2010 Annual Report

Quality Insights
Renal Network Three

Serving ESRD patients in New Jersey,
Puerto Rico and the U.S. Virgin Islands.

Contract Number: 500-10-NW003, June 30, 2011

Submitted to: Kathleen Egan, Project Officer, CMS/Division of Quality Improvement, Boston, MA
Submitted by: Quality Insights Renal Network Three, 109 South Main Street, Suite 21, Cranbury, NJ

I. PREFACE

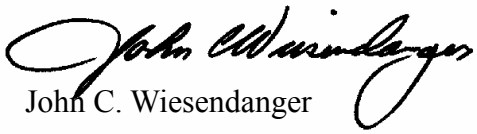
Quality Insights Renal Network 3 is pleased to present its 2010 ESRD Annual Report. 2010 was an exciting and challenging year for QIRN3. At the corporate level, we welcomed a new family member to the Quality Insights family--the Mid-Atlantic Renal Coalition (ESRD Network 5), which improves care for patients in MD, DC, VA and WV. We are truly looking forward to the added collaboration this partnership can bring in the coming years. We will continue working to decrease the number of patients who use catheters as their primary access, reducing the rate of healthcare acquired infections in dialysis providers, and acting as an independent investigatory resource for patients who have concerns, complaints, or grievances about their dialysis provider.

In 2010, we saw many clinical care and quality improvement successes. This includes continued progress toward the CMS goal of 66% of patients utilizing an arteriovenous fistula (AVF) for their dialysis treatment. In 2010 QIRN3 improved its fistula rate from 54.4% to 57.1% of patients now using this preferred access method. New Jersey in particular has worked extremely hard on this project, achieving a fistula rate of 60.4% by December 2010.

At the direction of its Medical Review Board and Board of Directors, QIRN3 has been working on reducing the inappropriate use of catheters since 2005. This important initiative will remain one of the projects that QIRN3 continues to focus on during 2011.

In addition, we began working with the Centers for Disease Control and Prevention (CDC) in 2010 to reduce the incidence of Healthcare Acquired Infections (HAI) in outpatient dialysis providers. Our staff attended several meetings held by the CDC Hemodialysis Collaborative and began working closely with CDC experts to plan the rollout of the initiative to providers in New Jersey, Puerto Rico, and the US Virgin Islands. QIRN3 looks forward to working with its providers in 2011 in this critical initiative.

We hope you find this year's annual report useful and look forward to hearing about any potential improvements or partnership opportunities you have to share. We are also looking forward to working with you, our valued partners, in the coming year to improve the health of the people we serve.



John C. Wiesendanger
CEO WVMI & Quality Insights

The mission of Quality Insights Renal Network Three is to provide the professional framework within which the provision of quality care to consumers of end-stage renal disease services can be maximized.

TABLE OF CONTENTS

I. PREFACE II

II. INTRODUCTION 1

A. Network Description 1

B. Network Structure 13
1) Staffing 13
2) Names and Titles of Staff 13
3) Governance and Committees 16

III. CMS NATIONAL GOALS AND NETWORK ACTIVITIES 25
A. Improve the quality and safety of dialysis-related services provided for individuals with ESRD 25

B. Improve the independence, quality of life, and rehabilitation (to the extent possible) of individuals with ESRD through transplantation, use of self-care modalities, as medically appropriate, through the end of life.. 58

C. Improve patient perception of care and experience of care and resolve patient complaints and grievances 61

D. Improve collaboration with providers and facilities to ensure achievement of goals A through C through the most efficient and effective means possible, with recognition of the differences among providers and associated possibilities/capabilities. 64

E. Improve the collection, reliability, timeliness, and use of data to measure processes of care and outcomes; to maintain a patient registry; and to support the goals of the ESRD Network Program. 71

IV. SANCTION RECOMMENDATIONS 77

V. RECOMMENDATIONS FOR ADDITIONAL FACILITIES 77

VI. DATA TABLES 78

I. INTRODUCTION

A. Network Description

In 2010, Quality Insights Renal Network Three (QIRN3) continued to serve patients with end stage renal disease (ESRD) in New Jersey, Puerto Rico and the US Virgin Islands.

As specified in the CMS Statement of Work (SOW), each Network is responsible for conducting activities in the following areas:

- Quality Improvement
- Community Information and Resources
- Administration
- Information Management

Network activities, which are framed by the national program goals of improving the quality of health care services and quality of life for ESRD beneficiaries, are tailored to meet local needs and include:

- Assuring the effective and efficient administration of benefits
- Improving quality of care for ESRD patients
- Collecting data to measure quality of care
- Providing assistance to ESRD patients and providers
- Evaluating and resolving patient complaints and grievances

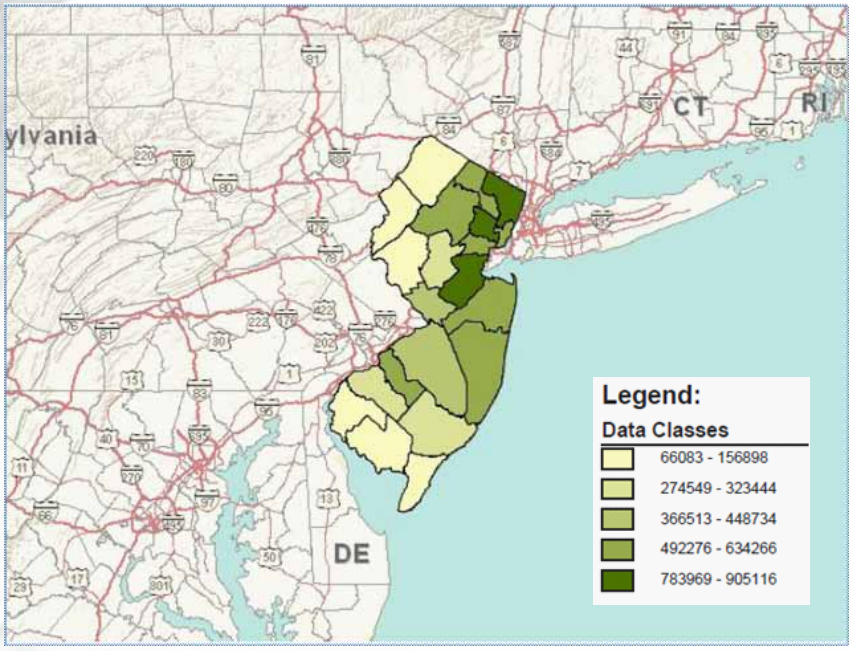
In calendar year (CY) 2010, 4,866 patients began treatment for ESRD in Network Three, 99 fewer than in CY 2009. Of these new patients, 59.6% were male, 69.3% were white and 26.1% were African American. The primary cause of renal failure was attributed to diabetes (50.8%), whereas 25.3% was attributed to hypertension. By the end of CY 2010, 16,591 patients were receiving dialysis treatment for ESRD in Network Three, 526 patients (3.2%) more than CY 2009.

The ESRD population in the Network Three area is the 6th smallest in the country. However, the high urban concentrations and population densities, particularly in New Jersey and Puerto Rico, present challenges relative to ESRD education and preparedness.

New Jersey-General Description

New Jersey contains 8,215 square miles with 21 counties and 567 municipalities. Its highest elevation is 1,803 feet at High Point and its lowest is sea level at the Atlantic Ocean with an average elevation of 250 feet. While New Jersey is geographically one of the smallest states in the nation (it ranks 46th), in 2009 it was estimated by the Census Bureau to be the eleventh most populous, with approximately 8.7 million residents. There are 1,174 inhabitants per square mile of land area - the most densely populated state in the nation[1] followed by Rhode Island (1,007/sq mi.). The population is expected to increase 24% by 2030[2]. As can be seen in the map below, the counties surrounding New York City in the northeast part of the state are particularly densely populated.

Figure 1. Total Population by County in New Jersey in CY 2010



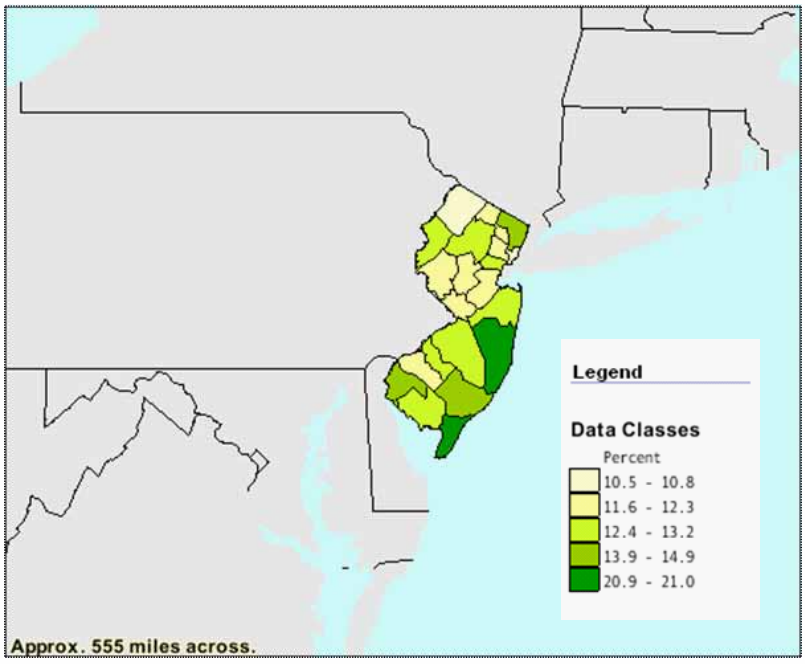
*Source: 2010 Census Redistricting Data (Public Law 94-171) Summary File

California and New Jersey have the 2nd highest urban population in the nation, estimated to be 94.4% as of the year 2000. The District of Columbia ranks higher at 100% urban[3]. While the percent (13.2%) of New Jersey residents aged 65 or more continues to be higher than the national average (12.9%), Figure 2 illustrates that six of New Jersey's 21 counties have over 13.2% of their populations aged >=65, two of which have over 20% >=65.

---

1 State Population - Rank, Percent Change, and Population Density: 1980-2009. (n.d.). In Statistical Abstract of the United States:2011 (pp. 18-19). U.S. Census Bureau.
2 State Resident Population –Projections: 2010 to 2030. (n.d.). In Statistical Abstract of the United States:2011 (p. 20). U.S. Census Bureau.
3 Urban and Rural Population by State: 1990 and 2000. (n.d.). In Statistical Abstract of the United States:2011 (p. 36). U.S. Census Bureau.

Figure 2. Percent of Persons 65 Years and Over in CY 2009*



*Source: U.S. Census Bureau, 2005-2009 American Community Survey

The population in New Jersey is reported to be 76% white, 14% black, 8% Asian and 2% other. Most of the population growth in New Jersey during the last decade occurred in minority populations; Hispanics sustained the largest increase. Hispanics now constitute approximately 16.7% of the population within New Jersey[4]. The largest increase of New Jersey's Hispanic residents occurred in Hudson and Passaic counties. Chronic kidney disease has a higher incidence among black and Hispanic populations.

New Jersey is surpassed by only 8 other states in the proportion of resident Hispanic or Latino residents; New Mexico (45.6%), California (37%), Texas (36.9%), Arizona (30.8%), Nevada (26.4%), Florida (21.5%), Colorado (20.2%) and New York (16.8%) surpass New Jersey's 16.7% resident Hispanics and Latinos.

New Jersey's foreign-born population accounted for 19.8% of the population, surpassed only by California (26.8%) and New York (21.7%)[5]. The foreign-born population and their associated lack of understanding materials written in English can present challenges relative to patient communication and education.

[4] Resident Population by Race, Hispanic Origin, and State: 2009. (n.d.). In Statistical Abstract of the United States:2011 (p. 25). U.S. Census Bureau.
[5] Native and Foreign-Born Population by State: 2008. (n.d.). In Statistical Abstract of the United States:2011 (p. 43). U.S. Census Bureau.

A second challenge to the health care system in New Jersey remains unauthorized immigrants, in particular their utilization of emergency rooms and hospitals, as well as the need to provide care that is often uncompensated. The state ranked ninth in the number of unauthorized immigrants, surpassed by California, Texas, New York, Illinois, Florida, Arizona, Georgia and North Carolina. Mexico was identified as the country of origin for 61.8% of these persons[6].

The New Jersey population estimated to be below the poverty level in 2008 was 8.7%, higher than the 2000 rate of 7.9%; the 2008 national rate was 13.2% compared to the 2000 rate of 12.2%. Only 3 states had rates lower than New Jersey in 2008[7]. In 2008 New Jersey had the highest per capita personal income, at $85,761, compared with a national rate of $63,366[8].

ESRD Population - New Jersey

While the incident (newly diagnosed) ESRD population in New Jersey dropped slightly for the 3rd year in a row, the prevalent (chronic) patient population rose again in 2010.

In CY 2010, 3,297 people initiated treatment compared to the 3,461 in 2009, and 3,593 in 2008. Older people, in particular those over 65 years of age, continued to represent the largest and fastest growing age group of ESRD beneficiaries. Of the total new starts in 2010, 56% were 65 years or older, and 43.7% were 70 years or older. Twenty percent were ≥ 80 years old compared to 20.7% in 2009. Of new patients, 59% were male and 41% were female; 63.9% were white and 30.4% were African American.

Among incident cases, the most frequently reported primary diagnoses were diabetes (43.5%) and hypertension (30.4%). The percentage of diabetes diagnoses rose from 43% in 2009, while the percentage of hypertension diagnoses fell from 33% in 2009. Collectively, these two diagnoses represented the largest proportion of new cases in 2010.

According to the 2010 Annual Facility Survey, 11,598 individuals are now receiving treatment in New Jersey dialysis providers, an increase of 269 (2.4%) patients from CY 2009. Of this number, 57.2% are male and 42.8% are female; 53% were white and 40.9% are African American. The primary causes of renal failure continue to be diabetes (42%) and hypertension (30%).

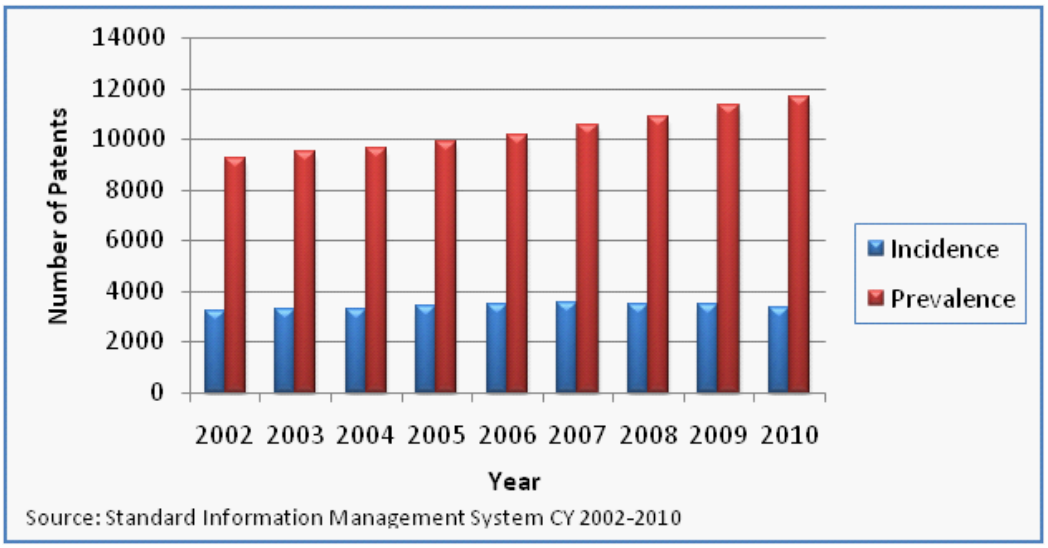
---

6 Estimated Unauthorized Immigrants by Selected States and Countries of Birth: 2000 and 2009. (n.d.). In Statistical Abstract of the United States:2011 (p. 46). U.S. Census Bureau.

7 Individuals and Families Below Poverty Level-Number and Rate by State: 2000 and 2008. (n.d.). In Statistical Abstract of the United States:2011 (p. 463). U.S. Census Bureau.

8 Family Income-Distribution by Income Level and State: 2008. (n.d.). In Statistical Abstract of the United States:2011 (p. 461). U.S. Census Bureau.

Figure 3. Annual Incident and Prevalent Patients in New Jersey - CY 2002-2010



Mortality Data – New Jersey

Death notification reports for New Jersey ESRD consumers were analyzed by sex, race, and cause of death. The primary cause of death reported in 2010 continued to be cardiac (46.6%), which again reflected national data. Infection was reported as primary cause in 14.7% of the 2461 death records received. Of all deaths reported in 2010, 64.3% were white, 31.8% black; 57.1% were male, 42.9% female.

The ESRD Network Program collects data on patients' racial identification to allow tracking of disparities in care and outcomes. Because race/ethnicity data are inherently unstable, no conclusions should be derived from these numbers, and they should be interpreted with caution.

