



End-Stage Renal Disease
Network of the South Atlantic

2022 Annual Report



Downtown Savannah, Georgia

This report will cover quality improvement efforts led by ESRD Network 6
Task Order Number 75FCMC21F0003 from May 1, 2022- April 30 2023

July 2023 - Revised February 2025
Prepared by:
IPRO ESRD Network of the South Atlantic
<http://esrd.ipro.org>

Submitted to:
U.S. Department of Health and Human Services (HHS)
Centers for Medicare & Medicaid Services (CMS)
for Contract Number 75FCMC19D0029

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demography

population, **sociology**, **statistics**, **people**, **woman**, **presentation**, **analysis**

demographic, **growth**, **market**, **society**, **world**, **human**, **group**, **report**, **ageing**, **crowd**, **data**, **statistics**, **chart**, **migration**, **social**, **demographic**, **study**, **politics**, **map**, **education**, **changes**, **report**, **ageing**, **crowd**, **people**, **data**, **statistics**, **study**, **global**

graph, **business**, **person**, **demographic**, **analysis**, **ethnecity**, **women**, **death**, **pie**, **continent**, **human**, **group**, **report**, **ageing**, **crowd**, **data**, **statistics**, **study**, **global**

geography, **elderly**, **religion**, **trend**, **communication**, **increase**, **diversity**, **community**, **demographics**, **world**, **human**, **group**, **report**, **ageing**, **crowd**, **data**, **statistics**, **study**, **global**

graph, **business**, **person**, **demographic**, **analysis**, **ethnecity**, **women**, **death**, **pie**, **continent**, **human**, **group**, **report**, **ageing**, **crowd**, **data**, **statistics**, **study**, **global**

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ESRD Demographic Data

IPRO End-Stage Renal Disease (ESRD) Network of the South Atlantic (Network 6) is one of four ESRD Networks managed by IPRO, a non-profit organization that works with government agencies, providers, and consumers to implement innovative programs that improve healthcare. In addition to serving as the ESRD contractor for the Network 6 service area, IPRO manages the ESRD Network of New England (Network 1), ESRD Network of New York (Network 2), and ESRD Network of the Ohio River Valley (Network 9), collectively known as the IPRO ESRD Network Program. IPRO is fully committed to the goals and vision of the ESRD Network Program and supports the renal community in ensuring safe, effective, patient-centered care for the more than 196,709 ESRD patients in the four Network areas it manages.

Network 6 serves ESRD patients, dialysis providers, and transplant centers in the states of Georgia, North Carolina, and South Carolina. The role of the Network is to improve the quality of care for people who require dialysis and/or kidney transplantation. The Network aligns its mission and activities with the U.S. Department of Health and Human Services (HHS) National Quality Strategy (NQS), the Centers for Medicare & Medicaid Services (CMS) goals addressed in the CMS Quality Strategy, and the CMS Sixteen (16) Strategic Initiatives designed to result in improvements in the care of individuals with ESRD. Our goals, our methodology for attaining them, and our achievements are described throughout this report.

Racial minority populations have a disproportionately high risk of kidney failure: Black individuals have a 3.4 times greater risk, as compared to people who are white. This disproportionate difference, combined with the demographics of the Network service area, led to an exceptionally high number of patients needing kidney care in the Network 6 region. The states that comprise the Network service area have more than twice the national rate of Black or African American residents (27.3% compared to 13.6% , according to U.S. Census estimates for 2022). Georgia has the second highest rate of Black or African American residents in the nation (33% or 3.6 million), followed by South Carolina (26.7% or 1.4 million) and North Carolina (22.3% or 2.4 million).

Though each state's rate of 'high-school graduate or higher' was comparable to the national rate of 88.7% (decreased from 2021), the rate of 'persons in poverty' was (significantly) higher than the national rate of 11.6% (increased from 2021), with Georgia's rate at 14%, North Carolina's rate at 13.4% (increased from 2021), and South Carolina's rate at 14.6% (increased from 2021). The combination of a high level of poverty within a growing minority population was a constant focus for the work done within Network 6 to ensure health equity remained a top priority.

According to ESRD National Coordinating Center (NCC) end-of-year data (December 31, 2022) the ESRD patient population in the Network 6 service area was 69,836.

The Network's 2022 activities supported more than 49,630 dialysis patients reported as receiving treatment across 805 dialysis facilities, 11 transplant centers and 8 Veteran Affairs (VA) hospitals. The number of patients receiving in-center dialysis treatment totaled 41,913, and 7,717 patients received dialysis treatment at home. The Network service area contained the second largest home dialysis population in the country, with 9.6% of the region's dialysis patients receiving treatment using a home modality.

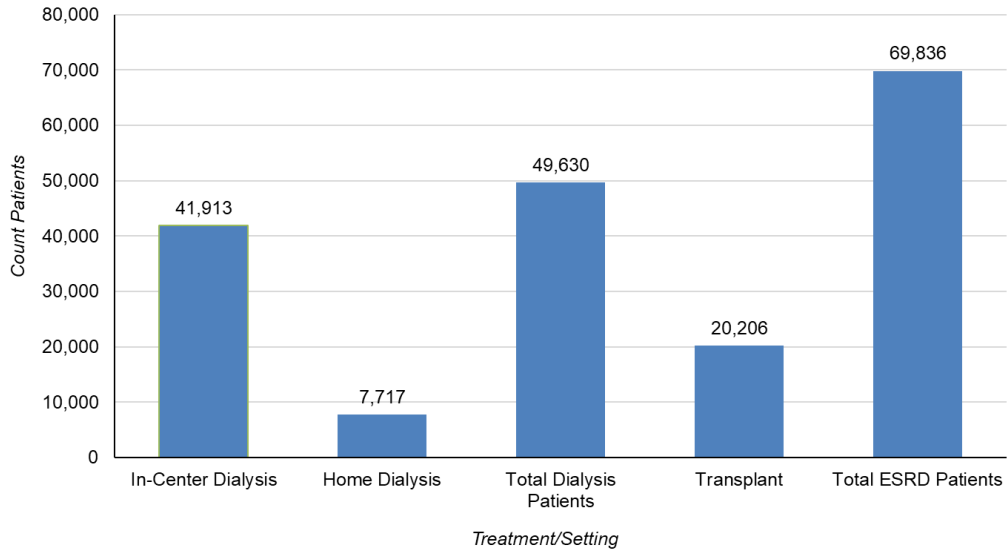
In 2022, eight Medicare-certified dialysis facilities closed, and one transplant center opened. 75.9% of the dialysis facilities were owned or managed by a large dialysis organization (LDO), 17.8% were owned or managed by medium or small dialysis organizations; and 5.3% were independently owned.

Patient Facility Representatives (PFRs), nominated by facility staff to engage with their peers, provided feedback about quality improvement activities and helped develop the Network's educational materials. Nominated PFRs participated in Network's calls and events as well as national calls. The PFR Alliance group met virtually on a monthly basis. During these meetings the Network provided an overview of the status of projects as well as monthly assignments. The Network worked with Community Coalitions, a subgroup of dialysis facilities within its service area that included both high- and low- performing facilities. These facilities completed root cause analyses (RCA) and participated in a Plan-Do-Study-Act (PDSA) cycle of four months. During the PDSA cycle, the Network engaged the community coalition facilities in interventions to drive improvement at the Network and facility level and assisted with mitigating barriers by providing 1:1 technical assistance based on data and facility specific needs. Upon completion of the PDSA cycle, best practices identified within the coalitions were spread to facilities across the Network's service area to form a community of practice.

The Network has established strong partnerships across the three states in its service area to assist with creating and implementing interventions designed to meet the goals outlined in the ESRD Network Statement of Work (SOW). Through our collaboration with the Network Council, Medical Review Board, PFR Alliance, Advisory Committees, the Southeastern Kidney Transplant Coalition, state departments of health, and regional healthcare coalitions, the Network was able to respond to CMS priorities quickly and effectively.

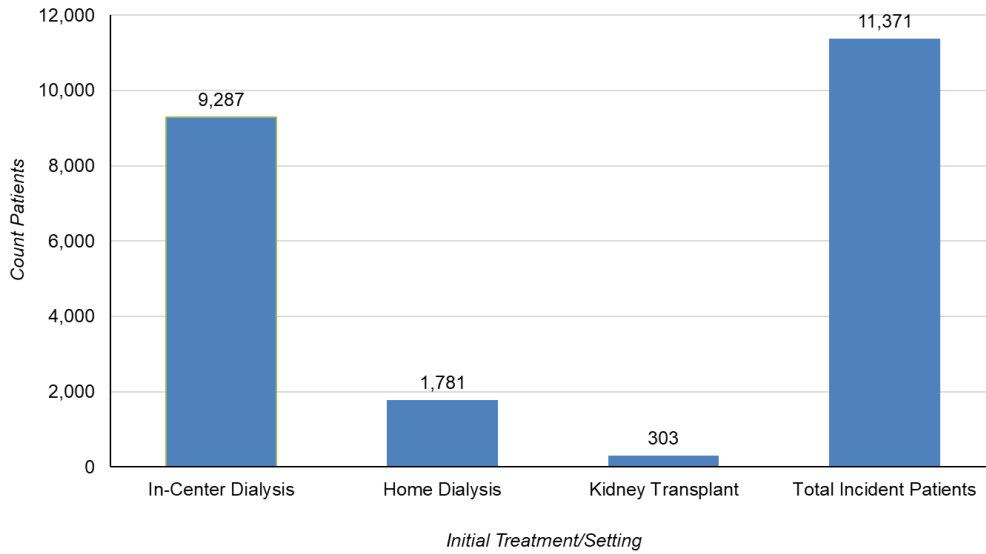
The Network deployed interventions through IPRO Learn, virtual learning management system (LMS), that targeted patients, dialysis and transplant providers, and other stakeholders. These interventions, which focused on engaging patients, reducing disparities, and improving quality of care for ESRD patients are detailed in this report.

Network 6: Count of Prevalent ESRD Patients by Treatment/Setting 2022



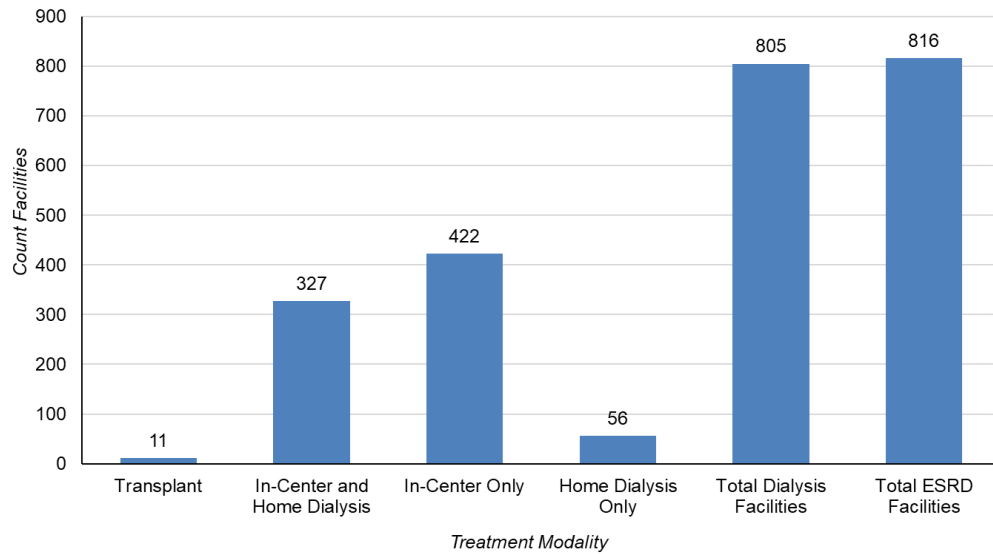
Total Dialysis Patients = In-Center Dialysis + Home Dialysis
 Total ESRD Patients = Transplant + Total Dialysis
 SNF dialysis patients are not shown due to small numbers.
 Source of data: EQRS May 2023

Network 6: Count of Incident ESRD Patients by Initial Treatment/Setting 2022



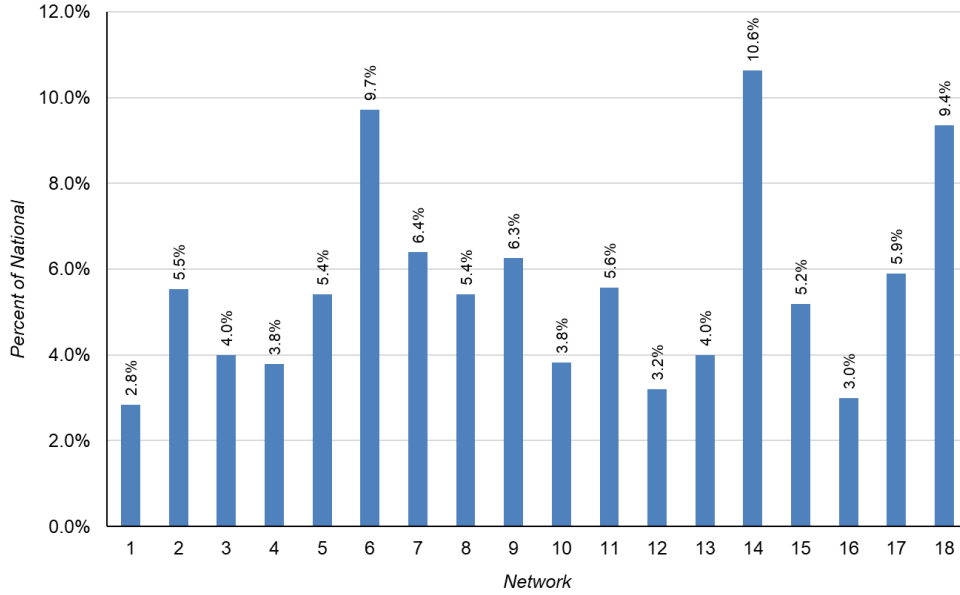
Total Incident Patients = In-Center + Home + Kidney Transplant
 Source of data: EQRS May 2023

**Network 6: Count of Medicare-Certified Facilities
by Treatment/Setting
2022**



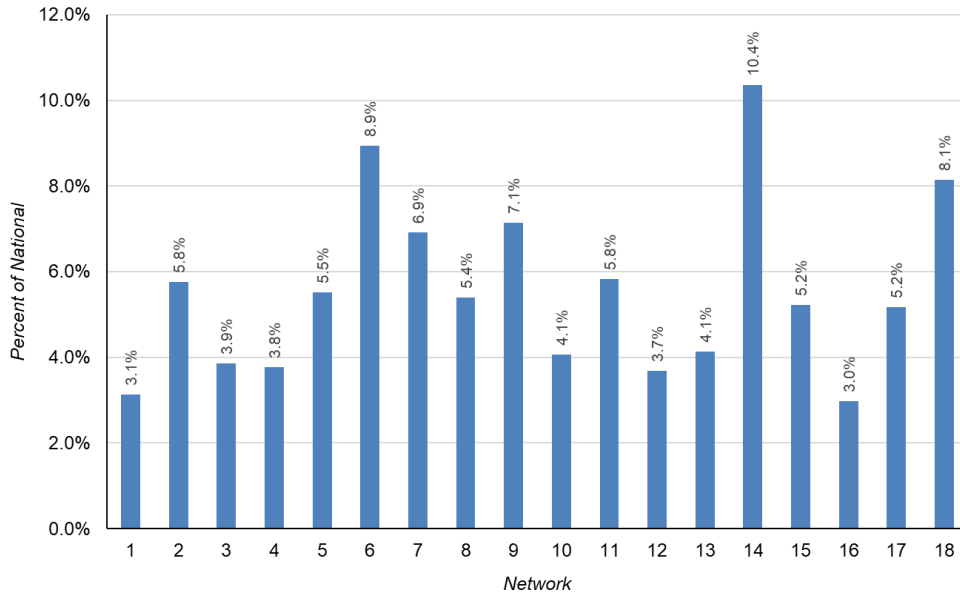
Total Dialysis Facilities = In-Center and Home Dialysis + Home Dialysis Only + In-Center Only
Total ESRD Facilities = Transplant + Total Dialysis Facilities
Source of data: EQRS May 2023

Percent of National Prevalent Dialysis Patients by ESRD Network 2022



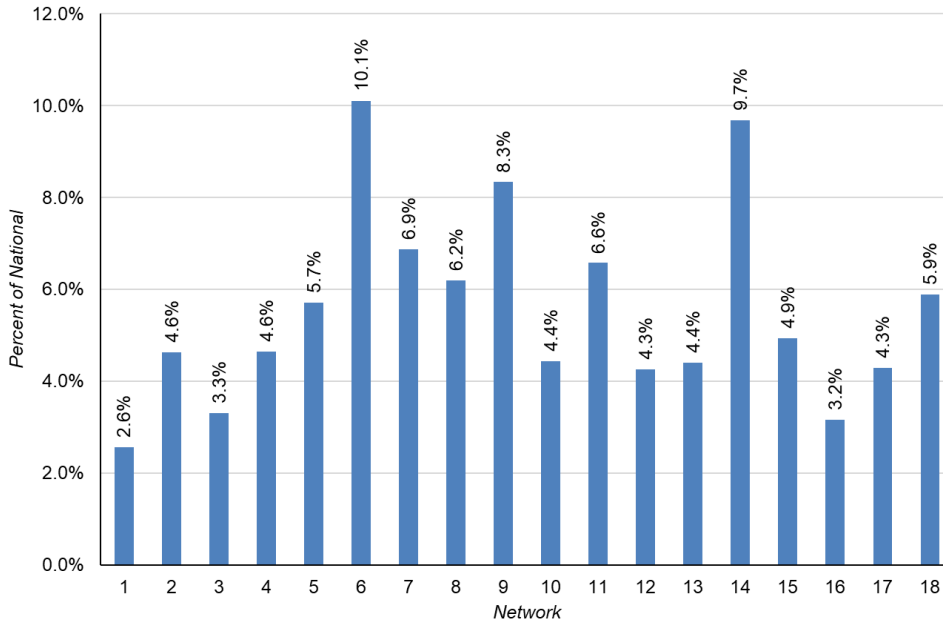
National total dialysis patients: 430,015
Source of data: EQRS May 2023

