End-Stage Renal Disease
Network of New England

2022 Annual Report

Castle Hill Lighthouse, Newport, Rhode Island

This report will cover quality improvement efforts led by ESRD Network 1
Task Order Number 75FCMC21F0001 from May 1, 2022- April 30, 2023

July 2023
Prepared by:
IPRO ESRD Network of New England
http://esrd.ipro.org

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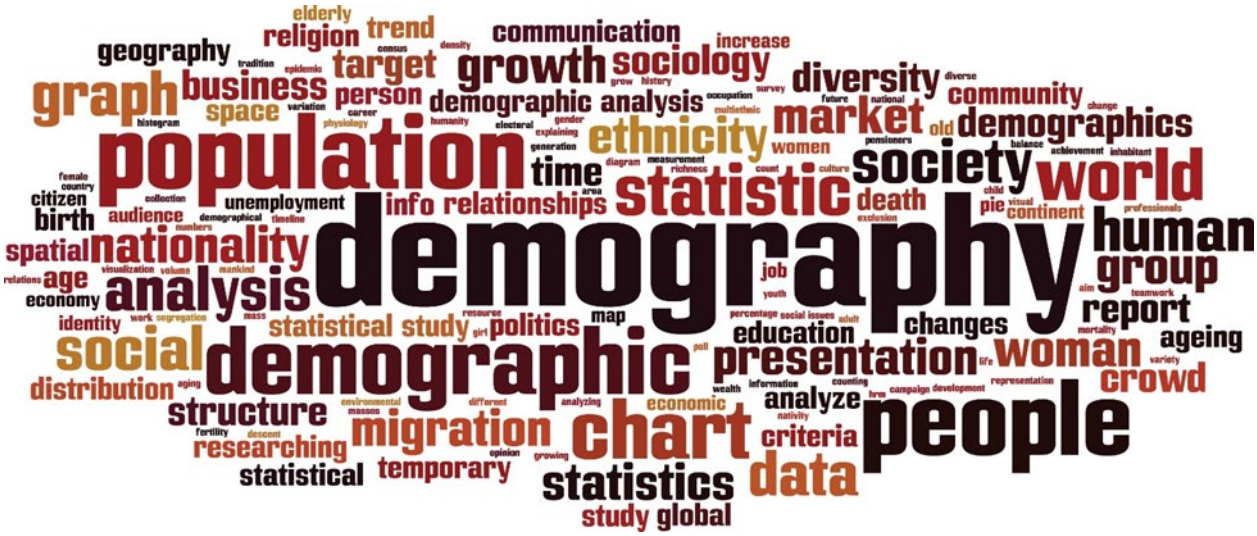
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ESRD Demographic Data

IPRO ESRD Network of New England (Network 1) 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 1 service area, IPRO manages the ESRD Network of New York (Network 2), ESRD Network of the South Atlantic (Network 6), 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 residing in the four Network service areas detailed above.

Network 1 serves ESRD patients, dialysis providers, and transplant centers in the states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. The role of Network 1 is to improve the quality of care and quality of life 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.

New England's 15.1 million residents are distributed over approximately 72,000 square miles. Its six states differ widely in terms of geography, population density, and socio-economic factors, all of which influence the availability of services, treatment choices, and quality of care for ESRD patients. For example, Maine is the largest New England state but has very few facilities (20 out of 204 dialysis facilities in Network 1, located primarily along the coast) providing service to a population that is spread out across the state. This presents a challenge for ESRD patients who may have to travel long distances to reach the nearest dialysis facility.

Of the total population of New England in 2022, population estimates indicate that 78% resided in the three southernmost states (Connecticut, Massachusetts, and Rhode Island), which also have the greatest number of individuals needing dialysis, and the greatest number of treatment centers. The remaining 22% resided in the three northernmost states (Maine, New Hampshire, and Vermont), which have the fewest dialysis facilities.

According to the U.S. Census Bureau estimates for 2022, New England’s population was 87% White, 6% Black or African American, 3.8% Asian, and 2.35% Other race. The Hispanic or Latino population represented 9.4% of the population. While most of the race and ethnicity categories for patients with ESRD in the Network's service area aligned with those of the general population, Black or African Americans represented 13.6% of ESRD patients (and 6.0 % of the total population), and Whites represented 75.8% of the ESRD patient population (and 87% of the total population).

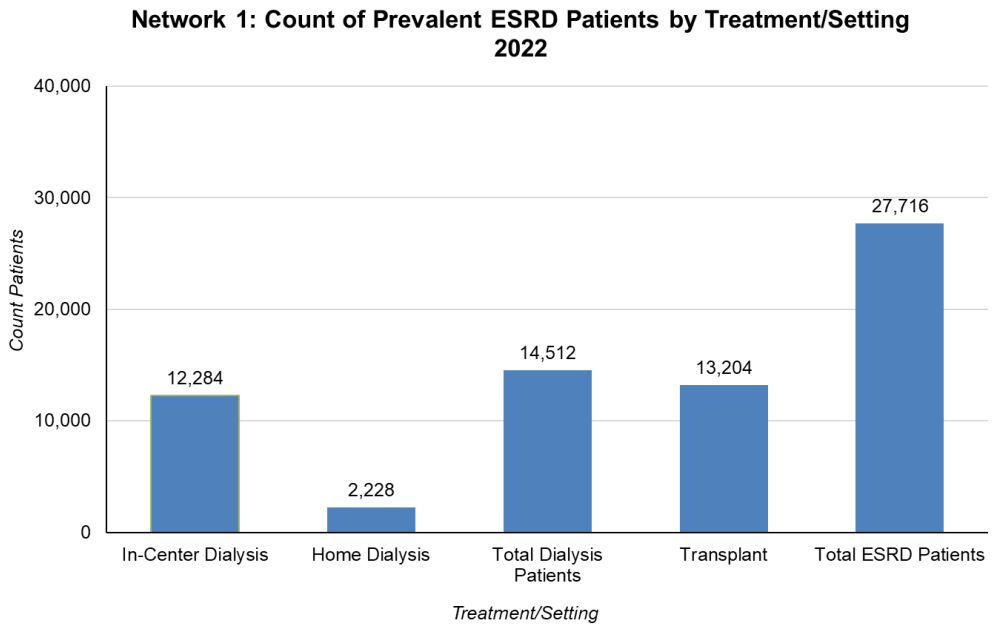
The ESRD population in the Network's service area was the smallest in the country as of December 31, 2022, according to ESRD National Coordinating Center (NCC) end-of-year data. As of December 31, 2022, 14,512 prevalent dialysis patients were reported as receiving dialysis treatment from facilities in the Network service area. There were 3,988 total incident patients in 2022, a slight increase from 2021.

These patients were served by 204 Medicare-certified dialysis facilities, which included four Veterans Affairs (VA) hospitals and 15 transplant centers. In 2022, 77 dialysis facilities in the Network's service area (38%) provided evening services. Access to care after normal business hours can greatly improve quality of life for ESRD patients who are able to work full-time while receiving treatment.

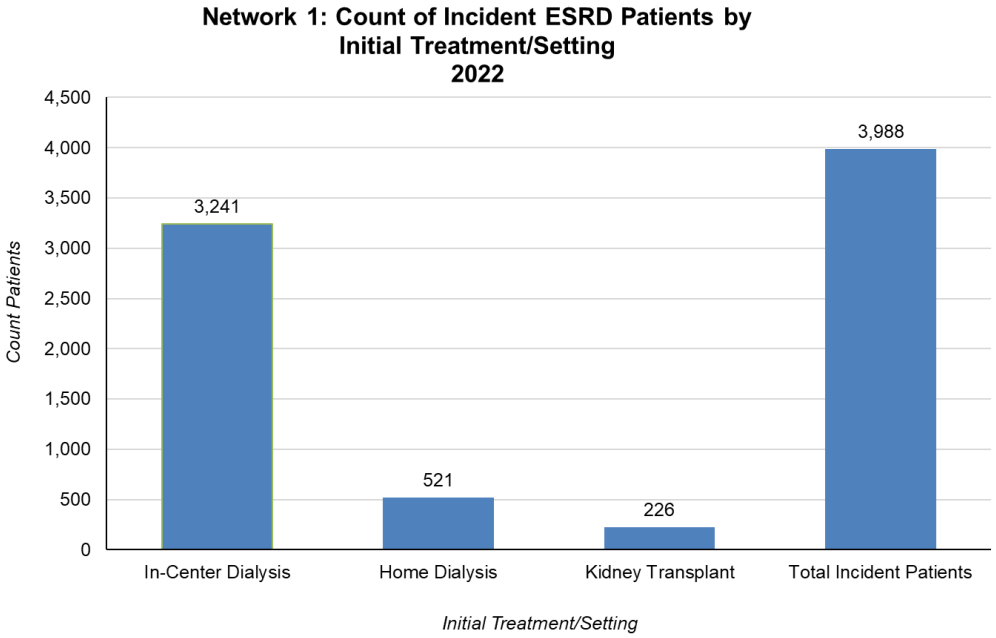
Patient Facility Representatives (PFRs), nominated by facility staff to engage with their peers, provided feedback about quality improvement activities and helped develop the Network's educational materials. Nominated PFRs participated in Network's calls and events as well as national calls. The PFR 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 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.

In 2022, the Network worked in collaboration with its Network Council, Medical Review Board, PFR Alliance, and Advisory Committees to develop quality improvement projects aligned with the CMS-identified goals for the ESRD Network program. The Network worked closely with ESRD patients, patients' family members and care partners, nephrologists, dialysis facilities and other healthcare organizations, ESRD advocacy organizations, and other ESRD stakeholders to improve the care for ESRD patients throughout New England.

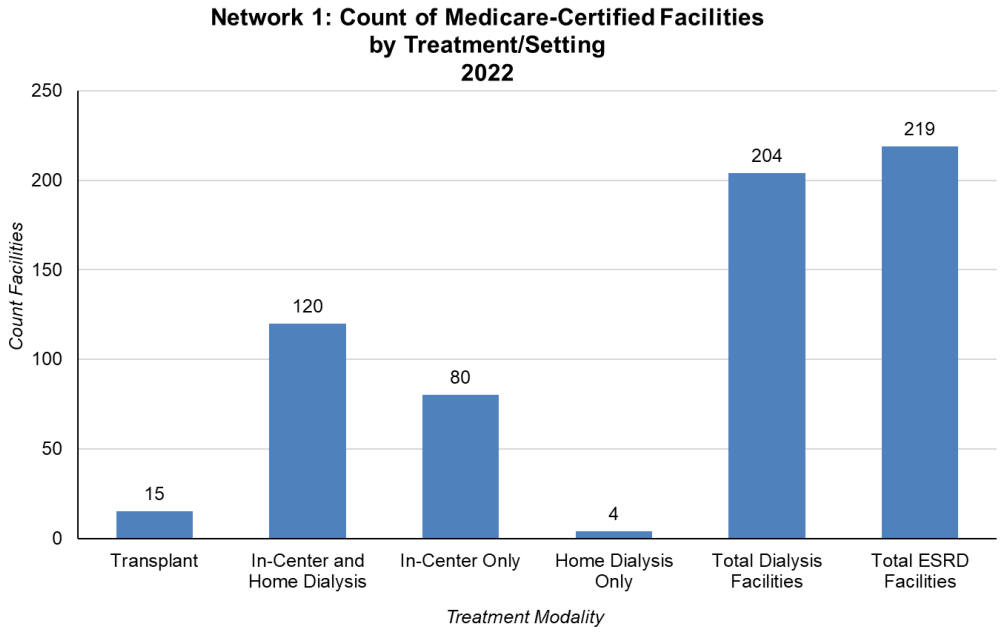
The Network deployed interventions through IPRO Learn, virtual learning management system (LMS), that targeted patients, dialysis and transplant providers, and other stakeholders. These interventions, which focused on engaging patients, reducing disparities, and improving quality of care for ESRD patients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



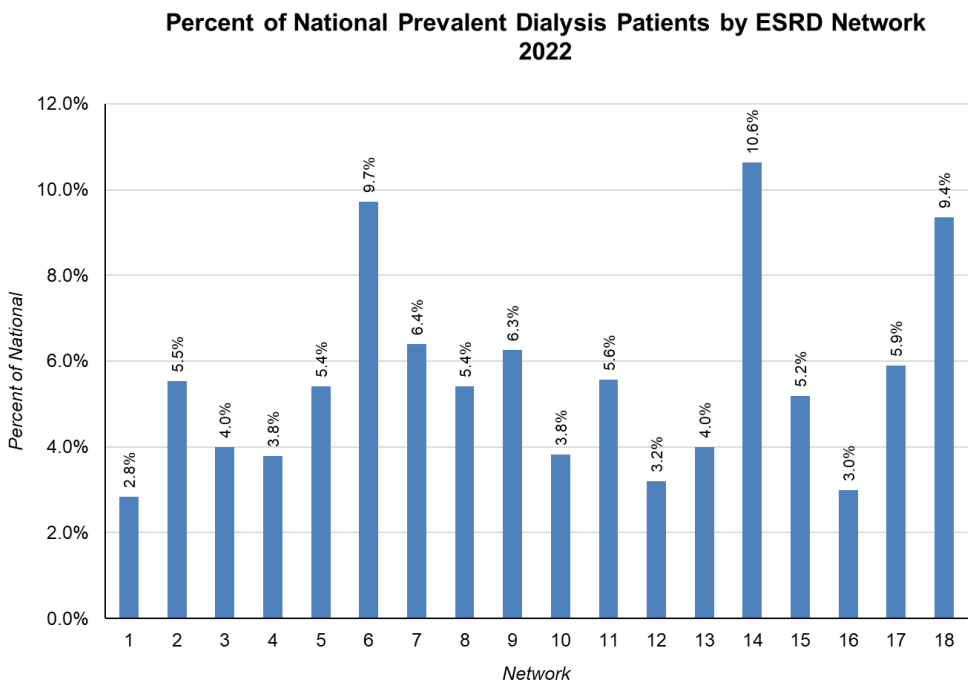
Total Dialysis Patients = In-Center Dialysis + Home Dialysis
Total ESRD Patients = Transplant + Total Dialysis
SNF dialysis patients are not shown due to small numbers.
Source of data: EQRS May 2023



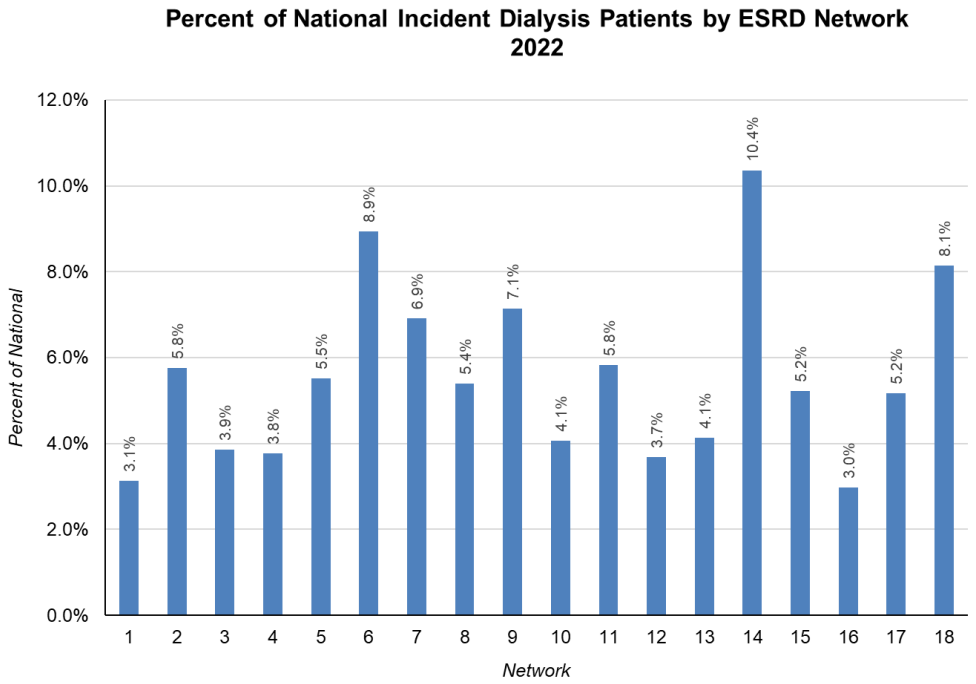
Total Incident Patients = In-Center + Home + Kidney Transplant
Source of data: EQRS May 2023



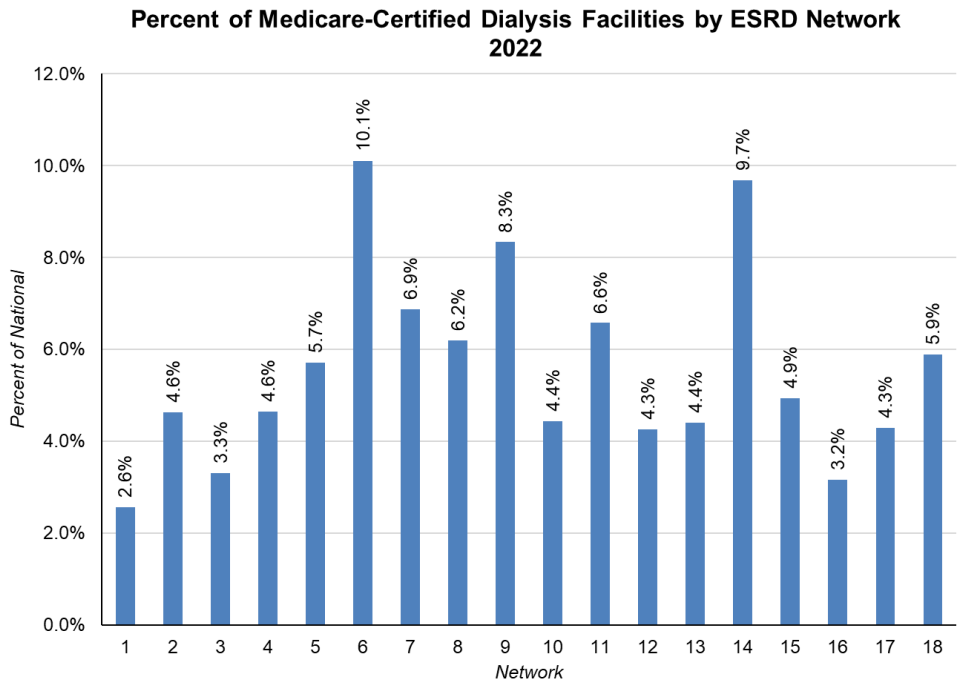
Total Dialysis Facilities = In-Center and Home Dialysis + Home Dialysis Only + In-Center Only
Total ESRD Facilities = Transplant + Total Dialysis Facilities
Source of data: EQRS May 2023