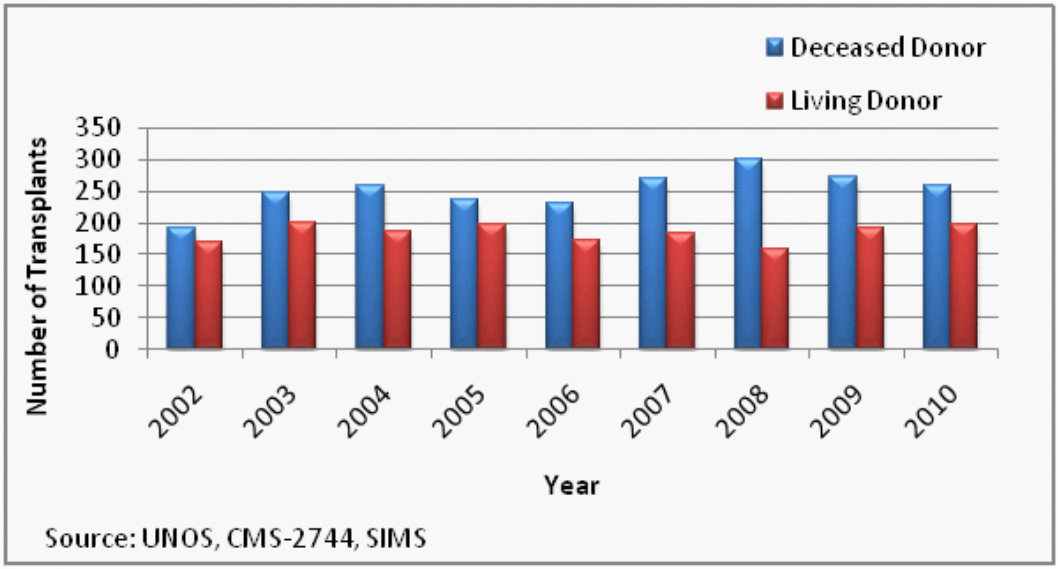
Transplantation – New Jersey

Six renal transplant centers serviced the New Jersey ESRD population, with referrals also being made to neighboring New York, Pennsylvania and Maryland. Recent years have seen an inflow for transplantation to New Jersey from neighboring state residents. Organ procurement activities were the responsibility of two federally approved agencies, the New Jersey Organ and Tissue Sharing Network (The Sharing Network) and the Gift of Life Donor Program.

In 2010, 457 transplants were performed in New Jersey at six federally certified ESRD renal transplant centers, a 1.7% decrease from the 2009 total of 465 transplants.

The number of consumers on a transplant waiting list in New Jersey as of December 2010 increased to 1,213, from 1,136 in 2009. Unless the donor pool is enlarged, transplantation will not be available to the majority of consumers on the list except, perhaps, after a lengthy waiting period. Alternatively, living donor transplantation may provide some candidates with more timely access to this modality.

Figure 4. Renal Transplants performed in New Jersey by Type, 2002-2010

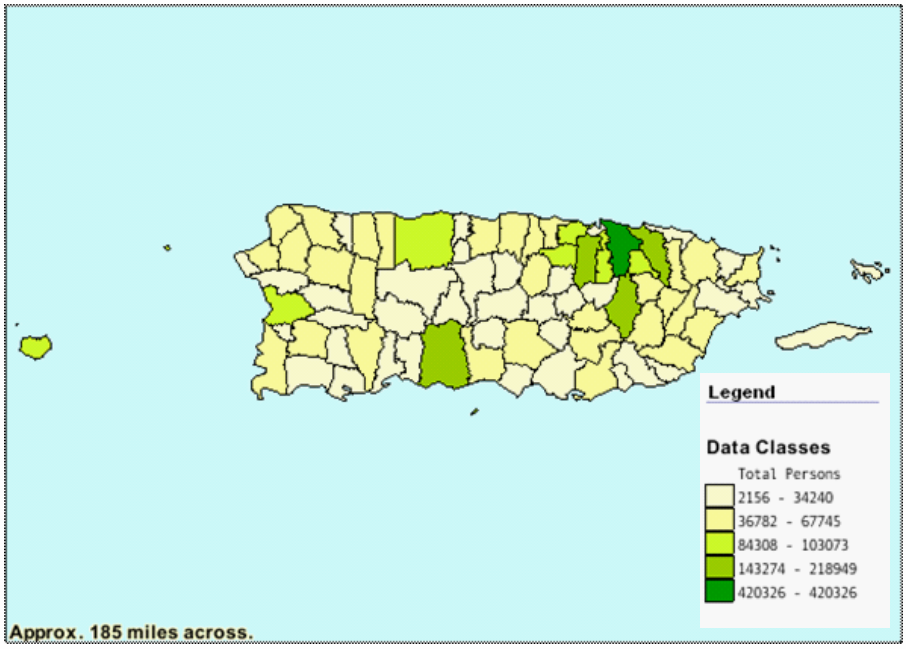


Puerto Rico – General Description

Similar to New Jersey, Puerto Rico is densely populated (1,158/sq. mi.) with land area covering nearly 3,425 square miles and an estimated 2009 population of 3.967 million[9]. If Puerto Rico were a U.S. state, it would be the 2nd most densely populated (behind New Jersey). Between 2000 and 2009, the population increased 4.2%.

[9] Source: Statistical Abstract of the United States: 2011, US Census Bureau, US Dept of Commerce, 2008

Figure 5. Total Population by Municipality in Puerto Rico in CY 2009



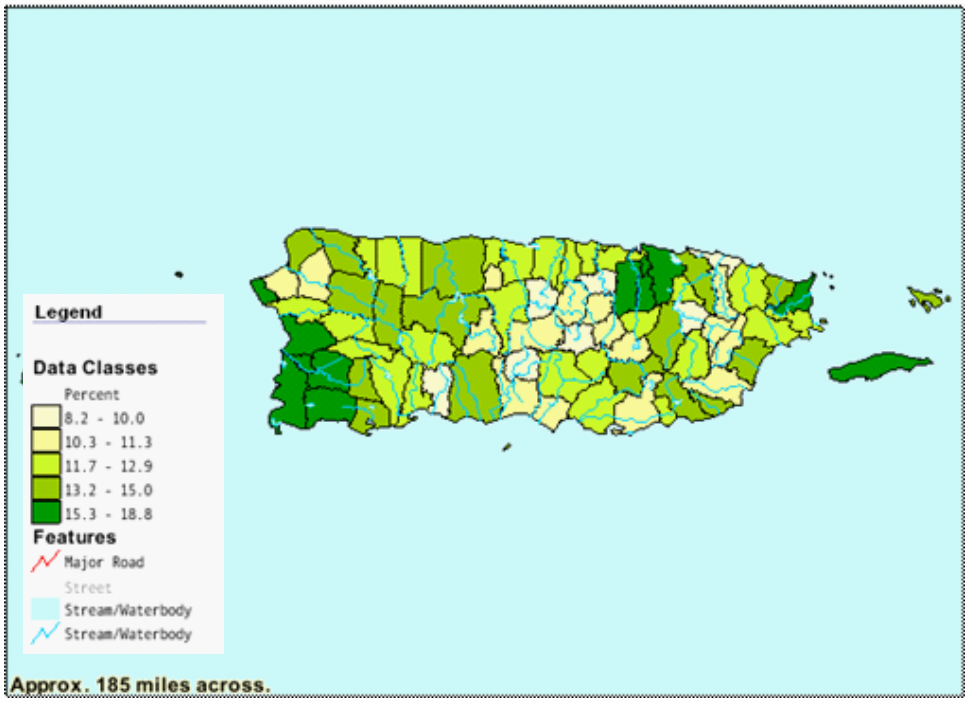
*Source: US Census Bureau, Population Estimates Program

The area has commonwealth status to the United States and is an unincorporated territory. Status relationship to the United States is under discussion with the US Congress and among island residents. The main island of Puerto Rico, Culebra, Mona and Vieques are all included in the area territory. All residents born in the area are United States citizens.

The island is rich in culture from the various settlers throughout its history. The primary influence is Spanish although the Taino culture predated Spanish colonization.

The percent of the population aged 65 years or older in Puerto Rico (13.3%) is also higher than the national average (12.9%). Figure 2 illustrates that 28 of Puerto Rico's municipalities have at least 12.9% of their populations aged >=65.

Figure 6. Percent of Persons 65 Years and Over in Puerto Rico - CY 2009



*Source: U.S. Census Bureau, 2005-2009 American Community Survey

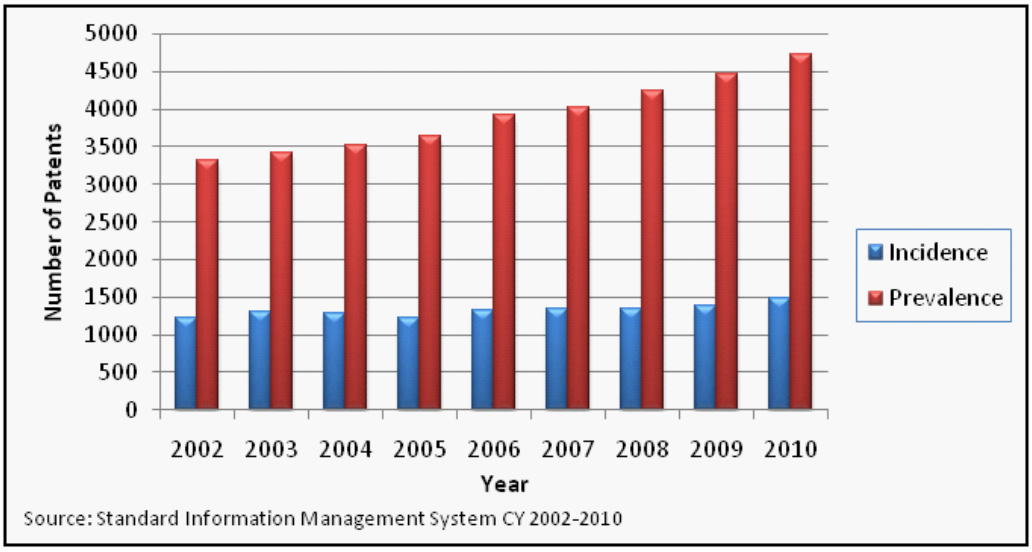
ESRD Population – Puerto Rico

In CY 2010, 1,475 people initiated treatment in ESRD facilities in Puerto Rico, compared to the 1,375 in 2009, and 1,337 in 2008. Older people, in particular those over 65 years of age, continued to represent the largest and fastest growing age group of ESRD beneficiaries. Of the total new starts in 2010, 48.2% were 65 years or older, and 32.9% were 70 years or older. Of new patients, 61% were male and 39% were female; 83.7% were white and 14.2% were African American.

The epidemic of diabetes in Puerto Rico continues to be the leading cause of end stage renal disease. Among incident cases, 66.8% reported a primary diagnosis of diabetes; hypertension was reported second most frequently at just 13.8%. Collectively, these two diagnoses represented the overwhelming majority of new cases in 2010.

According to the 2010 Annual Facility Survey, 4,724 Puerto Rico residents are now receiving treatment in Puerto Rico dialysis providers, an increase of 249 (5.6%) patients from CY 2009. Of this number, 62% are male and 38% are female; 74% are white, 9.7% are African American, and 15.5% are multiracial. The primary causes of renal failure in the prevalent population continue to be diabetes (60%) and hypertension (15.3%).

Figure 7. Annual Incident and Prevalent Patients in Puerto Rico - CY 2002-2010



Mortality Data – Puerto Rico

Death notification reports for Puerto Rico ESRD consumers were analyzed by sex, race, and cause of death. The primary cause of death reported in 2010 continued to be cardiac (36.9%). Infection is much more frequently a cause of death in Puerto Rico than in other areas of the Network, and was reported as primary cause in 30.1% of the 1,096 death records received. Of all deaths reported in 2010, 74.7% were white, 9.8% black and 14.9% multiracial; 57.8% were male, 42.2% female.

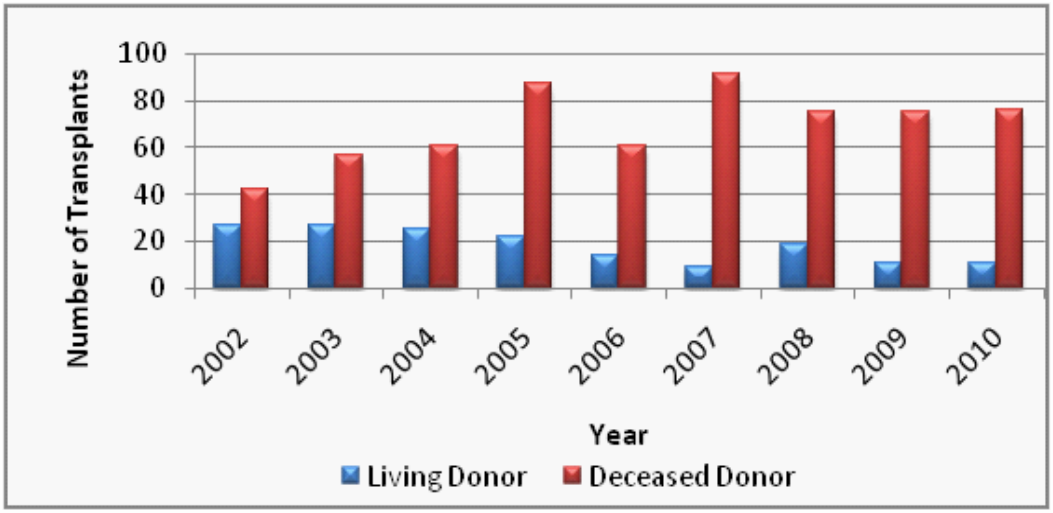
Transplantation – Puerto Rico

One renal transplant center in Puerto Rico services the Puerto Rico ESRD population, with referrals also being made to Texas, Florida, Massachusetts and Iowa. Organ procurement activities were the responsibility of Life Link of Puerto Rico, an independent, non-profit organization which performs all aspects of human organ and tissue donation, procurement, and processing for transplantation and research.

In 2010, 87 transplants were performed in Puerto Rico, a 1.2% increase from the 2009 total of 86 transplants. An additional 11 patients were sent from Puerto Rico to another state for transplantation.

The number of consumers on a waiting list in Puerto Rico as of December 2010 decreased slightly from 425 patients in CY 2009 to 423 patients in CY 2010.

Figure 8. Renal Transplants Performed in Puerto Rico - CY 2002-2010



Source: CMS-2744

The U.S. Virgin Islands – General Description

The territory of the Virgin Islands consists of three islands - St. Thomas, St. Croix and St. John - and about 50 islets, most of which are uninhabited. These islands are located 60 miles southeast of Puerto Rico, between the Caribbean Sea and the Atlantic Ocean, in the Lesser Antilles chain of the West Indies. It is an unincorporated territory of the United States administered by the Office of Insular Affairs, U.S. Department of the Interior.

Figure 9. Map of US Virgin Islands

The land area covers 134 square miles with an overall population estimated to be 105,429. There were 786 residents/sq. mi. in 2010. Population density fluctuates among the individual islands. St. Thomas has the highest density with 1,579 persons per sq. mi.; St. Croix has 583/sq. mi. and St. John only 118/sq. mi.

Population of the US Virgin Islands, 2000 and 2010

Island	2000	2010 (est.)	% Change
St. Croix	53,234	49,317	-7.3
St. Thomas	51,181	51,112	-0.1
St. John	4,197	5,000	19.1
All	108,612	105,429	-2.9

Source: CIA World Factbook.

Residents are comprised of people from the West Indies (45% native to Virgin Islands, 29% born elsewhere in West Indies), Puerto Rico (5%), U.S. mainland (13%), and other (8%)[10]. Racial composition in the Virgin Islands is estimated to be 80% black, 15% white and 5% other. Spanish and Creole are spoken in addition to English.

Tourism is the major economic stimulus in the area as well as some manufacturing sectors. One of the world's largest petroleum refineries is located here. The unemployment rate is lower than the mainland at 6.2%.[10]

ESRD Population – Virgin Islands

Both the incident (newly diagnosed) and prevalent (chronic) ESRD population in Virgin Islands continue to remain flat, a trend that has continued for 5 years.