Percent of National Incident Dialysis Patients by ESRD Network 2022



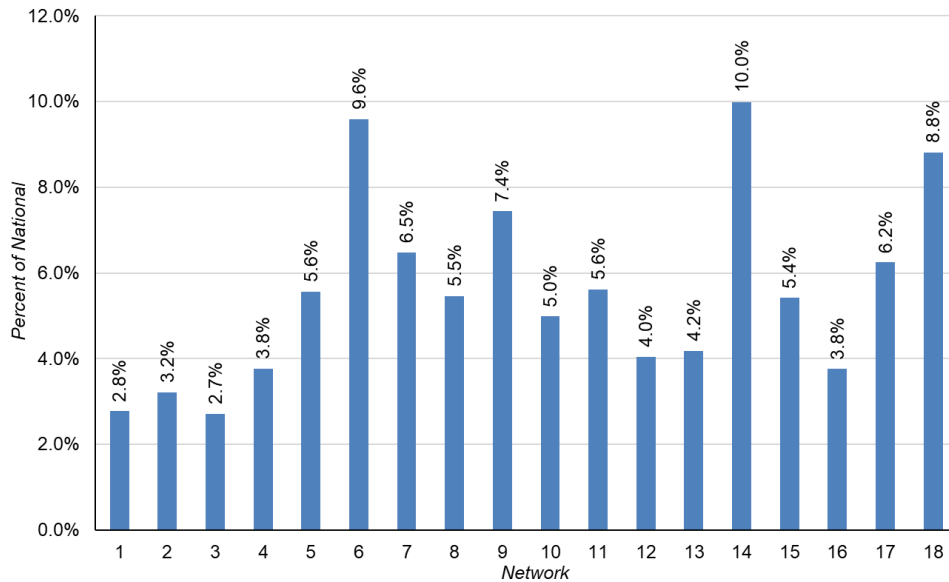
National total incident patients: 127,256
Source of data: EQRS May 2023

**Percent of Medicare-Certified Dialysis Facilities by ESRD Network
2022**



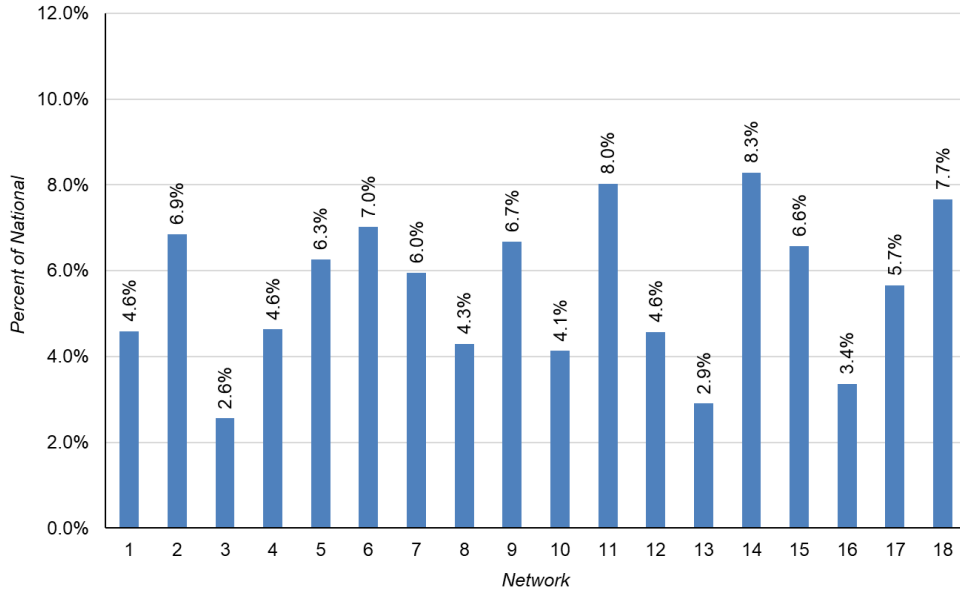
National total ESRD Medicare-certified dialysis facilities: 7,967
Source of data: EQRS May 2023

**Percent of National Home Hemodialysis and Peritoneal Dialysis
Patients by ESRD Network
2022**



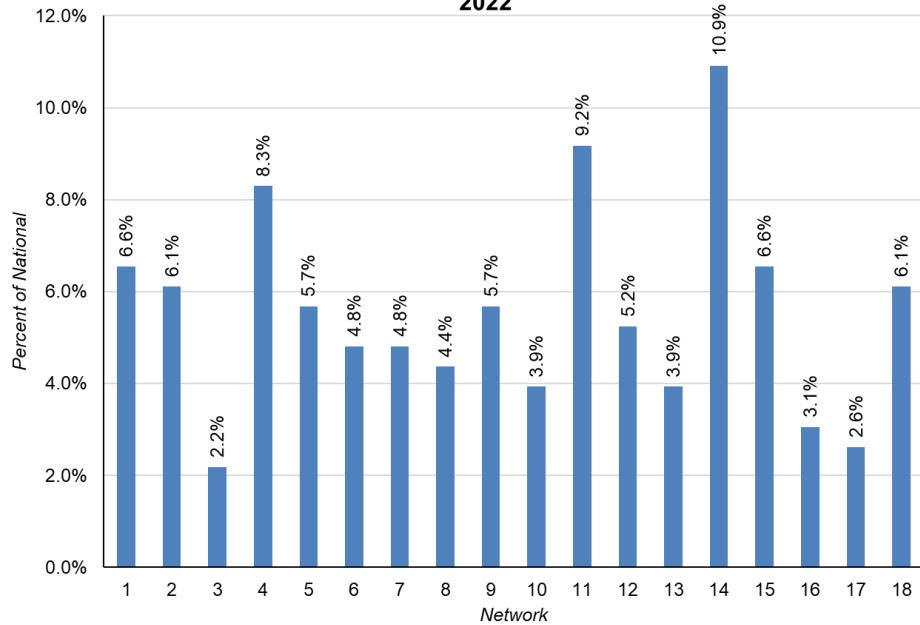
National total home hemodialysis and peritoneal dialysis patients: 80,460
Source of data: EQRS May 2023

**Percent of National Transplant Patients by ESRD Network
2022**



National total transplant patients: 288,023
Source of data: EQRS May 2023

**Percent of Medicare-Certified Kidney Transplant Facilities by
ESRD Network
2022**



National total ESRD Medicare-certified kidney transplant facilities: 229
Source of data: EQRS May 2023

Patient and Family Engagement

Through a concerted effort, the IPRO ESRD Network of the South Atlantic identified and recruited patient leaders within the ESRD patient population to serve as Patient Facility Representatives (PFRs). During the performance period, the Network's Patient Facility Representatives Alliance (PFR Alliance) expanded to 294 ESRD patients and caregivers. The PFR Alliance was created to serve as a bridge between patients, facility staff, and the Network. The Network used interactive communications strategies including text messaging and social media outreach (Facebook, Twitter, and Instagram) to create a safe and open community to encourage easy check-ins and connectivity. Additionally, through its PFR Alliance, the Network was able to provide monthly educational meetings and foster patient feedback on recently created resources.

The PFR Alliance was instrumental in bringing the patient voice to facility Quality Assurance and Performance Improvement (QAPI) initiatives and increasing the number of facilities incorporating patients in their monthly QAPI meetings. The Network incorporated a variety of interventions to increase the number of facilities integrating patients in QAPI meetings:

- The *Help with HIPAA* resource was developed to respond to facility staff members' misconceptions that HIPAA was an ongoing barrier to patient participation in QAPI meetings.
- *Guidelines for Patient Representatives Who Attend QAPI Meetings* were developed by the Network to provide seasoned PFRs with instructions on effective ways to participate in their facility's QAPI meetings. Additionally, it provided insight into alternative measures to take in the event they cannot attend the meeting in person.
- *Including Patients in Your Facility QAPI Meetings: Format and Guide* was developed by the Network to provide facilities instructions on selecting patients and developing an ongoing process for meaningful engagement of patients in QAPI meetings.
- The Network created a short informational flyer outlining foundational information on how facilities can include patients in their QAPI meetings "*Incorporating the Patient's Voice into Your Facility's QAPI Meetings.*"

The Network worked to increase the number of facilities supporting a peer mentoring program. At the end of the performance period, 218 facilities were actively supporting a peer mentoring program, with a total of 215 Patient Facility Representatives recruited from former peer mentors, and currently act as active peer mentors. The Network began the year using IPRO Learn to provide peer mentor training, however, after analyzing community feedback, the Network transitioned to monthly and bi-monthly, live peer mentoring sessions via Webex.

Interventions

- Live Peer Mentoring training was presented in two introductory sessions.
 - Peer Mentorship: Mentoring to Support Choices: This module provided patients with foundational information including "What is Peer Mentoring?" and "How does Peer Mentoring Work?". The module also provided tips for success,

program guidelines, and different ways to mentor (Lobby Session, Group Session, and One-to-One Session)

- Talking Effectively with Another Patient: This module provided more specific information on how to be an effective peer mentor as well as tips for honing communication skills. Shared decision-making, building relationships through communication, active listening, protecting patient confidentiality, mentoring for diversity, and tips for success were key topics presented in the module.
- Activating/ Re-activating Long-term PFR Alliance Members: Most facilities have at least one patient facility representative or a patient advocate actively supporting patients. Many of these individuals were engaging in different levels of peer mentoring as well as peer-to-peer education without formal certification. The Network worked with facilities to formally identify these individuals and once identified the Network provided each individual with both orientation and formalized training. The Network focused on peer mentoring re-education and the development of conversation retention skills through the IPRO Learn Peer Mentoring Program and via virtual engagement sessions.

Health Equity

According to the World Health Organization (WHO), health inequalities are systemic differences in healthcare outcomes. Equity is the absence of unfair, avoidable, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, geographically, or by other dimensions of inequality (e.g., sex, ethnicity, or disability). The Network team sought to identify the various types of health inequities within our service area that would inhibit the overall quality of life for ESRD patients. An initial needs assessment of all dialysis facilities was conducted to help identify these ongoing barriers. The assessment yielded the following results:

- Barriers to transitioning to home therapies were identified as health illiteracy, a lack of understanding of what home therapies entail, limited space to host home therapy supplies, and limited or no family/caregiver support.
- Patients with mental health issues were identified as having barriers to health due to the stigma associated with mental health diagnoses, a lack of patient awareness, dissenting cultural beliefs about mental health, and limited access to mental health professionals.
- Telehealth barriers were identified as a lack of smartphone devices or computers, limited knowledge of how to use telehealth applications and smartphones and limited or no access to broadband internet and Wi-Fi.
- Barriers to vaccinations were identified as fear of medical reactions, mistrust of the healthcare system, medical racism, and limited education and understanding of vaccinations.
- Barriers to becoming active and remaining active on the transplant list were identified as health illiteracy, general fear of transplant, lack of social support, limited transportation, and dental infections.

Initial interventions were educational and focused on providing facilities with knowledge of ongoing services that were available to help mitigate their identified barriers. Following the Network's needs assessment survey, in collaboration with the Weitzman Institute*. The Moses/Weitzman Institute is a national health system organization focused on transforming healthcare delivery and directing it to vulnerable individuals. Counties in the Network's service area were divided based on the Social Vulnerability Index created by the Center for Disease Control Prevention (CDC).). the Network conducted extensive data analysis on the quality improvement data. Counties within the Network's services area were stratified based on their social vulnerable index; counties with high social vulnerability were included in the initial analysis.

States	Georgia	North Carolina	South Carolina
High Social Vulnerability Counties	Bibb County	Alamance County	Anderson County
	Carroll County	Catawba County	Darlington County
	Chatham County	Cleveland County	Florence County
	Clayton County	Cumberland County	Greenwood County
	Dekalb County	Edgecombe County	Horry County
	Dougherty County	Forsyth County	Laurens County
	Hall County	Guilford County	Orangeburg County
	Muscogee County	Pitt County	Richland County
	Richmond County	Wayne County	Spartanburg County
	Rockdale County	Wilson County	Sumter County

Once the counties were identified the data were stratified into different categories based on the quality improvement areas of focus: COVID-19 hospitalization, inpatient hospitalizations, readmissions, emergency department hospitalizations, influenza vaccinations, transplant, transplant waitlist, home transitions, and home incidence. The data were further stratified by state and county population, urban and rural settings, sex, race, and ethnicity.

The counties identified with high social vulnerability were then compared to counties with low social vulnerabilities (Georgia: Cherokee County and Columbia County, North Carolina: Currituck County and Union County, South Carolina: Charleston County and Lexington County). The data analysis showed inequities throughout each area of focus, with the strongest and most prominent vulnerabilities occurring in the categories of COVID-19 hospitalizations, emergency department visits, hospital readmissions, and inpatient hospitalizations.



ESRD Network Grievance and Access to Care Data

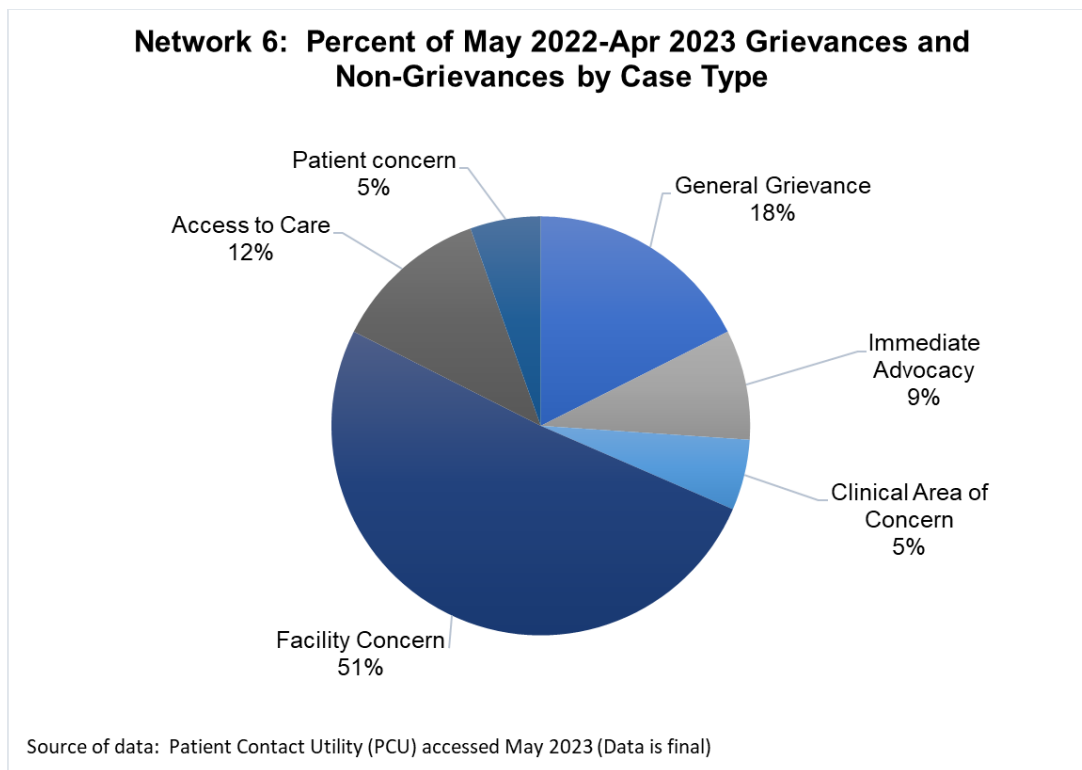
The Network responds to grievances filed by or on behalf of ESRD patients in the State of North Carolina, South Carolina and Georgia, with a goal to address and mitigate concerns.

Grievances

During the performance period, the Network received 18 clinical quality of care cases and 104 general grievance cases. Communication between staff and patients was one of the largest concerns among patients in the Network 6 service area. Patients reported that they felt the staff did not communicate with them in an effective or timely way. The Network's review of clinical quality of care cases verified this as an issue, in part due to ongoing changes in staffing within the facilities in the service area. The Network also reviewed a total of 28 immediate advocacy cases. Areas of concern included communication, staffing, chair time changes, and building/facility interruptions.

Network interventions implemented to address these issues included providing staff with in-service training to improve the communication with patients. The Network provided technical assistance to resolve 150 facility concern cases.

Staffing continued to be an ongoing issue for dialysis clinics in Network 6. This had a serious impact on patient care. Staffing roles affected included nurses, dialysis technicians, social workers and dietitians. To address these concerns the Network employs their perspective from strength-based approaches. The Network created resources and webinars to discuss ways to improve communications, decrease patient-provider conflict, and familiarize patients and staff with the Network. We continued to provide ongoing support to patients and facilities, while working closely to leverage resources within the community.



Access to Care and Involuntary Discharge (IVD) Cases

During the performance period, the Network received 35 cases involving access to care concerns. With each access to care case, the Network provided technical assistance (TA) to help facility staff effectively support and protect their patients' access to treatment. Eleven patients were discharged from their respective facilities. The reasons for the patient discharges that did occur were serious and included significant threats, behavioral health issues and violence. To strategize long-term solutions and action plans, as part of the TA provided by the Network, clinic staff members were encouraged to incorporate the identified areas of concern during the facility's monthly Quality Assurance Performance Improvement (QAPI) meetings. Fourteen patients were successfully placed either through the Network's Second Chance program or through transfers to another facility. The Network's innovative Second Chance program was initiated by the IPRO ESRD Network of New York in 2016 to help facilities accept patients who had previously been involuntarily discharged (IVD) from their dialysis facility. Through the program, dialysis units are offered a 30-day trial period, during which they can accept the patient for treatment.

The Network encouraged clinic staff to implement peer-to-peer support using the Network's Peer Mentoring Program for patients who experienced challenges. The Network continued promoting its Second Chance Program to clinics for patients with a history of behavioral and non-adherence issues, with a goal to reduce the number of patients using hospital emergency departments for life sustaining treatment. In addition, the Network continued to provide educational resources on patients' rights and the CMS Conditions of Coverage to both patients and clinics.

An analysis of the IVD cases by Network staff revealed that 90% were due to patients' mental health issues and involved immediate and severe threats. The Network discovered that patients often didn't have the resources to seek the help that they needed or were not interested in receiving services. This continued to be an ongoing problem across all three states in the Network's service area. To address this issue, Network staff supported clinic social workers with identifying local, state, and federal resources that might provide assistance to their patients.

Network Assistance and Quality Improvement

The Network advocated for patients, promoting the rights of patients to participate in their healthcare and emphasized the importance of voicing their perspective about services provided by the facility. The Network mediated cases regarding patients' concerns with the facility and implemented QIAs that included interventions designed to provide facility staff with guidance on communication techniques that would better support their patients' care.

The Network worked toward accomplishing the following overarching goals during the reporting period:

- Resolve grievances within required time frames: 10 calendar days for Immediate Advocacy and 60 calendar days for General Grievance and Clinical Quality of Care.
- Support dialysis facility staff, who have limited time, skills and training in conflict resolution, with an ultimate goal to enhance staff members' ability to manage and deal with patients who have mental, emotional and/or psychosocial issues.
- Increase patients' awareness of the Network and the educational resources available by sharing information during the monthly Patient Facility Representative (PFR) Alliance Meetings.
- Provide educational resources with each grievance resolved.
- Increase use of IPRO Learn modules. The Network used IPRO Learn to promote the Network's pre-recorded webinar, *Effective Communication* with the goal for all clinics participating in IPRO Learn activities to complete this activity.