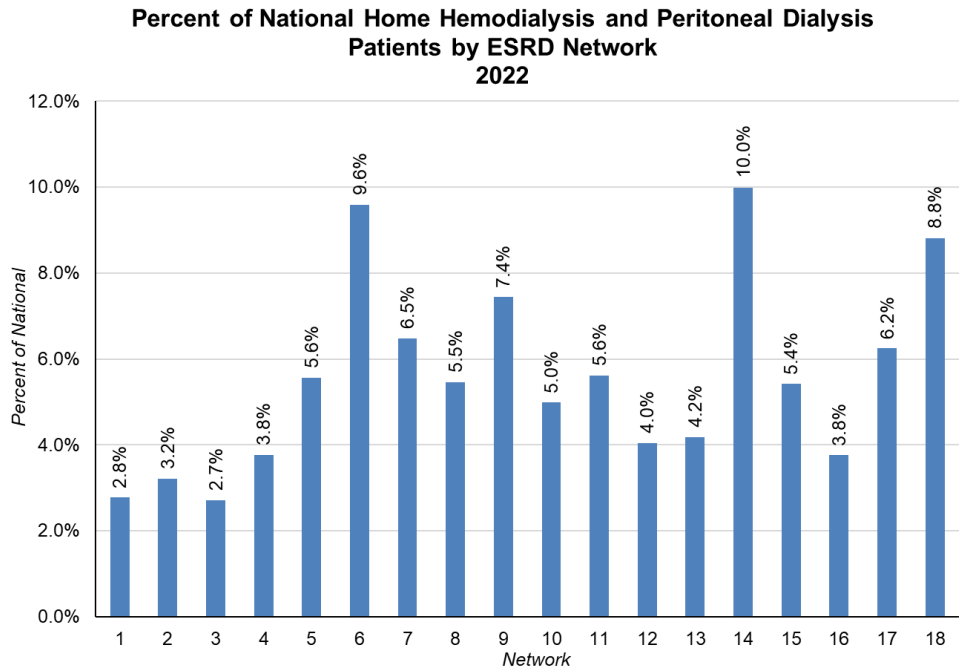
National total dialysis patients: 430,015
Source of data: EQRS May 2023



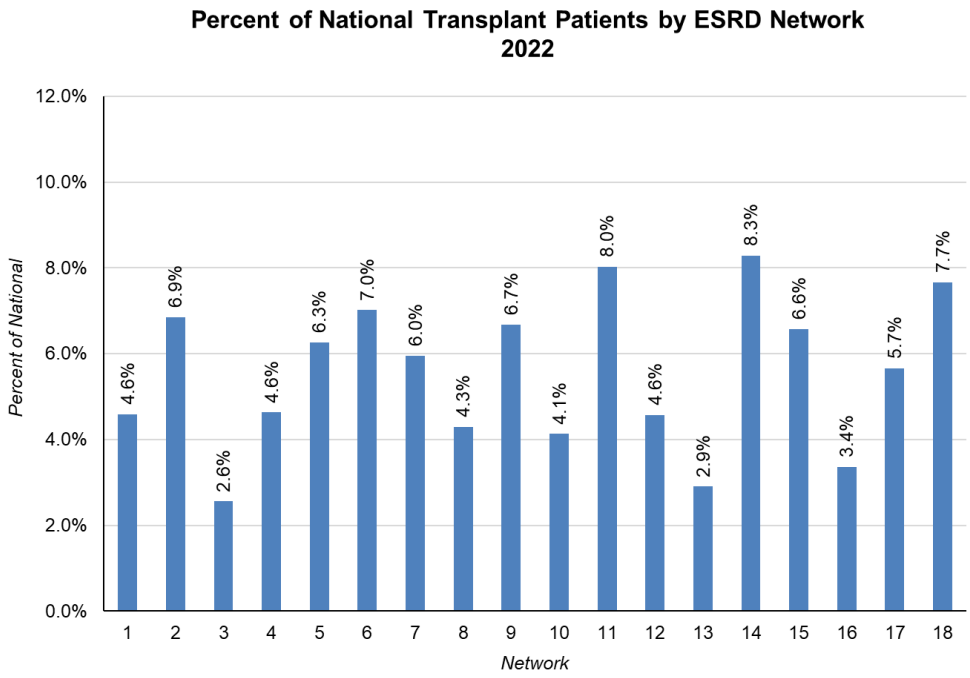
National total incident patients: 127,256
Source of data: EQRS May 2023



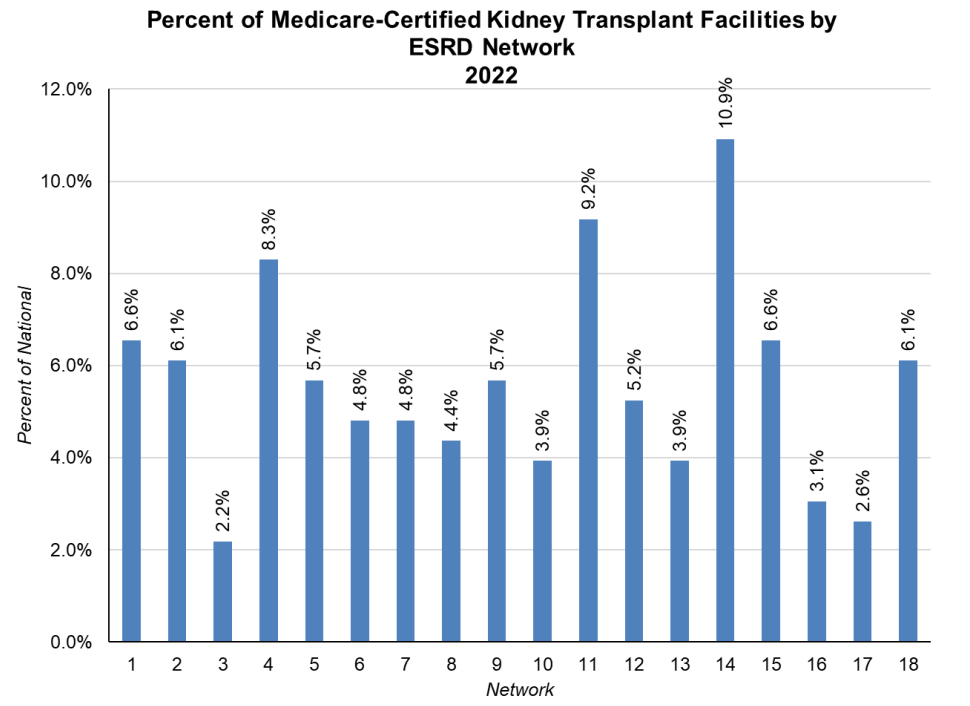
National total ESRD Medicare-certified dialysis facilities: 7,967
Source of data: EQRS May 2023



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



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



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 New England 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 105 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, 53 facilities were actively supporting a peer mentoring program. A total of 60 active PFRs were 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 had at least one patient facility representative or a patient advocate actively supporting patients. Many of these individuals were engaging in different levels of peer mentorship 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 through the IPRO Learn Peer Mentoring Program and via live 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, gender, ethnicity, disability, or sexual orientation). The Network team sought to identify the various types of health inequities within its 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 Network conducted extensive data analysis on the quality improvement data. 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).

If a county was determined to have a high social vulnerability, it was included in the initial analysis. High socially vulnerable counties were identified as Hampden County (CT), Suffolk County (MA), and Providence County (NH). Once the counties were identified the data were first stratified into different categories based on the quality improvement areas of focus: COVID-19 Hospitalizations, 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, gender, race, and ethnicity.

The identified high socially vulnerable counties were then compared to counties with low social vulnerabilities (Middlesex County and Worcester County). The data analysis showed inequities throughout each area of focus, with the e strongest and most prominent vulnerabilities occurring in the categories of COVID-19 hospitalizations, emergency department visits, hospital readmissions, and Inpatient hospitalizations.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ESRD Network Grievance and Access to Care Data

The Network responds to grievances and concerns filed by or on behalf of ESRD patients in Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island and Vermont, with a goal to address and mitigate concerns.

Grievances

During the performance period, the Network received 10 clinical quality of care (QoC) cases that were reviewed by the Network's clinical staff, with a goal to address and resolve the grievant's issues while also providing support, educational resources, and direction to the facility staff. Twenty-two general grievance cases were also reviewed. Areas of concern were physical environment, staff-related situations, and other personal conflicts. Three (3) cases were related to patients' mental health concerns. The Network encouraged facilities to utilize peer-to-peer support, as well as intensive social work support with patients who displayed challenging behaviors at the facility.

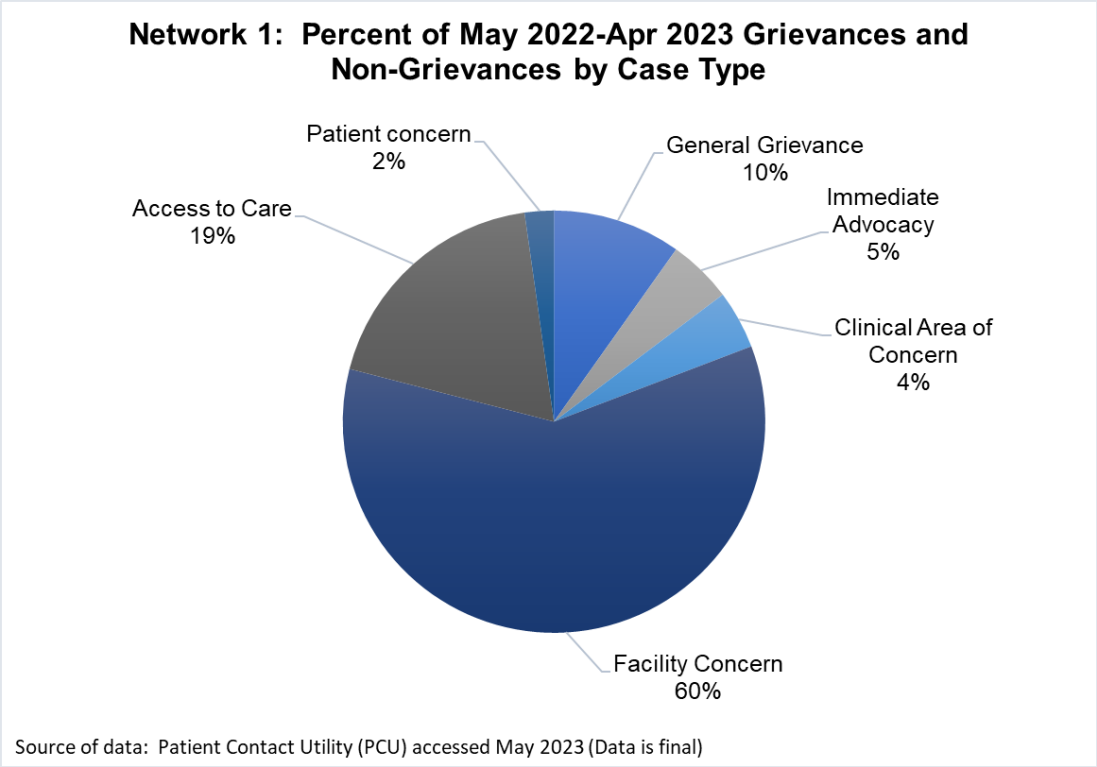
The Network also reviewed a total of 11 immediate advocacy cases that were resolved within 10 calendar days.

Grievances continued to include concerns about facility closures and eliminations of shifts. Shortages of supportive staff and social workers also contributed to patients' concerns. During the performance period 11 facilities were closed due to weather related events, nine facilities closed due to emergency events, 11 facilities altered their schedules, six facilities reported staff shortages, 14 facilities were temporarily closed, and five were closed permanently.

All 11 Immediate advocacy cases were resolved within 10 calendar days; general grievance cases and clinical quality of care cases were resolved within 60 calendar days.

To address the issues related to grievances, the Network provided staff with in-service training to help improve their communication with patients. A recorded webinar *Effective Communication* was made available to staff in facilities in which grievances were reported. For 59% of grievances involving facility concerns, the Network provided direct technical assistance (TA) to support staff in managing difficult patients.

With fewer staff members available to work with patients, staff shortages within dialysis facilities seriously affected patient care. Clinics reported closure of facilities. As a related issue, dialysis social workers covering multiple clinics were unable to devote full time to their assigned patients. To help address potential issues caused by these situations, the Network provided educational resources to the community via the IPRO Learn learning management system and focused efforts on reducing burnout and compassion-fatigue at the clinic level.



Access to Care and Involuntary Discharge (IVD) Cases

During the performance period, the Network received for review 32 cases involving access to care concerns. With each access to care case, the Network provided TA to help facility staff effectively support and protect patients' access to treatment. The Network averted 25 reported access to care cases (78%). 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 and to incorporate patients in their QAPI activities. 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, first introduced by the IPRO ESRD Network of New York in 2016. This innovative program was designed to help facilities accept patients who had previously been involuntarily discharged from their dialysis facility. Through the program, dialysis units are offered a 30-day trial period during which they may permanently accept a patient for treatment. The Second Chance Program continued to be used as a best practice to ensure that patients were not using hospital emergency departments for dialysis treatments. These interventions provided facilities with the necessary guidance to improve their patients' overall quality of care.

The Network also continued to provide educational resources to both patients and clinic staff on patients' rights and the CMS Conditions for Coverage.

Network Assistance and Quality Improvement

With each of the cases described, the Network advocated for patients, promoting their right to participate in their healthcare and emphasizing the importance of patients voicing their perspective about services provided by the facility.

The Network also mediated 43 cases involving patients' concerns with the facility to help de-escalate ongoing patient concerns and create an environment of safety and inclusion. Network staff members supported facilities in implementing quality improvement activities (QIAs). Interventions were designed to provide facility staff guidance on communication techniques that would better support their patients' care, with a focus on implementation of de-escalation techniques and adoption of effective communication skills. In addition, the Network assisted facility staff in identifying potential barriers that could negatively affect a patient's ability to remain compliant with their treatment plan.

While each intervention focused on a different topic, all Network-implemented interventions incorporated the basic elements of quality improvement:

- An environmental scan/needs assessment of dialysis clinic staff.
- 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 on 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.
- Direct communication with LDO leadership and medical directors.

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

- Resolve all grievances within required time frames: 10 calendar days for Immediate Advocacy and 60 calendar days for General Grievance and Clinical Quality of Care cases.
- 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 its pre-recorded webinar *Effective Communication*, with the goal for all clinics participating in IPRO Learn activities to complete this activity.

Support dialysis facility staff who have limited time, skills and training in conflict resolution, with an ultimate goal to enhance staff members' ability to provide supportive services to patients to address their mental, emotional and/or psychosocial issues and decrease the number of cases reported to the Network.

As part of its QIA interventions, 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's (CPI) resource: *Top 10 De-Escalation Tips*.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Transplant Waitlist & Transplanted Quality Improvement Activity May 2022-April 2023

Project Overview

Network 1 serves as a support and champion for patients (regardless of age, gender, 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, in its service area, on the United Network for Organ Sharing (UNOS) waitlist by 5% and increase the number of transplants 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 Network's 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. The Network began the year by providing education on the Facility Performance Report Cards. The report cards allowed the facilities to benchmark their performance in the CMS ESRD Goals for waitlist and transplant. This activity was designed to help providers and quality improvement leads familiarize themselves with the report, understand the goals and expectations for the performance period, and provide education on how to track performance and troubleshoot data discrepancies.

As the year progressed, the Network continued efforts to reduce referral burden and increase information on the topic of health equity with the distribution of its *Tips for Positive Referral Outcomes: Frequently Asked Questions* guide, which was designed in collaboration with transplant centers to share five strategies to foster more efficient and streamlined referrals for waitlist. 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.