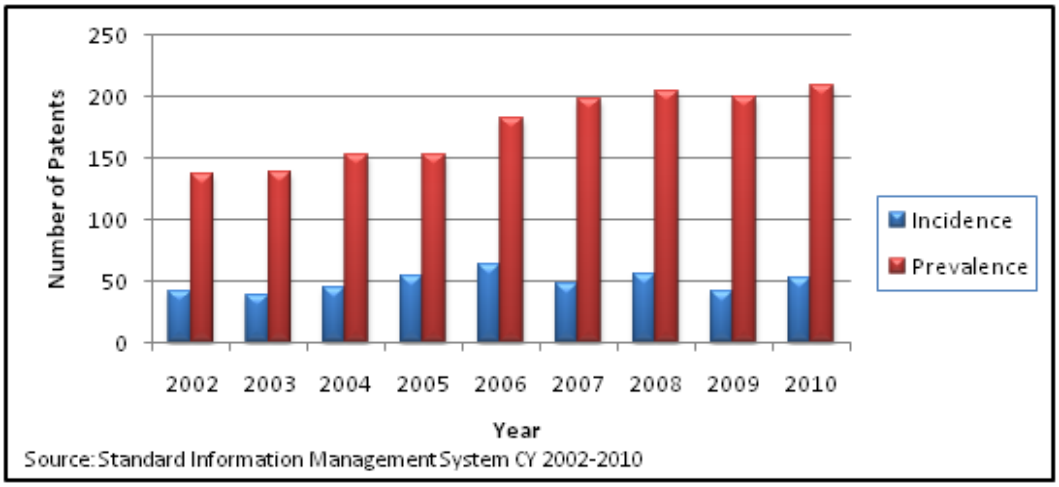
In CY 2010, 52 people initiated treatment compared to 42 in 2009, and 55 in 2008. As with other areas, older people, in particular those over 65 years of age, continued to represent the largest and fastest growing age group of ESRD beneficiaries. Of the total new starts in Virgin Islands in 2010, 46% were 65 years or older, and 30.8% were 70 years or older. Of new patients, 57.7% were male and 42.3% were female; 5.8% were white and 92.3% were African American.

Among incident cases, the most frequently reported primary diagnoses were diabetes (59.6%) and hypertension (28.8%). As is the case in the two other geographic areas of the network, collectively, these two diagnoses represented the overwhelming majority of new cases in 2010.

[10] Source: www.infoplease.com/ipa/A0113951; www.cia.gov/cia/publications/factbook/print/vq

According to the 2010 Annual Facility Survey, 209 Virgin Islands residents are now receiving treatment in Virgin Islands dialysis providers, an increase of 9 (4.5%) patients from CY 2009. Of this number, 62.7% are male and 37.3% are female; 5.7% are white, 90.4% are African American, and 3.3% are multiracial. The primary causes of renal failure continue to be diabetes (51.7%) and hypertension (33.5%).

Figure 10. Annual Incident and Prevalent Patients in Virgin Islands - CY 2002-2010



Mortality Data – Virgin Islands

Death notification reports for Virgin Islands ESRD consumers were analyzed by sex, race, and cause of death. The primary causes of death reported in 2010 continued to be infection (25%), cardiac (21.9%). Of the 32 deaths reported in 2010, 9.4% were white, 84.3% black and 6% multiracial; 53% were male, 47% female.

Transplantation – Virgin Islands

There is no renal transplant center in the US Virgin Islands, but 2 dialysis patients were able to receive transplants at off-island transplant centers in 2010. One of these patients was transplanted in Florida and one was transplanted in Massachusetts.

B. Network Structure

Staffing

Professional and clerical staff conducted daily activities of the Network under the direction of the Board of Directors and in accordance with federal guidance.

Names and Titles of Staff

Network Three is required under contract by CMS to employ an Executive Director and to adequately staff the Network in order to perform the requirements of the scope of work. The names and key responsibilities of Network staff are provided as follows:

Christopher Brown, BS, Executive Director
- Administered the financial and operational aspects of the contract
- Provided advice to the Network governing bodies on goals, objectives, work plans, policies and procedures
- Maintained external relations through ongoing communication with other agencies, state programs and the general public
- Assures quality and timely completion of contract deliverables
- Supervised daily operations.

Beverly Hoek, RN, CNN, Quality Improvement Director
- Provided oversight for all quality improvement efforts
- Planned future project implementation and worked with individual facilities
- Organized and attended Medical Review Board meetings, provided display and analysis for the Medical Review Board
- Conducted quality improvement projects and trend analysis, compiled reports
- Assisted in data collection
- Served as a resource for providers and facility quality improvement staff.

Karen Ripkey, RN, BSN, CNN Quality Improvement Coordinator
- Assisted with the conduct of improvement activities, including data collection, analysis and writing reports.
- Performed on-site facility visits, performed clinical data review, responded to consumer problems

June Chronic Huhn, MPA, RN, CNN, Senior Quality Coordinator (part-time)
- Assisted with the conduct of improvement activities, including data collection, analysis and writing reports.
- Performed on-site facility visits, performed clinical data review, responded to consumer problems

Community Outreach Coordinator (part-time)

- Planned and facilitated education, information dissemination and training for ESRD professionals, patients and their family members and other members of the community
- Worked in collaboration with the New Jersey Renal Coalition, the State Department of Health, the Quality Improvement Organization and other professional organizations

Joan Wickizer, MSW, LSW, NSW-C, Patient Services Coordinator

- Assumed a proactive role in the facilitation and resolution of patient and/or facility complaints and grievances
- Lead social services, community information and resource activities
- Provided technical assistance and conducts community outreach activities to patients and providers
- Coordinated Patient Advisory Committee and appropriately focused their activities
- Coordinated development of patient newsletters and developed or identified new educational material for dialysis unit personnel and patients
- Promoted an increased awareness of treatment options and rehabilitation through educational programs

Chris Milkosky, MBA, Data Manager

- Developed data analysis and statistical reports
- Assured computer support operations, validation, testing and design of special programs to implement federal directives
- Assured the confidentiality and security of patient data, maintenance of computer systems and updated the patient and facility-specific database
- Served as a resource to providers and Network staff

Cheryl Brown, Data Analyst

- Performed data entry of medical forms and monthly patient census reports, resolved discrepant reporting, monitored the accuracy and completeness of the database, filed completed forms
- Maintained phone contact with facility staff to answer questions regarding completion of forms and to obtain missing data.

Tricia Phulchand, BS, Office Manager

- Provided administrative support to all staff
- Supervised data clerk
- Monitored all project submissions as well as assisted in the implementation of facility testing of CROWNWeb
- Monitored complete and timely data submission
- Assisted in meeting arrangements, supervised all bulk mailings and supported Quality Insights activities

These individuals provided the clinical and administrative expertise to assure reliability of statistical data and oversight of quality improvement activities.

Operations

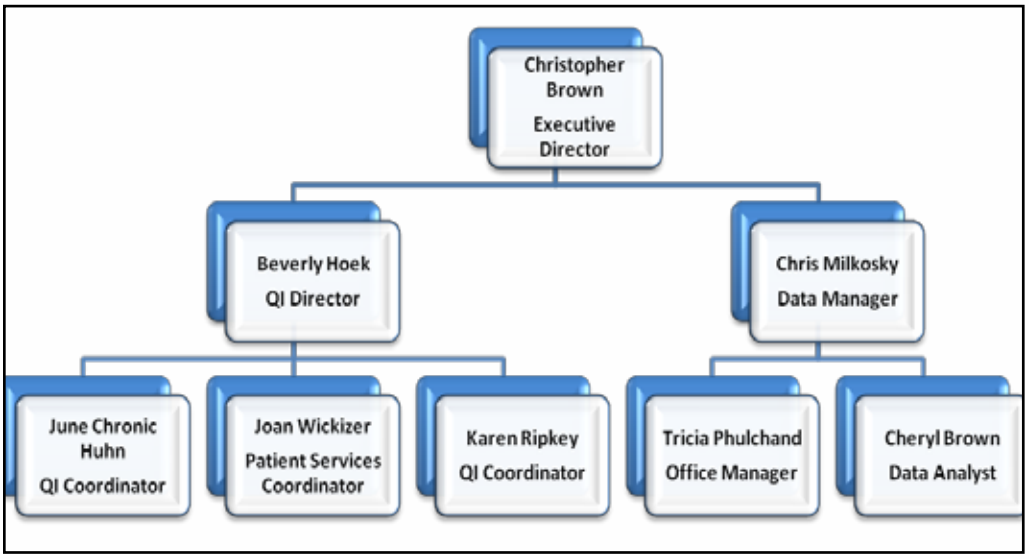
There are two major functions within the operation of the Network: quality improvement and data management. It could be maintained that quality improvement is the sole function of the Network and data analysis serves only to focus and measure the quality improvement function.

Quality improvement personnel were responsible for staffing the Medical Review Board and all related activities, the federal electronic lab data collection, local quality improvement activities and educational programming. Staff prepared draft material for review by the Medical Review Board, monitored developments in the field, reviewed reports submitted by each facility and analyzed comparative results. Facility site visits and regional training sessions were conducted when appropriate.

Data management personnel were responsible for all data input, report production, generation of flash drives and transmission of data to CMS. They subjected data to tests of statistical significance and interpreted results for clinical personnel as well as assisted in designing studies and producing reports.

Clerical personnel prepared documents, correspondence and general mailings as well as maintained files in a manner consistent with usual office practice.

Figure 11. Network Staff Structure



Governance and Committees

The WVMI Board, the Network Board of Directors, the Network Medical Review Board and the Patient Advisory Committee support and facilitate Network operations. Other committees and subcommittees are established when the need arises. Board and committee members include representatives from dialysis and transplant facilities, as well as other strategic organizations in the Network Three area. Each Board has at least two consumer representatives. The involvement of the consumer representatives is vital to the success of the Network activities and to improving the quality of care and life for the ESRD patients.

WVMI Board of Directors

WVMI is governed by a 16-member board of directors, consisting of physicians, business representatives and consumers. The Board sets corporate policies and assures the orderly and efficient operation of WVMI and QIRN3. The Board has fiduciary oversight responsibility for QIRN3 and reviews its activities as reported by the ESRD Executive Director, Christopher Brown and the Network Board of Director Vice-Chairperson, Toros Kapoian, MD. The Board considers and acts on the recommendations from the Network Board of Directors. In addition, ESRD beneficiaries serve as a representative of the renal community.

Board of Directors

The Board of Directors consists of twelve (12) members. The Board of Directors was composed of two consumers, one dietitian, one social worker, two administrators, one nurse, three physicians a Chair and physician Vice Chair. One board member was from Puerto Rico, one from the U.S. Virgin Islands, the Chair resides in West Virginia and the remainder are from New Jersey. The chart below shows the Board's composition.

The following chart illustrates the Board of Director's composition. John Wiesendanger is the Chairperson, Toros Kapoian is the Vice Chairperson, and Mary Lorenzo is the Secretary/Treasurer of the Board of Directors.

Members	Title	Location
John Weisendanger	Quality Insights CEO	West Virginia
Toros Kapoian	Nephrologist	North Brunswick
Ron Zanger, MD	Nephrologist	Cherry Hill, NJ
Phyllis Micchelli, MSW	Social Worker	East Orange, NJ
Chandra Chandran, MD	Nephrologist	Paterson, NJ
Paula Ruiz de Somocurcio	Registered Nurse	Hackensack, NJ
Ramesh Lakhram, MD	Nephrologist	Saint Croix, U.S. Virgin Islands
Ken Noonan	Consumer	Neptune, NJ
Mary Lorenzo, MSW, LSW	Consumer	Matawan, NJ
Judith Semptimphelter	Administrator	Bridgeton, NJ
Marien Saade	Administrator	San Juan, Puerto Rico
Ellen Cottone, RD	Dietitian	Lawrenceville, NJ

To further assure a broad perspective on appropriateness of care and outcome measurements, a transplant surgeon, and board certified pediatric nephrologist may serve on the board or as a consultant. These members are selected based on their expertise to further promote the goals and objectives of the Network.

Network Council

The Council provided broad direction and guidance in the development of goals for self-care, transplant referrals and criteria selection for monitoring performance of providers and plans for improvement.

Representation on the Council was multidisciplinary, culled from professionals with demonstrated expertise in their specific field and representative of the geographic characteristics of the Network. In an effort to increase communication between the providers and the Network staff, two branches of the Council were formed in 2009; the New Jersey branch and the Puerto Rico and U.S. Virgin Island branch. Quarterly conference calls were held with each branch and discussions focused around the specific geographic area.

The following charts illustrate the Council's composition. Toros Kapoian, MD is the Chairperson for the Network Council.

In 2010, New Jersey Members included:

Members	Title	Location
Elenita Ajose	Administrator	Jersey City, NJ
Thomas Amitrano	Administrator	Paterson, NJ
Alma Ayala	Administrator	East Orange, NJ
Denise Baluyo	Clinic Manager	Neptune, NJ
Ken Brown	Administrator	Elizabeth, NJ
Mary Buckley-O'Dell	Administrator	Morristown, NJ
Rosanne Cerchia	Nurse Manager	Neptune, NJ
Ling Chang	Clinic Manager	Newark, NJ
Karen Craig	Clinic Manager	Union City, NJ
Joanne Coderre	Clinic Manager	Manahawkin, NJ
Nicole Damiano	Clinic Manager	Red Bank, NJ
Debra DiNuzzo	Dietitian	Eatontown, NJ
Nancy Elliot	Administrator	Hillside, NJ
Nancy Farmer	Administrator	Colonia, NJ
Claire Fleming	Dietitian	Bloomfield, NJ
Pamela Firely	Director	Washington, NJ
Marilou Gomilla	Head Nurse	Jersey City, NJ
Alan Hoffman	Dialysis Consumer, PAC	Glen Rock, NJ
Maria Jacoby	Clinic Manager	Camden, NJ

Members	Title	Location
Elda Jardin	Administrator	Jersey City, NJ
Erin Jones	Clinic Manager	Atlantic City, NJ
Sue Juliano	Administrator	Teaneck, NJ
Phyllis Leggett	Social Worker	Vineland, NJ
Lenna Lipman	QI Regional Manager	Lakewood, NJ
Eileen MacFarlane	Administrator	Hamilton, NJ
Patty McCann	Administrator	Sewell, NJ
Remelyn Mercado	Administrator	Orange, NJ
Beckie Michael	Nephrologist	Marlton, NJ
Peggy Navitski	Consultant	Bethlehem Twp, NJ
Ann Panten	Dietitian	Toms River, NJ
Arlene Paquet	Administrator	Fairlawn, NJ
Pamela Peterson	Administrator	Atlantic City, NJ
Grace Pintabone	Administrator	Maplewood, NJ
Faith Plutto	Administrator	Princeton, NJ
Gemma Pamplona	Administrator	Elizabeth, NJ
Linda Powell	Dietitian	North Brunswick, NJ
Alex Punchello	Administrator	Marlton, NJ
Sharon Rosetti	Administrator	Atlantic City, NJ
Paula Ruiz de Somocurcio	Administrator	Hackensack, NJ
Stacey Schroeter	Administrator	Flemington, NJ
Maria Singh	Hemodialysis Technician	Irvington, NJ
Barbara Stewart	Administrator	Brick, NJ
Brigida Suening	Administrator	Hoboken, NJ
Fred Suening	Administrator	Newark, NJ
Barbara Stewart	Administrator	Brick, NJ
Wilfreda Urbiztondo-Dougert	Clinic Manager	Lawrenceville, NJ
Lauren Webster Garcia	ANNA, Chapter Treasurer	Morristown, NJ
Kathie Vnenchak	Administrator	Succasunna, NJ
John Wilczenski	Administrator	Middletown, NJ
Eleanor Witkowski	Social Worker	Hammonton, NJ

In 2010, Puerto Rico (39 total) and the U.S. Virgin Islands (4 total) members included:

Members	Title	Location
Felicita Bonilla	Administrator	Concepcion, PR
Ana Carrero	Clinic Manager	Aguadilla, PR
Luz Otiz Castro	Clinic Manager	Canovanas, PR
Maria M. Cuevas	Clinic Manager	Lares, PR
Elizabeth DeJesus	Clinic Manager	Rio Piedras, PR
Luis Emanuelli	Regional Director	San Juan, PR
Evelyn Figueroa	Regional Manager	San Juan, PR
Noemi Figueroa	Clinic Manager	Carolina, PR
Carmen Flores	Clinic Manager	Caguas, PR
John Gage	Special Projects	San Juan, PR
Wishburne Hunt	Nephrologist	St. Thomas, USVI
Mariluz Lopez	Clinic Manager	Arecibo, PR
Ivette Maldonado	Clinical Coordinator	Guaynabo, PR
Luis Maldonado	PD Nurse	Toa Baja, PR
Maria Elena Marrero	Clinic Manager	Carolina, PR
Carmen M. Melendez	Clinic Manager	Caguas, PR
Carmen Montalvo	Clinical Coordinator	Mayaguez, PR
Pascual Muniz	Regional QI Manager	Aguadilla, PR
Azucena Negron	Regional Manager	Arecibo, PR
Ivette Nolasco	Clinic Manager	San Juan, PR
Nydia Ocasio	Clinic Manager	San German, PR
Delphine Olavacce	Clinical Coordinator	St. Thomas, USVI
Waleska Olavarria	Clinic Manager	Ponce, PR
Luz Ortiz	Administrator	Canovanas, PR
Priscilla Ortiz	Clinic Manager	Mayaguez, PR
Jovanna Perez	Clinic Manager	Fajardo, PR

Members	Title	Location
Ivonne Ramirez	Clinic Manager	San Juan, PR
Sonia Ramos	Clinic Manager	West Ponce, PR
Marie Ines Rebollo	Director of Nursing	San Juan, PR
Janet Rivera Diaz	Clinic Manager	San Juan, PR
Elizabeth Rodriguez	Clinic Manager	Arecibo Norte, PR
Wanda Torres Rodriguez	Administrator	Aguadilla, PR
Awilda Rodriguez	Regional Manager	Aguadilla, PR
Ivette Rodriguez	Administrator	St. Croix, USVI
Ana Santi	Clinic Manager	Guaynabo, PR
Aida Serrano	Clinic Manager	Mayaguez, PR
Carmen Serrano	Administrator	Ponce, PR
Blangie Torres Carlo	Regional Manager	Ponce, PR
Evelyn Valle	Clinic Manager	Isabella, PR
Susanna Vazquez	Administrator	San Sebastian, PR
Damaris Vazquez	Dietitian	Ponce, PR
Gloria Vega	Dialysis Nurse	San Juan, PR
Blondell Williams	Vice President, PCS	St. Thomas, USVI

Medical Review Board

The Medical Review Board evaluates the appropriateness of ESRD care, treatment procedures, and services delivered to ESRD consumers. The prescribed composition of the Medical Review Board is: fourteen (14) members and a chairperson from the following categories: a minimum of one physician board-certified in nephrology, an experienced nephrology registered nurse responsible for nursing services, a licensed renal social worker, a registered renal dietitian and one patient representative. The MRB consists of prominent and dedicated members of the renal community who volunteer their time.