The Network continuously promoted an environment of advocacy for all ESRD patients and ESRD patients' caregivers. Through advocacy work, the Network provided educational training and resources on patient rights to all staff and patients. The Network also provided mediation to help de-escalate ongoing patient concerns and create an environment of safety and inclusion. Interventions focused on supporting facility staff in exercising de-escalation and effective communication skills, as well as offering guidance in identifying potential barriers that could negatively affect a patient's ability to remain compliant with their treatment plan. These interventions provided facilities with the necessary guidance to improve their patients' overall quality of care. While each intervention focused on a different topic, all Network-implemented interventions incorporated the basic elements of quality improvement:

- Ongoing in-service trainings for staff on topics including emotional intelligence and communication.
- Provision of TA to support clinic staff in using quality improvement tools, including root cause analysis (RCA) and plan-do-study-act cycles (PDSA).

- Ongoing emphasis of the value of establishing professional boundaries with patients.
- Early introduction and ongoing reinforcement of the value of integrating quality improvement methodologies into the culture of the clinic .

The Network provided patients and facilities with the following resources:

- The *Dialysis Patient Grievance Toolkit* created by the Forum of ESRD Networks' Kidney Patient Advisory Council (KPAC).
- Grievance preparation worksheets and a poster to create awareness of the educational resources available to dialysis patients.
- A poster and flyers (*What the Network Staff Can and Cannot Do*) that outline for patients clearly defined parameters of the support that the Network is able to provide.
- Crisis Prevention Institute (CPI's) *Top 10 De-Escalation Tips* resource.
- Communication webinar on IPRO Learn.

Transplant Waitlist & Transplanted Quality Improvement Activity May 2022-April 2023

Project Overview

Network 6 serves as a support and champion for patients (regardless of age, sex, or ethnicity as well as those with common comorbid conditions, including diabetes and hypertension) through its efforts to fulfill the stated goal of the Executive Order on Advancing American Kidney Health (AAKH) for 80% of new ESRD patients to be either receiving dialysis at home or receiving a transplant by the year 2025. The Network's goals for this performance period were to increase the number of patients on the United Network for Organ Sharing (UNOS) waitlist in the Network service area by 5% and increase the number of transplants in the Network service area by 6%.

The Network collaborated with dialysis facilities, transplant centers and stakeholders across its service area to provide information and resources about the benefits of transplantation as a preferred treatment modality and to increase patient access to this care option.

Information was shared with facility staff and patients via the IPRO Learn education platform, as well as work groups and engagement in community coalitions. Using these approaches, the Network integrated principles of health equity and patient and family engagement to provide education and information about treatment options and to increase patient access to transplantation.

Interventions

Utilizing IPRO Learn, the Networks comprehensive learning management platform, members of the dialysis provider community were engaged in monthly and bi-monthly quality improvement activities and interventions geared toward addressing and overcoming the region's top-reported barriers to waitlist and transplant. Interventions implemented within facilities were geared toward improving health literacy practices, improving adherence to blood sample processes to maintain patient active status on the waitlist, data transparency in the CMS ESRD Goals, sharing of best practices, living donation encouragement and campaign support, and increased acceptance and use of higher Kidney Donor Profile Index (KDPI) kidneys.

The Southeastern United States has historically had the lowest kidney transplant rates in the nation, and racial disparities in kidney transplant access are concentrated in this region. The Network worked closely with the Southeastern Kidney Transplant Coalition (SEKTC) of Georgia, North Carolina, and South Carolina, an academic and community partnership that was formed with the mission to improve access to kidney transplantation and reduce disparities among African American ESRD patients in the Southeastern United States. The Coalition comprises a group of experts from transplant centers and organ procurement organizations, dialysis and transplant providers, and local representation from National Kidney Foundation (NKF), Georgia Transplant Foundation (GTF), and the American Association of Kidney Patients (AAKP). The continuation of this collaboration aided the Network in the retrieval and dissemination of

pertinent information and data to promote waitlists and transplants across the Network's service area. The Network also collaborated with colleagues from Emory University to support data collection for a community-based participatory research process study, RaDIANT. This study aims to improve equity in access to kidney transplantation for ESRD patients in the Southeast.

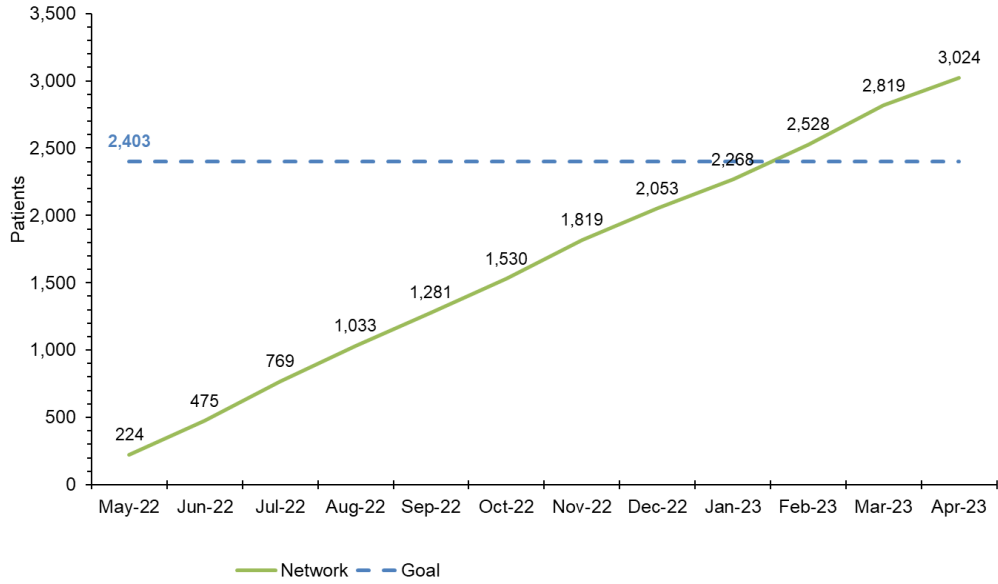
Working continuously with t community coalition facilities throughout the year, the Network provided individualized technical assistance to guide facilities through rigorous quality improvement cycles, during which they conducted root cause analyses and completed a four-month plan-do-study-act (PDSA) cycle. The Network provided facility staff resources and guidance related to the fundamentals of quality improvement and the importance of engaging patients and family members in quality improvement activities. Specific resources included the *Transplant Change Packet*, *Neighborhood Navigator*, and *My Dialysis Life Plan*; additional focus was placed on teaching motivational interviewing strategies and the value of patient inclusion in facility Quality Assurance and Performance Improvement (QAPI) activities.

Other interventions focused on identifying which transplant centers required COVID-19 vaccinations and sharing that information via newsletter with patients and providers. In addition, the Network offered guidance to dialysis providers on health equity, which included information on the use of plain language and the teach-back method.

Outcomes

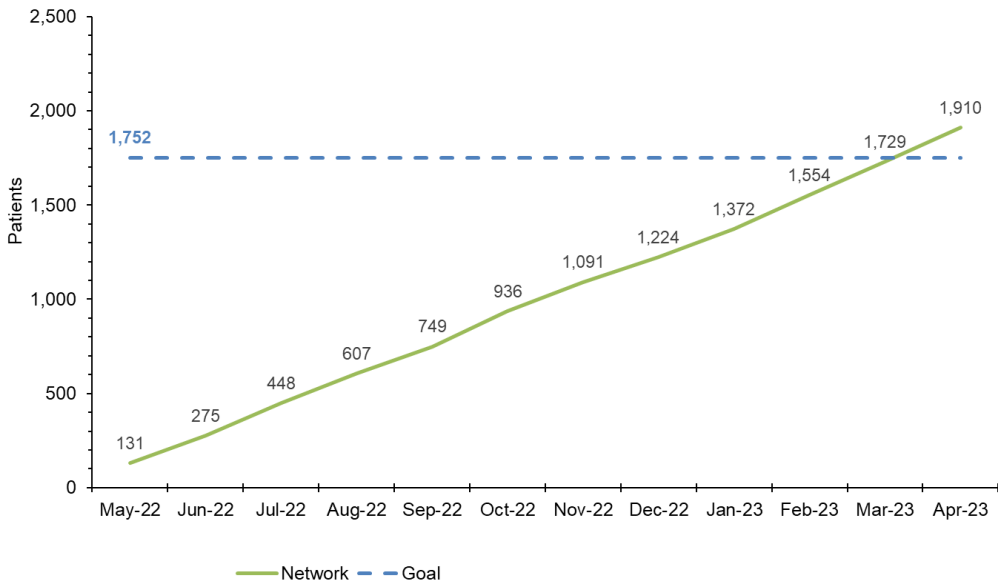
The Network's activities resulted in an additional 3,024 patients added to the transplant waitlist during the performance period (32% increase from baseline period) and 1,910 patients receiving a transplant as of April 30, 2023; a 15% increase from baseline period.

**Network 6: Count of Patients Added to a Kidney Transplant Waiting List
May 2022 - April 2023**



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

**Network 6: Count of Patients Receiving a Kidney Transplant
May 2022 - April 2023**



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

Barriers to Achieving Goals

Despite the success and improvements in the region during this performance period, barriers still exist related to a lack of early CKD education and potential preemptive waitlisting and transplant, the low rate of acceptance of high kidney-donor profile index (KDPI) kidneys and living donation, and inequities in access to care in the region.

Best Practices Spread to Achieve Goals

The Network hosted two Treatment Modality Best Practice webinars where high performing facilities were invited to speak about their best practices for waitlist and transplant. In September 2022, a regional social worker shared best practices in waitlisting and transplant to include robust educational tools, overcoming health equity barriers by seeking out transplant centers that offer specialized services, and how language and mindset of facility staff drive a pro-transplant culture. In February 2023, a kidney care options educator from U.S Renal Care shared their approach to early CKD education and preemptive referral for waitlisting, health literacy, patient-to-patient advocacy, and transplant center communications.

Home Therapy Quality Improvement Activity

May 2022-April 2023

Project Overview

The choice of home modality enhances a patient's quality of life and is more convenient than traveling to an in-center clinic three times per week. It is also shown to improve patients' mortality and morbidity making it a preferred treatment modality for ESRD. Dialysis patients need education and support to determine the appropriate dialysis modality that fits their lifestyle, including but not limited to, how each modality will affect travel, diet and fluid consumption, school, work, social interaction, and well-being. The Network has been committed to

- providing patients and staff with education and resources to create a pro home culture;
- encouraging provision of treatment modality education for patients with chronic kidney disease (CKD) in advance of their need to select their treatment modality;
- sharing best practices with facility staff to encourage patients to consider a home program; and
- supporting innovations that expand access to home or offer quick starts on a home therapy, such as urgent start peritoneal dialysis.

The Network's goals for this performance period were to increase the number of new patients starting directly on a home therapy to 20% above the baseline measurement (April 30 -2020 – May 1, 2021) and the number of patients transitioning from incenter hemodialysis (IHD) to a home therapy by 6% over baseline.

Interventions

The Network team surveyed organizations in its service area to gather information on CKD educators, with a goal to develop a new group of stakeholders to expand our reach in disseminating resources, understanding barriers and mitigation strategies and implementing interventions to reach and educate CKD patients about home dialysis modalities. The Network worked with Large Dialysis Organizations (LDOs) to encourage expanded use of their education programs prior to patients starting on dialysis, including inviting patients to visit the centers to see the home dialysis equipment.

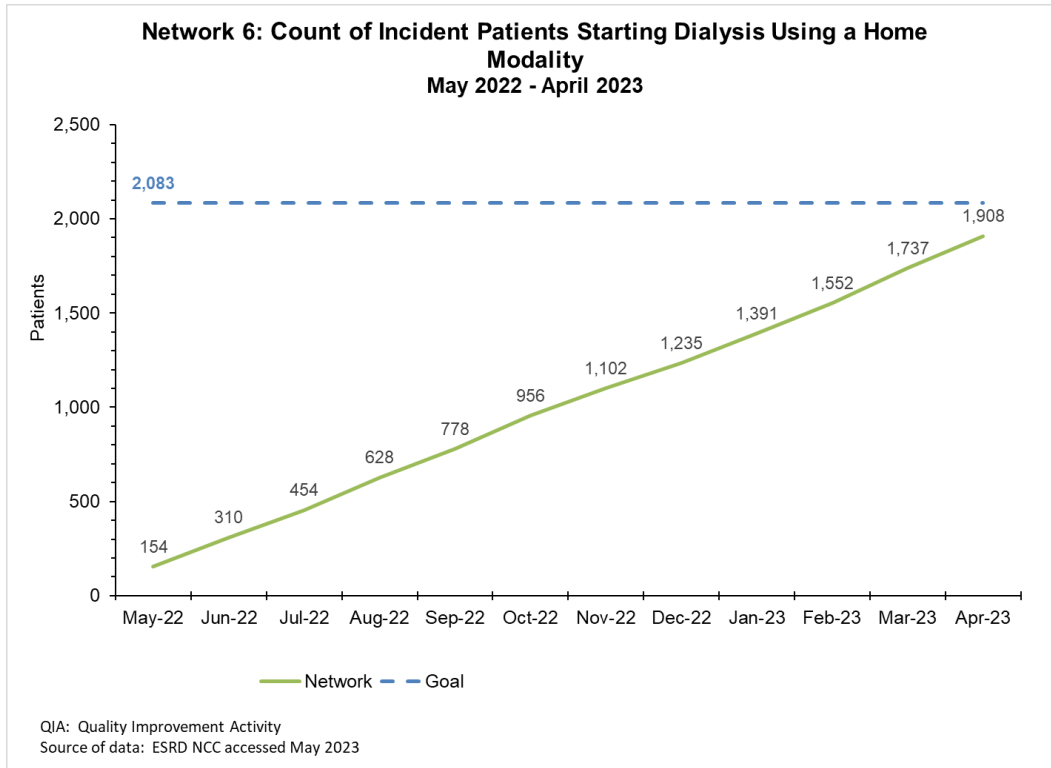
IPRO Learn is the Network's learning management system designed to disseminate education to staff at dialysis facilities. One of the educational pieces posted to IPRO Learn was an article provided by Home Dialysis Central, *Hitting Below the Belt: Home Dialysis and Sexuality*. Comments from 431 (84%) of the facility staff who read the article indicated that they had found that patients' concern about body image was an obstacle to their consideration of peritoneal dialysis home therapy.

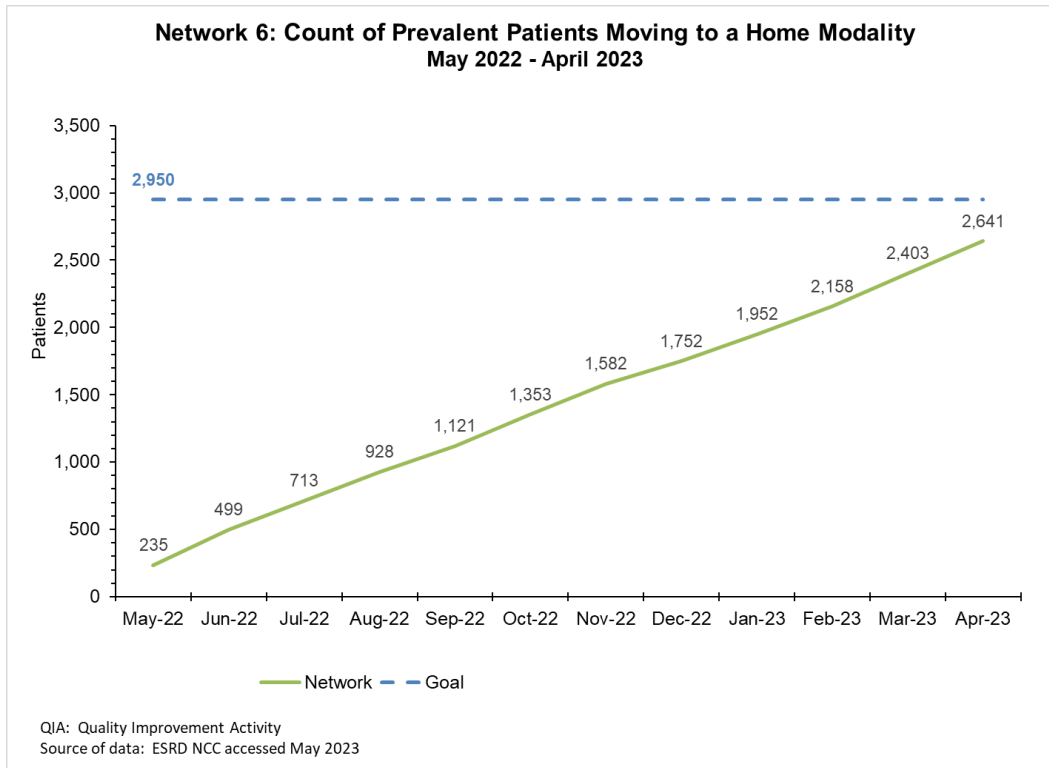
To address this identified barrier, the Network developed and released the resource, *Seeing Yourself in a Positive Light with a Peritoneal Dialysis Catheter*. Of the 780 facilities that

completed the activity in IPRO Learn, 483 indicated that they felt the tool would be helpful in talking to their patients about body image as related to peritoneal dialysis.

Outcomes

Within the Network's service area 1,908 patients (91.6% of goal) began their dialysis on a home modality and 2,641 prevalent patients (89.53% of goal) transitioned to a home modality.





Barriers to Achieving Goals

Network staff provided technical assistance to facilities that performed well in the previous performance period to determine why they were not able to sustain their success during this performance period. Feedback from facility staff indicated that during the base year of the contract, they hired home nurses to help with training patients interested in home modalities, and during the performance period, all the patients who had expressed interest had already been trained. These facilities worked to have follow-up conversations with patients who had originally stated that they weren't interested in home therapy. In addition, the residual effects of the pandemic have resulted in staffing issues in the facilities within the Network's service area.

Best Practices Spread to Achieve Goals

During the performance period, community coalitions functioned as bodies of stakeholders within a community dedicated to defining a healthcare issue within the designated community, producing a root cause analysis to identify areas for improvement, committing to work as a group to achieve quantitative aims, and implementing specific actions tied to the identified root causes and designed to improve healthcare outcomes within the community. The Network shared best practices discovered within our coalitions to the entire service area.

Throughout the performance period, the Network shared best practices within our coalitions. The Network structured its coalitions (three per year) so that, within each coalition, the Network identified facilities that could be classified as low performers, moderate performers, and high performers in terms of moving patients to home modalities with a goal to have high

performing facilities share their best practices with both low and moderate performing facilities. During each four-month intensive PDSA cycle with coalition facilities, the Network selected a top performer, and that facility was featured on a Network-wide best practice call. In addition, the Network included Patient Facility Representatives in each coalition PDSA cycle to share information with other patients who may be hesitant about a home modality.

