Description of the patient and facility population in the ESRD (End Stage Renal Disease) Network program and the outcomes of the quality improvement activities performed by this Network compared to the Network program performance
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ESRD DEMOGRAPHIC DATA
Network 8: Prevalent ESRD Patients by Treatment Modality
As of December 31, 2017

Total Dialysis Patients = In-Center Dialysis + Home Dialysis
Total ESRD Patients = Transplant + Total Dialysis Patients

Source of data: CROWNWeb

Network 8: Number of ESRD Medicare-Certified Facilities by Modality
Type Offered
As of December 31, 2017

Total Dialysis Facilities = In-Center Hemodialysis and Home Dialysis + In-Center Hemodialysis (Only) + Home Dialysis (Only)
Total Facilities = Transplant + Total Dialysis Facilities

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

Source of data: CROWNWeb

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

Source of data: CROWNWeb
ESRD NETWORK
GRIEVANCE AND ACCESS TO CARE DATA
**Network 8: Grievance Data for Calendar Year 2017**

Source of data: Patient Contact Utility (PCU)

<table>
<thead>
<tr>
<th>Category</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grievance Cases</strong></td>
<td></td>
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<tr>
<td>General Grievance</td>
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<tr>
<td>Immediate Advocacy</td>
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<tr>
<td>Clinical Area of Concern</td>
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<tr>
<td><strong>Non-Grievance Cases</strong></td>
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<tr>
<td>Facility Concern</td>
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<tr>
<td>Access to Care: Confirmed Involuntary Transfer/Discharge (IVT/IVD)</td>
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<tr>
<td>At-Risk Access to Care</td>
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<tr>
<td><strong>Additional Case Information</strong></td>
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<tr>
<td>Averted IVT/IVD</td>
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</tr>
<tr>
<td>Failure to Place</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total Cases 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Note: Revised cases were placed in those revised categories</td>
<td>464</td>
</tr>
</tbody>
</table>

Source of data: Patient Contact Utility (PCU)
Network 8: Grievance Timeliness by Case Type with National Comparison
January - September 2017

The Network goal was to maintain a rate of at least 80% of all Immediate Advocacy cases completed within 7 business days, and a rate of at least 90% of all grievance cases completed within 60 calendar days for all cases received by the Network.

Source of data: October 2017 ESRD Network Dashboard

Network 8: Average Grievance Scores for Grievance Quality Improvement Activity (QIA) with National QIA Rate Comparison
March 2017 - August 2017

Source of data: October 2017 ESRD Network Dashboard
Grievance Quality Improvement Activity

The aim of the grievance Quality Improvement Activity (QIA) was to promote and improve the utilization of the grievance process at the facility level and improve communication among patients, facility staff, and Network 8. Facility participation was based on a focused audit of Patient Contact Utility (PCU) data for 2016. The 10 facilities with the highest number of grievances and access to care issues were selected for participation.

Monthly, each facility submitted their grievance log for review and scoring. Project facilities had a two-month pilot period (January and February) to utilize the CMS grievance log and become comfortable with documenting grievances. The baseline for the QIA was obtained from the March 2017 grievance log. Each grievance was scored on a five-point severity scale as established by CMS. The QIA baseline was established by dividing the combined score of the severity-weighted grievances by the total number of facilities in the project. The baseline score was 7.0 with a goal of reducing the average score by a relative score of 20%. The Network exceeded the goal of 5.6 with an average score of 2.7 based on September grievances.

An initial root cause analysis (RCA) was conducted with each facility. Plan, Do, Study, Act plans were developed to address the identified barriers. Notable interventions addressed facility processes for receiving, documenting, and resolving grievances. Specifically, facilities implemented the following activities:

- Recruited a facility patient representative (FPR) to assist with resolving grievances
- Involved the interdisciplinary team (IDT) during monthly Quality Assurance and Performance Improvement (QAPI) meetings in grievance review and resolution
- Reviewed facility grievance data for trend identification and developed internal plans to address root causes
- Conducted routine staff meetings to provide appropriate skills for receiving and processing grievances

Patient initiatives were developed in collaboration with the Patient Advisory Council (PAC) and focused on effective communication, understanding treatment times, and concrete steps to adequately address grievances. The Forum of ESRD Networks Kidney Patient Advisory Council (KPAC) tool, The Dialysis Patient Grievance Toolkit, developed by patients for patients was reviewed by the PAC. PAC members identified sections of the toolkit that would be most helpful to patients and those were incorporated into project activities. Each project facility was provided a binder of the grievance toolkit to place in a highly visible area for patients to review. Patients contacting the Network for grievance assistance are provided content from the toolkit.