The following chart illustrates the Medical Review Board's composition. Paul Fine, MD is the Chairperson for the Medical Review Board.

Members	Title	Location
Paul Fine	Nephrologist	Morristown, NJ
Sadanand Palekar	Nephrologist	Newark, NJ
Padmaja Kodali	Nephrologist	East Orange, NJ
Pedro Vergne	Nephrologist	Dallas, TX
Joshue Castresana	Nephrologist	Cayey, Puerto Rico
Walter Gardiner	Nephrologist	Saint Croix, U.S. Virgin Islands
Katherine Dericks	Social Worker	North Brunswick, NJ
Ann Panten	Dietitian	Brick, NJ
Arlene Paquet	RN, Administrator	Fairlawn, NJ
Patricia Madden	RN, Administraotor	Sewell, NJ
Kathy Searson	RN, Peritoneal Dialysis	North Brunswick, NJ
Alex Acevedo	Bio Medical Technician	North Brunswick, NJ
Mani Swaminathan	Dialysis Consumer, PAC Member	Lakewood, NJ
Magy Milfort	FNP, FMC DO	Matawan, NJ
Kevin James	Vascular Surgeon	Morristown, NJ

Patient Advisory Committee

The Patient Advisory Committee (PAC) was organized in 2006 with patient volunteers from throughout the Network. The goal of the Patient Advisory Committee is to support the mission of Network Three, to enhance the quality of care provided to ESRD patients and to represent and support the ESRD patient population by actively participating in the committee responsibilities and related functions.

The committee was charged with providing consumer advice to the boards and other committees on such matters as, but not limited to, quality improvement activities, content and format of the Network's web site; content and format of patient educational material; improvement of communication between consumers and facility staff; direct attention to areas/issues of consumer concern. Committee members attend meetings or conference calls and actively participate in the development of patient education programs and the PAC newsletter, Kidneys R Us.

The following chart illustrates the Patient Advisory Committee's composition. Kenneth Noonan is the Chairperson for the Patient Advisory Committee.

Members	Modality	Location
Kenneth Noonan	Hemodialysis	Neptune, NJ
Jamie Alonzo	Hemodialysis	San Juan, PR
Eric Blocker	Peritoneal Dialysis	Cranbury, NJ
Roslyn Burl-Winkey	Hemodialysis	Newark, NJ
Loleen Christian	Hemodialysis	St. Croix, VI
John DiFabio	Transplant	Harrington Park, NJ
Angelica DiNatale	Transplant	Hamilton, NJ
Louis Elder, Jr	Hemodialysis	East Orange, NJ
Gerald Gibboni	Hemodialysis	Dennisville, NJ
Cecil Grizzard	Hemodialysis	West Deptford, NJ
Leon Haines	Hemodialysis	Marlton, NJ
Alan Hoffman	Hemodialysis	Glen Rock, NJ
Hedwig Hoffman	Spouse	Glen Rock, NJ
Karen Irwin	Hemodialysis	Hampton, NJ

Members	Modality	Location
Joseph Jean Marie	Transplant	Roselle, NJ
Everisto Mercado	Hemodialysis	Cabo Rojo, PR
Brenda Jones Miller	Hemodialysis	Pine Hill, NJ
Frederick Lee	Hemodialysis	Hoboken, NJ
Kye Martin	Hemodialysis	Christiansted, VI
Karen Oakley	Hemodialysis	Whippany, NJ
Morris Perugini	Hemodialysis	Mt. Arlington, NJ
Thomas Petito	Hemodialysis	Freehold, NJ
Ethel Redwood	Hemodialysis	Newark, NJ
Gail Reichle	Spouse	Ocean City, NJ
William Reineman	Hemodialysis	Hoboken, NJ
Mani Swaminathan	Hemodialysis	Brick, NJ
Anna Szonyi	Hemodialysis	Ogdensberg, NJ

III. CMS NATIONAL GOALS AND NETWORK ACTIVITIES

The Medical Review Board (MRB), Board of Directors and the Network Council reviewed national CMS goals promulgated in the Network's contract. The committees then formulated sub-goals and activities for the contract year. The sub-goals are used to focus attention on and promote action in specific areas of nephrology practice to attain national goals and improve the quality and delivery of health care services.

A. Improve the quality and safety of dialysis-related services provided for individuals with ESRD

Supportive Activities

Network Three developed quality improvement projects with the direct guidance from its MRB and through partnerships with the Patient Advisory Committee and Network Council. The framework of these efforts was developed in a comprehensive Quality Improvement Work Plan (QIWP), addressing four major tasks:

1. Vascular Access (Fistula First Breakthrough Initiative) Network Three had two goals under this task:
   a. Increase the percentage of AV fistulas by 2.2 percentage points
   b. Decrease the percentage of catheters by 2 percentage points
2. Clinical Performance Measures
   a. Anemia Management
   b. Bone Management
   c. Hemodialysis Adequacy
3. Facility Specific Quality Improvement
   a. End of Life Care
   b. Immunizations
   c. Decrease Healthcare Associated Infections
4. Network Specific Quality Assessment Performance Improvement (QAPI)
   a. Increase AV fistula rates
   b. Decrease the Percentage of Patients with Elevated Aluminum Levels
   c. Focused facility monitoring – U.S. Virgin Islands

Network Results

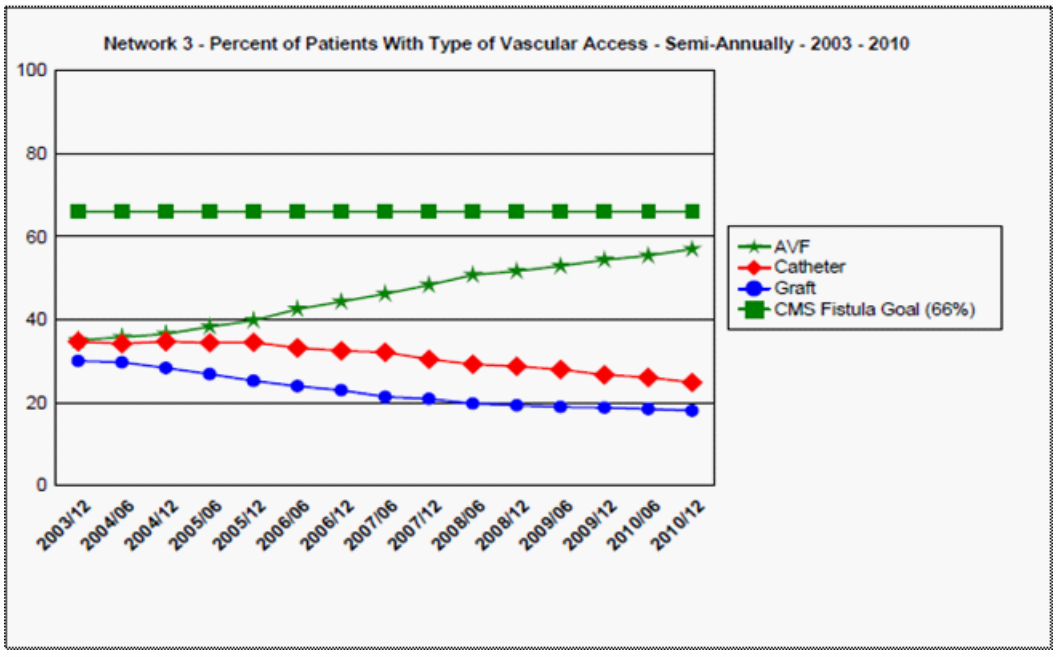
Task 1 - Vascular Access (FFBI)

a. Increase the percentage of AV fistulas by 2.2 percentage points

Background: In 2003, CMS launched with all Networks the National Vascular Access Improvement Initiative, now called the Fistula First Breakthrough Initiative. The project was based on the NKF-KDOQI guidelines, which stated that 65% of prevalent hemodialysis patients should use an arteriovenous fistula and 50% of incident patients should use an arteriovenous fistula. Hemodialysis patients with fistulas have improved morbidity and mortality outcomes.

Since the inception of the Fistula First initiative in 2003, Network Three has sponsored educational programs for vascular surgeons, nephrologists, nurses and technicians in New Jersey, Puerto Rico and the US Virgin Islands. Figure 12 illustrates the improvements in the rate of AV fistulas used in Network Three from December 2003 through December 2010.

Figure 12. AV Fistula Rates in Network Three December 2003 through December 2010*



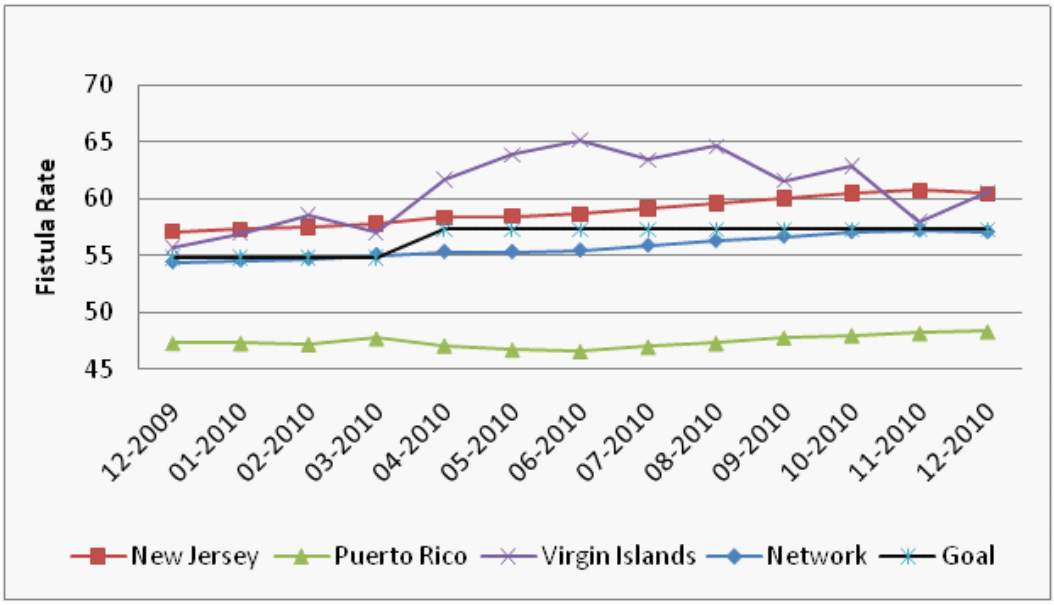
*Source Fistula First Dashboard

Goal: Increase the prevalent AVF rate by 2.2 percentage points by March 2011

Project Results: Each year the Network is challenged by CMS to achieve an established goal. During 2010, the Network's goal was to increase the prevalent AV fistula rate by 2.2 percentage points by March 2011. According to the March 2011 data, Network Three achieved the CMS goal.

Figure 13 demonstrates the improvement in AV fistula rate from December 2009 through December 2010. As is illustrated, New Jersey and the US Virgin Islands currently have a fistula rate over 60% while Puerto Rico's current fistula rate is approaching 50%.

Figure 13. Fistula rate by State and Network December 2009 through December 2010*



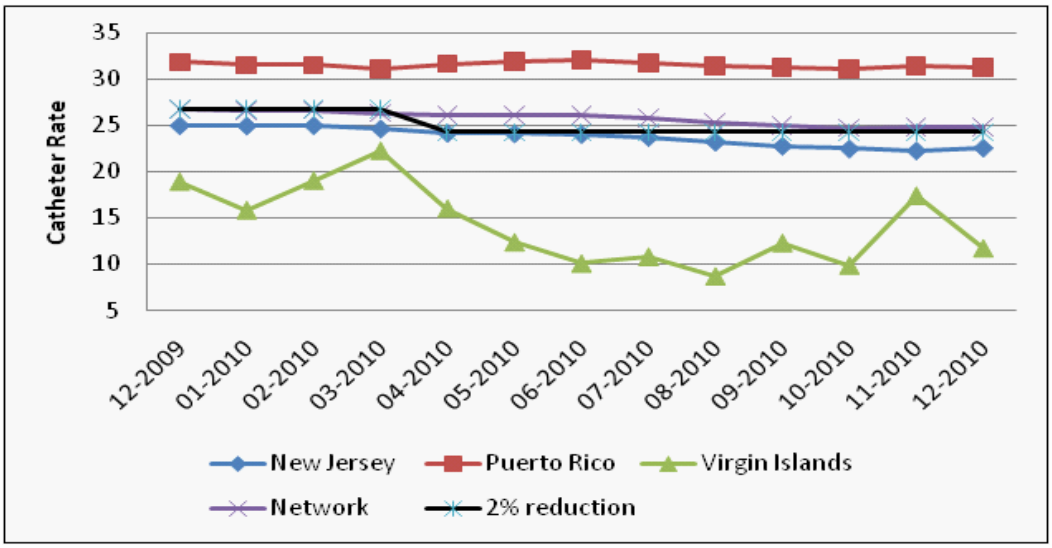
*Source Fistula First Dashboard

b. Decrease the percentage of catheters by 2% annually

Background: The USRDS Morbidity and Mortality Study Wave 1 showed that patients receiving catheters and grafts have greater mortality risk than patients dialyzed with fistulae. Figure 14 illustrates the catheter reduction of 2.4 percentage points in New Jersey, 0.6 percentage points in Puerto Rico and 7.2 percentage points in the U.S. Virgin Islands during 2010.

Goal: Decrease the prevalent catheter rate by 2 percentage points by June 2011

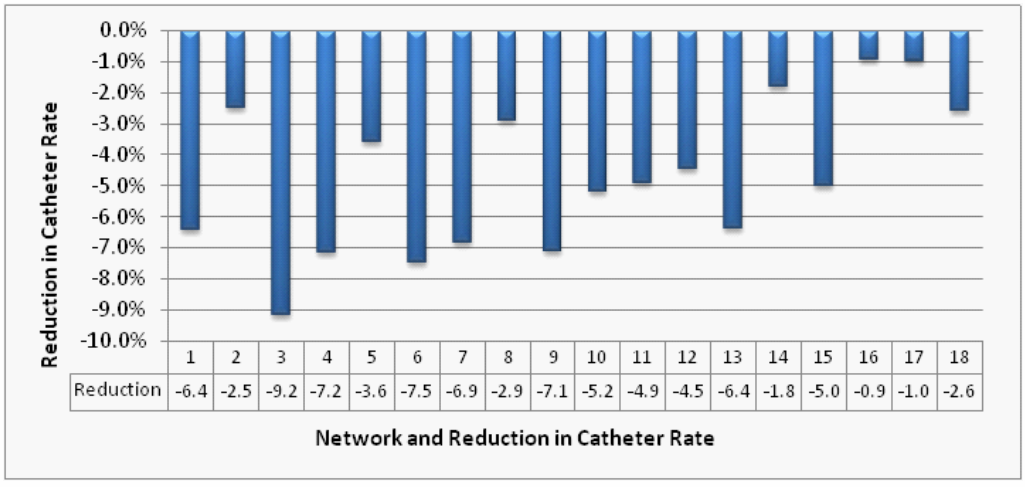
Figure 14. Catheter rate by State and Network December 2009 through December 2010



*Source Fistula First Dashboard

Project Results: In 2007 the Network Boards challenged the dialysis facilities to decrease the prevalent catheter rate annually. As of January 2011, Network 3 has reduced the use of catheters by 9.2 percentage points exceeding all other Networks as shown in Figure 15.