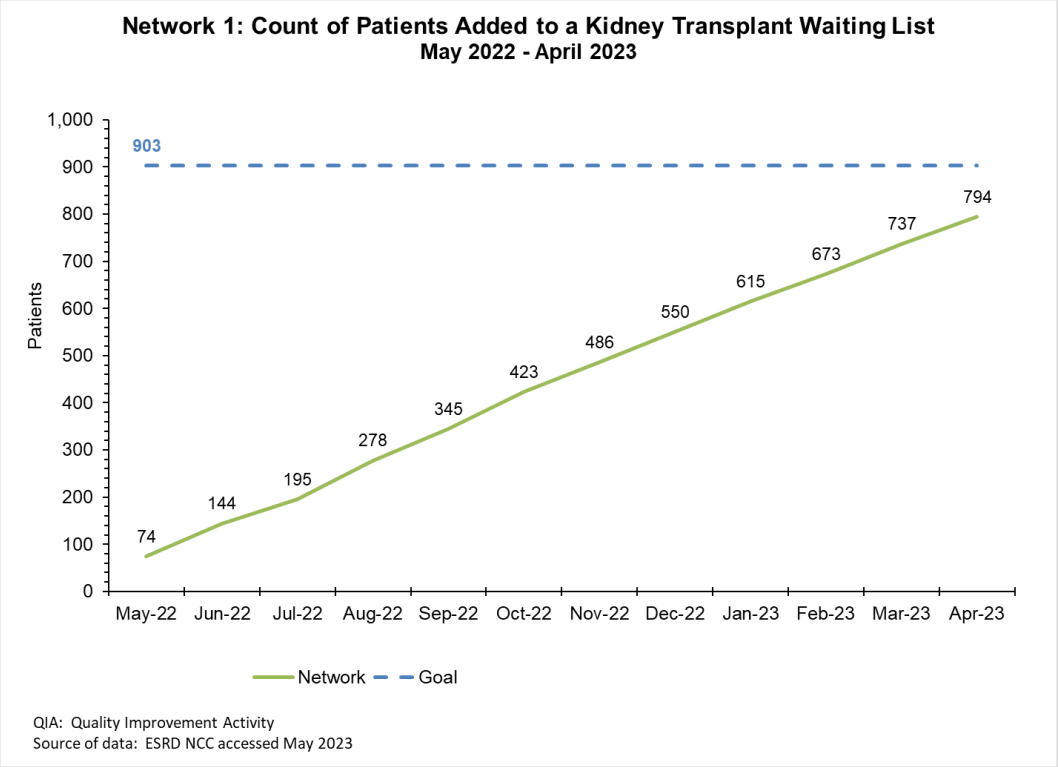
Armed with information about barriers to transplantation, as provided by dialysis facility and transplant center staff, the Network convened a transplant center focus group to examine how to best address health system barriers and incorporate information about transplant in education provided to individuals with chronic kidney disease (CKD). In addition, the Network met with its Transplant Advisory Committee to curate resources and plan interventions.

The Network's transplant and home modality quality improvement teams joined forces to address early modality education for patients with CKD. The Network complied a robust contact list of nephrology physicians and CKD educators. Working with CKD educators provided the Network with a unique opportunity to offer information about the benefits of transplantation to individuals with kidney disease before they must decide about their treatment modality. The Network sent curated resources to these providers in response to their reported barriers and included them as guests on our Best Practice Webinar series.

Collaborating continuously with 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.

Outcomes

The Network's activities resulted in an additional 794 patients being added to the transplant waitlist during the performance period and 756 patients receiving a transplant as of April 30, 2023; an 18% increase from baseline period.


Network 1: Count of Patients Added to a Kidney Transplant Waiting List
May 2022 - April 2023
Patients
1,000
900
800
700
600
500
400
300
200
100
0
903
74
144
195
278
345
423
486
550
615
673
737
794
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
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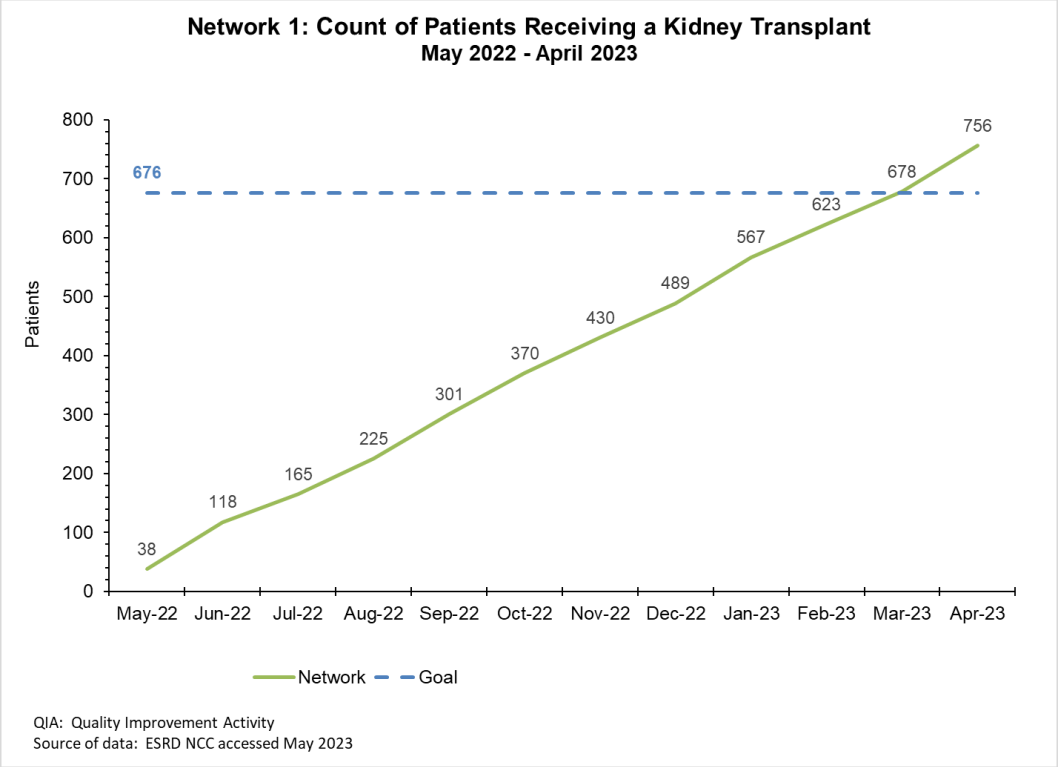
Mar-23
Apr-23
Network
Goal
QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023


Network 1: Count of Patients Receiving a Kidney Transplant
May 2022 - April 2023
Patients
800
700
600
500
400
300
200
100
0
676
38
118
165
225
301
370
430
489
567
623
678
756
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Network
Goal
QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

Barriers to Achieving Goals

Early in the performance period, the Network conducted an environmental scan of its service area to enhance its understanding of any unique strengths and barriers that would inform the Network team's efforts to increase wait listing and transplant. Included in this survey were participants in the Network's community coalition and transplant centers. Two barriers were most frequently reported: 1.) Patients were arriving at the dialysis clinic with newly diagnosed ESRD and without knowledge of their treatment modality options. The dialysis facilities reported that patients who had transitioned from CKD to ESRD were faced with adapting to major changes in their lives, and without a foundational understanding of treatment modality options before arriving, they were often overwhelmed with learning the basics of their dialysis care, sometimes lacking the capacity to think about transplant as an option. This led to a delay in interest, education, and ultimately consideration of transplant. 2.) Health system barriers included medical ineligibility related to patient body weight and health equity issues with access to resources to assist in waitlist requirements.

The Network also analyzed three barriers specific to regional demographics. According to the ESRD National Coordinating Center's (NCC) Data Dashboards, 73% of the population in the Network's service area is aged 65 and older. This causes age related barriers, as most Network transplant centers have age criteria that require patients to be 70-75 years and younger. Of the 27,775 ESRD patients that resided in the Network service area during the performance period, 47% were already transplanted patients. Lastly, Massachusetts is a large sanctuary state that has been #6 in the country for absolute growth in immigrants over the last 10 years, according to the U.S Census Bureau American Community Surveys. Patients with immigrant status who have access to Emergency Medicaid do not have sufficient insurance coverage to access transplant. These three barriers created significant limitations in the ability to increase waitlist and transplant rates.

Best Practices Spread to Achieve Goals

The Network hosted two Treatment Modality Best Practice webinars. Speakers at both events represented facilities in the Network's service area that were high performers in both waitlist and transplant rates. In September 2022, a regional social worker from PDI-Worcester, in Massachusetts, shared best practices in waitlisting and transplant. Best practices included distribution of robust educational tools, identification of and collaboration with transplant centers that offer specialized services, and implementation of strategies for driving a pro-transplant culture. In February 2023, a kidney care options educator from U.S Renal Care Orange in Connecticut shared her facility's approach to providing education about ESRD and treatment options to CKD patients, preemptive referral for waitlisting, ensuring health literacy in all educational materials, patient to patient advocacy, and reliable and consistent communications with transplant centers.

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 dialysis 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 (ICHD) to a home therapy by 6% over baseline.

Interventions

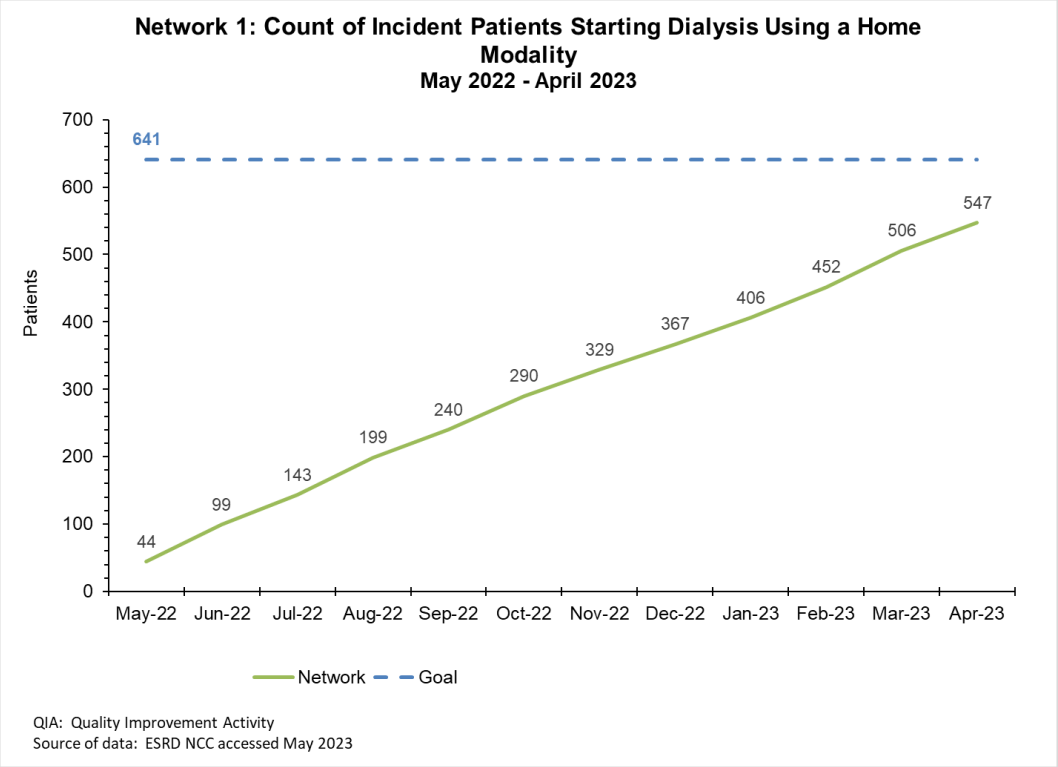
The Network worked with a community coalition, comprising 30% of the facilities in the service area that were not meeting one or both home therapy goals. These facilities were asked to perform a root cause analysis (RCA) to determine the reason they were not increasing home modality referrals and then work to fix that problem using a plan-do-study-act (PDSA) process. This comprehensive quality improvement approach engaged the facilities for four months and was carried out with three different groups of facilities during the year. To reach the remaining facilities in our region we shared interventions via our IPRO Learn platform each month. We asked facilities to review and respond to each intervention to determine the value and impact of the materials shared. We also promoted our comprehensive toolkit of resources, participation in discussions on pertinent home issues occurring on our discussion board, and continuing education courses on home therapy through the IPRO Learn platform.

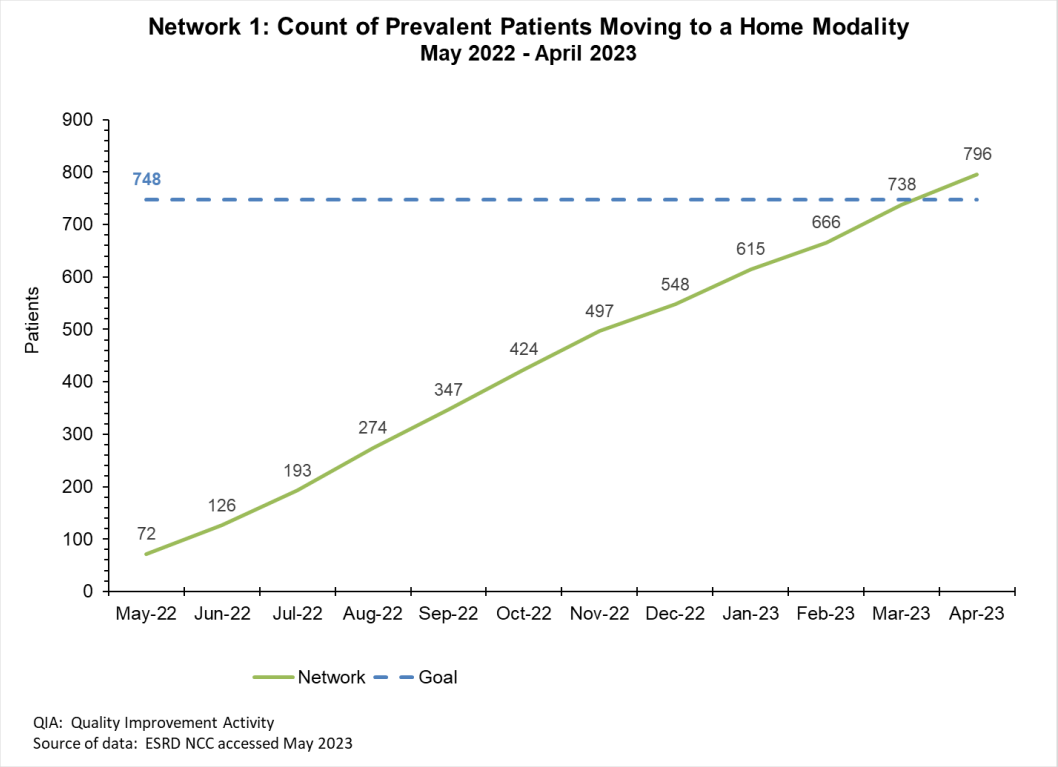
The Network identified a team of 36 CKD educators trained to provide treatment modality education in advance of patients' need to choose a treatment type. The Network sent an introductory letter to the CKD educators of small dialysis organizations (SDO) and independent facilities to how we could support their educational initiatives. We followed the letter with a survey asking about their patient education process, whether they were seeing that patients were choosing home treatments, and if not, why. Once we gathered the results of the RCA and

identified the education process of the CKD educators, we were able to analyze why patients in this subset were not choosing home as a modality. Approximately 32% identified "lack of provider/physician support of urgency to start home therapy before dialysis" as a barrier. The Network worked with CKD educators as well as nephrology physician offices to identify how to best overcome these barriers. Among the strategies identified were starting access placement early on to allow patients to start dialysis with a home modality with peritoneal dialysis catheter placement or a permanent access for home hemodialysis.

Outcomes

While the Network did not achieve the goal to increase the number of new patients starting dialysis with a home treatment; efforts resulted in 547 new patients starting dialysis using a home modality (85.34% of goal). The Network exceeded its goal to transition ICHD patients to home therapy, with 796 patients transitioning to a home modality (106.42% of goal).





Barriers to Achieving Goals

The Network has identified that, within its service area, there is a need for a more formalized program of education for patients when they are diagnosed with CKD. This is essential to prepare them for making educated decisions about their treatment options should they progress to end-stage renal disease. The Network also found that often, when patients decide to begin dialysis on a home modality, they are not scheduled for catheter placement in a timely manner. Many patients who were already on dialysis reported that they were not being offered good information or opportunities for discussions to consider a home therapy.

The Network distributed to facility staff, *How to Talk to Patients About Home Dialysis: Four Steps for Professionals*., an article made available by Home Dialysis Central, that addresses key topics that professionals should address when speaking to a patient who will soon need dialysis or an ICHD patient who might be a good candidate for home therapy. The article addresses how to help patients work through the anger, depression, and fear that many people facing dialysis experience; how to help patients reframe their options to help them live the life they want, guidelines for helping patients assess each treatment option, and when and where to refer patients for options education.

Prior to the release of this article, it appears that these four areas were not being included in discussions for patients considering a home therapy. Most of the respondents chose one of these categories to include in their discussions about a home therapy with their patients. The resource was well liked by facilities in the Network service area, and the Network received

numerous comments from facility staff, noting how great the article was and how the facilities will incorporate what they learned.

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. After each intensive four-month coalition PDSA cycle, the Network distributed a poster highlighting the efforts of our top performers, with tips as to how they were able to reach their goals. From that list of top performers, we provided best practice webinars to which all facilities in the Network's service area were invited to learn about interventions implemented that resulted in increasing the number of patients receiving dialysis through 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% of the number of dialysis patients receiving an influenza vaccination by the end of the performance period. For facility staff, the Network's goal was for 90% of staff to 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.

Interventions

The Network provided facilities 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 to improve influenza vaccinations that were most appropriate for their patients and staff. Facility participation in this intervention was high, with 119 facilities (60%) participating; 33 facilities focused on achieving a high performing culture, 12 focused on implementing quality improvement strategies, six focused on adopting processes to achieve quality goals, 13 focused on expanding efforts beyond their facility staff, 26 focused on providing education on vaccinations, and 29 focused on addressing vaccine hesitancy. Of those facilities taking part in this intervention, 75% stated they would adopt or adapt these processes. They also indicated that they would share these resources with community partners and stakeholders to reach 535 members of their community.

After reviewing the data, the Network provided technical assistance to those facilities with Influenza vaccine rates that were lower than the Network average. The Network team also collaborated with Patient Facility Representatives (PFRs) to better understand from the patients' perspective their perception of the influenza vaccines, the reasons for patients' resistance to getting the vaccine, and what the Network could do to support more patients being vaccinated.