Influenza Vaccinations (Patient and Staff)

May 2022-April 2023

Project Overview

According to the Centers for Disease Control and Prevention (CDC), “People with chronic kidney disease (CKD) are at high risk of developing serious flu complications, which can result in hospitalization and even death. This is because CKD weakens immune response, which can make the immune system less able to fight infections. People with CKD at any stage, people who have had a kidney transplant, and people who are undergoing dialysis treatment are all at increased risk of severe illness from flu.”

The Network worked to increase the vaccination rate for individuals with ESRD residing within its service area as well as the staff working in the facilities that treat them. Interventions, resources, and technical assistance were provided to dialysis centers, with a goal to facilitate an increase to 90% in the number of dialysis patients receiving an influenza vaccination and to have 90% of staff receive an influenza vaccine by the end of the performance period.

Patient data were reported by facilities in the End Stage Renal Disease Quality Reporting System (EQRS). Allowable exclusions for patients were medical contraindication or a history of severe allergic reaction to the vaccine. Staff data was reported in the National Health and Safety Network (NHSN) data set and did not include exclusions.

Interventions

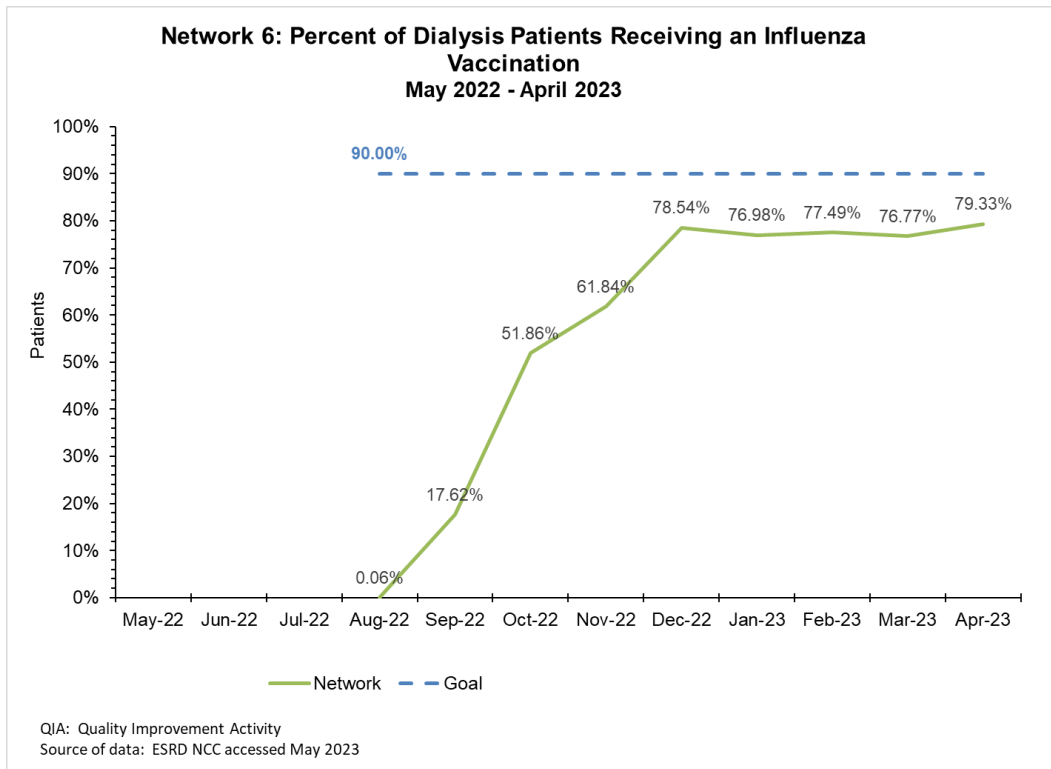
The Network provided every facility in the region with resources and interventions via its learning management system platform, IPRO Learn, with a goal to identify successful strategies for increasing influenza vaccination rates for patients and staff. Interventions were focused on education using resources including the ESRD National Coordinating Center’s (NCC) *Vaccination Change Packet* to allow facilities to select the primary drivers for influenza vaccines that were most appropriate for their patients and staff. Fifty-two percent (411) of the facilities participated in the activity; 103 facilities focused on achieving a high performing culture, 26 facilities focused on implementing quality improvement strategies, 41 focused on adopting processes to achieve quality goals, 10 focused on expanding efforts beyond their facility staff, 139 focused on providing education on vaccinations and 92 focused on addressing vaccine hesitancy. Ninety-two percent indicated they would adapt/adopt these processes and would share the resources with stakeholders to spread the information to 2,442 community partners.

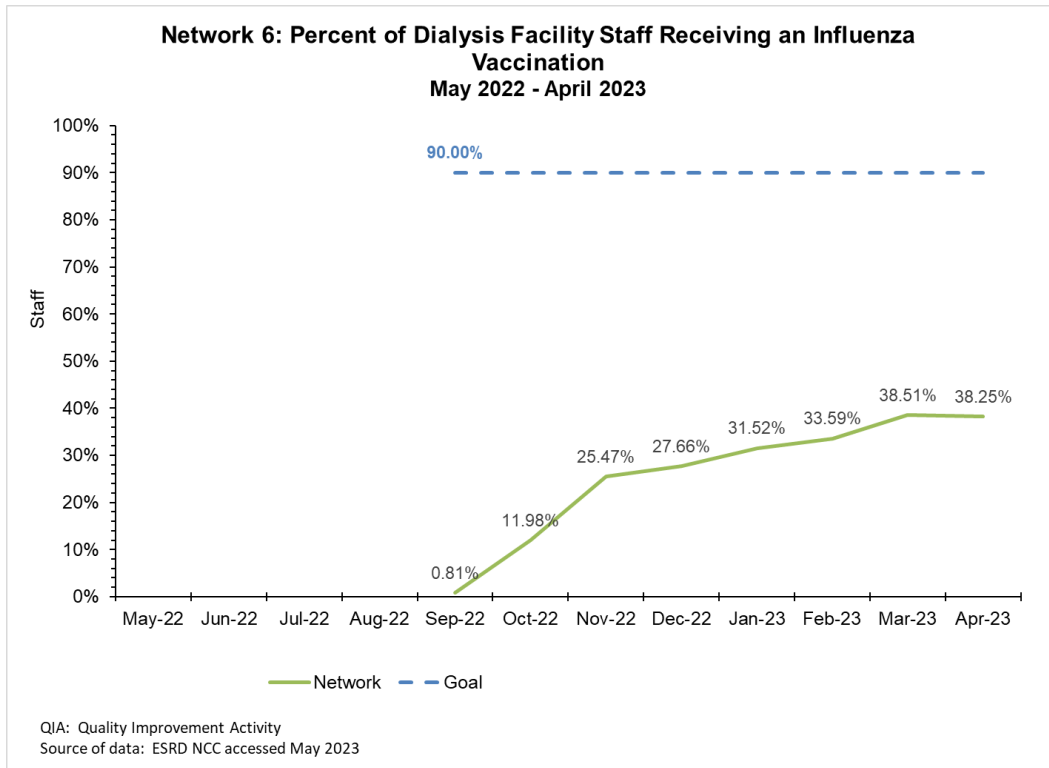
To maintain engagement of facilities, the Network used the discussion board on IPRO Learn to highlight information on the importance of influenza vaccines. The Network also hosted bi-annual *Reducing Hospitalization and Increasing Vaccinations Best Practices Calls* to reinforce with facility teams the availability on IPRO Learn of tools and resources to support preventative infection control measures that would spotlight the importance of bi-directional communication among care providers to ensure quality of care for the patient and provide guidance on how to build a facility plan to increase the uptake in influenza vaccines.

We also worked with 30% of the lower performing facilities in the region to identify barriers to increasing Influenza vaccination rates. They were then provided with specific assignments through a PDSA cycle to assist in their quality improvement efforts based on the barriers they identified.

Outcomes

The Network's activities resulted in the following outcomes in the Network's service area at the end of the performance period: a total of 39,128 patients (79.33%) and 5,465 facility staff members (38.25%) received an influenza vaccine.





Barriers to Achieving Goals

Vaccine hesitancy continued to be a factor negatively affecting influenza vaccination uptake. The Network found that many staff members and patients questioned whether they were at risk and challenged the need for a vaccine, since they had been exposed to the flu continuously in past years and had not gotten sick. Vaccine fatigue was also a factor, as both patients and staff came out of the pandemic not wanting to consider more vaccinations after the amount of COVID vaccines they had been required to take.

Best Practices Spread to Achieve Goals

Best practices for increasing the influenza vaccination rates in patients and staff included putting time and effort into building a high performing culture. This was found to be pivotal for patients to trust messages and suggestions from their facility. Having open and honest communication with the patients and an engaged team on the same page helped to build a culture of health and safety. Educating the staff to be able answer a patient's questions about why it was still important to get a flu vaccine gave the patients the trust in facilities to take the vaccine. These best practices were shared across the service area through discussion forums on IPRO Learn; in addition, best practice posters sharing tips from these providers each quarter were featured on the IPRO Learn platform. We also asked best practice speakers to present every six months on their work and invited the entire Network service area to attend or listen to the calls to spread these ideas and processes.

COVID-19 Vaccinations (Patients and Staff) May 2022-April 2023

Project Overview

According to data from the US Renal Data System, 15.8% of all patients on dialysis in the United States contracted the COVID e Omicron strain (Ba4/ Ba5). To prevent transmission of the disease the Network worked to ensure that a minimum of 80% of dialysis patients received a primary COVID-19 vaccination and/or vaccination series and 80% of fully vaccinated dialysis patients received any additional Centers for Disease Control and Prevention (CDC) and/or Centers for Medicare & Medicaid Services (CMS) recommended COVID-19 vaccinations. In addition, the Network worked to ensure that 100% of dialysis facility staff received a primary COVID-19 vaccination and/or vaccination series and 100% of fully vaccinated staff received any additional CDC and/or CMS recommended COVID-19 vaccinations. Data for these measures were based on data reported to the National Healthcare Safety Network (NHSN).

Interventions

The Network reviewed data to identify facilities that struggled with increasing COVID-19 vaccination rates. From that list we placed 63 facilities in a community coalition to determine the root cause of their barriers and assist them with a plan-do-study-act cycle to improve their outcomes. As part of the Network's coalition, these facilities were provided educational resources and tools via IPRO's learning management system platform, IPRO Learn, to guide facility staff in developing and executing strategies to increase vaccine uptake. Within the coalition facilities and the wider region, we focused education on addressing patient and staff vaccine hesitancy, combating community spread, and preventing the spread of COVID-19 throughout dialysis facilities.

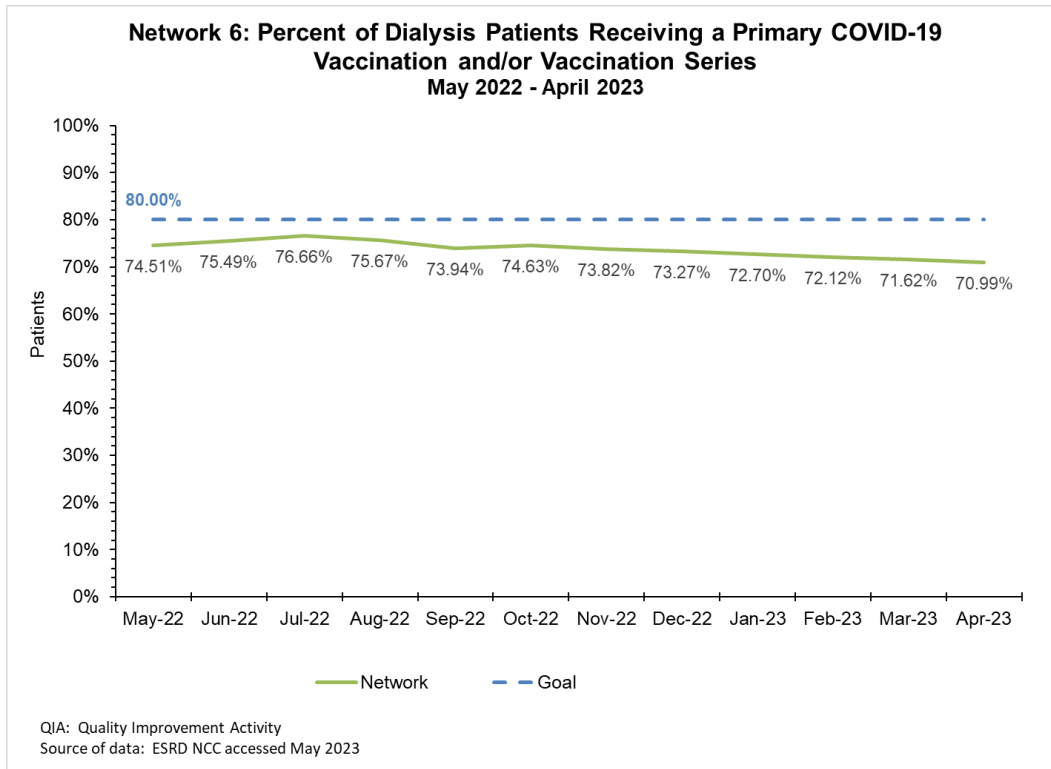
Coalition facilities were asked to complete monthly assignments involving sharing of identified best practice interventions on the IPRO Learn platform. The IPRO Learn platform was promoted as a one stop shop for all facility staff in the region, giving them 24-7 access to the Network's *COVID-19 Toolkit*, which included COVID-19 resources/tools and interventions. Three hundred and sixty-five facilities in the Network's service area (75% of facilities in community coalitions) reviewed these resources and indicated they would share the resources with their patients.

In addition, the Network identified patients who remained unvaccinated and provided a list of these patients to all facilities in the form of a performance report. Facilities were asked to investigate and record information for any patients who may have received the vaccine but were not documented and were encouraged to provide individual coaching and education on the benefits of the COVID-19 vaccine for both patients and staff who had not been vaccinated. Facilities received tools, including the U.S. Department of Health and Human Services' *COVID-19 Talking Points for Communicating with Older Adults* to address any confusion that may have persisted about the different vaccines available and how to get a vaccine. This information

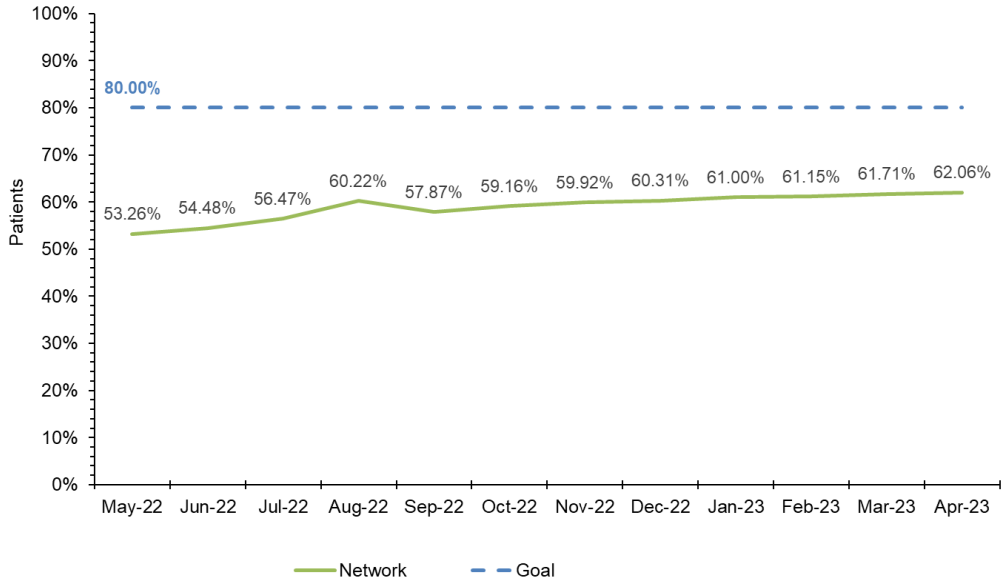
provided education on a critical element in increasing COVID-19 vaccination rates: building vaccine confidence and education among older adults.

Outcomes

The Network's activities resulted in the following outcomes in the Network's service area at the end of the performance period: a total of 50,320 patients, (70.99%) and 18,635 staff members (82.15%) received a primary COVID-19 vaccination and/or vaccination series.