Best practices identified from QIA interventions included open dialogue with patients about grievances in an effort to reduce the stigma, routinely educating staff about the grievance process and addressing patient fear of retaliation.
ESRD NETWORK QUALITY IMPROVEMENT ACTIVITY DATA
Source of data: October 2017 ESRD Network Dashboard. Option 1 to use for Networks 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, and 18.

*In-Center Hemodialysis Consumer Assessment of Healthcare Providers and Systems (ICH CAHPS)
In- Center Hemodialysis Consumer Assessment of Healthcare providers and Systems (ICH-CAHPS) Quality Improvement Activity

The ICH CAHPS Quality Improvement Activity (QIA) topic area was determined by examining the spring 2016 ICH CAHPS data. Based on data received from the End Stage Renal Disease Network Coordinating Center (ESRD NCC), the question with the worst patient scores was Question #39 related to peritoneal dialysis (PD) education. Question 39 read, “Peritoneal dialysis is dialysis given through the belly and is usually done at home. In the last 12 months, did either your kidney doctors or dialysis center staff talk to you about peritoneal dialysis?”

Of the patients participating in the survey, 31.7% gave a negative response. The goal was a 5% relative improvement to reach 35.12%. Monthly, an eighth of the patient population was asked to complete the one ICH CAHPS PD question to determine improvement. At the conclusion of the QIA, Network 8 exceeded the goal with a rate of 90.5% of patients responding positively to the question.

Network 8 began interventions with 20 facilities with the worst patient scores representing 5% of the patient population in February 2017. Key educational initiatives:

- Incorporated FPRs and peers into facility level interventions
- Hosted a Home Modality Webinar for facility staff with Dori Schatell of the Medical Education Institute to describe strategies and educational tools for collaborating with patients to identify appropriate home modality options
- Provided the Method to Assess Treatment Choices for Home Dialysis (MATCH-D) quick reference tool for home dialysis candidacy to facility staff to assist with assessing patients for a home modality
- Collaborated with facilities to conduct home modality lobby days to promote dialogue about the different home dialysis options
- Provided literacy appropriate patient educational handouts that explained home modality options

An RCA was conducted and a primary barrier identified was patient perception of the need to have a medical professional present to perform dialysis. A best practice to mitigate this was the inclusion of peers to provide personal PD experiences and empowerment. Other best practices included facility level collaboration with home programs, facility identification of a FPR to assist with education, and the discussion of potential home modality candidates in monthly QAPI meetings.
Network 8: Long-Term Catheter (LTC) Rates for Quality Improvement Activity (QIA) Facilities with National QIA Rate Comparison
January 2017 - August 2017

Source of data: CROWNWeb
Long-term Catheter Quality Improvement Activity

Network 8 began interventions with 168 focused review facilities in February 2017. Facilities with long-term catheter (LTC) rates greater than 15% (n=73) of their patient population as of October 2015 were assigned to Tier One and were required to submit RCAs and received monthly communication and facility-specific data reports as available. Facilities with rates greater than 10% but less than or equal to 15% were assigned to Tier Two (n=95). Tier Two facilities were monitored but did not receive monthly communication unless rates exceeded 15% for three consecutive months. For the purposes of this project, CMS defined LTC as “catheter as only access for greater than 90 days”.