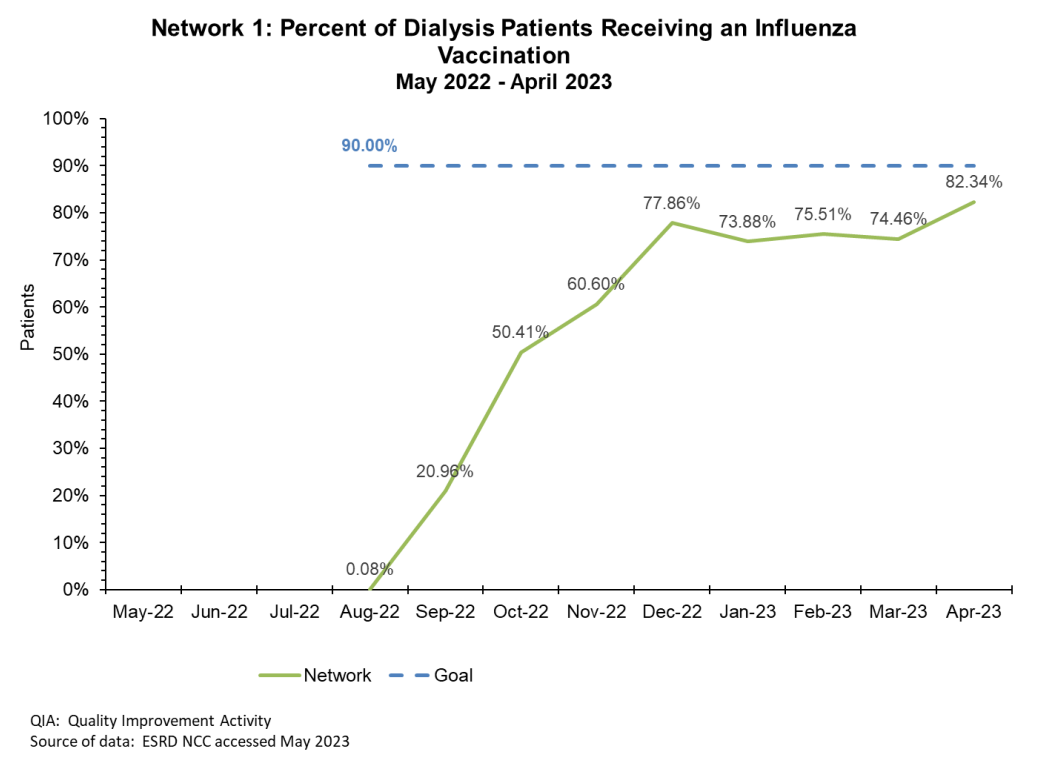
The Network hosted educational sessions for PFRs on the importance of vaccinations for the kidney community and collaborated to develop creative ways to initiate more frequent conversations among ESRD patients about vaccines.

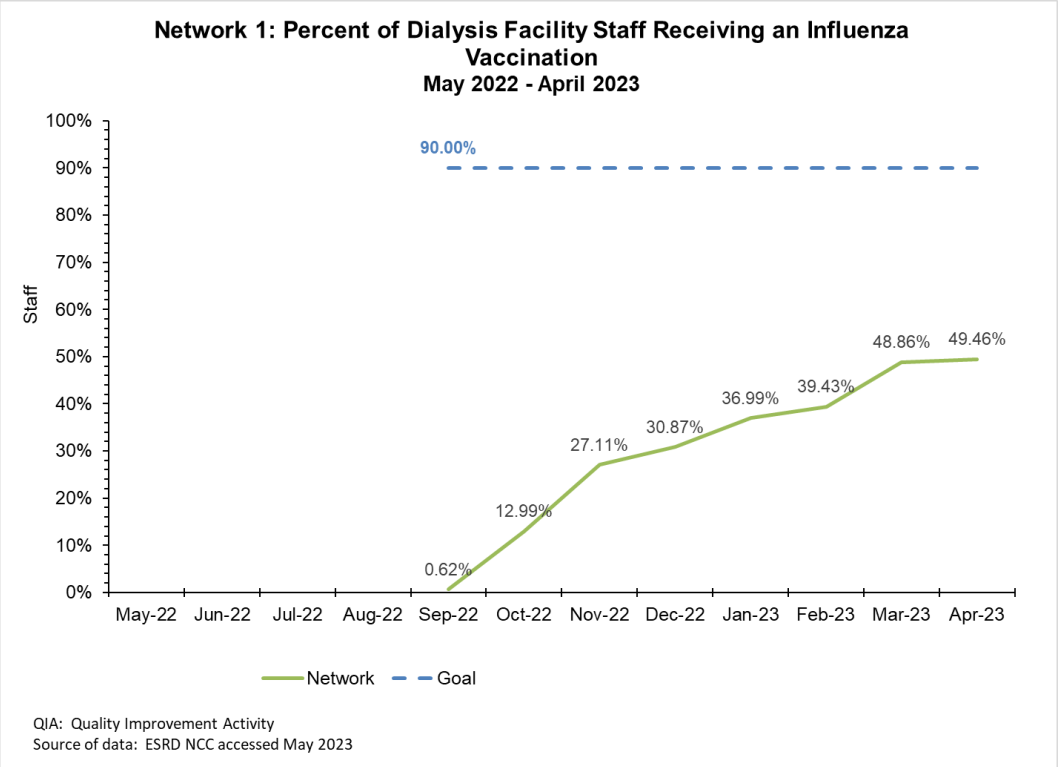
The Network provided facilities with additional resources, including an *EQRS Vaccination Documentation* article to help staff gain a better understanding of EQRS functionality. The Network also hosted a webinar, *EQRS Vaccinations: Patient Influenza (flu) and Pneumococcal (pneumonia) Vaccines in EQRS,* for facility staff to provide information on the importance of influenza vaccines and the impact of the flu on the unvaccinated community. Online views of the EQRS article exceeded 5,000 and the recording of the webinar had 664 YouTube views (within one month of posting).

The Network focused on identifying reasons that prompted healthcare workers to become vaccinated, i.e., how getting vaccinated protected not only themselves but family/friends as well as patients within the dialysis facilities. The Network team asked staff members to share those identified reasons for getting the vaccination on a bulletin board and even extend the exercise to include patient testimonials on why they were taking the vaccine. This bulletin board approach allowed patients in the lobby to consider reasons to take the vaccine based on those shared on the board to encourage uptake of the vaccination.

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 11,750 patients, (82.34%) and 1,968 facility staff members (49.46%) received an influenza vaccine.





Barriers to Achieving Goals

Influenza vaccine rates continued to decline following the pandemic as patients and staff become more hesitant to receive vaccines. Questions about the effectiveness of the vaccine continued to be a barrier with many patients, and staff also questioned if they were still even at risk due to low Influenza transmission during the pandemic. These misconceptions, coupled with an overall resistance to vaccines following the vaccine hesitancy issues with the COVID-18 vaccination, all contributed to a reduction in administration of the influenza vaccine. In addition, staffing shortages created a challenge for facilities to staff vaccine campaigns, follow up on tracking administrations, address staff vaccination status, and provide ongoing education that would contribute to increasing rates of vaccination.

Best Practices Spread to Achieve Goals

The Network identified top performing facilities and discussed best practices they had identified to encourage Influenza vaccination. We posted these findings in best practice discussion forums on our learning management system platform, IPRO Learn, to share with all providers; and we hosted poster sessions on IPRO Learn that allowed us to share these tips each quarter. 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 share and spread these ideas and processes.

Best practices for increasing the influenza vaccination rates in patients and staff included:

- Working with the Interdisciplinary teams to create a pro-vaccination culture. Activities including assisting facilities with implementation of lobby days, huddle boards, and other ways to promote vaccines throughout the facility.
- Involving Patient Facility Representatives (PFRs) in the vaccination efforts.
- Collecting and sharing best practices from facilities with high influenza vaccination rates to foster a community of practice within the Network's service area.
- Promoting vaccines as way each staff member can protect themselves, as well as others, including their family members and their patients.

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

Project Overview

Cases of COVID-19 continued into the latter half of 2022, with the Omicron variant infecting patients who had not received a bivalent vaccine, leading to further issues with serious illness and hospitalization during the first half of the performance period. 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 receive any additional Centers for Disease Control and Prevention (CDC) and/or Centers for Medicare & Medicaid Services (CMS) recommended COVID-10 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

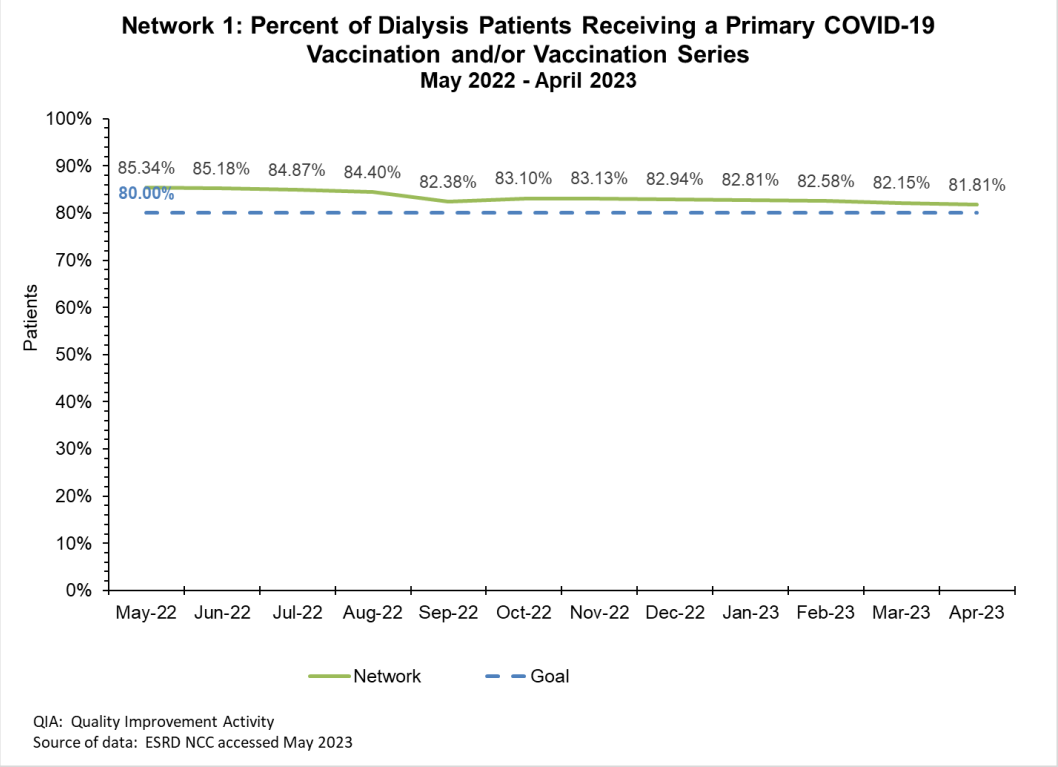
The Network reviewed data to identify facilities that struggled with increasing COVID-19 vaccination rates. From that list we placed 15 in a community coalition to determine the root cause of their barriers and to assist them with a plan-do-study-act cycle to improve their outcomes. They were provided educational resources to address patient and staff vaccine hesitancy and to combat facility and community spread of COVID-19. While the Network did not experience an increase in COVID hospitalization rates overall, as compared with the prior year, there were still a number of facilities that had experienced two or more COVID hospitalizations during the performance period. As part of the Network's technical assistance, we worked with each facility that experienced this type of an increase in COVID-19 cases to assess patient and staff status related to COVID-19 vaccinations and the infection control practices that were in place to help prevent further transmission. The Network provided educational materials, resources and tools to guide facility staff in developing and executing strategies to increase vaccine uptake as well as CDC resources and tools on effective infection control practices.

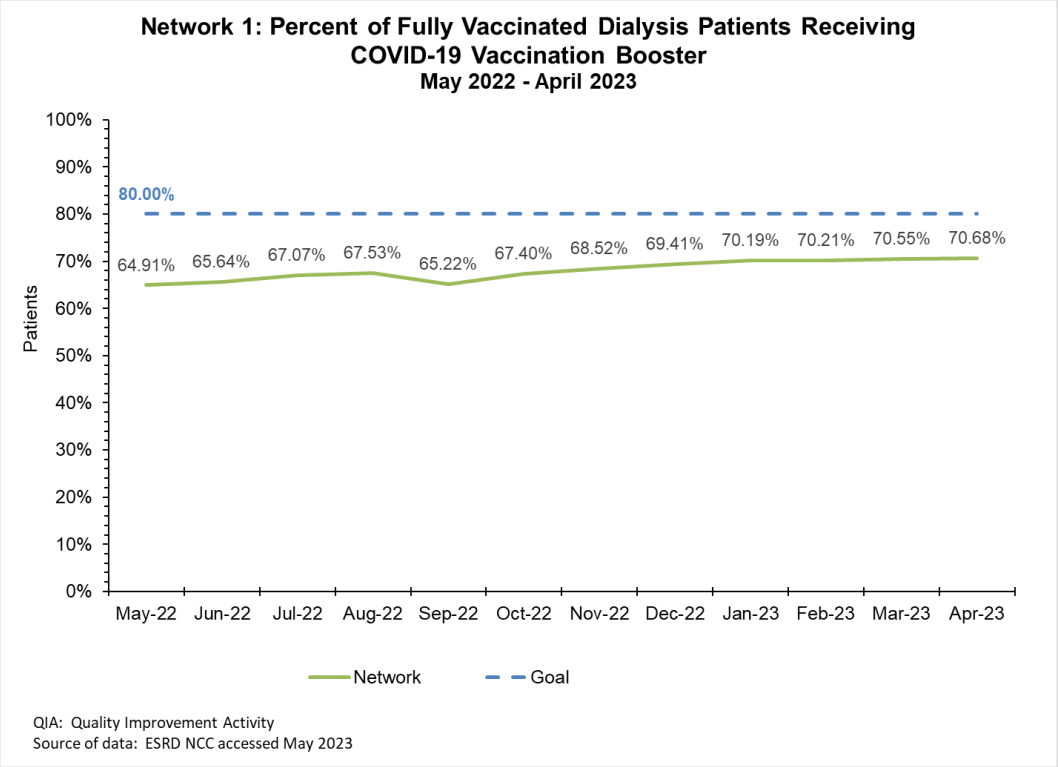
In addition, the Network identified patients who remained unvaccinated, and provided a list of these patients to all facilities in the Network's service area in the form of a performance report. Facilities were asked to investigate and record information for any patients who may have received the vaccine but were not documented. Facilities were also 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 were provided tools, including the CDC resource: *Promoting Vaccination in the Workplace* to engage staff in creating a pro-vaccination culture and to promote and build confidence in the efficacy of vaccines via a vaccination champions.

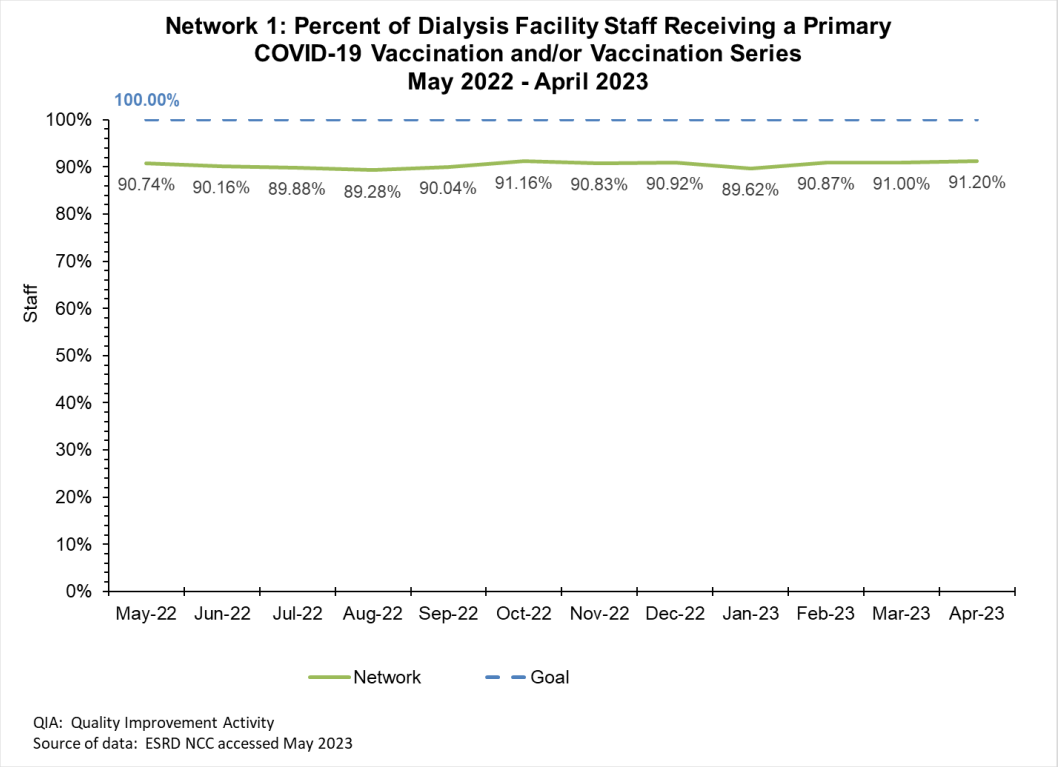
The IPRO Learn platform was promoted as a one stop shop for all facility staff in the region to have 24-7 access to the Network's COVID-19 Toolkit, which includes COVID-19 resources/tools and interventions. Fifty-five percent of the facilities in the Network's service area reviewed these resources, and 65% of those facilities elected to start a new practice of nominating a vaccination lead or champion to help improve vaccination rates.

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 14,923 patients, (81.81%) 6,297 staff members (91.20%) received a primary COVID-19 vaccination and/or vaccination series.