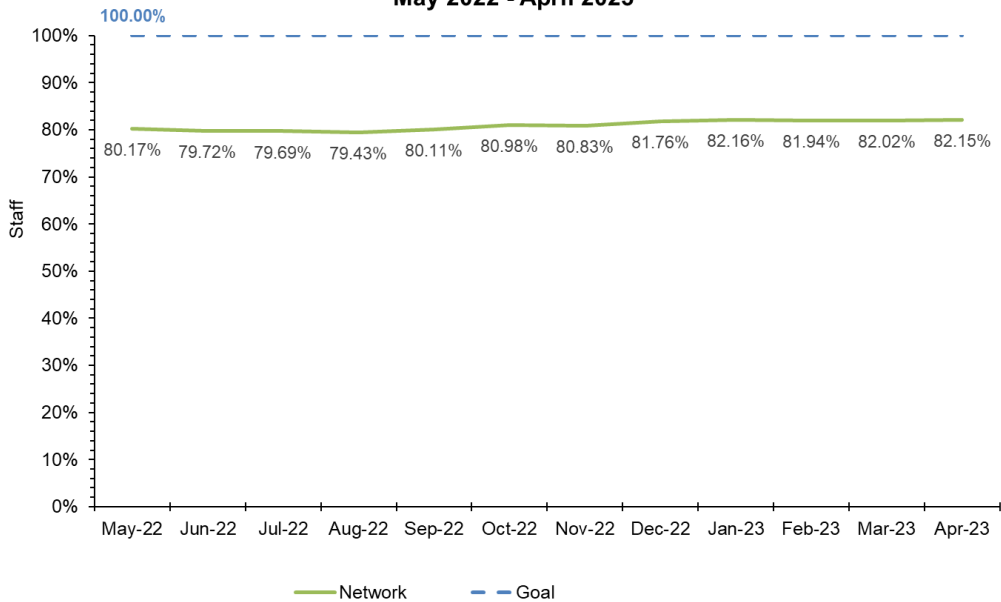


**Network 6: Percent of Fully Vaccinated Dialysis Patients Receiving
COVID-19 Vaccination Booster
May 2022 - April 2023**

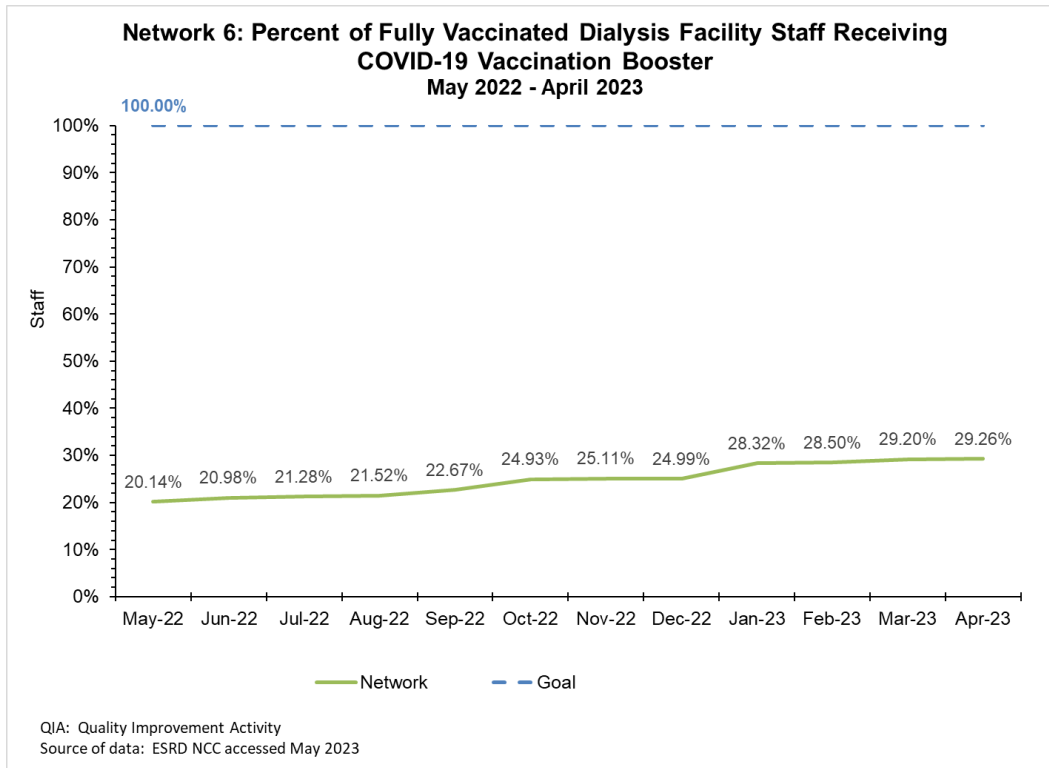


QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

**Network 6: Percent of Dialysis Facility Staff Receiving a Primary
COVID-19 Vaccination and/or Vaccination Series
May 2022 - April 2023**



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023



Barriers to Achieving Goals

Patients continued to be resistant to being vaccinated due to suspicions about how “quickly” COVID vaccines were made available at the peak of the pandemic and problems with vaccinations not being seen as effective in the second wave caused by the Omicron variant. These issues, as well as staff resistance to being mandated to receive the vaccine, stifled vaccine uptake in the provider community. The ESRD population in the Network 6 service area is more than 69% “Black or African American,” which contributes to a higher level of mistrust in the healthcare system based on past racial inequities. This mistrust had a significant role in this group of patients resisting COVID-19 vaccines during the pandemic.

Best Practices Spread to Achieve Goals

The Network gathered best practices and shared these via in discussion board forums on the IPRO quality improvement platform, via semiannual best practice calls hosted by the Network and during all one-on-one technical assistance interactions. Some of the more notable best practices from the community to increase COVID-19 vaccination rates in patients and staff were:

- “Every month we use material for updated information about COVID-19 to educate our patients and staff.”
- “All clinic staff members advocate for vaccinations. Also, the facility administrator, head nurse and patient care techs check in with patients on a regular basis to provide education and encourage vaccinations.”
- “Vaccines were discussed with staff during Quality Assurance and Performance Improvement (QAPI) meetings and facility staff touched base with patients throughout

the month to see if they would like further information and education regarding COVID vaccines.”

Data Quality (Admissions, CMS Form 2728, CMS Form 2746) May 2022-April 2023

Project Overview

The Network sought to attain the following goals:

- Achieve a 5% relative improvement in the rate of patient admission records from dialysis facilities entered within five days,
- Achieve a 4% relative improvement in the rate of initial CMS-2728 forms submitted from dialysis facilities within 45 days,
- Achieve a 5% relative improvement in the rate of CMS-2746 forms submitted from dialysis facilities within 14 days of the date of death.

The data used for the project reflect a 12-month rolling average.

Interventions

The Network used IPRO Learn to help facilities reliably and easily establish a routine process for downloading and reviewing the ESRD Quality Reporting System (EQRS) Patient Roster Report each month. By requiring that facilities submit the number of patient records that were corrected after completing the activity, facility staff were able to clearly see the benefit of performing the review process regularly; specifically, the positive impact it would have on patient records accuracy, cleanup, and the 2744 Annual Facility Survey.

In response to facility requests for “more training/resources/ease of use in EQRS reports,” the Network developed, recorded, and posted to YouTube and on the IPRO KnowledgeBase, several training videos providing facilities with step-by-step information on how to perform various EQRS-required activities. Videos on the following topics were widely viewed and well received as evidenced below. Note: The data reported below represent results across the IPRO ESRD Network Program:

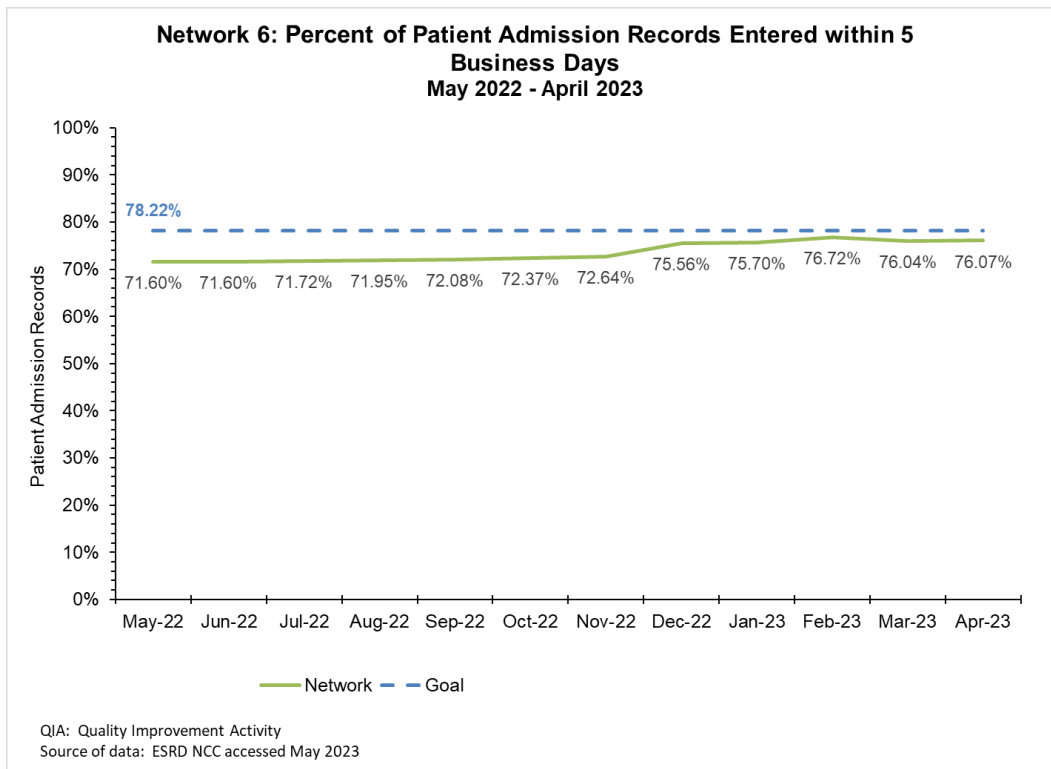
- The Network distributes EQRS Patient Roster Report: 4,119 article views, 125 YouTube ‘likes.’
- Improving Facility EQRS Data Submission Compliance: 1,535 article views, 18 ‘likes,’ 883 YouTube views.
- EQRS Vaccinations - Patient Influenza (flu) and Pneumococcal (pneumonia): 5,139 article views, 60 ‘likes,’ and 664 YouTube views (within one month of posting).
- EQRS Depression Screening Reporting: 2,265 article views, 28 ‘likes,’ webinar/recording in development.

In addition, the Network distributed to dialysis facilities and transplant centers monthly EQRS newsletters that addressed the questions asked by facilities during that time period, CMS updates, and new training opportunities and resources. This helped EQRS users stay current on EQRS priorities, deadlines, and best practices.

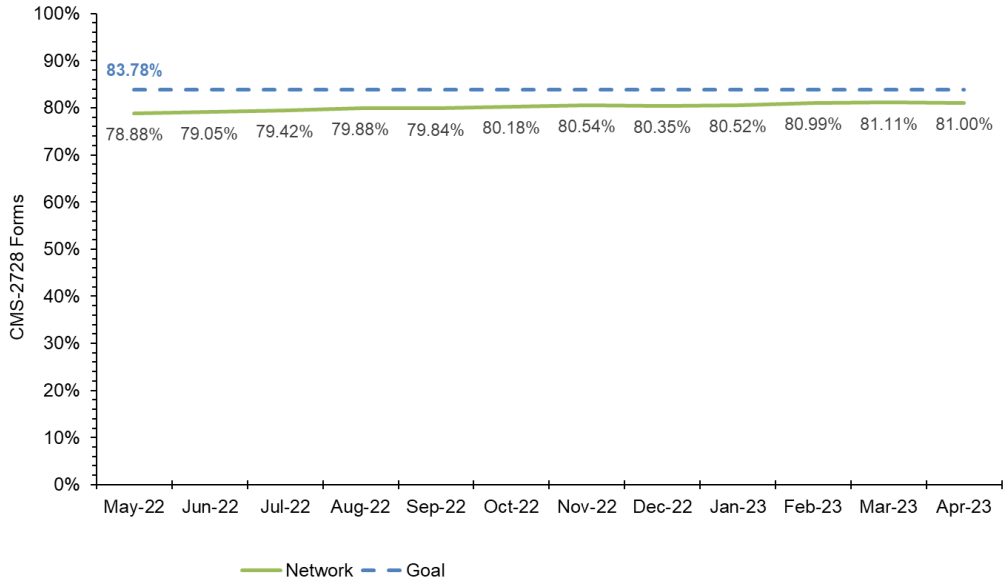
Having streamlined the process for facilities to obtain assistance from the Network, facility staff were able to direct all requests for assistance through the IPRO KnowledgeBase. The KnowledgeBase also offered facility staff access to educational resources, including training materials and webinar recordings that provided information on EQRS processes. Should they still require support, the IPRO KnowledgeBase offered facilities the option to submit a ticket that was quickly routed to the team that was best able to provide assistance. This eliminated time spent arranging phone calls and searching through individual emails; with 97% of tickets fully resolved within five business days.

Outcomes

The Network made improvements over baseline but was not successful in achieving the 5% improvement goal for admissions, the 4% improvement goal for 2728 Forms, and the 5% goal for the 2746 Forms measure which achieved a 3% improvement although facilities made significant efforts to improve timeliness for all three measures.

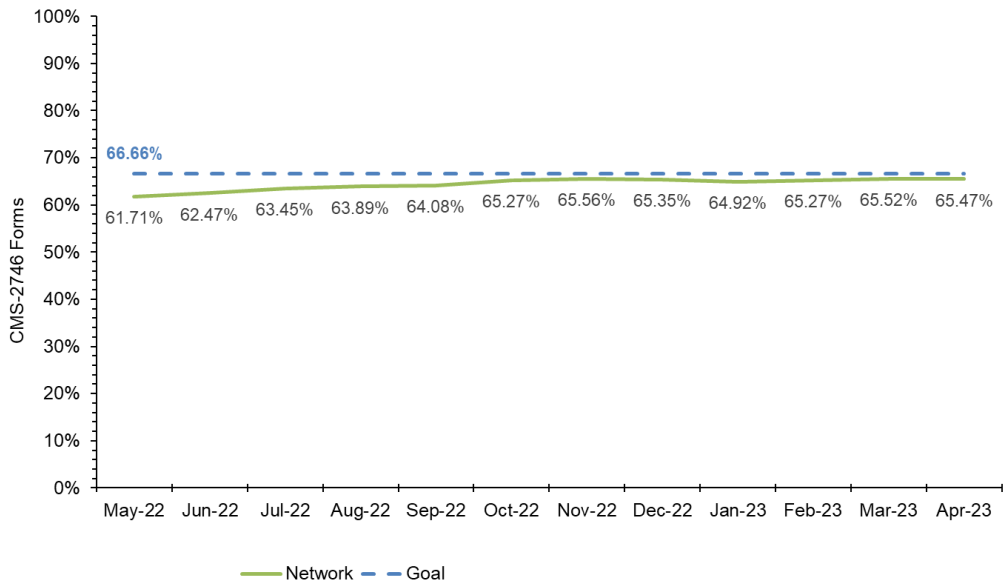


**Network 6: Percent of CMS-2728 Forms Submitted within 45 Days
May 2022 - April 2023**



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

**Network 6: Percent of CMS-2746 Forms Submitted within 14 Days of Death
May 2022 - April 2023**



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

Barriers to Achieving Goals

Large Dialysis Organizations (LDOs) comprised 76% of total facilities in the Network's service area, and their compliance with EQRS had a strong impact on Network-wide performance. The Network provided the LDOs with corporate-level EQRS compliance data from month to month to show that overall, the LDOs averaged a consistently low compliance rate and often a declining rate rather than improvement. LDO teams advised the Network of their plans to make corporate-level changes aimed at improving their compliance, the effects of which will likely be apparent after the publication date of this report.

Facilities continued to have high staff turnover rates, with skilled employees leaving the facility permanently or temporarily. This created a need for the Network to provide continuous training of new facility staff. Providing consistent training, maintaining timely and accurate contact information, and sending monthly newsletters helped the Network ensure that essential information was being distributed to existing facility staff, with a request that they share all information with their newest teammates.

The Network worked with a sizable number of facilities that were pediatric-only or treated nursing home patients; the special circumstances of these patients made it more challenging for facilities to obtain enough of the information needed to complete admissions and Forms within the required timeframe.

Best Practices Spread to Achieve Goals

Facilities in the Network's service area implemented process improvements, designated staff to perform EQRS tasks, and developed a sustainable process for reviewing the EQRS Patient Roster on a regular basis to ensure timeliness and accuracy of patient data.

The Network trained facilities to ensure that all staff contact information was maintained accurately and in real time in the IPRO Contacts Management System, so that Network communication and EQRS cleanup reports would reach the right people responsible for the EQRS tasks as well as those who provide oversight. With quarterly IPRO Learn activities reminding facilities to update their personnel, the Network maintained a bounce rate of less than 5% for emails sent to facilities.

The Network collaborated with Small Dialysis Organizations to encourage them to improve their EQRS compliance process. This led to several organizations designating corporate-level EQRS data contacts to help monitor facility EQRS performance and caused some to enhance their EMR systems to be more compatible with EQRS batching.

The Network gathered *Best Practices for Improving EQRS Compliance* from successful dialysis facilities and distributed the list of suggestions to facilities across the Network's service area. When asked via the IPRO Learn platform whether their facility planned to implement some of the best practices provided, 97% responded that they would.

Hospitalization (Inpatient Admissions, ED Visits, Readmissions and COVID-19 Admissions) May 2022-April 2023

Project Overview

Individuals with end stage renal disease (ESRD) have the highest risk for acute care services, including hospitalizations and emergency department visits, among those with chronic medical conditions¹. There are many reasons dialysis patients may not be able to achieve and maintain optimal health. These can include comorbidities associated with ESRD (e.g., anemia, diabetes, cardiovascular disease, mental health issues) and increased risk of bloodstream infections, pneumonia, urinary tract infections, peritonitis and access site infections. They may also be related to health maintenance behaviors, such as lapses in preventive health checkups, medication errors, dietary issues, physical inactivity, use of alcohol or tobacco, and missing or shortened dialysis treatments. These risks are further compounded when patients have an unstable social support system; financial problems; or limitations in access to food, shelter, transportation, clothing, medication, medical care, or emotional support.

The Network collaborated with dialysis providers across its service area to reduce inpatient hospital admissions, 30-day hospital readmissions, and outpatient emergency department visits related to the CMS Primary Diagnosis Categories. Network staff met with patients, nephrologists, primary care practitioners, transplant surgeons, transplant and dialysis facility staff representing all modalities, regional management of dialysis organizations, and the Quality Innovation Network-Quality Improvement Organization (QIN-QIO) staff working on improving care transitions in the Network's service area. Informed by these meetings, Network staff planned, developed, and implemented quality improvement strategies that included peer mentoring, guiding staff in working with patients to create comprehensive and meaningful plans of care and patient-centric quality improvement activities at dialysis facilities. In addition, the Network incorporated a cross-cutting focus on health equity, rural health, and patient and family engagement to reduce incidents of hospital admissions, readmissions, and emergency department visits.

Due to the significant drop in hospitalizations related to COVID, the COVID hospitalization reduction measure was removed by CMS for this performance period.

Interventions

After determining that an area of central South Carolina, with a large African American population, had the highest percentage of diabetic patients in the country requiring below-the-knee amputations, the Network conducted an environmental scan related to social determinants of health to identify the underlying cause for this high statistic.

¹ Li HL, Tai PH, Hwang YT, Lin SW, Lan LC. Causes of Hospitalization among End-Stage Kidney Disease Cohort before and after Hemodialysis. *Int J Environ Res Public Health*. 2022 Aug 18;19(16):10253. doi: 10.3390/ijerph191610253. PMID: 36011888; PMCID: PMC9408097.

Members of the Network team met with Dr. Patrick Gee, a patient advocate working with Project TECH (Technology, Education, Communication, and Healthcare), the communications services and programs subsidiary of Trinity Baptist Church's Educational Community Center in Columbia, South Carolina. This group holds a monthly virtual support meeting for diabetic patients that have chronic and end stage renal disease.

The Network was invited to speak at a Project TECH meeting and began a collaboration with this group. To encourage healthy eating as a way to address high rates of amputations within this community, the Network worked directly with 11 facilities in the targeted area. The Network

- promoted to facilities the availability of healthy foods at a newly opened farmers' market to promote healthy eating.
- convened a workgroup comprising dialysis facility regional operations directors, quality managers, facility managers, and social workers in the targeted area.
- Built on the work of the Project TECH support group, the work group's efforts focused on increasing diabetes education and instituting a program of regular diabetic foot checks in facilities within the targeted communities.