Figure 15. Catheter Reduction by Network January 2004 – January 2011



In 2003 Network Three had the highest catheter rate in the nation. As of December 2010, Network Three ranked 14th in the nation and continues to work with facilities with high catheter usage.

Activities Related to Task 1.a

Quarterly Vascular Access Reports

Network staff provided feedback reports to all participating providers each quarter of 2010. The Network's prevalent AV fistula rate improved slightly each month to reach 57.1% by December 2010. The prevalent catheter rate has decreased to 24.9% from 34.7% in December 2003.

Of 165 hemodialysis providers in Network Three, 24 (14%) have achieved >70% AVF rate, 36 (22%) have achieved the CMS goal of 66%, and a total of 130 have an AVF rate equal to or greater than 50% as of December 2010. The majority of the 35 providers with less than a 50% AVF rate are improving. The 14 providers with less than a 40% AVF rate are hospitals that initiate chronic hemodialysis, or new facilities with less than 10 patients or are located on the west coast of Puerto Rico, with limited access to surgeons. The Network will continue to focus interventions with those providers with a < 50% AVF rate and a high prevalent catheter rate.

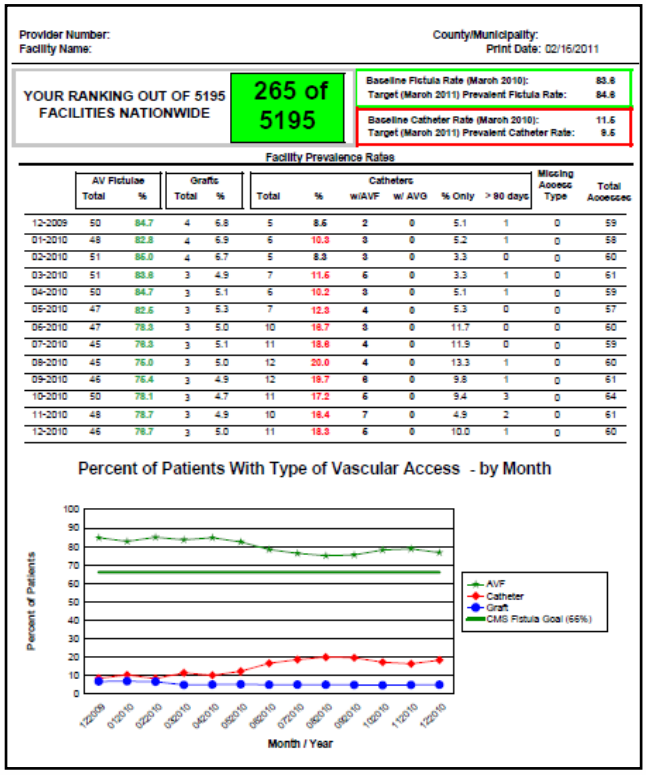
Figure 16. Number of Facilities by AVF Rate

Rate of AVF Use among Prevalent Hemodialysis Patients	Number of Facilities	Total Number of In-Center Patients In Facilities
30.9% or less	1	14
31%-40.9%	12	1,167
41%-50.9%	25	3,036
51%-65.9%	91	8,065
66%-70.9%	12	1,213
71%-80.9%	21	1,887
81%-100%	3	272
Total Number of Providers/Patients	165	15,654

Source: Provider vascular data reports December 2010

In 2010 the Fistula First Dashboard included National rankings for all hemodialysis facilities. The Network incorporated this data by reporting the facility's national ranking as part of the quarterly vascular access report as shown in Figure 17 on the following page.

Figure 17. Example of Fistula First Report with National Rankings



Provider Number:
Facility Name:

County/Municipality:
Print Date: 02/16/2011

YOUR RANKING OUT OF 5195 FACILITIES NATIONWIDE: 265 of 5195

Baseline Fistula Rate (March 2010): 83.8
Target (March 2011) Prevalent Fistula Rate: 84.8

Baseline Catheter Rate (March 2010): 11.5
Target (March 2011) Prevalent Catheter Rate: 9.5

Facility Prevalence Rates

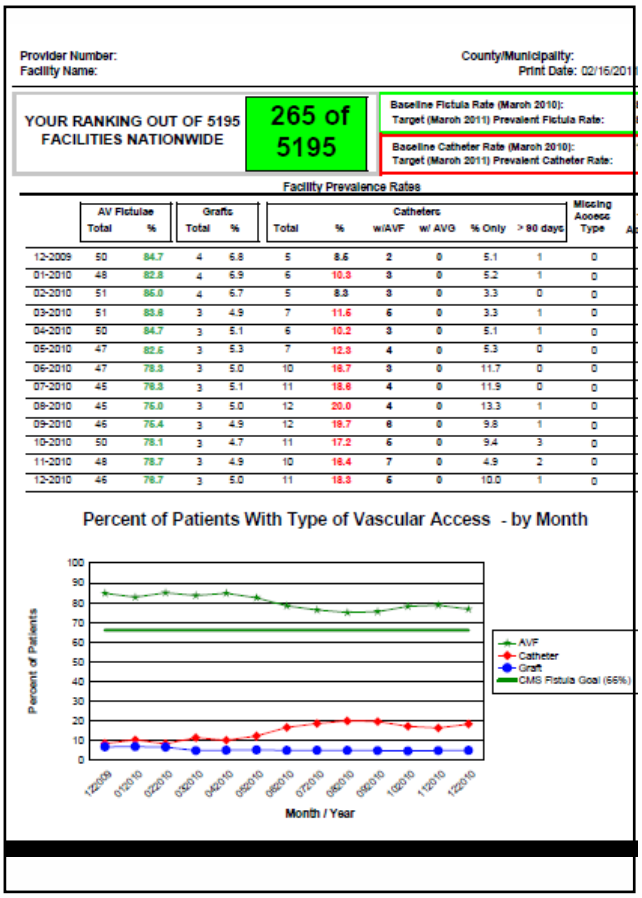
	AV Fistulae Total	AV Fistulae %	Grafts Total	Grafts %	Catheters Total	Catheters %	Catheters w/AVF	Catheters w/ AVG	Catheters % Only	Catheters > 90 days	Missing Access Type	Total Accesses
12-2009	50	84.7	4	6.8	5	8.6	2	0	5.1	1	0	59
01-2010	48	82.8	4	6.9	6	10.3	3	0	5.2	1	0	58
02-2010	51	86.0	4	6.7	5	8.3	3	0	3.3	0	0	60
03-2010	51	83.8	3	4.9	7	11.6	6	0	3.3	1	0	61
04-2010	50	84.7	3	5.1	6	10.2	3	0	5.1	1	0	59
05-2010	47	82.5	3	5.3	7	12.3	4	0	5.3	0	0	57
06-2010	47	78.3	3	5.0	10	16.7	3	0	11.7	0	0	60
07-2010	45	76.3	3	5.1	11	18.6	4	0	11.9	0	0	59
08-2010	45	75.0	3	5.0	12	20.0	4	0	13.3	1	0	60
09-2010	46	76.4	3	4.9	12	19.7	6	0	9.8	1	0	61
10-2010	50	78.1	3	4.7	11	17.2	6	0	9.4	3	0	64
11-2010	48	78.7	3	4.9	10	16.4	7	0	4.9	2	0	61
12-2010	46	76.7	3	5.0	11	18.3	6	0	10.0	1	0	60

Percent of Patients With Type of Vascular Access - by Month

Medical Director Report Cards

The Network collaborated with the New Jersey Renal Coalition and developed the Medical Director Report Card. The Report Card was utilized to encourage the Medical Director to examine the facility practice patterns and decrease the percentage of catheters used. The Report Card was distributed quarterly to the Medical Director and ranked the facility within the State by percentage of AV fistulae and catheters. A comparison of the current data to the previous quarter was provided. In addition, the report provided the physician with the number and percentage of incident patients initiating dialysis with a catheter. A comparison to the previous quarter was provided. Included in each report was a reminder of the FFBI Change Concepts or a quote from the Conditions for Coverage. The data used for this report was collected from the vascular access data collection tool and the CMS-2728 form.

Figure 18. Example of Medical Director Report Card



Provider Number:
Facility Name:

County/Municipality:
Print Date: 02/16/201

YOUR RANKING OUT OF 5195 FACILITIES NATIONWIDE: 265 of 5195

Baseline Fistula Rate (March 2010):
Target (March 2011) Prevalent Fistula Rate:

Baseline Catheter Rate (March 2010):
Target (March 2011) Prevalent Catheter Rate:

Facility Prevalence Rates

	AV Fistulae		Grafts		Catheters						Missing Access Type
	Total	%	Total	%	Total	%	w/AVF	w/ AVG	% Only	> 90 days	
12-2009	50	84.7	4	6.8	5	8.6	2	0	5.1	1	0
01-2010	48	82.8	4	6.9	6	10.3	3	0	5.2	1	0
02-2010	51	86.0	4	6.7	5	8.8	3	0	3.3	0	0
03-2010	51	83.8	3	4.9	7	11.6	6	0	3.3	1	0
04-2010	50	84.7	3	5.1	6	10.2	3	0	5.1	1	0
05-2010	47	82.6	3	5.3	7	12.3	4	0	5.3	0	0
06-2010	47	78.3	3	5.0	10	16.7	3	0	11.7	0	0
07-2010	45	78.3	3	5.1	11	18.6	4	0	11.9	0	0
08-2010	45	76.0	3	5.0	12	20.0	4	0	13.3	1	0
09-2010	46	76.4	3	4.9	12	18.7	8	0	9.8	1	0
10-2010	50	78.1	3	4.7	11	17.2	6	0	9.4	3	0
11-2010	48	78.7	3	4.9	10	16.4	7	0	4.9	2	0
12-2010	46	78.7	3	5.0	11	18.3	6	0	10.0	1	0

Percent of Patients With Type of Vascular Access - by Month

Medical Director Intervention

The new Conditions for Coverage that were released on April 15, 2008 clearly defined the new responsibilities of the Medical Director. Earlier interventions utilized by the Network included the Medical Directors but were more commonly addressed by the nursing leadership staff. In an effort to increase involvement of the Medical Directors at the lower performing facilities the Network Boards suggested meeting with the Medical Directors outside of the dialysis facility at the Medical Director's private office.

The Boards established the selection criteria and 11 facilities with <50% AVFs, >30% catheters, >50 patients, and a failure to sustain improvement were targeted for intervention.

An appointment was scheduled at the convenience of the Medical Director. Current data and vascular access management processes were reviewed and suggestions to enhance

improvement were offered. The Medical Directors were assigned a goal of improving their fistula rates by 3 percentage points in three months. The average baseline AVF rate at the 11 facilities was 44.5% and the average catheter rate was 32.3%. Monthly data was analyzed and 8 (73%) of the facilities demonstrated monthly improvement. Three months following the visits the average fistula rate increased to 49.1% while the catheter rate decreased to 28.3%. Six months following the intervention the average AVF rate was 51.6% and the catheter rate was 26.6% demonstrating sustained improvement.

The approach in Puerto Rico was slightly different. Based on the same selection criteria Medical Directors from the two dialysis organizations (one National Large Dialysis Organization (LDO) and one local (SDO) Small Dialysis Organization) were asked to attend a Network meeting. Six Medical Directors met the selection criteria and were included in the intervention. All attended a meeting (one meeting for each group) organized by the regional Medical Director of each organization. The purpose of these meetings was to stimulate practice changes toward earlier referral for vascular access creation in incident CKD patients in the hope that the use of catheters would be reduced and use of AV fistulas would increase. Vascular access data, mortality and hospitalization rates were discussed. Each Medical Director reported on his/her plan to improve vascular access management. As is the case with most meetings in Puerto Rico, unique barriers to improved outcomes were uncovered during these discussions. A few of the barriers discussed included:

- Lack of vascular surgeons, especially on the West coast
- Reforma/Mi Salud (Medicaid) not accepted at all hospitals
- Inadequate physician reimbursement for Medicaid patients
- Legislation that allows only Primary Care Physicians to admit renal patients
- A group of nephrologists were actively discouraging patients from having a permanent access placed.

Data from this set of facilities showed some improvement in fistula and catheter rates. The baseline percentage of patients with an AVF at the targeted facilities was 45.6%, which increased to 50.1% after 6 months. The catheter rate decreased from 41.7% to 37.2%.

Realizing that sustained improvement in Puerto Rico will never be achieved without changes within the local healthcare system, the Network scheduled a meeting with Concepcion Q. Longo, MD the Sub-Secretary of Health. The meeting was held on April 28, 2010 in Bayamon, Puerto Rico at the offices of the Department of Health and Senior Services. The Network Executive Director and the Quality Improvement Director discussed the following:

- The high mortality rate of the dialysis population in Puerto Rico;
- How the mortality rate may be incorrectly calculated due to the legislation that only allows the nephrologist to be a consultant for hospitalized dialysis patients;

- How this legislation impacts the number of co-morbid conditions reported to CMS. This is due to the limited patient specific knowledge of the Primary Care Physician compared to that of the Nephrologist, who is generally the primary care provider;
- The growth of the dialysis facilities, the average patient caseload and maximum capacity at each facility;
- Statistics on the incidence of CKD nationally and the prevalence of diabetes in Puerto Rico;
- A review of the Network activities and the expectations of CMS; and
- The barriers to improvement identified by the Medical Directors.

In addition to meeting with the Sub-Secretary the Network encouraged collaboration by the two large providers of dialysis. Following the Network's meeting with the Sub-Secretary, multiple meetings with the Sub-Secretary were organized by the combined providers to keep the focus on the health and safety of the ESRD consumer.

Due to the efforts of the combined dialysis communities and the Network activities several new vascular surgeons have been recruited to work on the Island. Reforma (now called Mi Salud) is working with the nephrologists to address reimbursement concerns. The Sub-Secretary has agreed to speak to the Secretary of Health to issue an administrative order to prohibit the medically inappropriate use of the subclavian catheter in the dialysis patient.

Case Management

The Network staff met quarterly with the Medical Review Board (MRB) and discussed development of provider interventions. Fistula First updates were delivered at each meeting, and the MRB responded with various new strategies, which the QI staff implemented. The MRB remained concerned about the percentage of incident patients starting dialysis with a catheter and developed the Case Management project.

The goal of this project was to provide education to hospital staff who are responsible for discharge planning of CKD patients. The first educational program was held on December 15, 2010, at a large inner city hospital in northern New Jersey and included a slide presentation entitled Reducing Re-admission and Improving Clinical Outcomes in Individuals with CKD. Sixteen case management nurses attended the presentation and were awarded 1.2 contact hours by the National Association of Nephrology Technicians/ Technologists.

In addition to the slide presentation each attendee was provided with copies of the Fistula First Breakthrough Initiative resources for hospital personnel. The handouts included:

- Hospital Discharge Planning
- What Hospital Professionals Can Do To Maximize AV Fistulas as Primary Access
- CKD Assessment Algorithm, Emergency Room Visit
- CKD Treatment Algorithm
- CKD Stage 4 AV Fistula Planning Algorithm
- PICC Line Recommendations
- Vein Preservation and Hemodialysis Fistula Protection Recommendations
- American Nephrology Nurses Association (ANNA) "Save the Vein" Project
- Catheter Alert Document
- Catheter Alert Labels
- Stop Vascular Access Poster

The program was well received and will be repeated in 2011, with modifications to include quality improvement staff and nurse educators.

Nephrologist Specific Data

In 2010, the Networks were given patient specific vascular access data from all the large dialysis organizations. The Executive Director combined the patient/ nephrologist data available in SIMS to the patient specific vascular access data and provided the QI staff with physician specific vascular access data. Analysis of this data revealed that six physicians in Puerto Rico had > 50 patients and >35% of patients utilizing a catheter as the primary access.

The Executive Director developed a letter of concern and requested a 3 percentage point decrease in catheter usage within three (3) months. The expected target date for completion of this goal was October 31, 2010. An additional 3 percentage point catheter reduction was expected by January 31, 2011.

The Network plans to enhance this project in 2011 when surgeon and patient specific data will be released to the Networks.

Task 1.b. 2010 ESRD Clinical Performance Measures

Network 3 uses data from the Elab project to determine clinical goals for ESRD providers in its jurisdiction. National ESRD Elab Data collects data for a national set of measures from 100% of eligible dialysis patients in clinical areas that included dialysis adequacy, anemia management, nutrition and bone management. This collection is completed each year in October, November and December.

Based on the 2009 data collection the MRB established the following Network Three goals for 2010-2011.

Figure 19. 2010-2011 Network Clinical Goals

Indicator	Goal
Anemia management Hgb 10-12g/dL	63%
Dialysis adequacy URR ≥ 65%	93%
Mean albumin ≥ 4.0/3.7g/dL	36%
Mean TSAT ≥ 20%	88%
Mean phosphorus ≥ 5.5 mg/dL	55%
Mean phosphorus ≥7mg/dL	11%
Prevalent Fistula rate	66%
Catheter reduction (annual)	2%
Incident Fistula rate	50%
Catheters >90 days	<10%

Facility level statistics provided through the data collection effort were analyzed. If results were less than the national average or less than the threshold established by the Medical Review Board, facility caregivers were to develop internal improvement efforts in the area. Annually, the clinical performance measures report is distributed to each facility to provide comparative clinical data that can be reviewed against facility performance.