Network 1: Percent of Fully Vaccinated Dialysis Patients Receiving COVID-19 Vaccination Booster
May 2022 - April 2023
Patients
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
80.00%
64.91%
65.64%
67.07%
67.53%
65.22%
67.40%
68.52%
69.41%
70.19%
70.21%
70.55%
70.68%
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Network
Goal
QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023


Network 1: Percent of Dialysis Facility Staff Receiving a Primary COVID-19 Vaccination and/or Vaccination Series
May 2022 - April 2023
Staff
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
100.00%
90.74%
90.16%
89.88%
89.28%
90.04%
91.16%
90.83%
90.92%
89.62%
90.87%
91.00%
91.20%
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Network
Goal
QIA: Quality Improvement Activity
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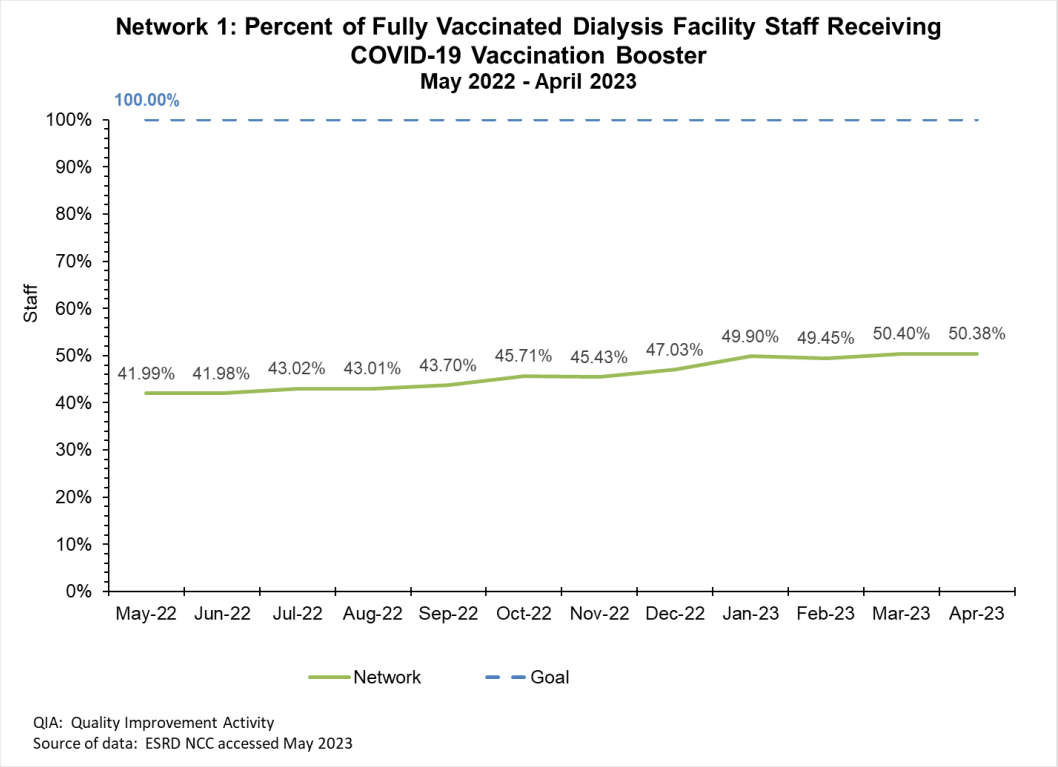


Barriers to Achieving Goals

The pandemic caused increases in staff turnover throughout the Network service area. Staff shortages resulted in some dialysis facilities being closed and in delays in moving patients between dialysis facilities, hospitals, and skilled nursing facilities. This prevented follow through on vaccination status with patients, and in some cases caused confusion among facility personnel regarding who was responsible for vaccine management and documentation. "COVID fatigue" and vaccine hesitancy resulted in vaccination rates dropping throughout the year, and as reinfection occurred with the new variants emerging (which were resistant to the former vaccines), staff and patient interest/ belief in the importance of compliance with boosters was hard to maintain.

Best Practices Spread to Achieve Goals

The Network gathered best practices and shared these via discussion board forums on the IPRO Learn 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:

- Facilities assisting with scheduling and encouraging follow-up.
- Maintaining copies of vaccination cards for all employees.
- Discussing with each patient the benefits of receiving the COVID-19 vaccination.,
- Making promotional posters and educational sheets visible for staff; patients in this facility were notified when COVID vaccines were available; and leadership sent emails encouraging both patients and staff to receive the COVID-19 vaccine.

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:

- 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.

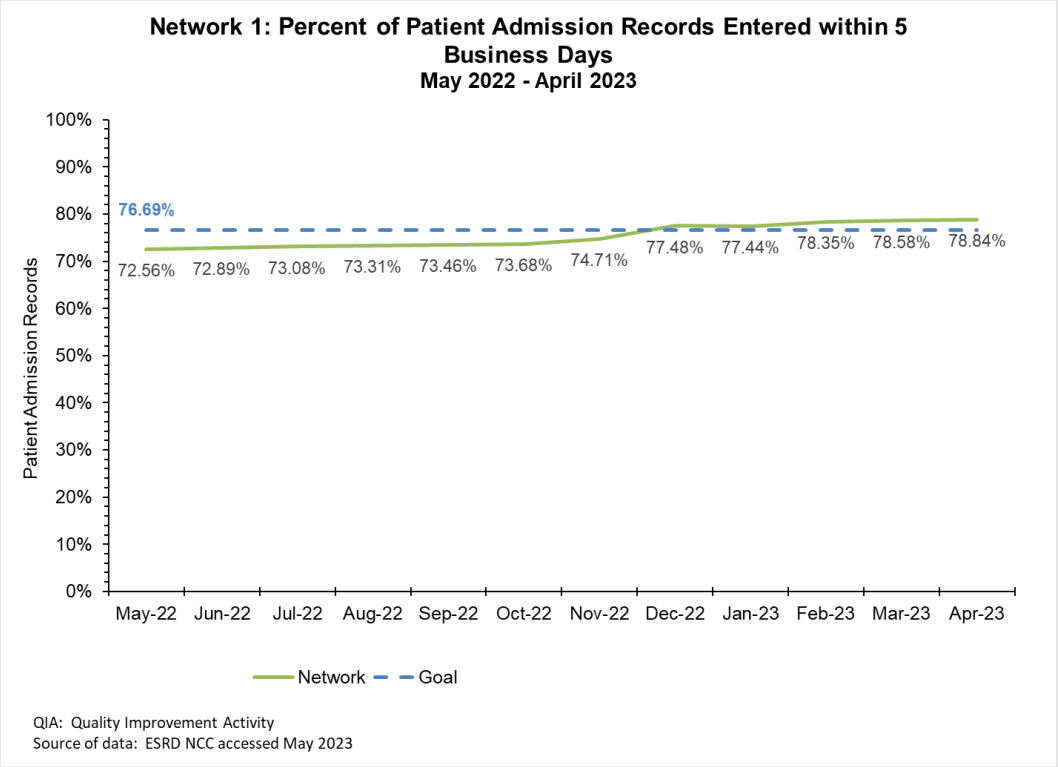
In addition, the Network distributed to dialysis facilities and transplant centers monthly EQRS newsletters that addressed the questions asked by facilities during that time period, CMS updates, and new training opportunities and resources. This helped EQRS users stay current on EQRS priorities, deadlines,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

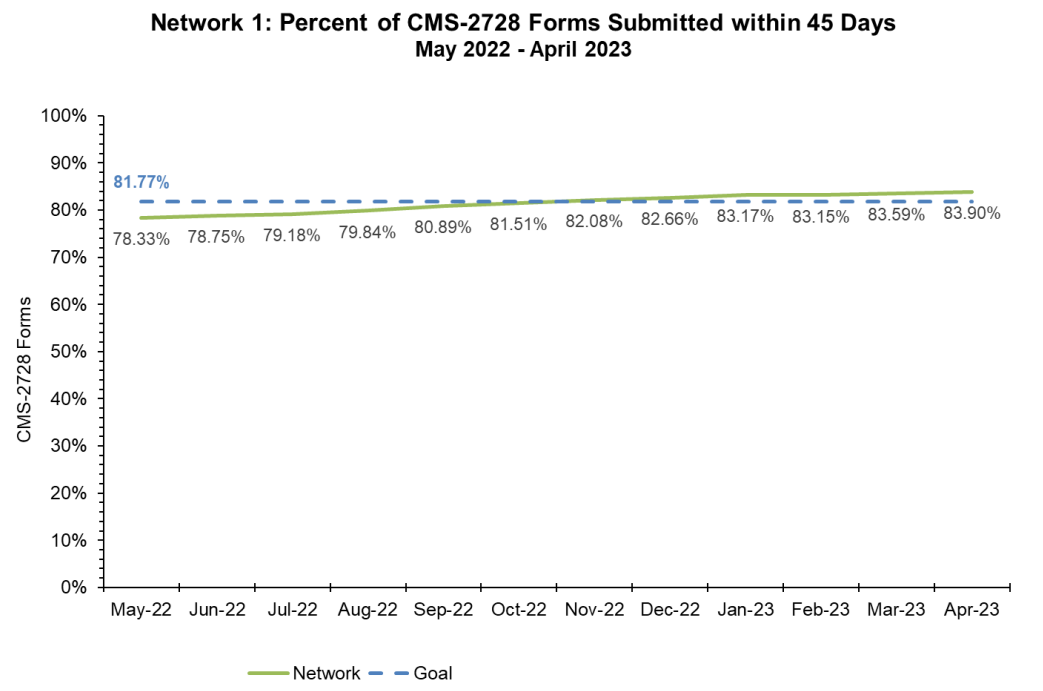
Having streamlined the process for facilities to obtain assistance from the Network, facility staff were able to direct all requests for assistance through the IPRO KnowledgeBase. The

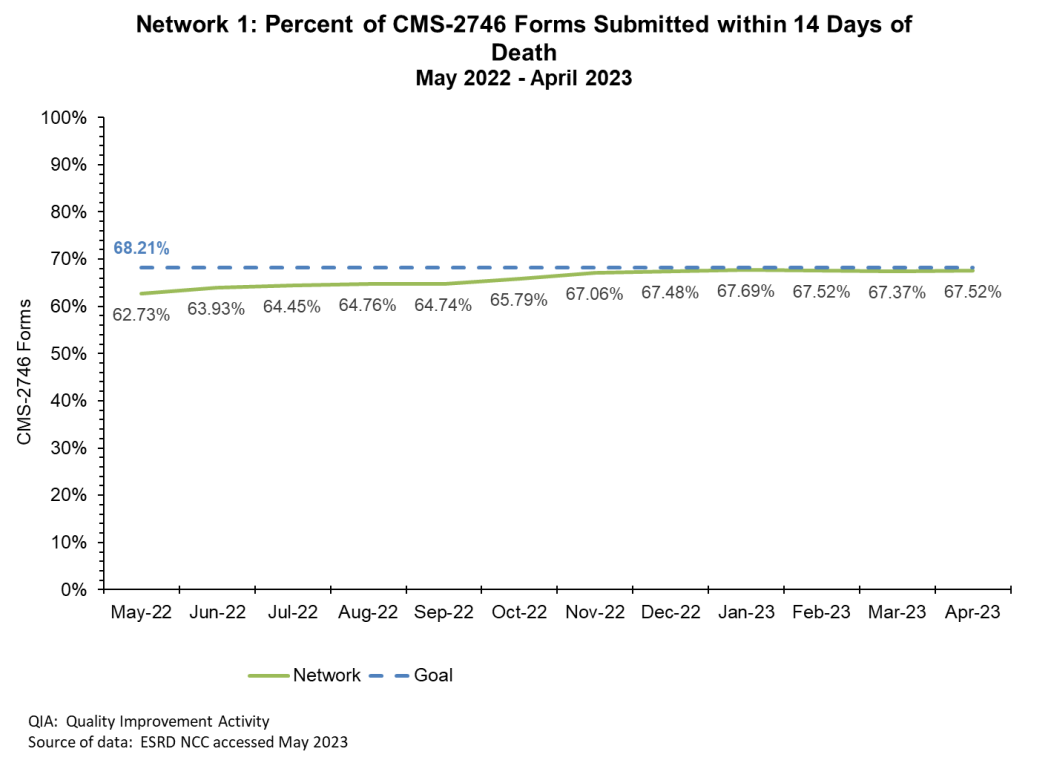
KnowledgeBase also offered facility staff access to educational resources, including training materials and webinar recordings that provided information on EQRS processes. Should they still require support, the IPRO KnowledgeBase offered facilities the option to submit a ticket that was quickly routed 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 exceeded the 5% goal for the admission measure, achieving an 8% improvement over baseline. The 4% improvement in the 2728 Forms goal was also achieved and exceeded, but the 2746 Forms 5% improvement goal was missed by one percentage point.




Network 1: Percent of CMS-2728 Forms Submitted within 45 Days
May 2022 - April 2023
CMS-2728 Forms
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
81.77%
78.33%
78.75%
79.18%
79.84%
80.89%
81.51%
82.08%
82.66%
83.17%
83.15%
83.59%
83.90%
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Network
Goal
QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023


Network 1: Percent of CMS-2746 Forms Submitted within 14 Days of Death
May 2022 - April 2023
CMS-2746 Forms
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
68.21%
62.73%
63.93%
64.45%
64.76%
64.74%
65.79%
67.06%
67.48%
67.69%
67.52%
67.37%
67.52%
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Network
Goal
QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023

Barriers to Achieving Goals

Large Dialysis Organizations (LDO) comprised more than 66% of the total number of 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 are expected to 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.

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 Report 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 throughout the Network. 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 conditions[1]. 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 and/or financial problems; and limitations in access to food, shelter, transportation, clothing, medication, medical care, and/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 and dialysis facility staff representing all modalities, regional management of dialysis organizations, and IPRO Quality Innovation Network-Quality Improvement Organization (QIN-QIO) staff working on improving care transitions in the New England states. 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.

Interventions

The root cause analyses conducted by the coalition facilities and collected by the Network revealed “a lack of communication between hospitals and dialysis facilities” as a key cause of unnecessary inpatient hospital admissions, 30-day hospital readmissions, and outpatient emergency department visits. The Network evaluated this finding to identify opportunities for improvement. The Network identified a myriad of reasons for the gaps in communication, but one key constant finding was the patient. Based on this analysis, the Network developed plans to increase and strengthen patient involvement in sharing information following acute care hospital visits and doctors’ appointments

[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.

We first created a transition champion role and released a transition checklist to each dialysis facility. The main responsibility of the dialysis staff member assigned this role was to meet with each patient after an emergency department visit or hospitalization and to use the transition checklist to review/follow up on key issues that could lead to readmission or admission. By educating and informing the patient, we worked to disrupt the pattern of seeking care through acute services, while strengthening patient knowledge and encouraging patients to make informed choices in their healthcare. We worked with dialysis facilities to promote an ESRD National Coordinating Center (NCC) tool: *We're Not Nosey, We Care* This resource is patient facing and provides a reminder of things to discuss with the care staff after doctors' appointments and emergency department visits or hospital stays to promote smooth transitions. The resource was shared with 972 community partners and stakeholders and had an 84% adoption/adaptation rate.

The Network also made available a patient identification card that patients could always carry. The card provided contact information for the dialysis unit and nephrologist as well as some basic medical information. If the patient presented this card in the emergency department, it would provide medical staff with necessary contact information to coordinate care and possibly prevent the need for admission.

The Network also distributed a collection of scholarly articles titled, *Hospitalizations: Using the Teach-Back Method to Reduce Hospitalizations, 30-Day Unplanned Readmissions and ER Visits*. These articles provided information on health literacy and the importance of sharing information in a patient-focused and culturally sensitive manner. Facilities were invited to use the IPRO Learn platform to review a step-by-step guide on how to use the teach-back method. Staff at 152 dialysis facilities completed this learning intervention and the assessment; 141 of these facilities passed the assessment with an 80% or higher proficiency More than 90% of the facilities in the Network's service area indicated their intent to adopt this teach-back method after reviewing it on IPRO Learn.

To reduce COVID-19 hospitalizations, the Network created a COVID Technical Assistance Process, which included identifying facilities that had increased hospitalizations related to COVID-19 cases; surveying the facilities on issues that may have led to increased transmission of the disease; using that information to select facilities needing one-on-one technical assistance' and providing opportunities to discuss methods to reduce transmission of COVID-19.

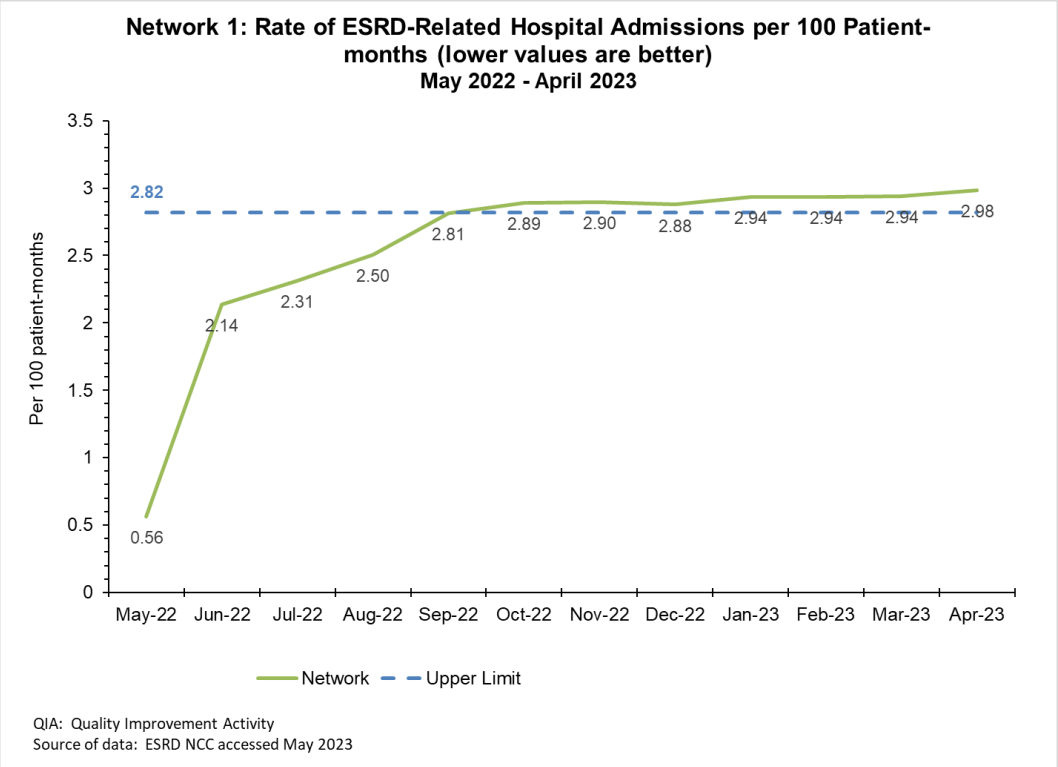
The Network reinforced best practices for infection control based on the current Centers for Disease Control and Prevention (CDC) recommendations for dialysis facilities, current COVID vaccination recommendations, and updates on how to manage COVID transmission as the pandemic evolved. We shared tools to help reduce the spread of infection, e.g., 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.