The Network worked directly with 11 facilities in the targeted area to improve health equity related to below-the-knee amputation in diabetic African American patients. Collaborating with the facilities, the Network developed a patient-facing foot care resource and linked facilities and patients to resources provided through the Project TECH program. This education increased attendance at a diabetic peer support group by 20%, and this area now has a podiatrist who performs in-center rounding at all 11 facilities.

To help patients and their caregivers determine the appropriate level of care needed in a particular situation, the Network distributed a patient-facing resource, *How are you feeling today?* This resource was distributed to more than 19,000 patients across the IPRO ESRD Network Program region, and more than 90% of the facilities in the Network's service area indicated that they would adopt this resource as part of their patient education.

The Network created a COVID Technical Assistance Process, which included identifying facilities that had increased hospitalizations related to COVID-19 cases; surveying the facilities, documenting the outcomes, and following up as needed. As facilities were identified, the Network created a technical assistance facility spreadsheet to house the information provided; facilities received a set of questions to help the Network staff understand the impact COVID-19 continued to have across the Network service area. Once gathered, this information was provided to each facility's administrator, head nurse/nurse supervisor, medical director, ESRD Quality Reporting System (EQRS) contact, regional director of operations, regional quality manager, and regional/divisional VP. The Network offered ways to help reduce the spread of infection (e.g., Network resources including the *IPRO Dialysis Audit Tool*, *Environmental Surface Disinfection*, as well as other infection control audit tools made available by the ESRD NCC and the CDC.

In addition to the strategies identified above, the Network reinforced best practices for infection control based upon the current Centers for Disease Control and Prevention (CDC) recommendations for dialysis facilities. Network staff also continued to provide 1:1 technical assistance to facilities that were dealing with increased hospitalizations due to COVID-19, to better understand its continued impact on the facilities and to identify if lack of infection control could be a contributing factor to high hospitalization rates.

Outcomes

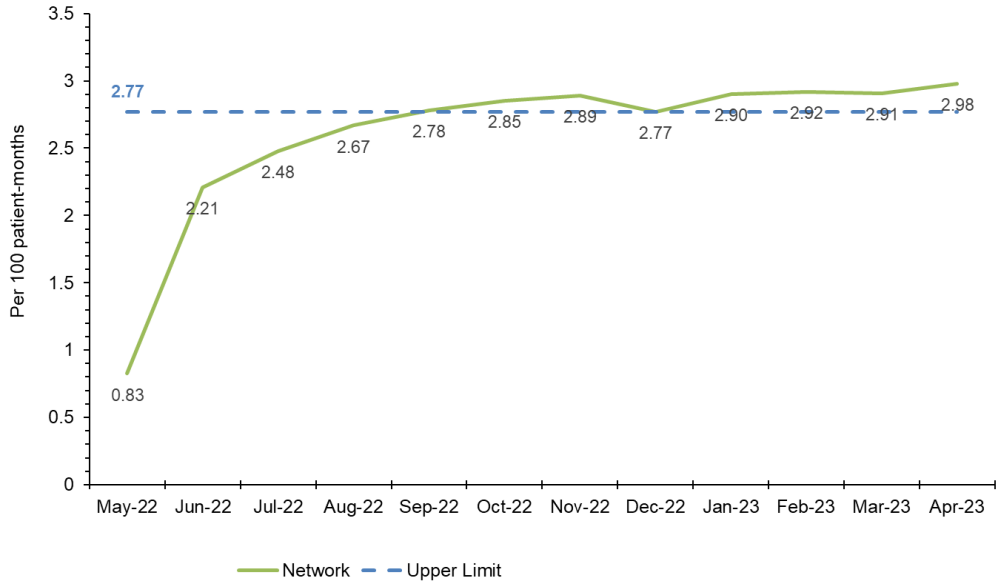
During the performance period, the Network's goal was to support dialysis facilities in its service area in attaining a 3% reduction from baseline in hospitalizations, readmissions, and emergency department visits: for an aggregate total reduction goal of 5% from baseline. The baseline data were collected from Medicare Claims for January-December of 2020. The Network worked with facilities and stakeholders to achieve a reduction in hospitalizations from baseline (10,535) to 7,219; a reduction in readmissions from baseline (1,041) to 707; and a reduction in emergency department visits from 6,616 instances at baseline to 3,937 at the end of the performance period.

Based on an average admission cost of \$12,944 per instance for a Fee-for-Service (FFS) Medicare patient, the Network successfully reduced Medicare costs in its service area by \$42.9 million by decreasing the number of inpatient admission incidents from baseline by 3,316. The Network's efforts led to a reduction of emergency department visits by 2,679 from the baseline, yielding savings in Medicare costs of \$1.9 million dollars (based on average savings of \$727 per visit)².

The Network 6 service area had the lowest level of COVID-19 hospitalizations in the nation during the performance period.

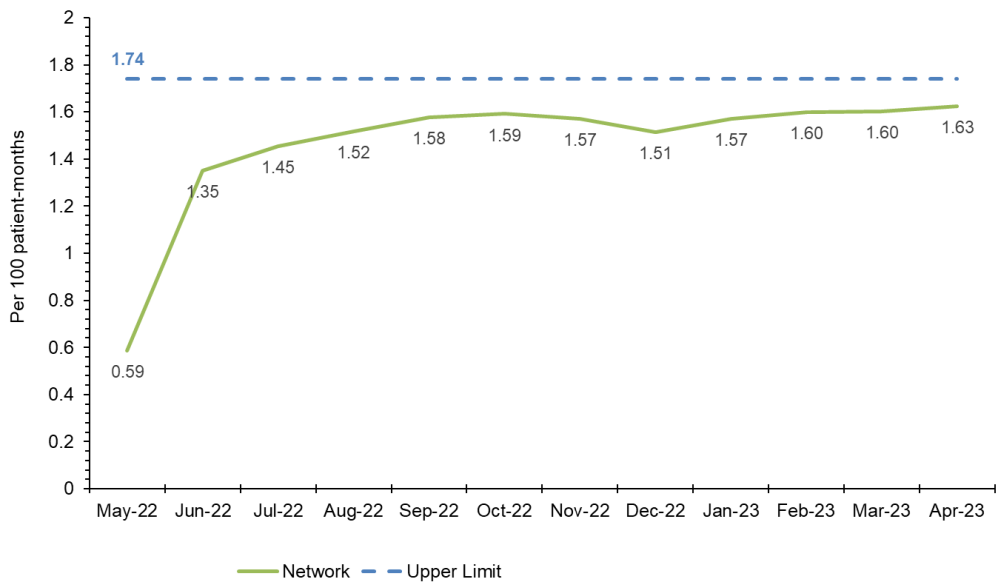
² ESRD National Coordinating Center (NCC) data as of April 2023)

**Network 6: Rate of ESRD-Related Hospital Admissions per 100 Patient-months (lower values are better)
May 2022 - April 2023**

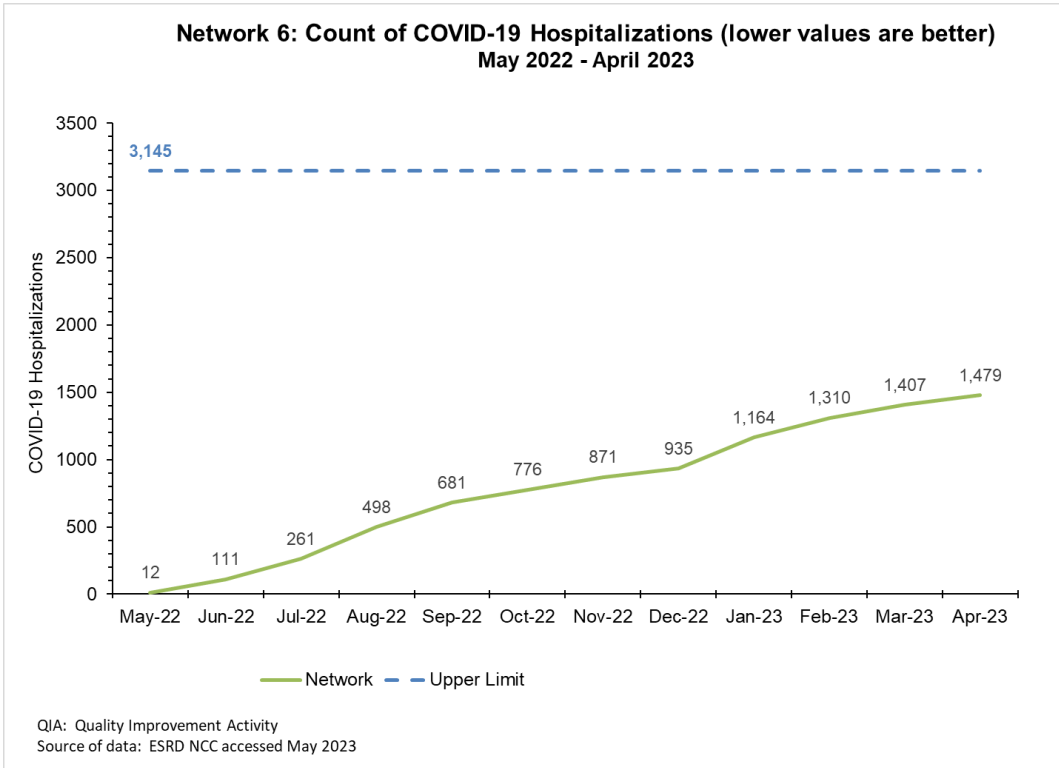
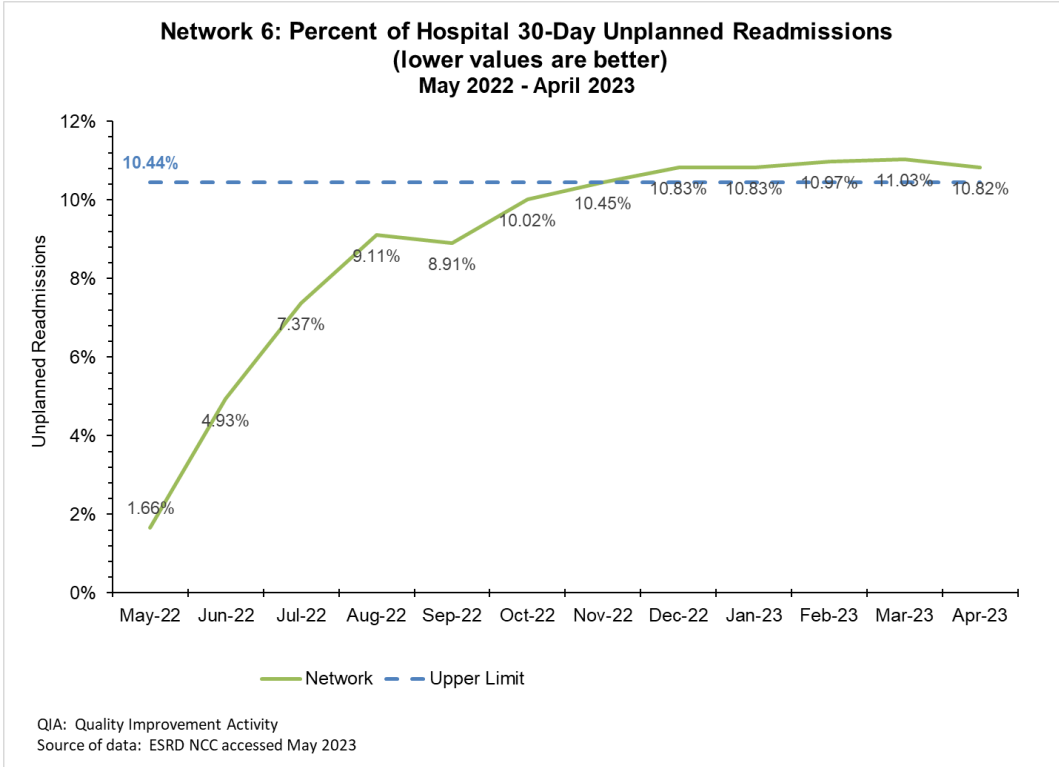


QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

**Network 6: Rate of Outpatient Emergency Department Visits per 100 Patient-months (lower values are better)
May 2022 - April 2023**



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023



Barriers to Achieving Goals

The baseline data for all indicators were collected during 11 months of the COVID-19 pandemic (June 2020 to April 2021). Due to the COVID surge overwhelming and crippling hospitals, during this period patients were discouraged or unable to seek acute services for anything other than absolute emergencies.

In addition, because the total number of admissions for the baseline period excluded those patients whose admissions were due to COVID, the baseline data reflected a lower rate of acute service utilization than what actually occurred; a factor that limited the Network's ability to further reduce admissions during the performance period.

Best Practices Spread to Achieve Goals

In September 2022, the Network hosted a best practice call for facilities in its service area. The speaker, Dr. Vicki Teodorescu, a member of the hospital advisory group, shared her use of telemedicine to decrease unnecessary hospitalizations and ED visits related to access complications. Dr. Teodorescu utilizes telemedicine to increase communication among patients, the facility care team, and the vascular surgeon. She has instructed "cannulation experts" in the seven dialysis centers she services to use a ultrasound machine to gather and share images with the vascular surgery staff. Patients expressed that they were pleased that they did not have to go back and forth to the surgeon's office and that they had a better understanding of their access development, plans for care, and whether there was a need for more progressive monitoring.

The Network created a COVID Technical Assistance Process, which included identifying facilities that had increased hospitalizations related to COVID-19 cases; surveying the facilities, documenting the outcomes, and following up as needed. As facilities were identified, the Network created a technical assistance facility spreadsheet to house the information provided; facilities received a set of questions to help the Network staff understand the impact COVID-19 continued to have across the Network service area. Once gathered, this information was provided to each facility's administrator, head nurse/nurse supervisor, medical director, End Stage Renal Disease Quality Reporting System (EQRS) contact, regional director of operations, regional quality manager, regional/divisional VP. The Network offered ways to help reduce the spread of infection (e.g., Network resources including the *I PRO Dialysis Audit Tool*, *Environmental Surface Disinfection*, as well as other infection control audit tools made available by the ESRD NCC and the CDC).

Depression Treatment

September 2022-April 2023

Project Overview

Studies have shown that there is a high incidence of depression in ESRD patients. Depression can have a dramatic impact on patients' lives. It is not only shown to decrease quality of life for ESRD patients, but it can also increase patients' risk of mortality. Due to the high incidence of depression being identified in ESRD patients the goal of this project was to increase the depression screening rates for ESRD patients in the Network's service area to a minimum of 80% to aid in the identification of depression and to promote treatment with those that test positive for depression, resulting in a 6% increase in treatment rates.

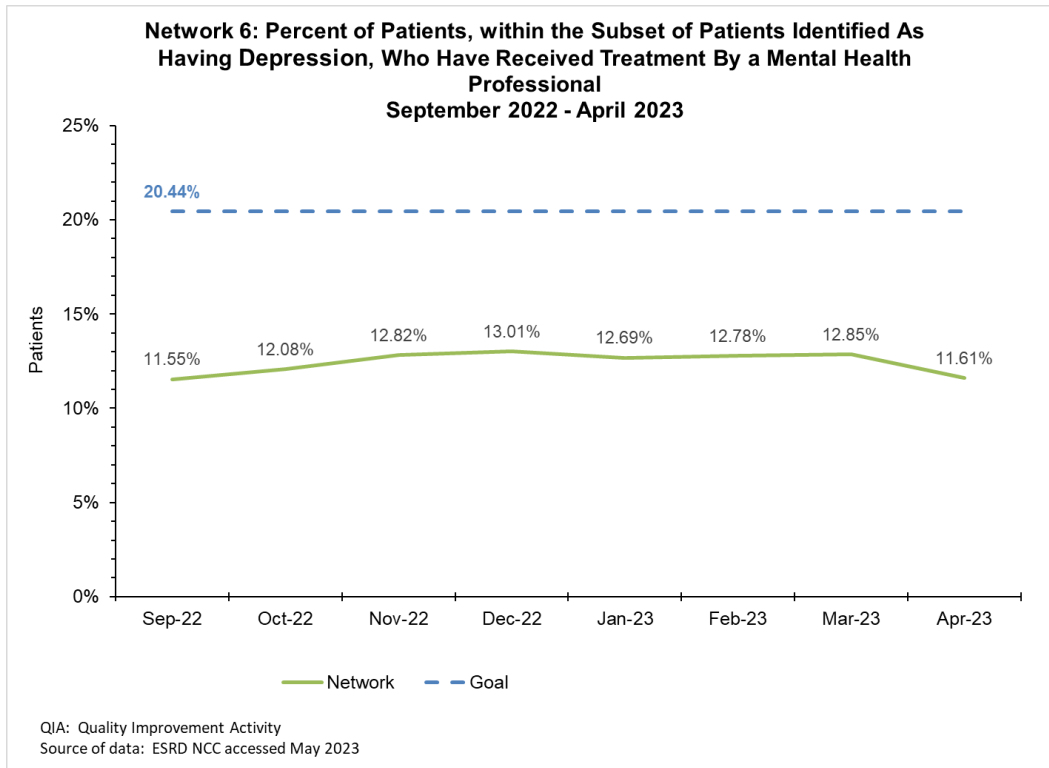
Interventions.

The Network worked closely with facilities in its service area and used a multi-prong approach that was informed by ongoing communications with facilities, evaluation of results of facility root cause analyses, input from the Network's medical review board and advisory committees, and information gleaned from best practice calls.

The most common barriers identified when referring patients for mental health treatment included stigmatizing beliefs/shame, lack of mental health providers, appointment fatigue, and denial. These factors guided The Network's interventions. The Network developed resources for facility staff that addressed the stigma of depression, including *Stop the STIGMA Surrounding Depression* and *Shatter the STIGMA, Flipping the Facility Culture Frequently Asked Questions*. To mitigate the effects of the shortage of mental health providers and appointment fatigue, the Network shared resources including the National Institute of Mental Health *What is Telemental Health*, *United Way 211*, and *Substance Abuse and Mental Health Services (SAMHSA) Locating Telehealth Services for Behavioral Health*. In addition to these resources, the Network shared Mental Health America's *The Rural Mental Health Crisis* and *The State Guide to Rural Health Resources*.

Outcomes

The Network exceeded the 80% screening goal, with a rate of 99.1% of patients screened. Once screened positive for depression, the Network worked with facilities to refer patients for mental health treatment. The goal was for 21.13% of those patients that screened positive to receive mental health treatment. The Network did not reach that goal, but efforts resulted in 11.61% receiving mental health treatment. The interventions released by the Network were adopted for use by participating facilities at a rate of 88 % demonstrating a high acceptance rate.



Barriers to Achieving Goals

Barriers included issues with the accuracy of treatment data, the timeliness of the dataset for depression, and depression treatment data not being available until September of the program year. The Network worked with the ESRD National Coordinating Center (NCC) to resolve these issues and to address the identified barriers shared by the community.