In aggregate, of the 974 patients dialyzing via long-term catheter, the three most common barriers identified were:

- New or existing patient awaiting arteriovenous fistula (AVF) maturation/ arteriovenous graph (AVG) healing (33.7%)
- Personal choice (19.3%)
- New patient awaiting placement of AVF/ AVG (16.9%)

Monthly coaching calls to Tier One units included a patient-specific review, discussion of current facility interventions and sharing of interventions proven helpful in other clinics such as:

- Physician assessment of maturing accesses each week
- Weekly review of access plan for new patients who are waiting for access consult/surgery
- Early intervention for newly admitted patients to avoid prolonged use of catheter intended for short-term use that often leads to refusal of internal access placement

Promising practices were shared with all project participants at conclusion of project. These included:

- Relentlessly follow up with appointment reminders to help ensure that patients keep appointments
- Actively and uniformly instruct patients on the inherent dangers of long term catheter use and encourage placement of permanent access
- Follow a routine, ongoing process to document progression of steps leading to catheter removal
- Utilize vascular access managers who can follow through with referrals, missed appointments, etc.

Due to a nation-wide error in LTC data reported to CMS, despite trending well below the expected target each month and meeting goal as of April 2017, LTC rates soared by greater than one percentage point with corrected data for the month of June. The actual LTC rate in August (received by Networks in November) was 13.41%. A total of 212 catheters were removed in project facilities during the course of this QIA.
Network 8: Bloodstream Infections (BSI) and Quality Improvement Activity (QIA) by ESRD Network

Nationally, the Networks reduced 2,406 BSI in 2017

The Network goal was to decrease the rate of bloodstream infections (BSI) by a 5% or greater relative reduction in the pooled semi-annual mean in facilities participating in the quality improvement activity.

Source of data: June 2017 NHSN (National Healthcare Safety Network)
Bloodstream Infection (BSI) Quality Improvement Activity

The BSI project was implemented with the selection of 20% of facilities (N= 79) with the highest BSI rates, oversampling by five to bring the total number of focus facilities to 84. The goal was to reduce dialysis facility BSI rates within the focus facilities. Monthly, BSI data was reviewed by Network staff in order to assess trends. Target facilities that reported an increase of BSIs for three consecutive months were required to perform a RCA and develop an action plan addressing specific challenges identified.

The baseline pooled mean BSI rate was 1.39% with a goal to achieve a 5% or greater relative reduction (1.32%). Target facilities exceeded the goal with a pooled mean BSI rate of 0.89% by the end of second quarter 2017. Of the 84 facilities in the project, 67 facilities (80%) surpassed the project goal of a 5% or greater relative reduction in their pooled mean BSI rate at re-measurement. An independent sample t-test was conducted to compare BSI rates for focus facilities and non-focus facilities. The results concluded that focus facilities had a significant decrease in BSI rates. BSI rates decreased in focused facilities on average by .50, while rates increased in non-focus facilities on average by .07 from baseline to re-measurement (p<.0001).

The QIA achieved a reduction in Any CVC (Tunneled and Nontunneled Central Line) BSIs from 242 in 2016 to 130 in 2017, preventing an estimated 112 central line associated bloodstream infections (CLABSIs).

Throughout the duration of the project, the Network collaborated with facilities to identify best practices and barriers. Mitigation strategies were developed and shared among the QIA facilities. RCA follow-up identified the following best practices:

- Implementation of CDC’s Scrub-the-Hub Protocol
- Physician involvement regarding follow-up with blood cultures identified in the hospital/emergency department
- Corporate initiative with emphasis on wiping out infection included staff education, infection tracking, and patient education
- Patient education on washing access prior to and after treatment, with staff reinforcement
Network 8: Hepatitis B Vaccination (HBV) Rates for Quality Improvement Activity (QIA) Facilities with National QIA Rate Comparison January 2017 - July 2017

Source of data: CROWNWeb

Network 8: Pneumococcal Pneumonia Vaccination (PPV) Rates for Quality Improvement Activity (QIA) Facilities with National QIA Rate Comparison January 2017 - July 2017

Source of data: CROWNWeb
**Vaccination Quality Improvement Activity**

Using the Focus Facility Selection tool supplied by the NCC, 25 facilities were chosen for intervention as directed by our statement of work. Participating facilities were asked to complete a standardized RCA worksheet for the vaccine type (Hepatitis B or pneumococcal disease) with < 60% vaccination rate. As such, 11 units completed the Hepatitis B RCA and 15 units completed the PPV RCA.