Throughout our work we tracked outbreaks to determine if trends could be identified and included regional operations and quality management in our communications to provide a full range of support to the facilities with whom we worked.

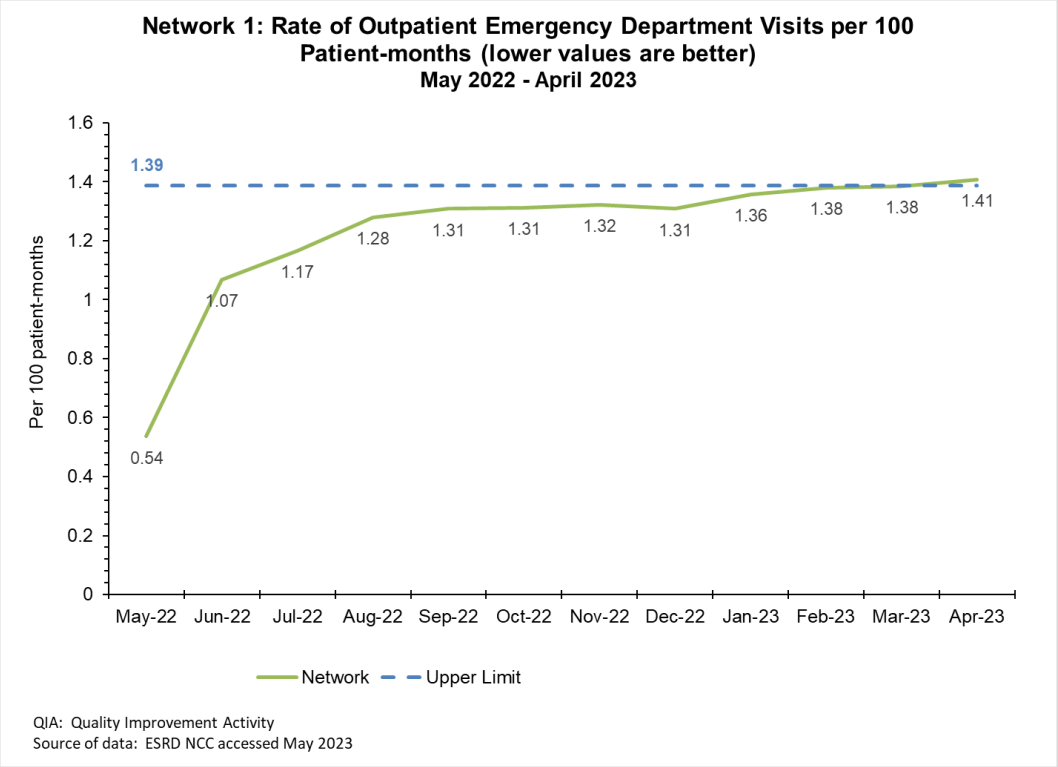
Outcomes

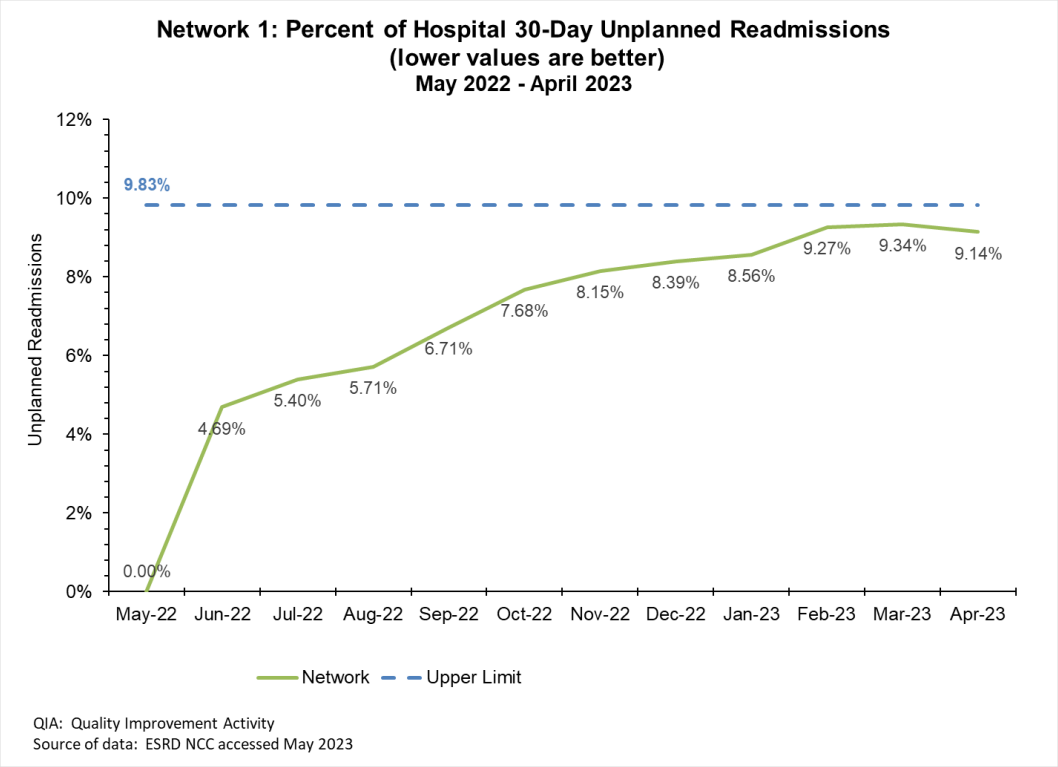
During the performance period, the Network's goal was to support dialysis facilities in its service area in attaining a 3% reduction in hospitalizations, readmissions, and emergency department visits: for an aggregate total reduction goal of 5% from the baseline period The baseline data were collected from Medicare Claims for January-December of 2020. The Network did not achieve the percentage reduction goals in these performance areas but still noted a significant decrease in incidents of hospitalization, readmission and emergency department visits. We were able to achieve a reduction in hospitalizations from 3,070 at baseline to 2,662 at remeasurement; a reduction in readmissions from 282 at baseline to 212 at remeasurement; and a reduction in emergency department visits from 1,511 instances at baseline to 1,257 at the end of the performance period.

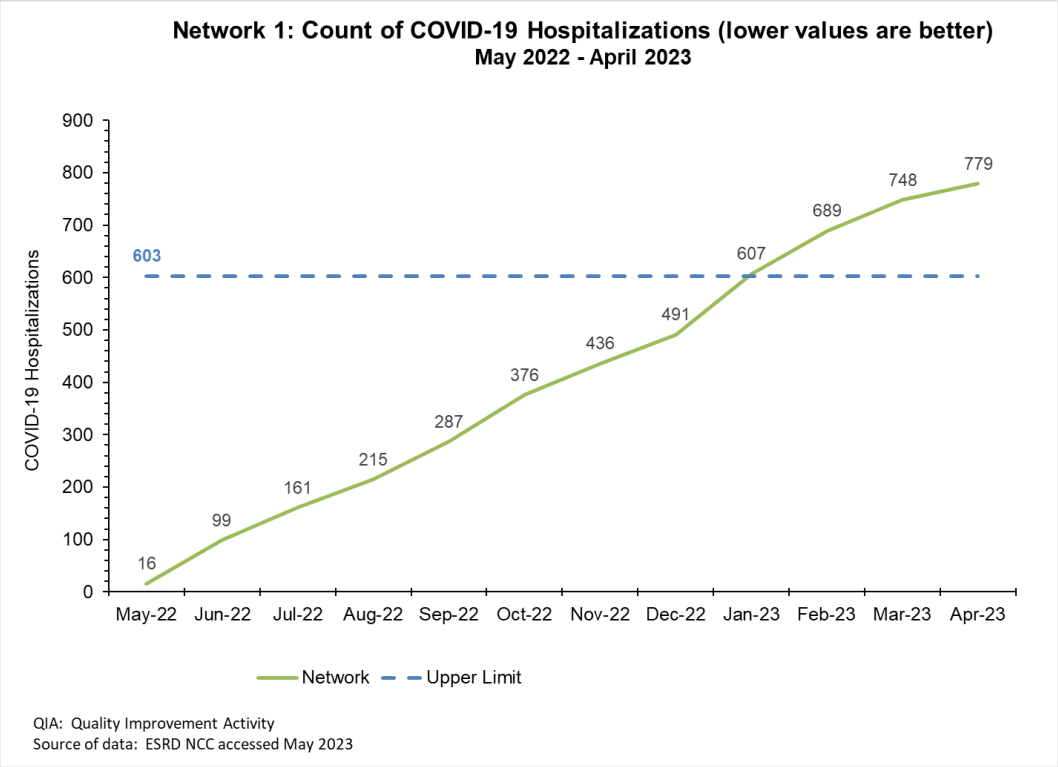
Based on an average admission cost of $12,944 per instance for a Fee-for-Service (FFS) Medicare patient, the reduction in hospital admissions in the Network 1 service area equates to Medicare cost savings of $5.3 million, with 408 fewer admissions during the performance period. The reduction of emergency department visits by 254 from baseline yielded a $184,000 savings in Medicare costs (based on an average cost of $727 per visit ED visit)[2].



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


Network 1: Rate of Outpatient Emergency Department Visits per 100 Patient-months (lower values are better)
May 2022 - April 2023
Per 100 patient-months
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1.39
0.54
1.07
1.17
1.28
1.31
1.31
1.32
1.31
1.36
1.38
1.38
1.41
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Network
Upper Limit
QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023


Network 1: Percent of Hospital 30-Day Unplanned Readmissions (lower values are better)
May 2022 - April 2023
Unplanned Readmissions
12%
10%
8%
6%
4%
2%
0%
9.83%
0.00%
4.69%
5.40%
5.71%
6.71%
7.68%
8.15%
8.39%
8.56%
9.27%
9.34%
9.14%
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Network
Upper Limit
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-19 surge during this period patients were discouraged or unable to seek acute services for anything other than absolute emergencies, which lowered the overall admission rates emergency department visits. Attempting to lower utilization of these services with an artificially low baseline was a barrier for the Network in achieving its goal. CMS removed the contract requirement for hospitalization reduction for this performance period due to this barrier and is realigning baseline hospitalization rates to reflect May 2022 – April 2023 activity.

Best Practices Spread to Achieve Goals

Facilities in the Network's service area were invited to review Chapter 8 of the ESRD Forum Toolkit on Transitions (of care) and the transitions in care toolkit provided by the Network on IPRO Learn. They were then asked to post in the IPRO Learn Forum how they incorporated what they learned into their daily practice. One facility customized the Transition Checklist to meet their specific needs, ensuring that the checklist would be reviewed with each patient's hospitalization and/or readmission. On a weekly basis, facility staff then reviewed all checklists with their facility's interdisciplinary team to ensure that any needed support in reducing incidents was provided to the patient.

Another facility pioneered an expansion of the Transitions Champion role, creating a Fluid Management Champion. This person worked on interdialytic weight gains and began

developing visual educational displays for patients to help lower fluid weight gains which was a primary reason for increased use of hospital services in their facility.

We also supported two best practice calls that were attended by facilities across the Network's service area. One call featured a vascular surgeon who worked to prevent admissions by using telemedicine technology to review vascular access issues and provide interventions prior to vascular access failure. The other best practice speaker worked with patients in a rural community to triage calls when patients were experiencing acute issues and helped patients determine appropriate level of care for their situation (urgent care, follow up with a primary care physician, or an emergency department visit).

By improving processes in transitions of care, increasing patient education, improving patients' understanding of when to access different levels of care, and sharing unique best practices that bridge services, the Network has built a strong foundation to continue to reduce the unnecessary use of acute care services in our region.

Depression Treatment
September 2022-April 2023

Project Overview

Depression not only affects one's mental health but can also have negative impacts on physical health. Studies have shown that depression in ESRD can lead to a decreased quality of life and even an increased 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 to a minimum of 80% of the ESRD patient population. There was an additional goal to increase the percentage of patients who receive mental health treatment after they have screened positive for depression by 6% from base year. Through this project the Network aimed to increase awareness in the community about the importance of mental health screening and treatment for the ESRD population, while working to help identify and mitigate barriers encountered.

Interventions

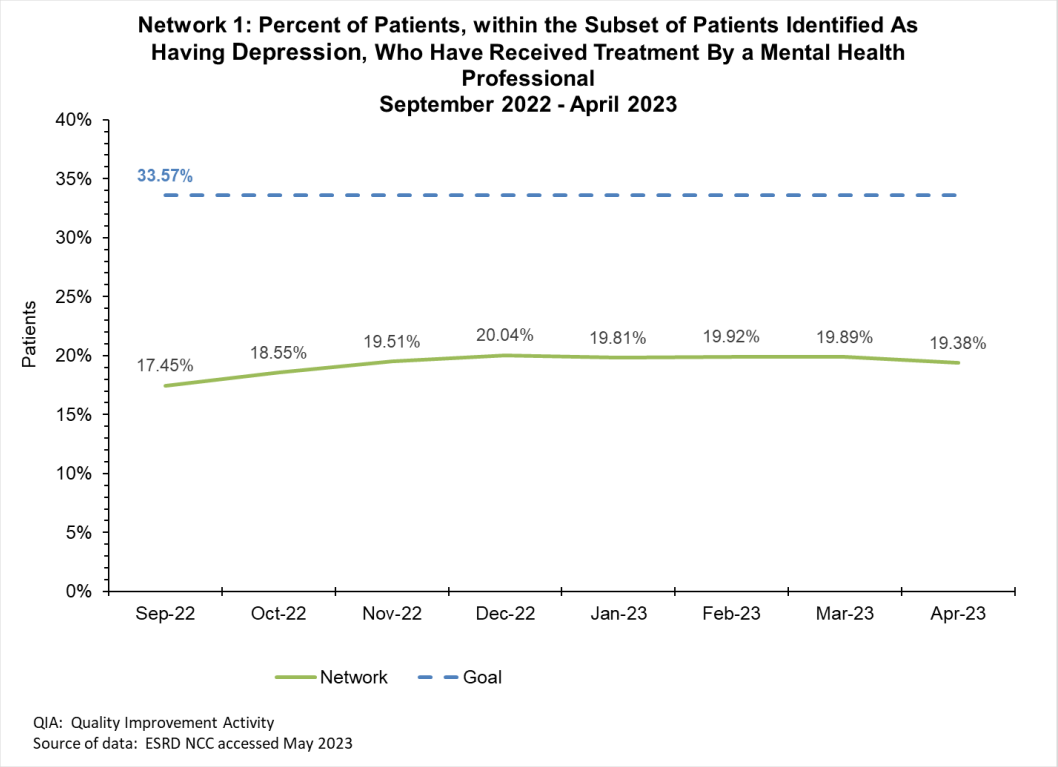
The Network analyzed depression treatment data to identify facilities that had low depression treatment rates or high treatment rates. These facilities were selected to work closely with the Network as part of a community coalition. The community coalition consisted of approximately 30% of facilities in the Network's service area. Working closely with these facilities, the Network was able to identify common barriers that were faced when referring patients to mental health treatment. After understanding what these common barriers were, the Network focused efforts on developing resources for facilities that specifically addressed obstacles to mental health treatment.

One of the most identified barriers was stigma related to mental health. The Network developed two handouts for facility staff to use when addressing this with patients, *Stop the Stigma Surrounding Depression* and *Shatter the Stigma: Flipping the Facility Culture (Frequently Asked Questions*). Another common barrier identified was limited access to mental health care in rural areas. To address this issue the Network identified and shared resources offering national and state level guides for locating and accessing resources in the rural setting. The Network also shared internet-based search engines to assist ESRD facilities in finding mental health providers. These resources included Network resources *What is Telemental Health?* and the Substance Abuse and Mental Health Services Administration's (SAMHSA). *Locating Telehealth Services for Behavioral* Health, with links to the SAMHSA website.

Outcomes

With a goal to have at least 80% of ESRD patients screened for depression, the Network's collaboration with dialysis facilities resulted in 99.13% of patients being screened for depression during the performance period. A second goal was to have 34.83% of those patients who screened positive receive mental health treatment. While the Network didn't meet that goal, its activities resulted in 19.38% of patients who had screened positive for depression receiving mental health treatment. A focus was placed on creating and sharing resources to help overcome barriers identified. These resources were reviewed and adopted for use by

approximately 80% of the facilities in the service area. They were also added to our toolkit as well as the Network's public facing web site.



Barriers to Achieving Goals

While working with the community coalitions the Network identified several barriers that stood in the way of patients not seeking mental health treatment. The top barriers identified were patients' stigmatizing beliefs, shame, appointment fatigue, denial, and a lack of mental health providers. Other barriers related to accurate reporting and timeliness of the data set in EQRS were also identified by the Network. These issues were reported to the ESRD National Coordinating Center (NCC), and the Network collaborated with the NCC and the dialysis provider organizations to eliminate these barriers.

Best Practices Spread to Achieve Goals

The Network organized and shared best practices throughout the performance period using our IPRO Learn platform and quarterly best practice calls. An IPRO Peer Mentor was identified as a best practice speaker for her work helping dialysis patients suffering with depression. Throughout this call the speaker shared personal stories of overcoming depression in ESRD, as well as actions she had taken within her facilities to help patients encountering depression. Facilities voiced interest in helping to develop peer mentors who could help patients deal with issues of depression while on dialysis, an ongoing focus of the Network's work.

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

Project Overview

Quality care for ESRD patients within the nursing home setting is crucial for their quality of life. The Network collaborated with nursing home facilities, incenter dialysis (ICHD) clinics, residents, and stakeholders to focus efforts on reducing harm and improving patient safety related to peritonitis, hemodialysis catheter infections, and the incidence of blood transfusions.