The chart below demonstrates the steady improvement the facilities have made in achieving Network goals between 2006 and 2010. The 2010 comparative data for the U.S. were not available at the time of this report. As noted, the clinical parameters have changed over the years to reflect current practice guidelines and the results are reported based on the target range for the specific year.

Figure 20. Network Three Goal Attainment Progress

Measures	NW Goal	2006	2007	2008	2009	2010	U.S. (2010)
Mean Hgb 10-12 g/dL	63%		47%	55.6%	61.7%	71.1%	68.4%
Mean URR ≥ 65%	93%	89.4%	89.9%	91.3%	93.1%	93.2%	91.1%
KT/V >1.2	NA	94.1%	94.5%	95.1%	96.3%	96.4%	95.3%
Mean Alb ≥ 4.0/3.7 g/dL	36%	36.2%	34.6%	35.7%	36.0%	39.1%	39.1%
Mean TSAT ≥ 20%	88%	79.2%	81.3%	87.1%	87.6%	89.3%	87%
Mean Ferritin in range	NA			65.7%*	58.7%**	55.0%	57.6%
Adjusted Calcium 8.4-10.2 mg/dL	NA	81%	86%	81.3%	81.9%	81.8%	82.5%
Mean Phosphorus 3.5-5.5 mg/dL	NA	52%	51%	56%	57.4%	58.3%	55.3%
Prevalent Patients AV Fistulas	66%	39%	44%	49%	54.3%***	57.1%***	57.5%
Incident Patients AV Fistulas	50%	48%	38%	48%	37.9%***	34.1%***	34.8%
Prevalent Patients Catheter ≥ 90 days	<10%	29%	26%	23%	12.5%	12.1%	10%

* Range 100-800 ng, ** Range 200-800 ng, *** FFBI dashboard
2006-2007 CPM data collection, 2008-2009 National ESRD Elab data collection

a. Anemia Management

Background: Anemia is a constant complication of chronic renal failure that significantly contributes to the symptoms and complications of the disease. On June 1, 1989, the FDA approved the first erythropoietin-stimulating agent (ESA), Epogen, for treatment of anemia in kidney dialysis patients.

In 1997, the NKF published the first Kidney Disease Outcome Quality Initiative (K/DOQI) Clinical Practice Guideline (CPG) and Clinical Practice Recommendations (CPR) for Anemia in Chronic Kidney Disease. Since then there have been two updates; the most recent of which was in 2007. The indication for the most recent update was based on two randomized clinical trials (CHOIR and TREAT) which recommended hemoglobin levels stratified by risk for ESRD patients.

According to K/DOQI:

2.1.2 In the opinion of the Work Group, in dialysis and non-dialysis patients with CKD receiving ESA therapy, the selected Hb target should generally be in the range of 11.0 to 12.0 g/dL. (Clinical Practice RECOMMENDATION)

2.1.3 In dialysis and non-dialysis patients with CKD receiving ESA therapy, the Hb target should not be greater than 13.0 g/dL. (Clinical Practice GUIDELINE - MODERATELY STRONG EVIDENCE)

In response to the revised guidelines: Amgen, the manufacturer of Epogen, made the following recommendation: The dose of ESA should be individualized for each patient to achieve and maintain Hgb levels between 10 g/dL and 12 g/dL.

Historically, hemoglobin data from the CPM collection was reported as the percentage of patients with a mean Hgb >11-g/dL and nationally in 2008, 78.3% of patients in the United States were within this range but included 37% of patients with Hgb in excess of 12. In 2009, in addition to the previously reported levels, the percentage of patients with a mean Hgb 10-12.0 g/dL was added. Nationally, the percentage in target range was 62%; the percentage of patients in target range in Network Three was 63%.

For the past several years there has been growing controversy over the appropriate hemoglobin target range and last year QIRN3 changed the Network goal from a Hgb >11g/dL to a Hgb between 10-12 g/dL. At the June 2010 Medical Review Board meeting the members determined that the anemia management focus should be on the outliers with a high percentage of patients with a Hgb >13g/dL. This is due to strong documentation supporting the high risks associated with continued use of ESA at levels in this range.

The clinical research published in 2007 revealed that mortality risk was significantly increased in those patients with hemoglobin ≥ 13 g/dL. As dialysis facilities strived to achieve hemoglobin concentrations ≥11 g/dL, the effort resulted in a high percent of patients with hemoglobin ≥ 13 g/dL. Efforts to target the hemoglobin at a lower concentration (11–12.0 g/dL) have resulted in a decrease over time of the percent of patients with hemoglobin ≥ 13 g/dL. The percent of hemodialysis patients in this category continued to decrease from 19.2% in Q4 2006 to 6.5% in Q4 2009.

QIRN3's percent of patients with a mean Hgb between 10-12g/dL was 63%, which was slightly above the national average. QIRN3's percent of patients with a mean Hgb value greater than 12g/dL was 32.4%; QIRN3 worked with facilities to decrease this over the contract year by:

1. Review and analysis of 100% facility-specific electronic lab data
2. Review of monthly Amgen anemia report
3. Mandatory Anemia Management Education for facilities with >10% of patients with a Hgb >13 g/dL

4. Distribution of 2010 Goal Statement to Network facilities
5. Discussion at Annual Network Meeting October 7, 2010
6. Discussion during site visits
7. Review of facility anemia management protocols and tracking of patient data to determine facility adherence to its own protocols
8. Regular oversight/follow-up to be done as data becomes available.

At the June 2010 Board meetings the members analyzed the 2009 data and compared Network Three to the other Networks. The members also analyzed blinded facility specific hemoglobin data that was sorted by the percentage of patients with Hgb >13g/dL. Due to the increased risk of morbidity and mortality associated with the continued use of ESA in patients at this level, the members decided to target facilities with >10% of patients with a Hgb>13g/dL and >50 total prevalent patients (in order to exclude facilities with small caseloads). Current data was collected from the selected facilities to establish baseline data. Patients not receiving ESA therapy were removed from the numerator to ensure the facility still met the 10% criteria.

Thirteen New Jersey and ten Puerto Rico facilities had greater than 10% of their population with Hgb> 13 according to the 2009 Electronic Lab data collection. The percent of patients in this group ranged from 10% to 30.3% in the twenty-three facilities, with an overall average of 13.3%. Under the direction of the Network Medical Review Board, QIRN3 instituted an initiative to focus on reducing the number of dialysis patients on ESA therapy with hemoglobin greater than 13g/dL.

Goal: The goals were to reduce the number of ESA dependent patients with Hgb > 13g/dL by 20% by September 2010, and an additional 20% by December 2010. The total number of patients at risk was 70; the total reduction target was set at 28 patients.
Method: Current baseline data was collected from the targeted facilities showed that two New Jersey and three Puerto Rico facilities had greater than 10% of their patients with an Hgb> 13 and continued to receive ESA therapy. In this group of five there was an average of 11% to 17% of patients with Hgb >13 g/dL. The remaining 18 facilities dropped their percentage of patients with Hgb> 13 to a range of 0%-7.9%.

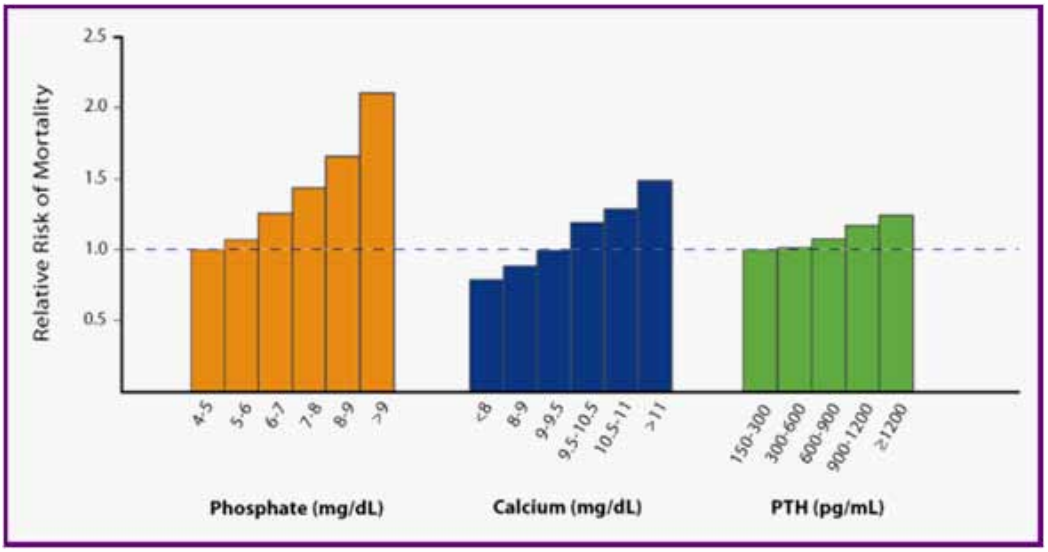
Facility administrators were notified of inclusion in the Network anemia management project which required attendance at an anemia management webinar on 8/12/2010 and submission of a three month data collection. Facilities submitted Hgb data for April through June 2010. Four of the five facilities showed evidence of decreasing their individual percent of patients with Hgb > 13g/dL. The fifth facility remained consistently above 10%. Additional patient records were requested from this and other facilities and were reviewed for adherence to anemia management protocols.

Project Results: There was an overall reduction in percent of patients with Hgb> 13g/dL from 12.6% to 10.7% from July through December 2010. The Network exceeded the actual 40% goal by reducing the number of patients at risk of complications from Hgb >13g/dL by 50%.

b. Bone Management

Background: The NKF K/DOQI guidelines (Guideline 3, 3.2) state: In CKD patients with kidney failure (Stage 5) and those treated with hemodialysis or peritoneal dialysis, the serum levels of phosphorus should be maintained between 3.5 and 5.5 mg/dL (Evidence). Prolonged hyperphosphatemia causes soft-tissue and vascular calcification due at least in part to an increase in calcium-phosphate product and is associated with increased morbidity and mortality.

Figure 21. Relative Risk of Mortality Related to Levels of Phosphorus, Calcium, and PTH



At the June 2, 2010 MRB meeting, the members decided to continue to focus on decreasing the number of patients with serum phosphorus equal to or greater than 7.0 mg/dL.

Network staff analysis of 2009 ELab Data showed 33 facilities had between 15% and 24.2% of patients with serum phosphorus above 7.0 mg/dL. Those facilities with a census of more than fifty patients and 15% or higher of their population with a phosphorus >7mg/dL met the inclusion criteria for a Network phosphorus reduction initiative to reduce the number of patients in this at risk group.

Goal: Decrease the percent of patients with PO4 greater than 7mg/dL by 20% in six months (January 2011) and to reduce the number of patients at risk of hyperphosphatemia by 60 patients.

Method: Seventeen facilities belonging to one LDO in New Jersey were chosen for intervention. In June 2010, facility administrators were informed of their participation in the Network initiative, and attendance by facility staff at a webinar entitled Creative Approaches to Patient Adherence presented on June 29, 2010 was required. The facilities were also required to perform a root cause analysis, develop and submit a performance improvement plan by July 30, 2010. Sixteen facilities participated in the mandatory webinar on June 29 (94% attendance). Six facilities or 35.3% submitted the plan past the deadline. Of the 17 plans submitted, nine were acceptable as submitted (53%) and eight (47%) were returned to facilities for revision. These eight unacceptable QAPIs were modified and subsequently accepted by the Network.

Project Results: The Network exceeded the goal of 60 patients reducing the serum phosphorus level; a total of 86 patients reduced their phosphorus level to less than 7mg/dL within 6 months. This speaks volumes to the efforts of the interdisciplinary team; the social worker who ensures the patient has the resources to purchase medications, the physician who modifies the prescription based on analysis of the monthly blood work, the nurses and technicians who reinforce the patient's knowledge but most importantly to the value of the renal dietician and the education she/he provides.

According the 2009 ELab data, Network Three had the lowest percent of patients with a phosphorus >8mg/dL in the nation. Only 2.8% of the patients had a phosphorus >8mg/dL. Network Three will continue to focus on this clinical indicator in 2011. Table 5 illustrates the decrease in the percentage of patients with a phosphorus >7mg/dL network-wide from January 2010 to December 2010, despite a 5% growth in the patient population and an increase in the number of facilities from 157 to 167.

Table 4. Network Three Percentage of Patients with Serum Phosphorus > 7mg/dL

Month and Year	Total No. Patients	Total No. Patients with Phosphorus >7	Total Percent Patients with Phosphorus >7	Total No. Facilities
January 2010	14910	1809	12.1%	157
February	14920	1759	11.8%	157
March	15218	1757	11.5%	158
April	15070	1782	11.8%	157
May	15318	1730	11.3%	158
June	15706	1849	11.8%	164
September	15303	1725	11.3%	167
December	15735	1756	11.2%	167

c. Hemodialysis Adequacy

Background: Hemodialysis adequacy is an important indicator of quality care for patients on hemodialysis. Through the Clinical Performance Measures Project and the Elab Project, Network Three has collected and reported adequacy data on both the Network level as well as the facility level. Since 2006, the percent of patients adequately dialyzed (URR>= 65%) has increased from 89.4% in 2006 to 93.2% in the fourth quarter of 2010.

While this improvement is laudable, further analysis of the Elab data allowed the Boards to identify a number of facilities that fell below the Network goal. The Board established selection criteria which included facilities with >50 patients and <90% of patients with a URR ≥ 65%. Upon review of the results in March 2010, analysis revealed a total of 26 facilities failing to achieve the Network goal.

Goal: Ninety-two percent of patients at targeted facilities will receive adequate dialysis in six months.

Method: Data from April – June 2010 were collected and analyzed by QI staff. The number of facilities meeting the selection criteria decreased from 26 to 14. Six facilities are located in Puerto Rico and eight are in New Jersey. The eight NJ facilities consisted of three hospital-based facilities, three LDO facilities and the remaining two were independent. The six facilities in Puerto Rico were evenly divided between the local SDO and national LDO. Targeted facilities were required to review the facility policy and procedure for pre and post dialysis blood sampling and provide an in-service for all direct patient care providers on sampling technique and causes of inadequate dialysis. Facilities were required to provide the Network with proof of in-service education in the form of attendance records.
Project Results: The average percentage of patients in New Jersey with a URR ≥ 65% at baseline was 85%. Three months following the intervention the average was 89%. In Puerto Rico the results were unremarkable; two facilities achieved 90%, another improved and three decreased. Five of the six facilities have submitted QAPIs. Final analysis of this project will be completed in May 2011.

Task 1.c. Network Specific Quality Improvement

Network specific quality improvement activities are implemented network-wide. The activities are directly aligned with the areas of most need and potential impact for quality improvement. The Network developed the quality improvement projects under the guidance of the Medical Review Board, Patient Advisory Committee, local providers and State agencies.

CMS encourages Networks to undertake activities in any of 18 pre-approved priority areas or seek approval in other areas from the Project Officer. At the June 2010 Board

meetings the members reviewed the pre-approved areas and discussed the success achieved by the Network with the End of Life Care project. Data collected from the CMS 2746 ESRD Death Notification form showed 15.2% of Network patients who died were referred to hospice in 2008, whereas in the first quarter 2010 25% of patients who died were referred to hospice. The Board members recommended the continuation of this project into the current contract year.

In addition to End of Life Care, the Board in collaboration with the State agencies and the Patient Advisory Committee selected infection control as the second initiative. This is a very challenging indicator to measure and the Networks lack current data to perform trend analysis. QIRN3 approached this project in three ways:

1. Facilities with higher than State average admission rates due to septicemia (using data from the 2010 USRDS Report) will have an infection control audit conducted by Network staff. They will be required to complete the Infection Control Module from the Five Diamond Patient Safety Program, and will be re-audited after three months by Network staff;
2. Increase the percentage of patients vaccinated at selected lower performing facilities; and
3. Implement the Five Diamond Safety Program at the Network Annual Meeting on October 7, 2010.

a. End of Life Care

Background: According to the 2004 USRDS report, hospice services are utilized by 13.5% of ESRD patients as compared to 25% of non-ESRD patients. Less than 50% of ESRD patients withdrawing from dialysis receive hospice care prior to death. The barriers for utilization of the hospice benefit with ESRD patients may include confusion about eligibility and withdrawal from dialysis, commonly thought to be a prerequisite for initiation of hospice.