Best Practices Spread to Achieve Goals

The Network worked closely with a nephrology practice that is a part of the voluntary kidney treatment choices payment program to understand best practices they had put in place to improve depression treatment. Through this partnership the Network began to model for facilities best practices that the nephrology practice determined were instrumental in improving outcomes. The Network also hosted quarterly best practice calls focusing on a variety of topics, including how to work with patient mentors to support effective facility communication about depression and patient education. We also hosted a best practice call to review the depression data and performance report cards which led to further enhancements in our reporting processes based on facility feedback.

Nursing Home (Blood Transfusion, Catheter Infection, and Peritonitis) May 2022-April 2023

Project Overview

The Network team recognizes the importance of ensuring the safety and quality of care provided for the vulnerable population of renal patients receiving dialysis in a nursing home setting. As reported in the United States Renal Data System (USRDS) Annual Data Report (ADR), *“nursing home ESRD patients have high rates of comorbid disease: 77.5% cardiovascular disease, 62.9% diabetes, 36.5% depression, 19.9% Alzheimer’s/dementia, and 15.5% chronic obstructive pulmonary disease (COPD). Furthermore, mortality is significantly higher in nursing home ESRD patients compared to all ESRD patients. In the USRDS 1998-2000 ESRD cohort, the mean death rate for nursing home patients with ESRD was 3.5 times that of the ESRD population in general.”*³

The Network collaborated with ESRD providers who provide dialysis in the nursing home setting, nursing home facilities, patients and other key stakeholders to improve patient safety, reduce harm, and improve care for ESRD patients living in a nursing home and receiving their dialysis care in that setting. The Network focused activities on attaining a 6% reduction in hemodialysis catheter infection rates and a 3% reduction in the rate of patients receiving blood transfusions from the prior year’s baseline rates.

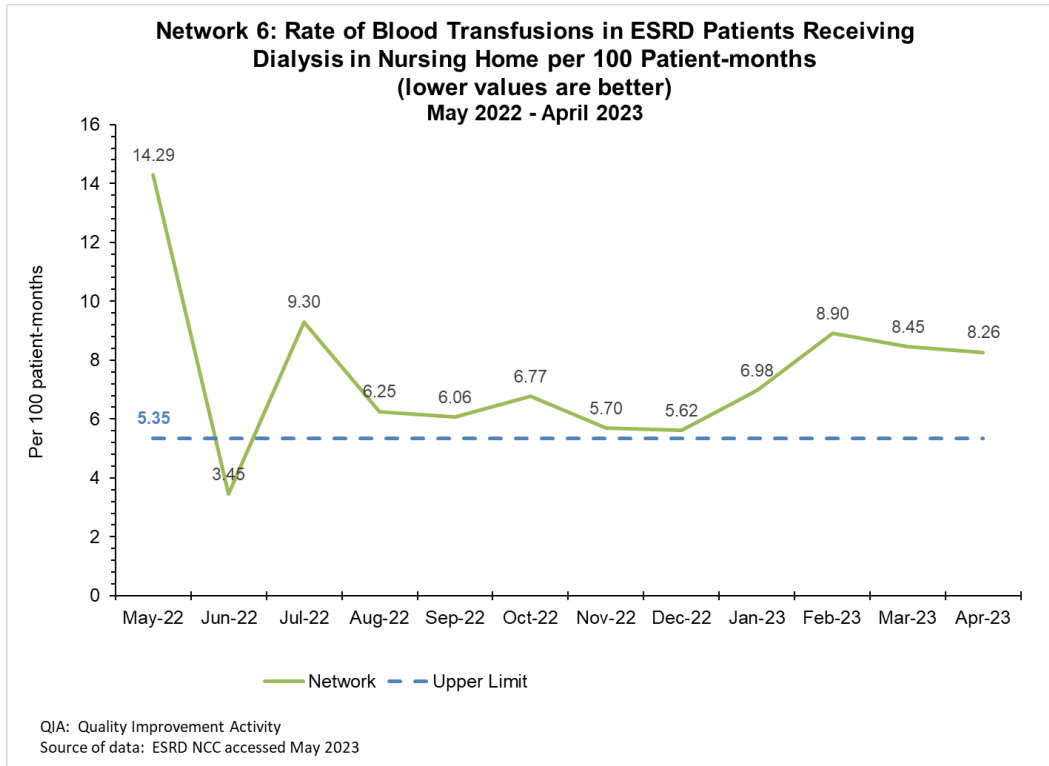
Interventions

The Network worked closely with facilities in conducting one-on-one root cause analyses (RCA) as infections and or transfusions were reported. Facilities were given resources to help mitigate any barriers identified based on the findings of the RCA. The Network prompted facilities to conduct a plan- do-study-act cycle to evaluate interventions they implemented. Good infection control practices and best practices in management of the hemodialysis catheter care were reviewed and emphasized throughout the performance period. To reduce the need for blood transfusions, the Network focused efforts on providing technical assistance to ensure care coordination and medical management were implemented for at-risk patients with low hemoglobin counts. The Network released two care coordination resources: 1.) a hand-off checklist to help with communication between the dialysis provider and the nursing home at the point of care, and 2.) an integrated care plan to encourage collaboration between the nursing home and the dialysis provider in developing patient care plans. We also provided tools to conduct reviews of blood transfusion indices and shared best practices on the use of red blood cell stimulating medications administered with greater frequency (e.g., three times per week rather than long-acting medication administered one time per week).

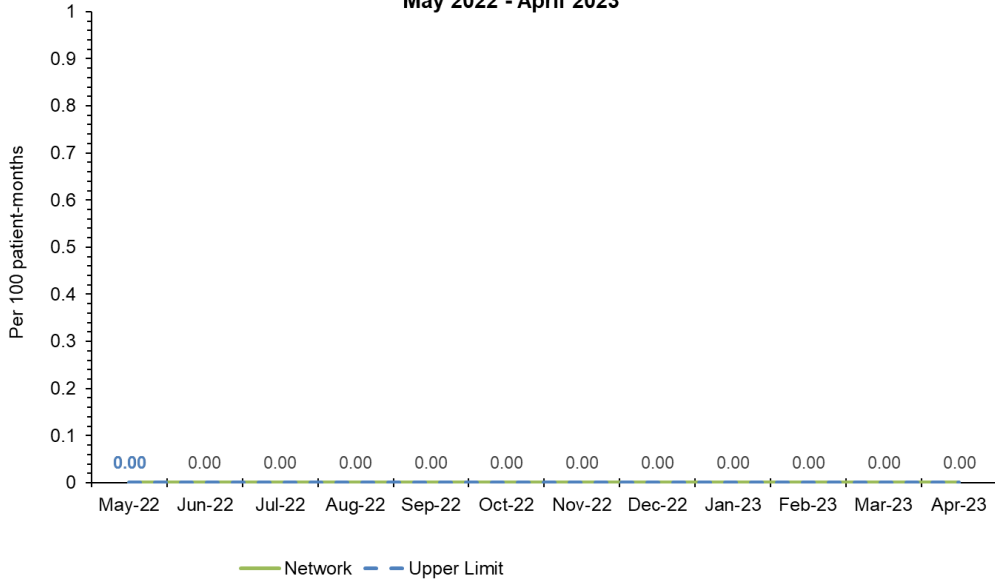
³ Yang A, Lee, W, Hocking, K. Health outcomes in nursing home patients on dialysis. Helio. 2014; Online.

Outcomes

During the baseline period, there were 0 catheter infections reported in the Network's service area. The Network's efforts during the performance period resulted in maintaining a rate of 0 infections throughout the performance year. There were 20 transfusions in the Network's service area during the performance period, a reduction of 3% was not achieved for the performance year.

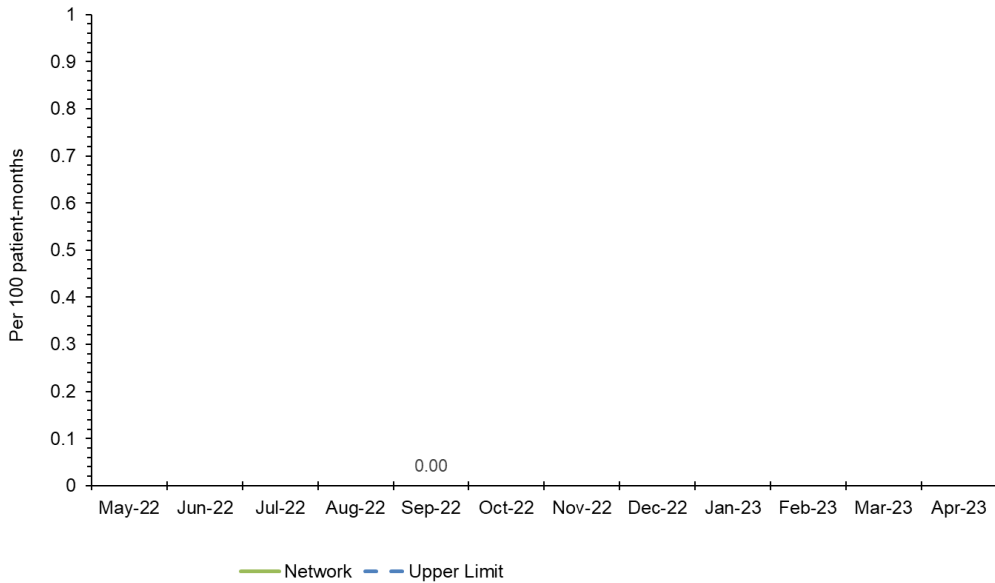


Network 6: Rate of Hemodialysis Catheter Infections in Home Dialysis Patients within Nursing Homes per 100 Patient-months (lower values are better) May 2022 - April 2023



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

Network 6: Rate of Peritonitis Events in Home Dialysis Patients within Nursing Homes per 100 Patient-months (lower values are better) May 2022 - April 2023



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

Barriers to Achieving Goals

Bloodstream infections reported in NHSN can originate at various sites and are not always caused by a hemodialysis catheter. A barrier for this quality improvement activity was difficulty in correctly identifying the most likely source of the infection in patients with multiple potential sites. The Network team took a broad approach in addressing this barrier by providing education to all the dialysis providers on the CDC released catheter care and infection control protocols. The Network also provided education to the nursing home staff on how to care for a patient with a hemodialysis catheter. Often the bloodstream infections reported were due to other sources of infection which were outside the Network's scope.

A large barrier to reducing transfusions in the Network's service area for this year, was the growth of the patient census. The baseline data were based on a census of one patient, and the census for this performance period increased to more than 60 patients.

Best Practices Spread to Achieve Goals

The Network worked one-on-one with nursing home dialysis providers to share information on a best practice focusing on the use of more frequently dosed medications to stimulate red cell production to reduce blood transfusion rates. With the frequency that a nursing home patient's condition changes, as well as the potential for missed doses, dialysis providers in the nursing home setting have found more success in maintaining the patient's hemoglobin using a medication that is given more frequently (e.g., three times per week) rather than a long-acting medication administered one time per week. The Network also focused on increasing communication between the dialysis provider and the nursing home and shared best practices for improving communication about the care of their patients.

Telemedicine

May 2022-April 2023

Project Overview

Telemedicine has been found to provide a useful tool to improve access to care for patients living in rural settings who must travel long distances to meet face to face with their care team. It also can reduce the risk of travel accidents and exposure to infection in vulnerable populations.

During the performance period, the Network focused on increasing the number rural patients participating in telemedicine visits by 3%.

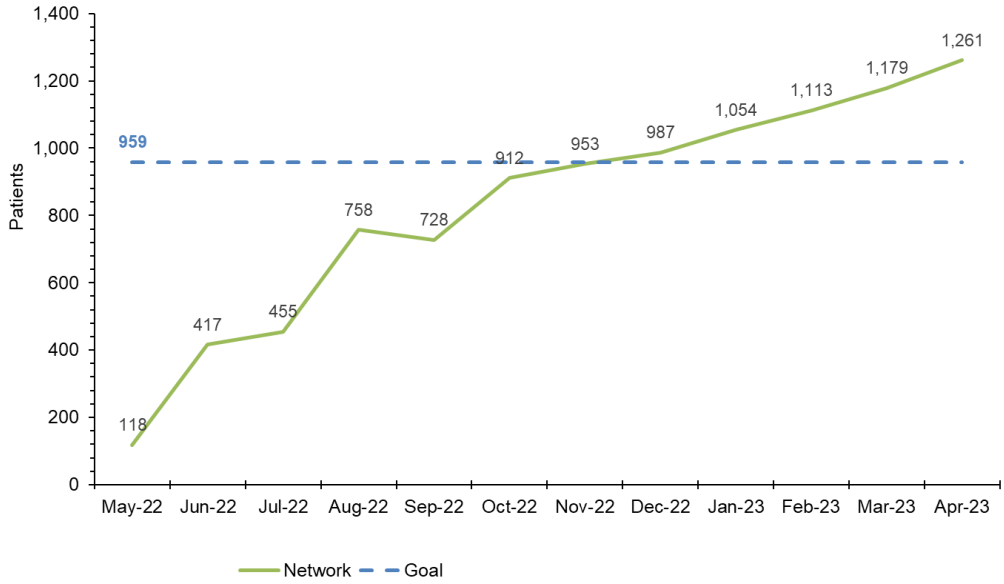
Interventions

Based on zip codes, the Network identified facilities that provided treatment to rural patients and then worked with this group of facilities as a community coalition to share information, interventions, and resources to improve use of telemedicine with their rural patients. In the Network 6 service area, the Network team also worked with a focus on making sure all patients had access to the use of telemedicine. We shared information on government programs to ensure connectivity (Federal Communications Commission's Affordable Connectivity Program); to pay for Wireless Fidelity (Wi-Fi) (White House Affordable Connectivity Program); and to provide smartphones to those in need (Lifeline Free Government Phone Program). We also shared information about free telehealth platforms that were recommended by high performing facilities for their ease of use. These resources were provided to the entire community and have been posted as references on the IPRO Learn learning management system platform.

Outcomes

Network 6 was successful in achieving 132% of its goal; resulting in a total of 950 telemedicine visits with patients in rural settings during the performance period.

**Network 6: Count of Rural Patients Using Telemedicine To Access a Home Modality
May 2022 - April 2023**



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

Barriers to Achieving Goals

Identified barriers to the use of telemedicine were issues with access. Resources like the information shared above on how to help patients with connectivity, Wi-Fi costs and smartphone accessibility were an ongoing focus. One main area of concern was the total lack of internet availability in some rural areas. This, of course, made it impossible for patients in these areas to access a platform to conduct a telemedicine visit. Discussions with facilities led to a suggested mitigation strategy whereby patients would be asked to consider driving to a location where they could get internet service to conduct a telehealth visit, assuming that this location would be a shorter distance than they would have to travel if they went to the facility for their appointment.

Best Practices Spread to Achieve Goals

Using the IPRO Learn platform, the Network asked every facility in its service area to review and provide feedback on the different government programs available to assist with telemedicine access and to share these best practice resources. An average of 90% of facilities completed this activity, with the high-performing facilities sharing their best practices and resources with the other facilities in the community coalitions. We also provided success stories about facilities using these resources and how it helped them to improve their telemedicine rates.

Pneumococcal Vaccinations (PCV13 & PPSV23) May 2022-April 2023

Project Overview

Pneumococcal disease is a serious infection caused by *Streptococcus pneumoniae* bacteria, causing contagious and potentially severe illness, including pneumonia, meningitis, and sepsis. The Centers for Disease Control and Prevention (CDC) estimates that more than 150,000 hospitalizations from pneumococcal disease occur annually in the U.S. According to the CDC, an estimated 30,300 cases and 3,250 deaths from invasive pneumococcal diseases (bacteremia and meningitis) occurred in the United States in 2019.

The Network worked to increase the vaccination rate for individuals with ESRD residing within its service area working to achieve the following goals:

1. Achieve a 10% increase in the number of dialysis patients receiving a PCV 13, for a 20% total increase from the baseline (May 2021- April 2022) by the end of performance period (April 2023).
2. Work to ensure 90% of dialysis patients receive a pneumococcal polysaccharide vaccine (PPSV 23).
3. Achieve a 10% increase in the number of patients receiving a booster PPSV 23 from the baseline to the end of performance period (Baseline May 1st, 2021 – April 30th, 2022)
4. Work to ensure 85% of dialysis patients over age 65 receive a PPSV 23 by the end of the performance period.

Interventions

Using the learning management system platform, IPRO Learn, the Network provided facilities with resources and interventions to support implementation of effective strategies aimed at increasing patient vaccination rates throughout the program year. The Network focused its approach on providing education to patients on the importance of pneumococcal vaccination, with a goal to increase the number of PCV 13 and PPSV 23 vaccines for patients with ESRD. Special attention was given to creating an increase in vaccines for patients 65 years and older.

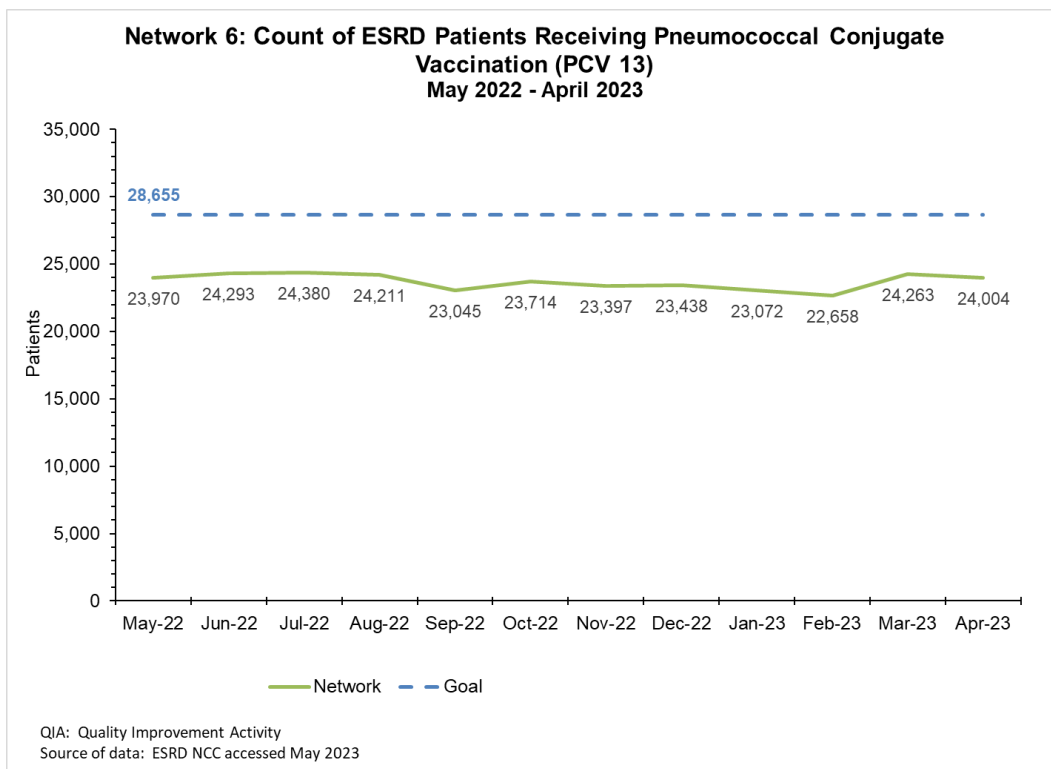
The Network created and distributed the *Get the Vaccines You Need!* educational pamphlet on the recommended vaccines for the adult ESRD population. In addition, the Network promoted *the Improving Vaccination Rates Toolkit* of resources on its IPRO Learn platform, which has a page of pneumococcal vaccination information covering education about the vaccine, the CDC's *Pneumococcal Vaccination*, a frequently asked question flyer produced by the CDC called, *Pneumococcal Conjugate Vaccine: What You Need to Know*, a PCV 13 and PCV 23 dosing algorithm produced by the CDC, and a guide on how to enter pneumococcal vaccinations into the ESRD national database, the End Stage Renal Disease Quality Reporting System (EQRS).