Network 1 worked to achieve a 6% reduction from baseline in hemodialysis catheter infection rates among 10% of the nursing home residents within the Network's service area receiving dialysis in an ICHD facility. The Network identified 13 ICHD clinics that fit the criteria for the project and worked with these facilities to reduce the rate of blood transfusions within that population of nursing home residents by 3%.

Because there were no nursing home residents receiving peritoneal dialysis (PD) either in the nursing home or the ICHD setting, the Network did not participate in the quality improvement effort to reduce infection associated with PD catheters.

Interventions

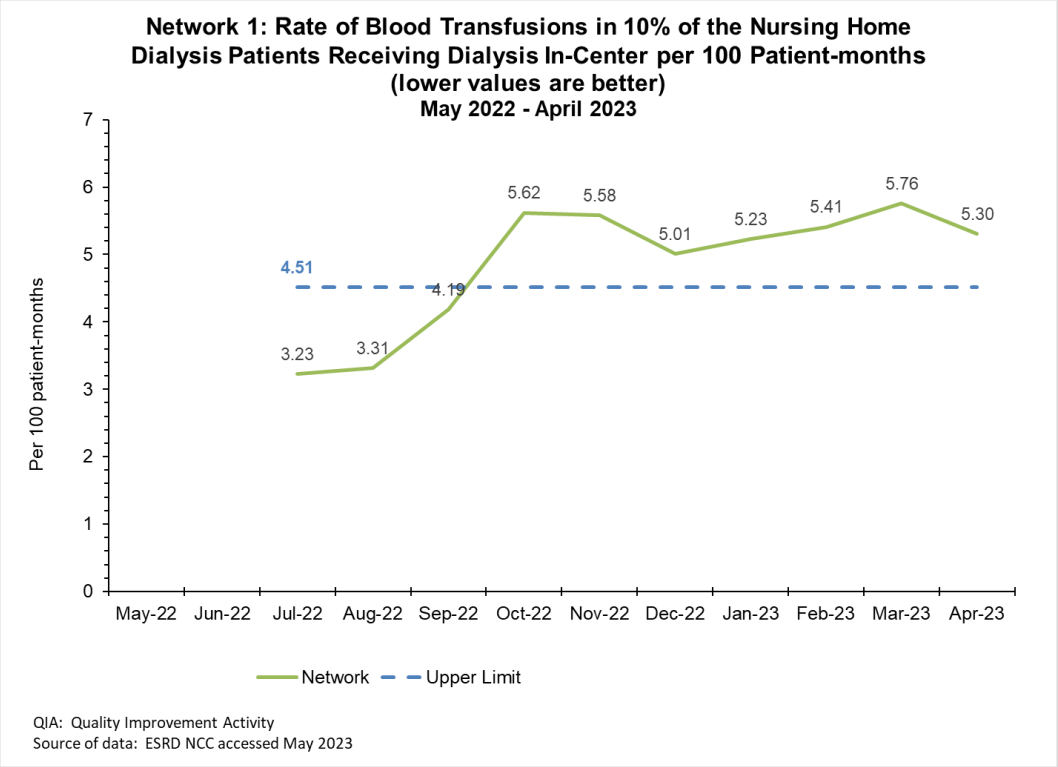
As infections were diagnosed, the Network provided one-on-one technical assistance to facilities. A root cause analysis (RCA) was conducted for each infection, and many of the infections were found to be related to causes other than the hemodialysis catheter. The Network continued to review with facility staff good infection control practices and best practices in management of the hemodialysis catheter care throughout the performance period.

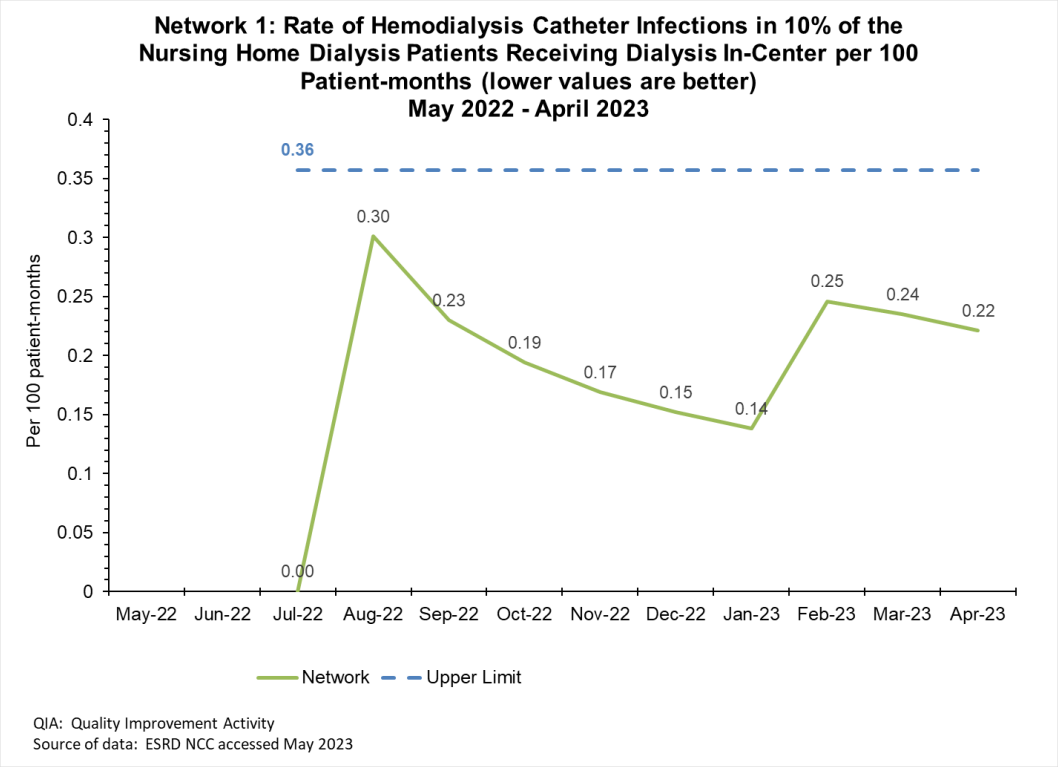
The one-on-one technical assistance provided by the Network included a review of any nursing home residents treated by the ICHD facility for whom transfusions were reported. Each transfusion was reviewed to ensure medications were given in an appropriate manner to prevent the transfusion and patients with hemoglobin rates that were trending downward were carefully watched with interventions put in place before the patient needed a transfusion.

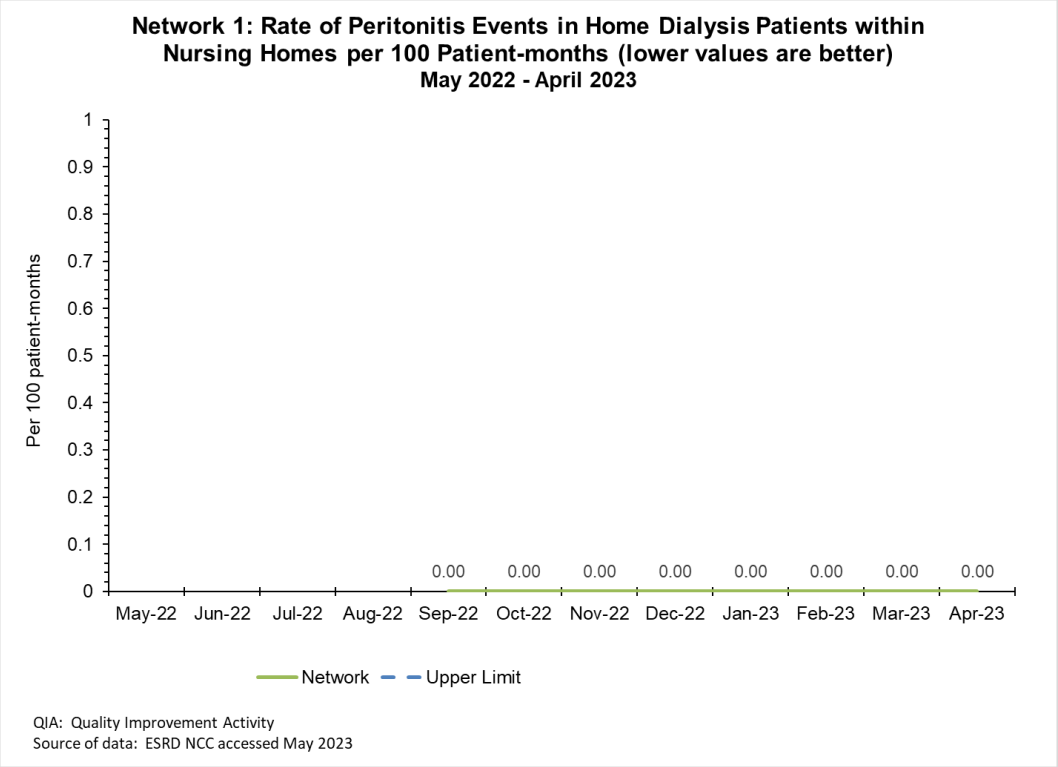
Outcomes

During the performance period, the Network's support to dialysis facilities resulted in achievement of the 6% reduction in catheter infection goal, lowering the infection rate in the Network's service area from 0.38% to 0.22%. The Network's efforts to reduce transfusion rates in the targeted population did not achieve a reduction from the baseline rate. In researching these transfusions, the Network discovered that many of the transfusions recorded as given to ICHD patients who were in a nursing home were not actually given while the patient resided in the nursing home. The Network researched the problem and identified that data fields on patients' residences were not updated in a timely manner so that transfusions that were given

when a patient lived at home were being recorded as having been given while the patient was in a nursing home.







Barriers to Achieving Goals

Bloodstream infections reported in the Centers for Disease Control and Prevention's (CDC's) National Healthcare Safety Network (NHSN) can occur due to a variety of reasons other than a hemodialysis catheter. Often the bloodstream infections the Network investigated were found to be due to other sources of infection and outside of the purview of the Network's scope. The most notable barrier in the Network's work to reduce transfusions involved errors in recording the accurate residency of the patient at the time of the transfusion. This led to transfusions being reported as having been given when the patient was in the care of the nursing home, which was not accurate. Ultimately, this resulted in a high number of transfusions reported in the data set which could not be acted upon as improvement opportunities within this quality initiative.

Best Practices Spread to Achieve Goals

The Network identified several best practices in improving communications between nursing home staff and dialysis facility staff. We released a tool to improve hand off communication and an integrated care plan to increase care plan discussions between both groups. By improving communication in the care of these patients between the two types of providers, we were able to improve care coordination, which in turn contributed to reductions in infection and blood transfusions.

Telemedicine
May 2022-April 2023

Project Overview

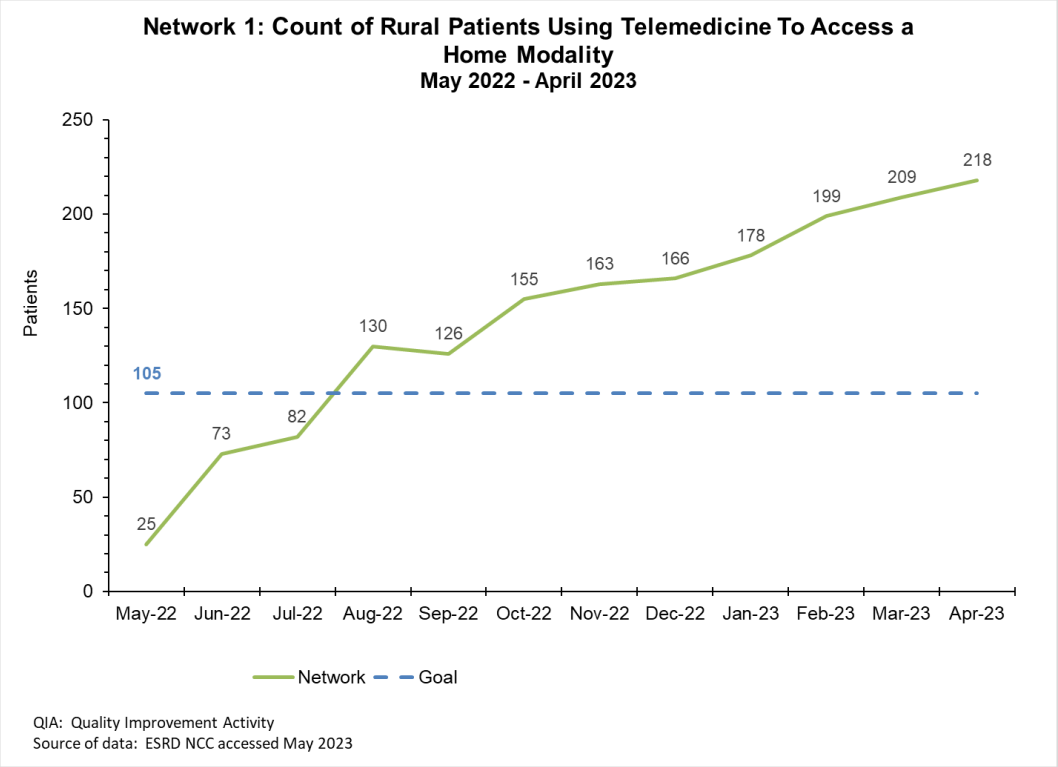
Telemedicine has been found to provide a useful tool to improve access to care for patients living in rural settings who must travel long distances to meet face-to-face with their care team. It also can reduce the risk of travel accidents and exposure to infection in vulnerable populations. During the performance period, the Network focused on increasing the number rural patients participating in telemedicine visits by 3%. Based on zip codes, the Network identified facilities that cared for 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.

Interventions

Each month the Network provided education, resources and interventions as described above to our telemedicine community coalition facilities. To ensure that the staff members of these facilities were aware of their use of telemedicine with their rural patients the Network sent monthly reports quantifying the number of rural patients treated by the facility, the number of patients eligible for telehealth visits, the number of patients who had a telehealth visit and how many visits with rural patients were necessary to increase their use by 3%. The report was intended to provide facilities with the ability to track and offer telemedicine visits to rural patients who could benefit from their use.

Outcomes

Working with the identified facilities during the performance period, Network 1 exceeded its goal to increase visits by 3%; with a total of 218 telemedicine visits by patients in rural areas (twice the amount needed to meet the goal).



Barriers to Achieving Goals

With the public health emergency ending in May of 2023, the Network was concerned that the use of telemedicine would decline, since it was still primarily seen as a pandemic only program. We worked on educating providers and patients and sharing best practices to explain the benefits to continuing telemedicine beyond the pandemic to support growth of home modalities for rural patients.

Best Practices Spread to Achieve Goals

The Network assembled a coalition of high-performing facilities and subject matter experts to mentor and advise low-performing facilities. The coalition's high-performing facilities assessed local issues pertinent to the subject matter and provided examples of successful interventions to recommend to low-performing facilities.

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 and focused efforts on achieving 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.

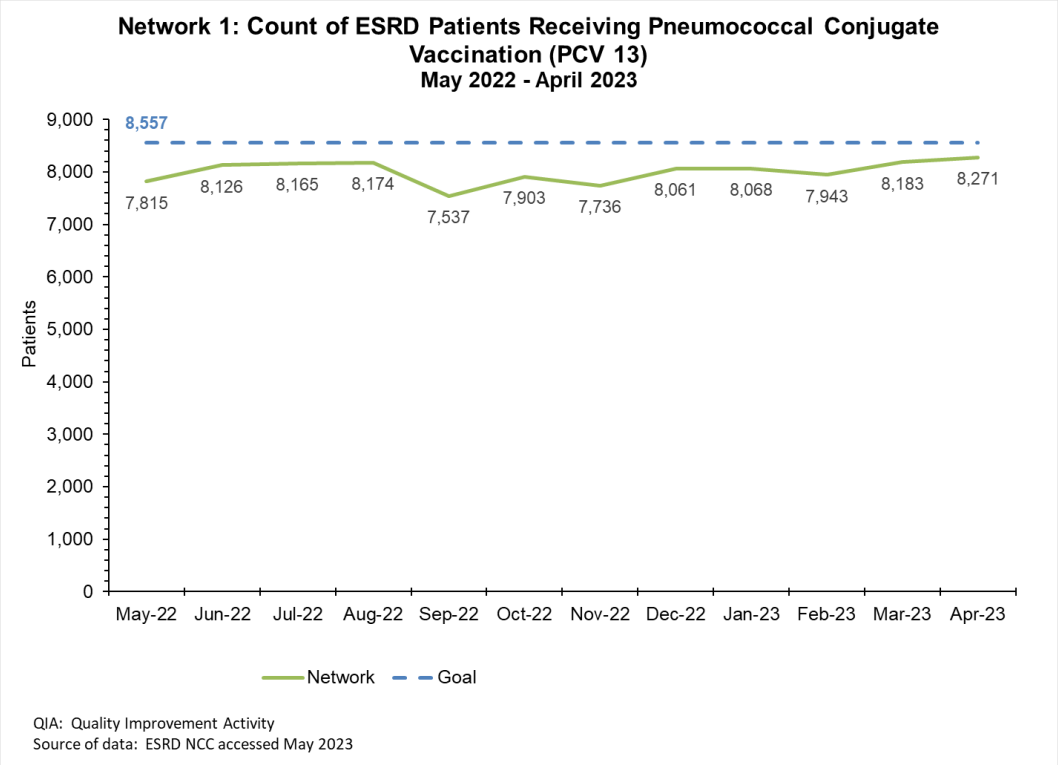
Interventions

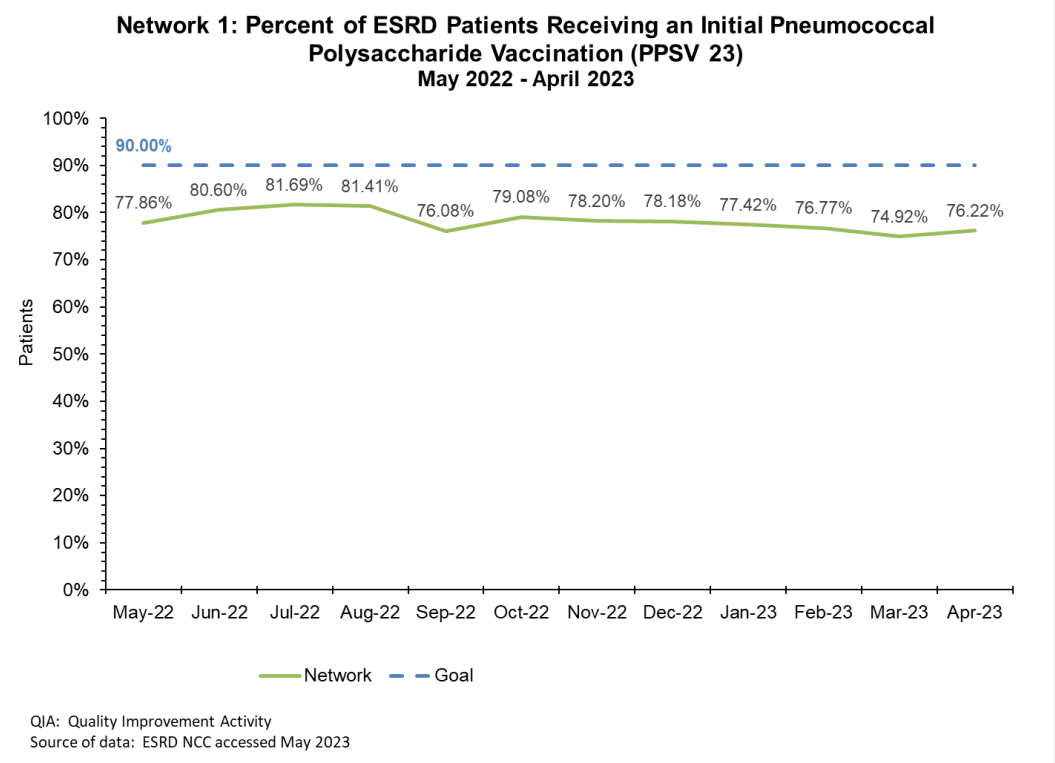
Using the learning management system platform, IPRO Learn, the Network provided facilities with resources and interventions to support implementation of effective strategies aimed at increasing patients' vaccination rates. The Network focused its approach on providing education to patients on the importance 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).