In aggregate, the top two reasons for low vaccination rates for both Hepatitis B and pneumococcal disease were:

- Patient refusal
- Lack of dedicated staff member to manage vaccinations

Patient and staff education materials were distributed monthly through September. Materials provided addressed staff and patient related root causes as policy and process related barriers were not a common occurrence in facilities owned by large dialysis organizations (LDOs). Over the course of this activity, various interventions were implemented by nurse managers to ensure both sustained improvements and further improvements in rates. Promising practices identified included:

- Appoint one nurse as vaccine champion
- Use patient education material provided by Network 8, written at an appropriate literacy level
- Educate on the importance of both vaccinations, beginning with admission to the dialysis facility
- Involve physician as part of team effort to increase vaccination rates
- Don’t give up—continue to address the need for vaccines with patients who have previously refused
- Hold routine “lobby days” for vaccinations and provide small tokens of appreciation to patients who receive recommended vaccinations
- Keep vaccination records up-to-date so that no patient is overlooked

As of July 2017, Network 8 exceeded the project goal by a two percentage point increase for each vaccination type. Hepatitis B rates increased 8.5 percentage points, from 64.98% to 73.52% and pneumococcal rates increased 20 percentage points, from 38.89% to 58.56%.
Network 8: Home Therapy Rates for Quality Improvement Activity (QIA)  
Facilities with Pilot Project Comparison Rate  
January 2017 - September 2017

Source of data: October 2017 ESRD Network Dashboard

Network 8: Disparate and Non-Disparate Quality Improvement Activity (QIA)  
by ESRD Network  
January 2017 - September 2017

Source of data: October 2017 ESRD Network Dashboard

*Disparate population is African American and non-disparate population White.
Population Health Focus Pilot Project

The aim of the home dialysis referral project, branded as *Make Yourself At Home*, was two-fold; first, to increase home modality referral rates among 5% of the in-center dialysis patient population, and secondly to decrease the disparity in home modality referral rates between African Americans and White patients. Facility participation in the project, Network 8 conducted an analysis of home referral data from CROWNWeb for April through September of 2016. Fifteen facilities were selected for participation based on low home dialysis rates. Each participating facility was provided an individualized project goal and monthly progress reports were provided to track progress towards goals.

Data for the target facilities revealed a 6.2% baseline home dialysis referral rate and an 8.6 percentage point difference between referrals for African American and White patients. The project goals were to increase the overall home modality referral rate by 5% and decrease the racial disparity by one percentage point. Network 8 exceeded both goals with an overall referral rate of 26.1% and a 3.8 percentage point reduction at the conclusion of the project in September 2017.

Facility-specific RCAs assisted with the development of project interventions. Facility interventions included:

- Peer education from home dialysis patients to discuss personal home dialysis experiences
- Collaboration with the National Association for the Advancement of Colored People (NAACP) and the Alliance for Home Dialysis to conduct a town hall meeting to increase home dialysis awareness in the African American population
- Partnering with the leadership of a LDO that was internally implementing a home dialysis initiative with six of the project facilities
- “What Matters to You” buttons provided to project facilities for staff to wear. These buttons were conversation starters with patients to discuss their personal goals and if a home modality would enhance their quality of life

A resounding best practice for the project was revealed showing that patients were more inclined to consider a home modality if peer interactions occurred about home dialysis experiences. Additionally we learned that the collaboration with facilities involved in corporate initiatives enhanced corporate efforts while minimizing facility burden.
Network 8: Count of Quality Incentive Program (QIP) Quality Improvement Activity (QIA) Facilities That Successfully Completed Plan-Do-Study-Act (PDSA) Cycles and Met the Improvement Target for Three Consecutive Months
April 2016 - September 2017

Source of data: October 2017 ESRD Network Dashboard
Quality Incentive Program Quality Improvement Activity

During 2017, Network 8 continued improvement efforts to decrease rates of hypercalcemia in ten facilities with the poorest performance on the Quality Incentive Program (QIP) hypercalcemia measure as determined by analysis of June 2016 data supplied by Arbor Research. Hypercalcemia rates for those facilities selected to participate in the QIA ranged from 3.4% to 15.4%. The project goal was a 25% relative improvement from facility specific hypercalcemia baseline rates. Monthly, QIP data was monitored for facility level improvement; facilities completed the project after obtaining 3 months of decreased hypercalcemia rates. The Network collaborated with project facilities to complete individualized RCAs to assess current practices for addressing and monitoring hypercalcemia. Plan, Do, Study, Act plans were implemented addressing identified barriers.