These resources were assembled into a vaccination rate toolkit, providing clear information on pneumococcal vaccine schedules and instructions for documentation in the End Stage Renal Disease Quality Reporting System (EQRS) to ensure that all vaccinations were recorded.

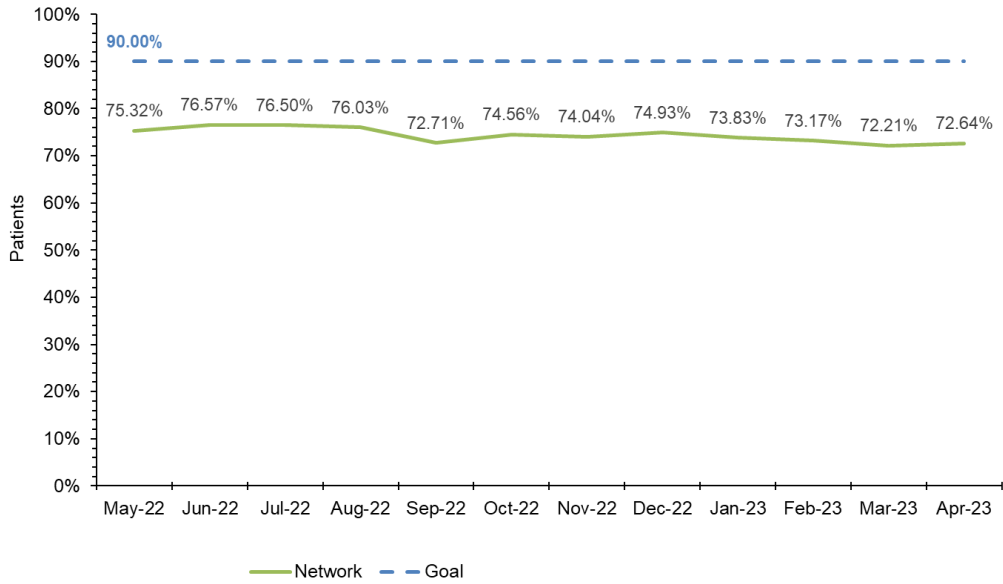
Facilities were provided other resources, including the *CDC's Pneumococcal Vaccination Information* to provide both patients and staff the best strategies to prevent serious illness and death in the immunocompromised ESRD population. When facility staff were asked about the usefulness of the interventions, tools, and resources made available by the Network, 96% of those who reviewed the toolkit noted they would use the materials provided in their practice.

Outcomes

In September 2022, the CDC released new pneumococcal guidelines to the community. These guidelines were updated to reflect new pneumococcal vaccinations that were available to the community which completely revised the vaccination dosing protocols for which the CMS goals were written. The Network encouraged ESRD facilities to adhere to the CDC pneumococcal guidelines to ensure patients were fully vaccinated by the current standards. CMS removed the outcome measures for pneumococcal vaccine from the 2022 – 2023 performance period for all Network programs since these goals did not align with the new standards.

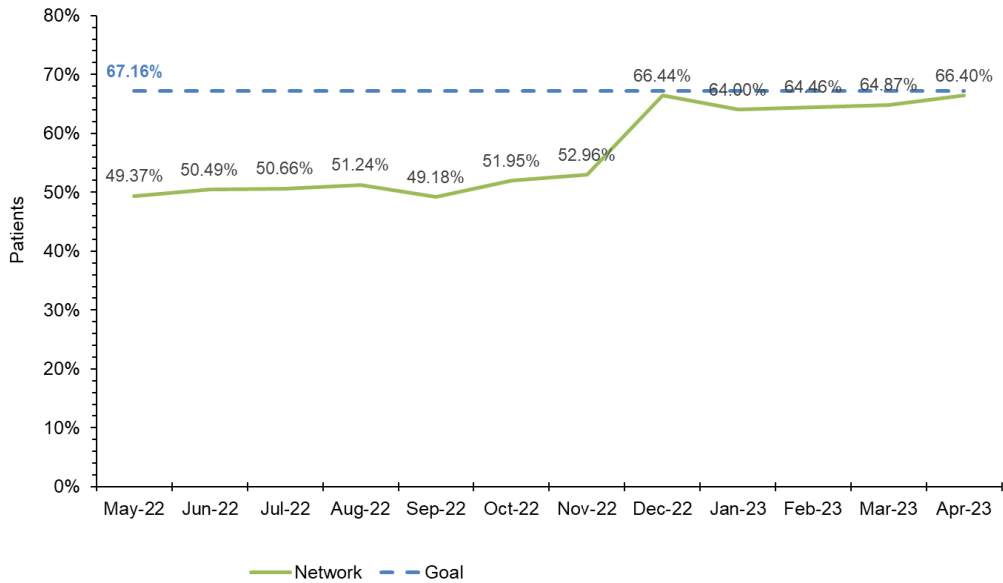


**Network 6: Percent of ESRD Patients Receiving an Initial Pneumococcal Polysaccharide Vaccination (PPSV 23)
May 2022 - April 2023**

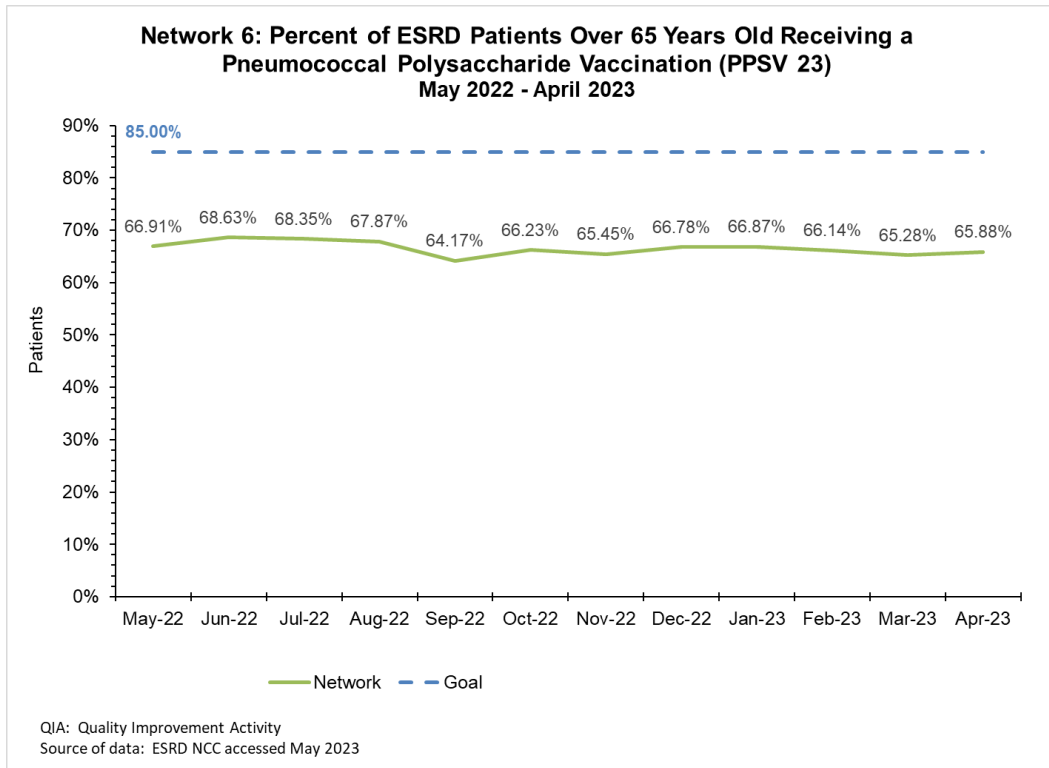


QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

**Network 6: Percent of ESRD Patients Receiving a Booster Pneumococcal Polysaccharide Vaccination (PPSV 23)
May 2022 - April 2023**



QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

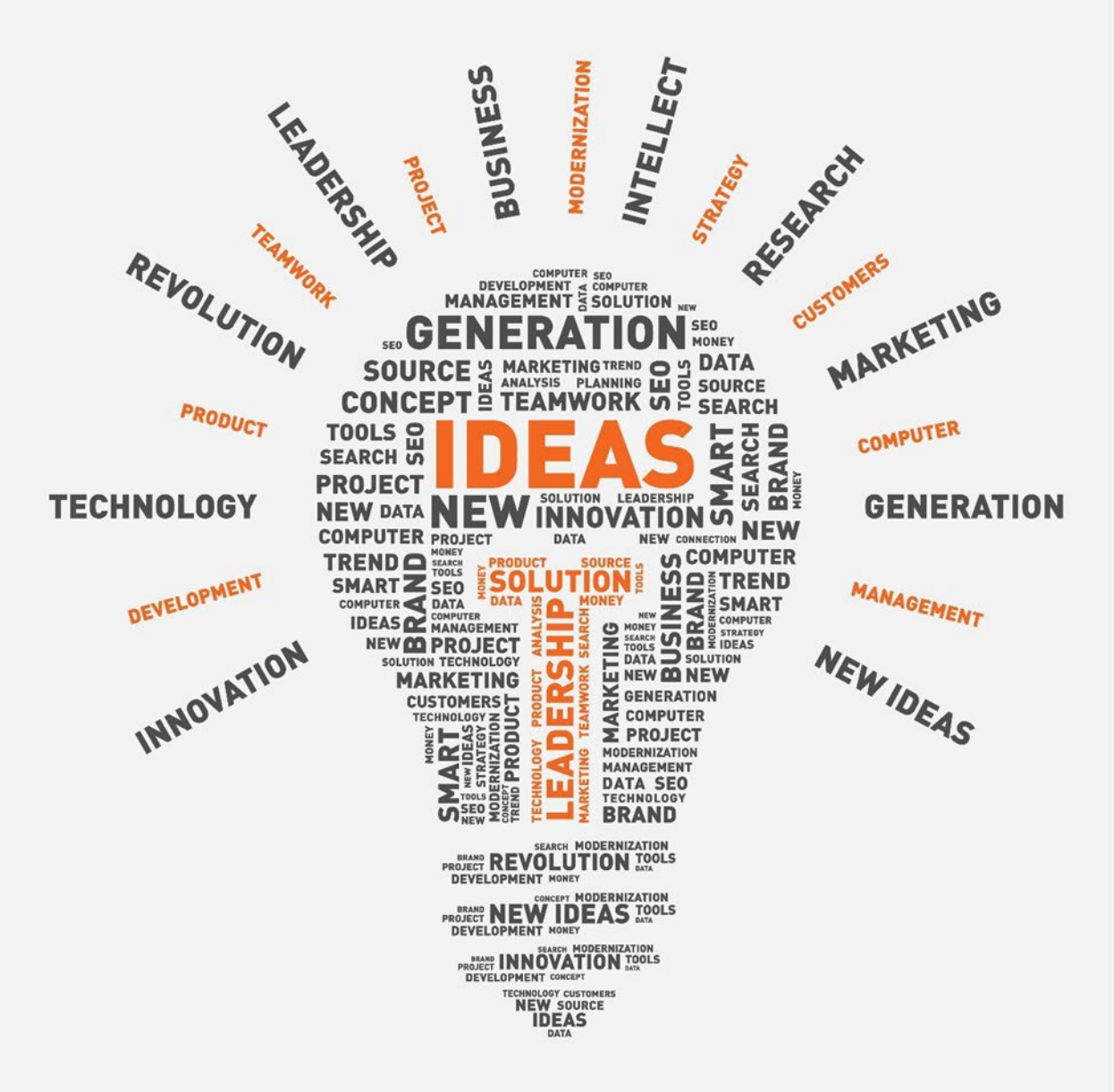


Barriers to Achieving Goals

The change in CDC guidelines for pneumococcal vaccine administration in the ESRD population prevented the Network from working toward the stated goals for the performance period. To address identified primary barriers, the Network encouraged adherence with the new CDC guidelines and worked to improve data accuracy in EQRS. Vaccine hesitancy continued to influence vaccination rates; patients who declined were still considered eligible candidates and contributed to facilities' low vaccination rates.

Best Practices Spread to Achieve Goals

Using the IPRO Learn platform discussion board, the Network facilitated discussions regarding best practices that were occurring in the community. Some best practices shared in this forum included utilizing Network-developed patient resources in facilities' new patient education as well as during times when vaccines were offered within the clinic. Facilities also indicated that the information from the Centers for Disease Control and Prevention (CDC) was shared with new patients who requested to know more about pneumococcal disease and vaccines. The Network also contacted all top performers in the region and shared best practice tips via a poster session provided on our IPRO Learn site. These best practices were also then featured in our biannual best practice calls series to reach all providers in the Network's service area.



ESRD Network Recommendations

Facilities that Consistently Failed to Cooperate with Network Goals

With the pandemic drawing to an end the Network has garnered the support of facilities throughout its community to aid in the implementation of Network initiatives and to collaborate in meeting Network goals. The Network did not identify any facilities in its service area that failed to cooperate with the goals.

Recommendations for Sanctions

The ESRD Network did not recommend any facility for sanctions.

Recommendations to CMS for Additional Services or Facilities

In working with the facilities across the region the Network identified these additional services which would benefit our provider community:

1. Creating a mechanism to support reimbursement to grow self-care dialysis facilities in the densely populated urban areas would help to link patients to the benefits of a home dialysis prescription who have physical constraints and in turn expand home dialysis referrals/acceptance.
2. Improving the availability of transportation services for dialysis is a consistently requested additional service that facilities cite would improve their process.
3. Expanding transplant services and offering home dialysis to emergency Medicaid recipients was another frequently requested additional service for the community.

ESRD Network COVID-19 Emergency Preparedness Intervention

To assist in preventing the transmission of COVID-19 within the dialysis population, the Network of the South Atlantic reinforced infection control guidance based upon the current Center for Disease Control and Preventative (CDC) recommendations for dialysis facilities which included screening for COVID-19, personal protective equipment (PPE) and cleaning and disinfections while providing 1:1 technical assistance to facilities who trigger increased hospitalizations and completing an environmental scan to identify the true root cause to help minimize COVID-19 impact within the ESRD population. . In the 2023 calendar year, the Network received the following report of COVID-19 cases:

Network 6 Service Area	Sum of COVID-19 Positive(+) Patients	Sum of COVID-19 Positive(+) Staff
Georgia	7,657	1,150
North Carolina	7,690	1,052
South Carolina	4,252	677
Total	19,599	2,879

Due to the impact of COVID-19, many professionals transitioned out of the healthcare field, leaving dialysis units with a shortage of technicians and nurses. As the pandemic comes to an end, preparedness activities become less frequent, however; many facilities in the Network service area were forced to suspend services temporarily or permanently. The Network provided 1:1 technical assistance to providers coping with staffing shortages, including assisting with transitioning patients in nearby facilities. The Network strongly advocated for practitioners to be transparent with patients and their support networks regarding staffing shortages, including how it could impact treatment times and transportation.

The Network provided facilities with the *CMS Checklist for Dialysis Facilities in COVID-19 Hotspots*, available through IPRO learn and the ESRD Website. This checklist educated facilities on ways to perform self-assessments to ensure the facility is prepared to prevent the spread of COVID-19, which also provided guidance on routine infection control and reference regarding outpatient dialysis facilities having established policies and practices to reduce the spread of contagious respiratory pathogens.

The Network continued to maintain COVID-19 designated pages for both patients and professionals on its website, where new resources are easily identified by “New!” to alert the ESRD community of timely content. Network staff conducted additional 1:1 technical assistance to facilities to support and provided strategic ways to navigate through the pandemic.

ESRD Network Significant Emergency Preparedness Intervention

During the performance period, the Network documented all effects on facility operations due to emergency events using its Emergency Operational Status Report. This information was combined with data from the End Stage Renal Disease Quality Reporting System (EQRS), Critical Asset Annual Survey data, and information provided by the large dialysis organizations. The combined data sets were provided to Kidney Community Emergency Response (KCER). The Network developed and released the ESRD Emergency Mobil Hub Application in September 2022. The application allows patients and their support systems to subscribe to receive notifications regarding emergencies in their area. It additionally allows patients to store information regarding medications, preferred emergency contact and prepare an emergency to-go bag. Network 6 currently has 316 users in the South Atlantic.

Situations arising from the following events affecting dialysis facilities and patients were addressed by the Network during the performance period:

- Weather-Related Events: 92
- Emergent Events: 20
- Altered Schedule: 62
- Staff Shortage: 23
- Temporary Closures: 73
- Permanent Closures: 29

The Network 6 service area experienced 29 permanent outpatient dialysis closures during the performance period, as well as 23 reports of staffing shortages. Additionally, Georgia experienced a large hospital closure in September, leading to a surge of patients in nearby hospital emergency departments. The Network's review of the data revealed that most closures were due to staffing constraints.

Because of the reduced number of staff members at outpatient dialysis clinics, facilities relied on all staff members being present for successful daily operation. There were incidents in which a nurse or patient care technician was unable to report to work, and patients had to be re-routed to a nearby clinic for safe treatment. The Network contacted facilities struggling with staff shortages, encouraging them to utilize travel staff agencies or reroute patients to sister clinics.

In December 2022, a significant power outage occurred in Moore County, North Carolina, due to two electrical substations being damaged by gunshot. Thousands of residents were without power, and there was concern about the water supply being sabotaged. The Network provided support to clinics in the area and requested they strategize a back-up plan in the event that the facilities remain without power for several days. All clinics in the area were able to obtain emergency generators or divert their patients to other clinics with the resources to provide treatment.

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.