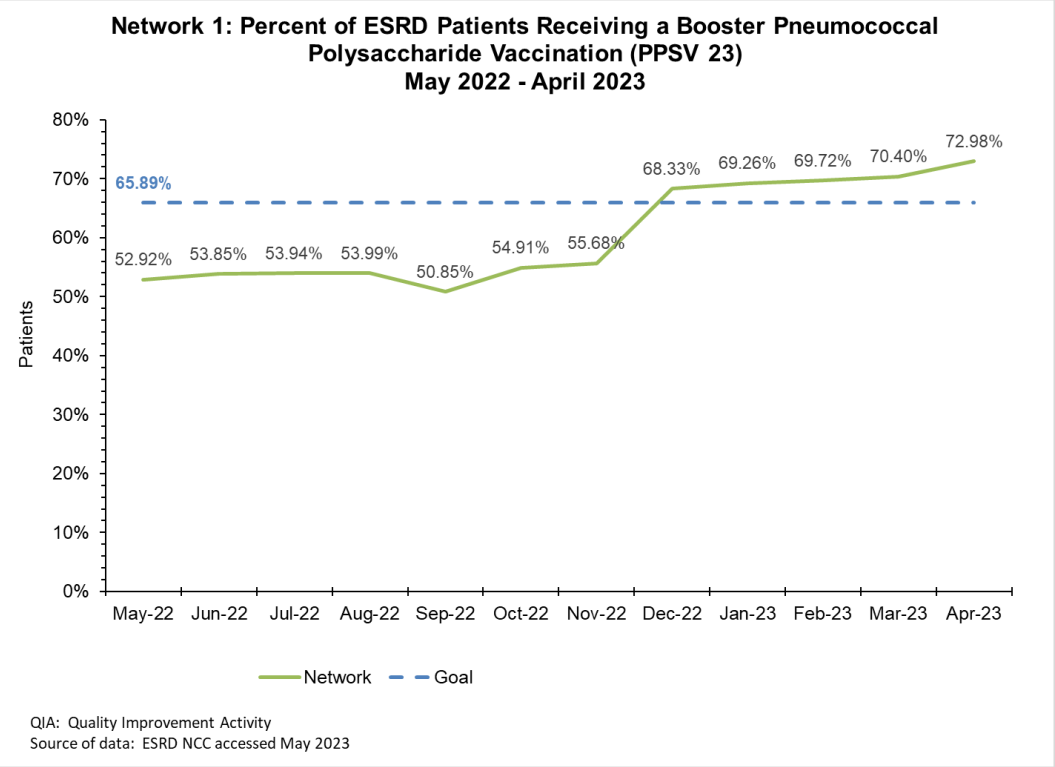
The Network's *Improving Vaccination Rate Toolkit* offered facilities easy access to a one stop shop of pneumococcal vaccination resources. When facility staff were asked about the usefulness of the interventions, tools, and resources made available by the Network, 85 % of facilities stated they would use resources to help with vaccination uptake within the Network's service area.

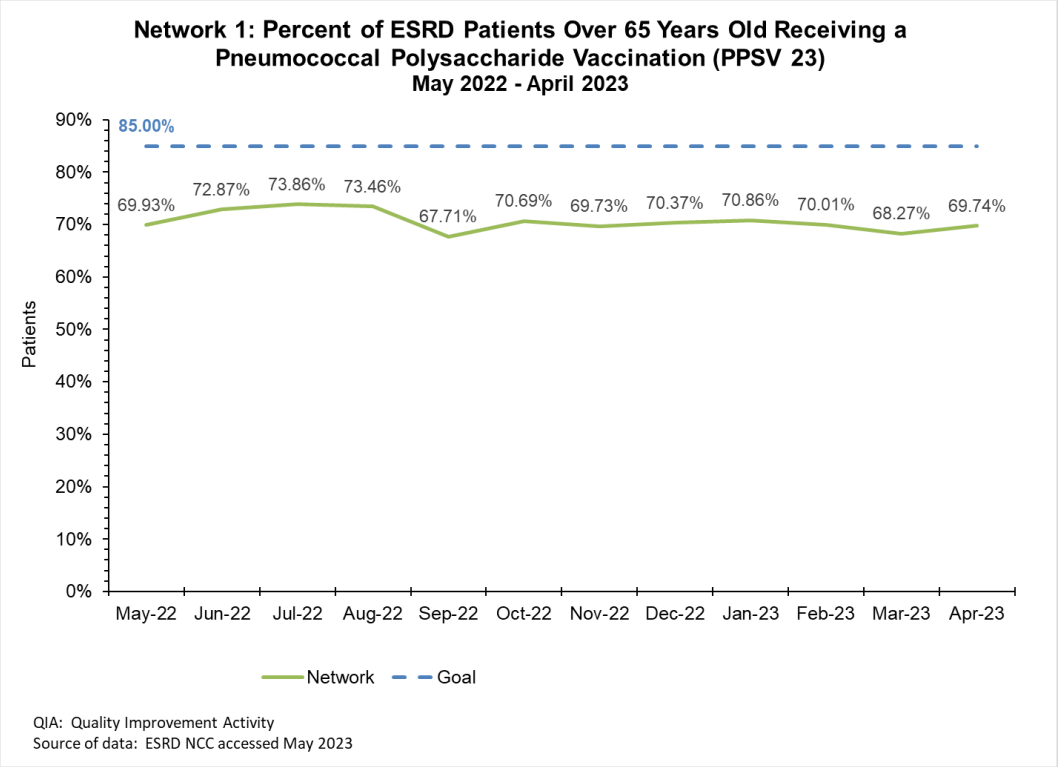
Outcomes

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 1: Percent of ESRD Patients Receiving an Initial Pneumococcal Polysaccharide Vaccination (PPSV 23)
May 2022 - April 2023
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Patients
90.00%
77.86%
80.60%
81.69%
81.41%
76.08%
79.08%
78.20%
78.18%
77.42%
76.77%
74.92%
76.22%
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Network
Goal
QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023


Network 1: Percent of ESRD Patients Receiving a Booster Pneumococcal Polysaccharide Vaccination (PPSV 23)
May 2022 - April 2023
80%
70%
60%
50%
40%
30%
20%
10%
0%
Patients
65.89%
52.92%
53.85%
53.94%
53.99%
50.85%
54.91%
55.68%
68.33%
69.26%
69.72%
70.40%
72.98%
May-22
Jun-22
Jul-22
Aug-22
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23
Mar-23
Apr-23
Network
Goal
QIA: Quality Improvement Activity
Source of data: ESRD NCC accessed May 2023



Barriers to Achieving Goals

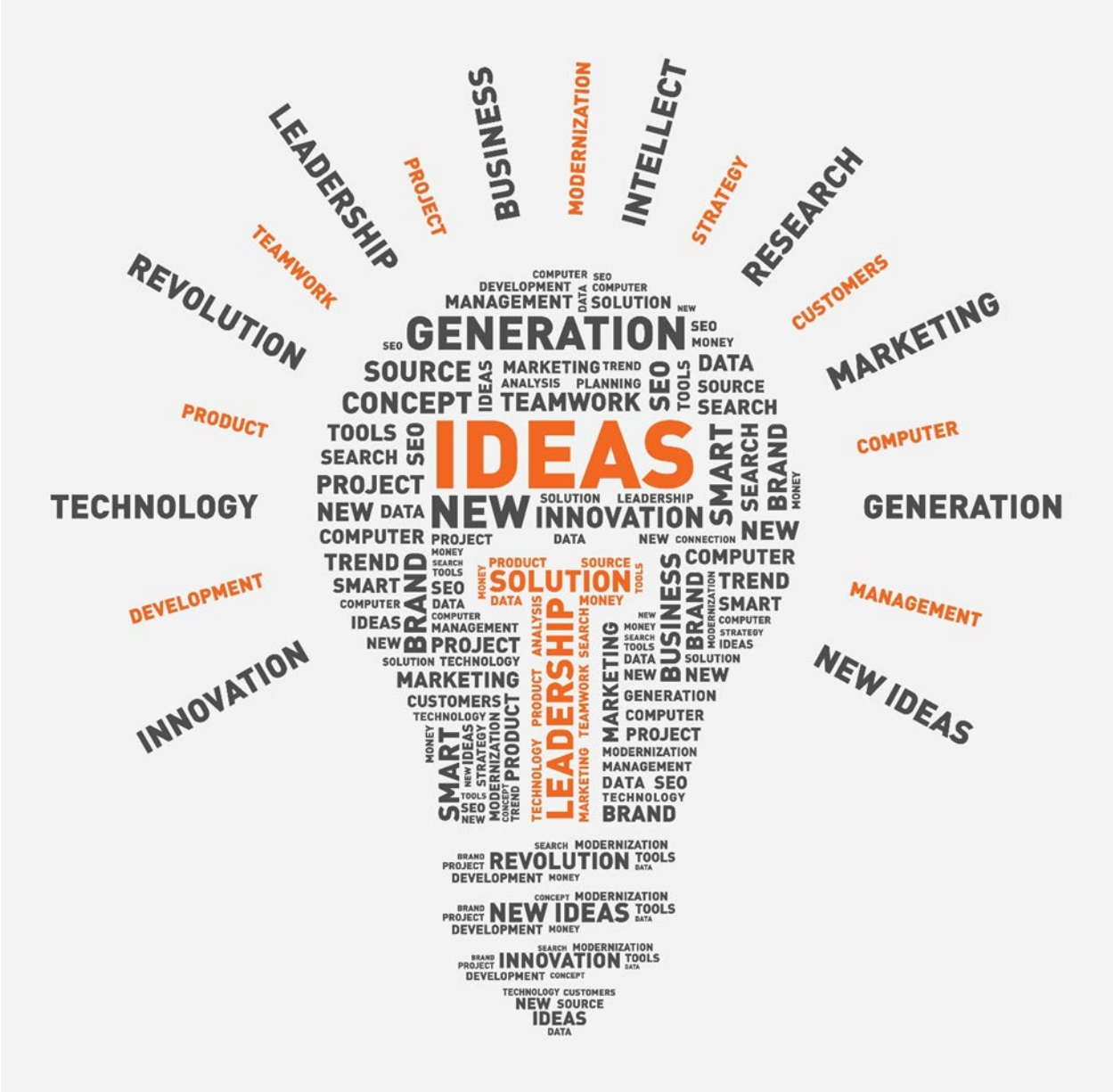
The change in CDC guidelines for pneumococcal vaccine administration in the ESRD population prevented the Network from working toward the stated goals for the performance period. To address identified primary barriers, the Network encouraged adherence with the new CDC guidelines and worked to improve data accuracy in EQRS.

Best Practices Spread to Achieve Goals

Best practices for increasing the pneumococcal vaccination rates in patients included:

- Having facilities assign a vaccination tracking manager who closely monitored all patient vaccinations;
- Closely monitoring data in EQRS reporting fields to ensure what was being entered was accurately being transmitted via facilities' electronic medical records batch data submission process.

We hosted two vaccine best practice calls during the performance year during which both best practices were shared by the facility leads who perform this work. We also featured a patient vaccination advocate who works with peers to encourage adherence to vaccination protocols and encouraged facilities to look for peer mentors who could work with their patient community.


LEADERSHIP
PROJECT
BUSINESS
MODERNIZATION
INTELLECT
STRATEGY
RESEARCH
TEAMWORK
REVOLUTION
CUSTOMERS
MARKETING
PRODUCT
COMPUTER
TECHNOLOGY
GENERATION
DEVELOPMENT
MANAGEMENT
INNOVATION
NEW IDEAS
IDEAS
GENERATION
SOURCE
CONCEPT
TEAMWORK
NEW
INNOVATION
SOLUTION
LEADERSHIP
BRAND
SMART
PRODUCT
MARKETING
REVOLUTION
NEW IDEAS
INNOVATION

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. Improving the availability of transportation services for dialysis is a consistently requested additional service that facilities cite would improve their process.
2. Expanding transplant services and offering home dialysis to emergency Medicaid recipients was another frequently requested additional service for the community.


first
infrastructure
contingency
environment
aid
continuity
public safety
ambulance
training
communications
earthquake
damage
critical
management
patient
mitigation
injury
emergency services
planning
preparedness
healthcare
plan
safety
fire
agency
warning
survival
team
medical
service
help
urgent
danger
disaster
supplies
emergency room
protection
kit
evacuation
stretcher
paramedic
business
alarm
medic
safe
jeopardy
resilience
emergency
incident
equipment
disease
urgency
threat
natural disaster
natural
information
property
recovery
nurse
crisis
doctor
government
situation
health
environmental
risk management
public
response
rescue
hospital
security
room
intervention
life
accident
risk
operations
medicine
loss
system
education

ESRD Network COVID-19 Emergency Preparedness Intervention

The Network utilized a variety of strategies to communicate information and support dialysis facilities in their efforts to prevent the transmission of COVID-19 within the dialysis population of the six New England States. In the 2023 calendar year, the Network received the following reports of COVID-19 cases:

Network 1 Service Area	Sum of COVID-19 Positive(+) Patients	Sum of COVID-19 Positive(+) Staff
Connecticut	2,169	311
Maine	540	69
Massachusetts	3,098	421
New Hampshire	435	54
Rhode Island	712	139
Vermont	87	34
Total	**7,041**	**1,028**

Activities focused on reinforcing the most current infection control guidelines and recommendations for dialysis facilities issued by the Centers for Disease Control and Prevention (CDC), through 1:1 technical assistance and resource distribution. Recommended precautions included screening for COVID-19, proper use of personal protective equipment (PPE), proper cleaning and disinfection of equipment and surfaces, providing 1:1 technical assistance to facilities associated with increased patient hospitalizations, and completing an environmental scan to identify the true root cause of COVID-19 spread within that facility so that interventions could be implemented to address the problem.

Among the lasting effects of the COVID-19 pandemic was the staff shortage issue caused by many professionals transitioning out of the healthcare field, leaving dialysis units with a shortage of technicians and nurses. As the pandemic eased, preparedness activities became 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 to nearby facilities. The Network strongly advocated for practitioners to be open and honest with patients and their support networks about the realities of staffing shortages, including how these shortages could impact treatment times and transportation.

The Network provided facilities with the *CMS Checklist for Dialysis Facilities in COVID-19 Hotspots.* This checklist provided guidance to facilities on ways to conduct self-assessments to enhance facility preparedness in preventing the spread of COVID-19. The resource also provided guidance on routine infection control procedures and the importance of outpatient dialysis facilities maintaining established policies and practices in place to reduce the spread of contagious respiratory pathogens.

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 dialysis organizations. The combined data sets were provided to the 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 1 currently has 169 users in New England.

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

- Weather-Related Events: 11
- Emergent Events: 9
- Altered Schedule: 11
- Staff Shortage: 6
- Temporary Closures: 16
- Permanent Closures: 5

There were 16 closures of facilities reported in the Network's service area and six reports of staffing shortages during the performance period. A review of the data provided to the Network revealed that most of the 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 operations. 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 that were struggling with staff shortages, encouraging them to utilize travel staff agencies or reroute patients to sister clinics.

In September 2022, parts of Rhode Island experienced severe flooding, brought on by an increase in rain. Flooding led to closure of a major roadway, resulting in six area clinics experiencing issues transporting patients to and from dialysis. The Network contacted all the clinics in the affected area, as well as the local operations director, to learn more about the situation. Patients affected by flooding were able to be re-routed to nearby facilities unaffected by flooding. The Network reported all relevant information to CMS and the Rhode Island Department of Health.

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.