Aggregate results of root cause analyses revealed the top 3 reasons for hypercalcemia to be:

- Use of active vitamin D analogues
- Diet rich in calcium fortified foods
- Use of calcium-based phosphate binders

Facility-identified interventions to address these barriers included:

- Appointing one staff member to review labs and titrate vitamin D per physician protocol
- Intensive dietary instruction with a focus on avoiding commonly fortified foods / assessment for un-recognized pica
- Discontinuation of calcium-based binders until calcium level reached < 10.2 mg/dL

Tools, resources, and coaching calls to support improvement efforts were provided to project leads over the course of the QIA. By project conclusion, seven of ten units were able to meet and sustain facility-specific improvement of >25% relative improvement in baseline hypercalcemia rate for three consecutive months, resulting in 16 of 19 (94.74%) units meeting or exceeding goal during the two-year cumulative project.
Network 8: Bloodstream Infection Reporting Rates for National Healthcare Safety Network (NHSN) Data Quality Improvement Activity Facilities with National QIA Rate Comparison
September 2016 - September 2017

Baseline: 30.9%
April: 23.9%
September: 33.3%

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

NHSN is CDC’s system to track healthcare-associated infections. The aim of the NHSN Data Quality QIA was to increase dialysis facility reporting of Blood Stream Infections (BSIs) identified within one calendar day following hospitalization of dialysis patients. The Network selected 20 Central Mississippi dialysis facilities that lacked access to hospital electronic medical records or were known to have challenges retrieving hospital medical record information. The Network also identified five hospitals that received patients from these 20 QIA facilities.

Project interventions included:

- Monthly coaching calls to facilities
- Follow-up communication with pertinent hospital staff
- Network 8 “Help Us Help You” poster
- The Joint Commission “Speak Up” poster
- Dialysis staff education regarding the reporting of positive blood cultures within one calendar day of hospital admission
- Instructions on how to obtain portal access to all five hospitals

Target facilities maintained a log of hospital medical record requests and documented timeframes of the record retrieval process. Monthly, medical record request tracking logs and BSI data were reviewed by Network staff. Target facilities that demonstrated a decrease in the reporting of hospital identified BSIs for three consecutive months were asked to perform a RCA and develop an action plan addressing challenges identified.

RCA follow-up by Network 8 identified the following best practices:

- Hospital portal access obtained
- Hospital medical records request form developed
- Specific staff person assigned to request hospital medical records
- Nephrologist notification to facility for follow-up orders post hospital discharge

The baseline rate of positive blood cultures collected in hospitals and/or emergency departments was 31% and the project goal was to demonstrate a 1% increase over baseline. Target facilities exceeded the goal with a rate of 33% by the end of second quarter 2017.
ESRD NETWORK
RECOMMENDATIONS
Facilities that Consistently Failed to Cooperate with Network Goals

Providers in the Network region are monitored throughout the year for their participation in activities specified in the Network’s CMS contract and for their performance on a number of quality metrics. Facilities that fail to comply with Network requests have the potential to be placed on the Network Watch List, the first in a sequence of steps that may lead to a recommendation for sanction by CMS. The Network monitors these facilities and develops an action plan for improvement. Facilities are provided a timeline for completing activities in order to be removed from the Watch List. Networks may recommend that sanctions or alternative sanctions be imposed on facilities that do not cooperate in meeting Network goals or ESRD Conditions for Coverage. In 2017, no providers consistently failed to cooperate with Network goals.

Additional or Alternative Services for Facilities in the Network

Network 8’s service area experienced 16 new openings and three facility closures in 2017. The increase in facilities appears to be aligned with the patient population and the treatment modalities of patients. The Network has not identified a specific need for additional facilities in the service area.