers to improvement of dialysis adequacy, and discussion of potential strategies to overcome these barriers; and
- Provision of staff education through webinars, site visits and educational material distribution, both electronically and via the U.S. Postal Service.





Source of data: September 2017 NHSN (National Healthcare Safety Network)

## Background

The Network conducted this QIA in response to the CDC's identification of a substantial gap in BSI reporting by dialysis facilities and hospitals. Staff members at dialysis facilities are frequently unaware of patient BSI, because the infections are diagnosed after patients are admitted to the hospital. One of the most significant challenges for many dialysis units has been identified as insufficient information transfer from hospitals to outpatient dialysis facilities. This results in underreporting of BSI and negatively impacts patient care. Underreporting also affects facility QIP scores, and is a common cause of payment reductions for many dialysis facilities.

BSIs can lead to serious complications and death in the dialysis population. The lack of accurately reported blood cultures results can increase the severity of BSIs and prolong treatment requirements for patients. The most common source of BSI in outpatient dialysis patients is central venous catheters -- approximately 37,000 incidents per year. The CDC estimates the cost to be \$23,000 per incident. In the absence of a smooth transitional plan of care from hospital to outpatient facility, services may be duplicated or missed entirely, further increasing costs and complicating patient care and outcomes.

## Targeted Facilities

The Network targeted 20 facilities in its service area for Cohort 1 of this QIA, based on identification of facilities that had low numbers of reported positive blood cultures from the hospital setting and lacked access to hospital electronic medical records (EMRs) or were known to have challenges in retrieving hospital medical record information for their patients. The Network also worked with five hospitals, to which three or more of the identified dialysis facilities referred patients.

## Goals and Outcomes

The goals of this QIA were to improve communication of key information between hospitals and dialysis facilities, using RCA and the PDSA cycle; to demonstrate that each QIA facility adopted a strategy to improve communication with hospitals and captured positive blood cultures identified in hospitals; and to improve dialysis facility reporting rates of BSIs that are identified in the hospital and to document the BSIs in the NHSN database.

Success was measured as an increase from the baseline period to the re-measurement period in the number of BSIs reported in NHSN on the day of a dialysis patient's hospital or emergency department admission, or the day after admission. The baseline period was January through June 2016, and the re-measurement period was January through June 2017. The Network was successful in increasing the number of BSIs reported from a baseline of 1.7% to a re-measurement of 16.1%, representing a 14.4 percentage point increase.

## Interventions

The Network implemented QIAs to improve communication among hospitals and dialysis facilities using RCA and PDSA methods to address the causes of poor communication between the facilities and hospitals. The Network customized interventions to address the identified obstacles that prevented facilities from receiving this information and/or entering this information into NHSN.

Based on the root cause analysis, the Network identified the following barriers:

- Lack of access by dialysis facilities to hospital EMR data systems. In cases where facilities had access to Health Information Exchange information (HIE), that information was often limited. In some instances, nephrologists and medical directors may have had access to the hospital EMR or HIE but not to NHSN.
- LDOs submit data from a central location, and LDO data systems may not include a field to capture the BSIs identified in hospitals, as this is a new update in NHSN.
- When dialysis facility staff members contacted hospitals for BSI data, it was not unusual for hospital staff to refuse to provide the information, claiming that HIPAA regulations prevented them from doing so.

The Network implemented strategies to remedy identified barriers. Best practices included:

- Collaborating with State Healthcare Associations, the State Survey Agency, and the Atlantic Quality Innovation Network QIO to bring interventions to the hospitals involved in the project, as well as the dialysis facilities;
- Meeting with hospital infection preventionists to share the goals, strategies and interventions of the QIA, and to identify the information they would need from dialysis facilities to improve communications;
- Network-brokered discussions among the hospitals and the dialysis facilities referring patients to them; ensuring that contact information was exchanged; and providing hospital staff with CDC educational materials; and
- Employing the HAI LAN to identify and discuss barriers and to determine best practices in place across the Network's community.

The Network attributes the following methods to its achievement of success in meeting the project goal:

- Interventions for dialysis facility staff that included webinars about the proper reporting of dialysis events in NHSN, including the need to identify where the PBC was drawn;
- NHSN training on how to run reports from NHSN that allowed facilities to monitor their progress toward the goal of the QIA; and
- Ongoing recommendations to enter all dialysis events within 10 days of the end of the month.

**ESRD NETWORK**  
**SIGNIFICANT EMERGENCY**  
**PREPAREDNESS**  
**INTERVENTION**

## Emergency Preparedness and Response

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 county health departments, Offices of Emergency Management, and emergency preparedness coalitions to ensure safety and continuity of care for ESRD patients throughout the Network 6 region.

The Network successfully managed 14 emergency events that required intervention, response, and/or tracking during 2017. For all emergencies, Network staff offered comprehensive support to patients and linked healthcare practitioners to appropriate resources, including the KCER program, local and State Offices of Emergency Management, and other stakeholders, as appropriate.

In addition, the 2017 hurricane season brought severe challenges in the wake of Hurricanes Maria and Irma. In September, the Network deployed four staff members to Atlanta, Georgia for 16 days to help receive 149 ESRD patients and 50+ caregivers evacuated from the U.S. Virgin Islands of St. Croix and St. Thomas. The Network supported the efforts of the U.S. Public Health Service (USPHS) in establishing housing, food, and medical treatment involving six hotels, three rehabilitation centers and six dialysis facilities in the metropolitan Atlanta area. The Network continued support of patients through the end of 2017 to ensure continuity and that treatment needs were met.