The cost of care increases significantly in the last weeks of life. The utilization of hospice helps reduce costs irrespective of withdrawal from dialysis (Murray and Moss 2005). Cost savings for patients not withdrawing from dialysis would be derived from a reduction in hospitalizations in the final weeks of life. The weekly cost of dialysis is less than four hundred dollars; according to Murray and Moss[11]. *Among patients who withdrew from dialysis and used hospice, median cost of per-patient care during the last week of life was $1858, compared with $4878 for non-hospice patients (P<0.001); hospitalization costs accounted*

for most of that difference. Only 22.9% of dialysis hospice patients died in the hospital, compared with 69% of non-hospice patients (P<0.0001). A minority of dialysis patients use hospice, even among patients who withdrew from dialysis, whose death usually is certain. Increased hospice use may enable more dialysis patients to die at home, with substantial cost savings.

The focus of this project was to educate the renal professionals about the availability of hospice to the ESRD patients and to see an increase in the number of patients who receive hospice care prior to their death. Understanding the Medicare Hospice Benefit will enable the renal professionals to inform their patients about the availability of hospice. This information can then be utilized by the patients and their families to help them in their end of life decision-making.

Goal: The goal of the project was to increase the discussion of hospice referral into monthly plan of care (POC) meetings.

Method: During the previous contract year and continuing through 2010 the Network worked to provide the information needed by dialysis facility staff regarding hospice. Five facilities were chosen as an intervention group. They agreed to work with the NW with the Hospice Project. During the course of the education to these facilities, one dropped out due to a lack of consistent staffing. The remaining four facilities received education on the ESRD/Hospice benefit and the location of hospices in their area. They agreed to incorporate the discussion of hospice into their POC meetings. Contact was made with the social workers at the facilities in the project to ensure they were continuing to incorporate hospice discussion into POC meetings. CMS 2746 forms were reviewed to monitor the number of patients in the scope of this project who were referred to hospice prior to death. Five other facilities were chosen as a non-intervention group. Their 2746 forms were also monitored to compare the intervention vs. the non-intervention referral rates.

Webinars and emails were provided to the social workers and nurses at the dialysis facilities in the NW. A presentation was made at the 2009 Annual Meeting by Michael Germain, MD, on the topic of hospice and palliative care. The project expanded to involve all the facilities in New Jersey. Environmental scans were utilized to obtain data on the integration of hospice discussion into POC meetings at all facilities in NJ.
Project Results: This project came to a close at the end of 2010 with a final educational webinar for providers. The webinar was presented on December 14 titled: “Hospice and ESRD: Where Do We Stand”. The invitation was sent out to all facility administrators and social workers in NJ. 57 staff members registered for the presentation. The presentation provided a summary of the project and the outcomes. It addressed the barriers to hospice referral and strategies to overcome the barriers. Attendees were provided with updates on the Medicare regulations for Hospice and ESRD.

[11] Murray A, Arko C, Chen S, Gilbertson D, Moss A: Use of Hospice in the United States Dialysis Population. Clin J Am Soc Nephrol 1:1248-1255, 2006

The rate of referral for hospice for patients in NJ has been trending upward over the past five years. In 2010, NJ had a 21.9% referral rate for hospice prior to death for dialysis patients. The referral rate for all Medicare decedents has been trending significantly upward for the past decade. This rate as of 2008 was 40%. With ongoing awareness and educational information provided to staff of dialysis facilities, the referral rate for ESRD patients should also continue to increase and become more aligned with other Medicare beneficiaries.

Project Results: This goal was met as the number of NJ facilities reporting they currently utilize hospice discussion during monthly unstable POC meetings is 79.7%. This is an increase of 33.4 percentage points over the baseline of 46.3% who utilized hospice discussion in POC meetings prior to the initiation of this project.

b. Immunization

Background: There has been much attention directed toward the high mortality of patients with end-stage renal disease (ESRD), with much of the focus on cardiovascular disease. However, infectious disease is known to be the second most common cause of death in the ESRD population.

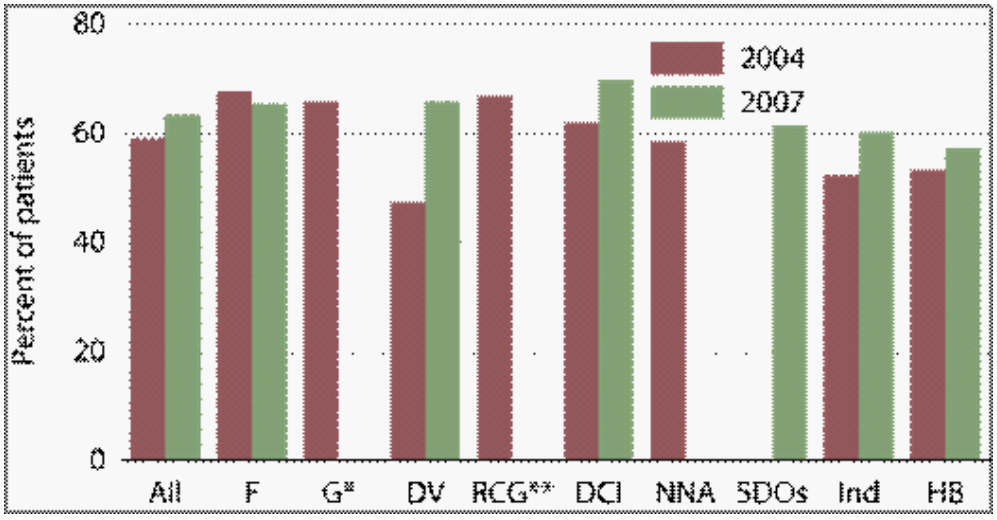
The CDC in June 2001 developed Recommendations for Preventing Transmission of Infections Among Chronic Hemodialysis Patients report, which was adopted by CMS and cited in the 2008 Conditions for Coverage. Historically, Hepatitis B virus infection was the primary focus of surveillance.

In June 2006, the CDC published Guidelines for Vaccinating Kidney Dialysis Patients and Patients with Chronic Kidney Disease. Eighteen vaccinations were reported, of these the CDC recommended three for patients with ESRD: Hepatitis B, pneumococcal pneumonia and influenza.

There is very limited data available regarding ESRD vaccination rates. According to the 2009 USRDS report there has been only a slight increase in influenza vaccinations since 2004. Just 62 percent of patients are vaccinated, far from the CDC target of 90 percent. Vaccinations against pneumococcal pneumonia have increased slightly since 2001, reaching 22 percent overall in 2006–2007.

Network Three collected 2009 vaccinations rates from 6 targeted facilities and sought to increase the percentage of patients receiving vaccinations in 2010.

Figure 22. Influenza vaccinations, by unit affiliation



*G merged with DV, ** RCG merged with F, data merged in 2007

Figure 23. Pneumococcal pneumonia vaccinations, by unit affiliation

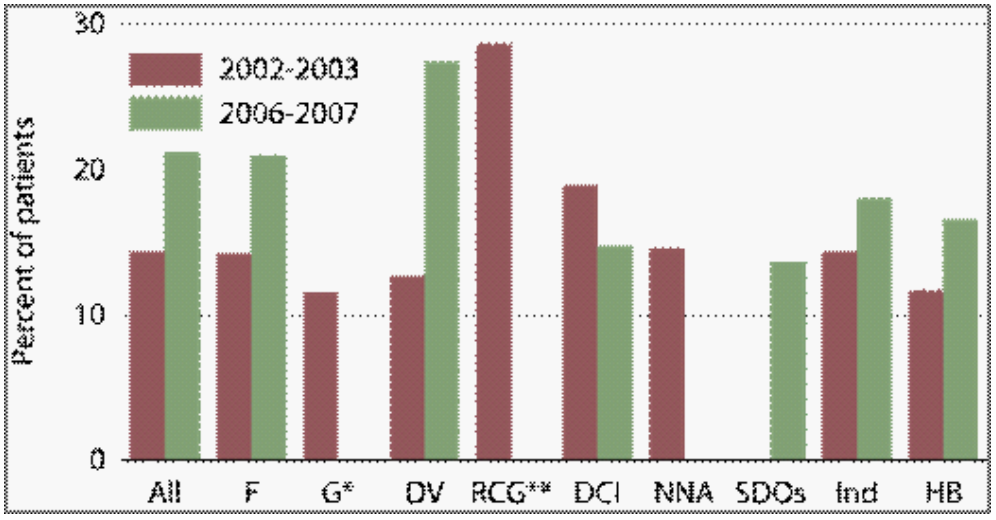
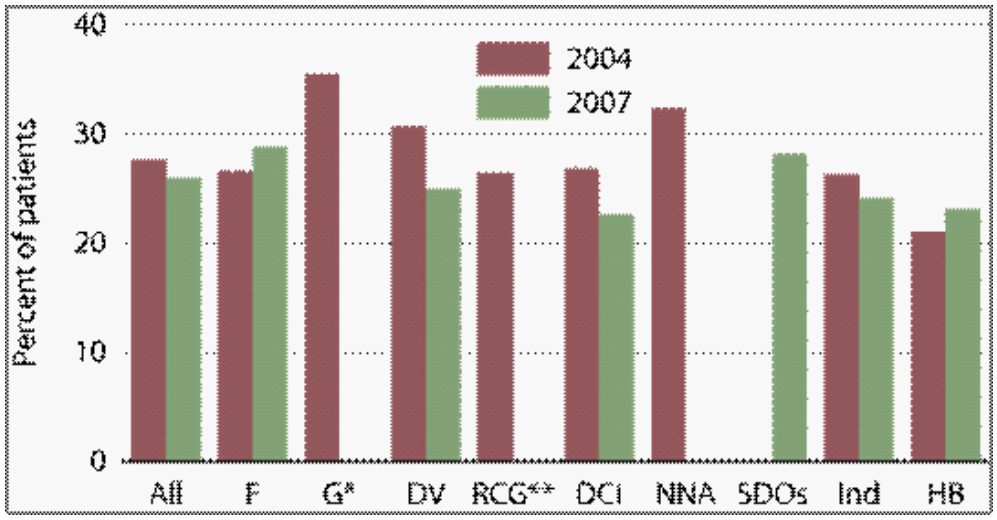


Figure 24. Hepatitis B vaccinations, by unit affiliation



Based on the 2009 USRDS data illustrated in the graphs above, the hospital-based (HB) hemodialysis facilities nationally have the lowest percentage of patients vaccinated in all three categories. QIRN3 targeted 6 of the lower performing hospital-based facilities in New Jersey, Puerto Rico and the US Virgin Islands.

Goal: The goal was to increase the percentage of patients receiving the flu vaccine at targeted facilities between September 2010 and March 2011. Also, to increase the percentage of patients receiving the pneumococcal pneumonia vaccine from July 2010 until December 2010 at targeted facilities.

Finally, to increase the percentage of patients receiving the 3-4 dose course of Hepatitis B vaccine between July 2010 and December 2010 at targeted facilities.

The project included two lower performing hospital-based facilities from each geographic location in the NW based on their overall success in meeting Network goals.

Method: The project plan included the following:

- Develop vaccination data collection tool;
- Distribute tool to targeted facilities;
- Collect and analyze 2009 data;
- Inform facilities of responsibilities and goals of intervention;
- Review current process for each type of vaccination;
- Provide technical assistance as indicated;

- Provide facility with current recommendations, posters and literature;
- Contact facility monthly during key periods to evaluate progress;
- Collect 2010 data.

Nationally 57% of patients in hospital-based hemodialysis facilities in the US received the Influenza vaccine, 23% received the Hepatitis B vaccine and 16% received the pneumococcal pneumonia vaccine. The Network established baseline 2009 data at the start of this initiative.

The NW collected data from each of the six hospital-based facilities chosen for the project. Vaccination rates for 2009 were collected and analyzed. The CDC 2010 national goal for influenza vaccination for dialysis patients is 90%. One NJ hospital and one VI hospital had influenza rates higher than the national average for dialysis providers of 57% in 2009 with 82% and 61% respectively. The remaining four facilities had significantly less than or close to the national average ranging from 11.5% to 58%. Each facility was informed of the goals of the project and their responsibilities for participation.

Facility policies were collected and reviewed. One facility in the Virgin Islands could not produce a policy and was asked to create one. The other five facilities had policies to address the distribution of vaccines to patients.

The NW provided facilities with information to post in their units from the CDC on the benefits of influenza vaccination. The six facilities were required to complete the influenza vaccination module of the Five Diamonds Patient Safety Program.
The facilities reported their pneumococcal vaccination rates for 2009. The rates varied extensively from 90% at one NJ hospital to 0% at a PR hospital. The national average is approximately 22% for all facilities and 16% for hospital-based facilities. These six providers were asked to improve their rates of vaccination and encourage patients to participate in the immunization project.

The overall distribution rate of the hepatitis B vaccination for dialysis patients throughout the U.S. is approximately 22%. These targeted facilities ranged from 33% to 79% indicating this is not a problem for the hospitals involved in this project. Information on hepatitis B vaccination was provided to the six hospitals in the project to further emphasize the need for ongoing vigilance in addressing this issue.

Figure 25. Flu Vaccination Rates

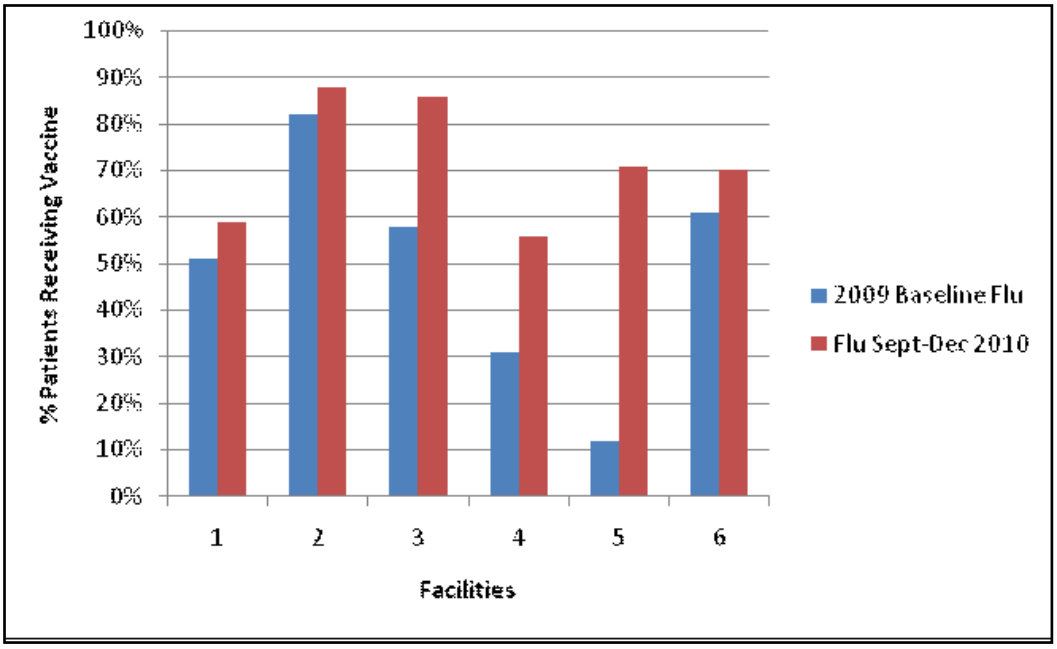
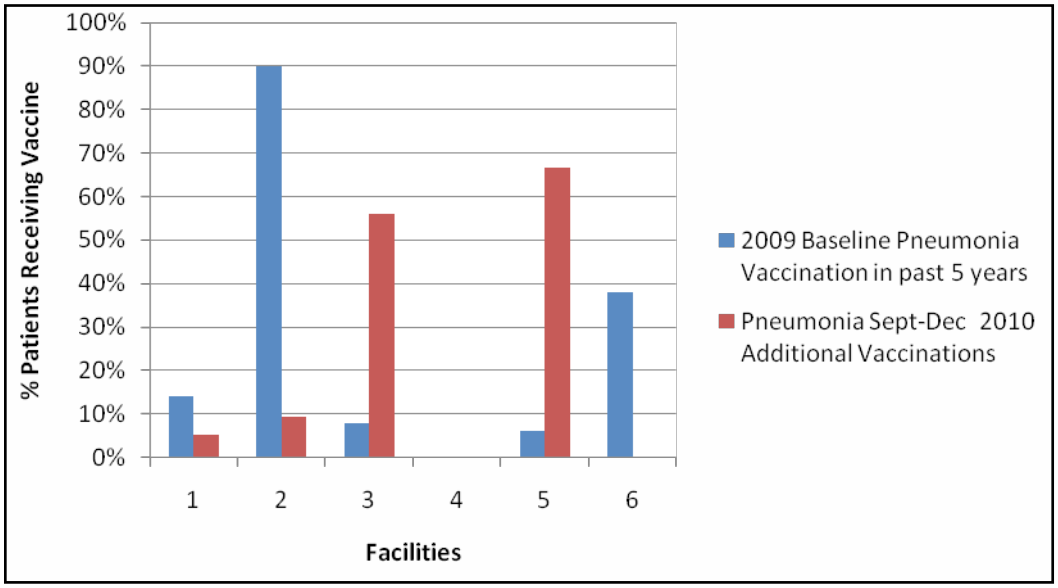


Figure 26. Pneumonia Vaccination Rates



Facility #4 in the Pneumonia Vaccination graph above is a hospital in Puerto Rico who had difficulty tracking vaccinations administered offsite. Network staff worked with the unit to explore strategies to more accurately track these vaccinations.

Project Results: Preliminary results from participating facilities have been very positive. The vaccination project is scheduled to conclude with these facilities in March 2011. The final numbers will be calculated for each facility and a determination of overall improvement will be ascertained at that time.

c. Decreasing Healthcare Associated Infections

Background: On June 8, 2010, Secretary of Health Kathleen Sebelius issued the following statement, *The Journal of the American Medical Association published a new study from the Centers for Disease Control and Prevention and the Centers for Medicare & Medicaid Services, which underscored the urgency behind the Obama Administration's efforts to reduce healthcare-associated infections (HAIs).*

Included in her statement, *In 2010, HHS will expand its Action Plan to include strategies to eliminate HAIs in ambulatory surgical centers and* ***hemodialysis centers****.*
Each year, the University of Michigan Kidney Epidemiology and Cost Center (UM-KECC) under contract from CMS develops and distributes through ESRD Networks a facility annual report. This extensive report provides trend (4 years) facility information compared to the local state, Network and national experience, on several clinical measures. Several sources of information are used for this analysis such as Medicare claims, hospitalization events, and CMS ESRD specific forms.

Based on the analysis of the facility annual reports for the last two years, the Network Boards and the Patient Advisory Committee determined that facilities with >20% admission rate due to sepsis for two consecutive years should be considered for targeted intervention.

Infection Control Goal: Post-intervention audit score will be 30% greater than pre-intervention score.

CDC Collaborative Goal: Goal >90% of facilities will be enrolled in the CDC NHSN system and reporting by December 2011.

Method: A review of the 2010 USRDS Dialysis Facility reports was conducted by Network staff in July 2010. Data from the 2009 DFRs were compared to the 2010 reports. Seventeen facilities in NJ were found to have >20% admission rates due to sepsis reported for two consecutive years.

- 6 hospital-based facilities;
- 2 free-standing independent facilities;
- 9 facilities were owned and operated by LDOs;
  Represented 1542 consumers

On Tuesday, August 3, 2010, Network Three's QI staff participated in an educational program sponsored by Network 5 and the Centers for Disease Control and Prevention (CDC). The participating Networks were introduced to The Collaborative Approach to Prevention of Bloodstream Infections in Dialysis. The CDC, in partnership with the Delmarva Foundation, the Maryland Department of Health and Mental Hygiene and the Mid-Atlantic Renal Coalition, established a prevention collaborative in 2009. The goal of the collaborative was to work together to prevent bloodstream infections (BSIs) in hemodialysis and spur a broader interest in preventing infections among the dialysis community. All Networks were invited to participate and Network Three felt that inclusion of this collaborative into the infection control task would be ideal. Approval was sought and provided by the Boards and the plan was modified as noted on the following page.

Infection Control Plan:

- Develop audit tool;
- Request feedback from the New Jersey Department of Health;
- Organize one face-to-face meeting with all NJ participants
- Conduct unannounced infection control audit at targeted facilities;
- Provide facility with report of findings;
- Facilities were required to complete Patient Safety and Infection Control Modules and provide Network with required documentation within 2 months of audit;
- Conduct unannounced infection control audit three months after first audit; and
- Score audit and report status to facility and State DOH.

CDC Collaborative Plan:

- Provide collaborative overview to Board members
- Seek Board approval to include participation in collaborative a Network goal
- Develop plan for organized roll out of all Network facilities
- Provide enrollment training
- Provide technical assistance as needed

Project Results:

This project expanded into two directions; infection control audits and participation in the CDC Collaborative. The original design of the project was modified to include participation in the CDC Hemodialysis Collaborative by all Network Three facilities.

Infection Control Audits:

From late August 2010 until early October 2010, 17 infection control audits were completed. Depending on the size of the unit, either two or three Network QI staff spent between 3-4 hours conducting the audits either by direct observation, interview or both observation and interview. Fifty percent (9) of the facilities were found to have significant breaks in infection control practice. Two months following the audits the facilities completed the required 5 Diamond modules and the second audit was conducted utilizing the same audit tool and methodology.

The overall goal of this project was achieved with a 50% reduction in the audit scores however, four facilities failed to make substantial improvement. The Network staff, working in collaboration with the New Jersey Department of Health and Senior Services, will develop plans to improve compliance at these facilities.

CDC Hemodialysis Collaborative:

In December 2010, the Board members voted unanimously to add the participation in the CDC Collaborative as a Network goal. The facilities were notified of the revised goal statement and the facility administrators were contacted to advise them of the roll out plan. The CDC has provided multiple training sessions via WebEx, in addition to providing recorded sessions available on the internet. The plan was that the majority of New Jersey facilities would be enrolled by the end of July 2011. At the time of this report, two of the three facilities in the U.S. Virgin Islands have started the enrollment process and the facilities in Puerto Rico will join when the New Jersey enrollment is complete. The benefits of joining the collaborative included:

- Data collected from all NW facilities utilizing the same collection criteria
- Standardized infection reports for the facilities to share with State Survey Agencies (SSAs) during Federal and State surveys
- The CDC will set up a Network Three Collaborative to allow access by NW staff to facility data, facilities will be asked to allow the CDC to share data with the NW
- The Network will have access to facility specific data to allow for targeted intervention based on current data
- Members will have access to best demonstrated practices and assist in establishing standards of care
- Members have the opportunity through in-person meetings and monthly collaborative calls to discuss infection prevention topics and activities which contribute to the design and implementation of interventions
- The CDC provides input on specific challenges from prevention experts
- Receive support for NHSN use and infection measurement from experts at the CDC
- Members have the support from experts in implementation science
- One standard form of reporting for all dialysis facilities

Four NJ counties are scheduled to enroll each month and as of March 2011, 40 facilities have completed enrollment and have begun the reporting process. Additional training sessions are planned prior to the implementation in Puerto Rico.

Task 1.d. Facility Specific Quality Assessment and Improvement

For this task facility-specific quality improvement activities are implemented with a specific facility or a group of facilities. The Network maintains the capacity to respond to local needs upon the request of facilities, CMS, SSAs or in the event of identification of problems or poor performances during site visits. A review of complaints and grievances may trigger a facility specific project and analysis of clinical outcomes identifies the lower performing facilities. Quality Assessment and Improvement Projects (QAPIs) are conducted when these situations are identified.

a. Increase AV Fistula Rate

Background: The NKF K/DOQI guidelines recommend: Guideline 2. S*election and Placement of Hemodialysis Access. A structured approach to the type and location of long-term HD accesses should help optimize access survival and minimize complications. The access should be placed distally and in the upper extremities whenever possible. Options for fistula placement should be considered first, followed by prosthetic grafts if fistula placement is not possible. Catheters should be avoided for HD and used only when other options listed are not available. Patients should be considered for construction of a primary fistula after failure of every dialysis AV access.*

The rationale for this guideline: *The preference of fistulae over all other forms of access arises from their functional advantages because of a lower rate of complications.*

- *Fistulae have the lowest rate of thrombosis and require the fewest interventions, providing longer survival of the access. The number of access events is 3- to 7-fold greater in prosthetic bridge grafts than in native fistulae.*
- *As a result, costs of implantation and access maintenance are the lowest.*
- *Fistulae have lower rates of infection than grafts, which, in turn, are less prone to infection than percutaneous catheters and subcutaneous port catheter systems. Vascular access infections in HD patients are common, can be severe, and contribute to infection as the second leading cause of death in patients with CKD stage 5.*
- *Fistulae are associated with increased survival and lower hospitalization.*
  - *Patients receiving catheters (RR = 2.3) and grafts (RR = 1.47) have a greater mortality risk than patients dialyzed with fistulae.*

Epidemiological evidence also indicates that greater use of fistulae reduces mortality and morbidity.

According to March 2010 data, eleven facilities were identified as having the lowest fistula rate in the Network and failed to demonstrate sustained improvement over the previous 12 months. QIRN3 staff met with the administrators and the medical directors, held corporate leadership meetings with key personnel and assisted with the development of QAPIs. The percentage of AVFs at these facilities ranged from 25.4% (the bottom 1% in the nation) to 39.1%.

Goal: In April 2010, QIRN3 staff met with the medical directors of these lower performing facilities in Puerto Rico. Two meetings were held, one with a National LDO and the second with the local SDO. The medical directors were given the following options:

1. Increase the fistula by 3% by August 2010, 3% by December 2010 and 4% by June 2011; or,
2. Peer review with Board members

Method: Quality improvement plans were requested and received from the 11 facilities. The QAPIs were reviewed by the QIC and accepted or rejected. Monthly beginning in June, the QIC provided the facilities with a list of incident patients and contacted the vascular access coordinator at each facility to review the vascular access management of every incident patient. The vascular access status was tracked until a permanent access was utilized.

Project Results: In March the average baseline AVF rate of 34.4%. In August, the average AVF rate was 37.2% an improvement of 2.8 percentage points which was 0.2 percentage points below expectation. As noted in Figure 27 below, the average AVF rate in December increased by 4.6 percentage points and the facilities continue to demonstrate monthly improvement. The Network will continue to provide quality oversight by reviewing monthly vascular access reports, quarterly incident patient vascular access reports and provide intervention as needed. A meeting with the Sub Secretary of Health in Puerto Rico is planned for March 2011 to continue to apply pressure to the local government to legislate changes in the local healthcare system. The attendees will include the Network's Contracting Officer Technical Representative (COTR), CMS NY Regional Office, Mi Salud (Medicaid), the Organ Procurement Organization in Puerto Rico (LifeLink), corporate leadership from the national LDO and the local SDO and Network staff.

Figure 27. Percentage of AVFs March 2010- December 2010

Dialysis Facilities	March Baseline	August Rate	December Rate
1	34.3%	40.0%	45.0%
2	31.9%	30.6%	33.8%
3	37.1%	44.9%	41.2%
4	35.7%	35.7%	38.0%
5	32.9%	29.6%	35.5%
6	38.0%	37.3%	41.1%
7	35.6%	40.7%	38.8%
8	39.1%	36.5%	37.0%
9	31.2%	35.1%	37.0%
10	25.4%	35.4%	31.6%
11	37.3%	43.3%	50.0%
Average AVF Rate	34.4%	37.2%	39.0%

In August 2010, twenty five dialysis facilities received a letter of concern from QIRN3 regarding their failure to make substantial progress in fistula usage. The facilities were instructed to submit a quality improvement plan to increase the fistula rate 4% by November 30, 2010 and an additional 3% by February 28, 2011. As of November data, eleven facilities achieved the 4% goal, the remaining 14 facilities were asked to review and revise their plans to improve AVF rates.

b. Decrease the Percentage of Patients with an Elevated Aluminum Level

Background: Aluminum toxicity is rarely seen today since the development of non aluminum based phosphorus binders and the improvement in water quality. Acute intoxications occasionally are reported and as recently as 2007 the CDC reported an outbreak in a Wyoming hospital.

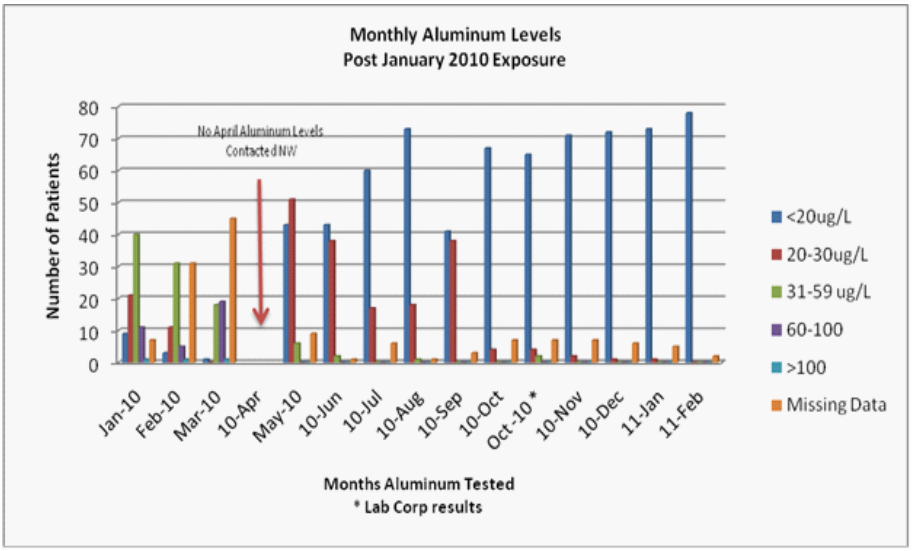
On April 26, 2010, during a routine site visit in Puerto Rico, the facility medical director asked for the opinion of the Network regarding an issue they had identified in January 2010 during routine annual plasma aluminum screening. Of the 82 patients tested for aluminum, 55 patients had an aluminum level >30ug/L, 12 had levels >60ug/L, and 1 patient was >100ug/L.

Goal: The goal of this project was to prevent any harm to the patients and assist in the investigation and resolution of the elevated serum aluminum levels.

Methods: The Vice Chair of the Network Board of Directors was contacted as soon as the Network became involved in the investigation while onsite in Puerto Rico. Under his guidance and with the support of the facility Medical Director extensive testing was performed and analyzed. Samples of the water treatment system, the bicarbonate mixing system, and the municipal water supply were collected at multiple sites. Dietary and nursing reviews were conducted to eliminate environmental factors. Epidemiologists from the Puerto Rico Department of Health conducted a comprehensive investigation and analysis and found no evidence of contamination.

Project Results: Figure 28 shows the distribution of aluminum levels from the initial discovery in January 2010 until February 2011. Monthly water and patient results were reviewed and analyzed by Network staff in consultation with the Board vice Chair. Patient and water samples were collected and analyzed from all dialysis facilities in Puerto Rico. An extensive root cause analysis never clearly identified the cause. Two possible causes were considered; aluminum contamination at the bicarbonate mixing tank and/or possible issues in the sampling and handling of specimens. The bicarbonate mixing tank was modified to prevent possible contamination and the dialysis staff received re-education on the sampling and handling of the specimens. The Network will continue to monitor the results to ensure patient safety for a minimum of one year. As of February 2011, 100% of patients have an aluminum level <20ug/L.

Figure 28. Monthly Patient Aluminum Levels January 2010- February 2011



c. Provide Quality Oversight to Ensure Patient Safety- Three U.S. Virgin Island Facilities

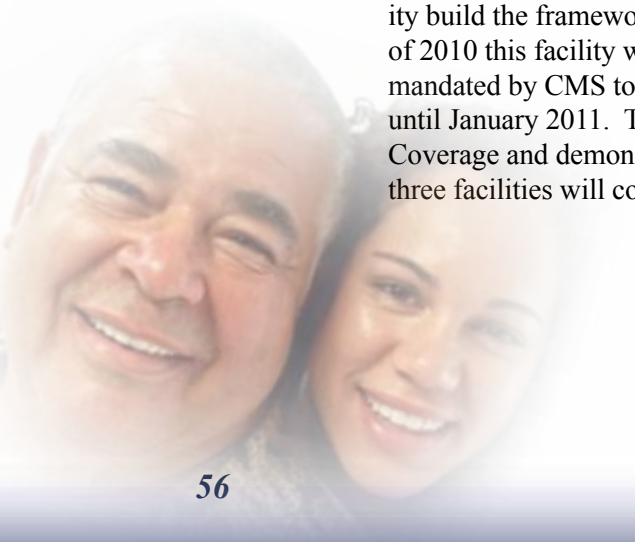
In 2010, NW3 continued to provide quality oversight at the three Virgin Island facilities at the request of CMS to assist the dialysis facilities to achieve compliance with the Federal Conditions for Coverage. Based on this identified need an action plan was developed in collaboration with the Network's COTR as well as the New York Regional Office of CMS to address the specific needs of each facility.

At the request of CMS in 2007, the Network began to monitor patient safety and quality of care issues related to infection control, water treatment, equipment maintenance, medication administration, patient assessment and plan of care. The facilities were required to provide the network with monthly data and patient records to address each specific area. Network QI staff reviewed this information and monitored implementation of recommended changes by the facilities to improve their outcomes. This project has been extensive and has continued for several years. It involves ongoing communication between CMS, Network staff and facility leadership through monthly conference calls with each facility, emails, on-site visits and record review.

The Network receives and reviews the following reports and data from each facility:

a. Daily water logs;
b. Monthly water/dialysate cultures and disinfection logs;
c. Monthly PI minutes;
d. Equipment PMs, if indicated
e. Randomly selected patients (Network will select patients) patient assessment and plan of care;
f. Randomly selected patients (Network will select patients) flow sheets for one month, history and physical and interdisciplinary progress notes, blood work for last three months, hemodialysis orders and special orders;
g. Monthly staff education documentation;
h. New employee orientation check list
i. Assist consultants as indicated;
j. Other activities as identified by CMS

In 2010, one facility was mandated by CMS to hire a dialysis consultant to assist the facility build the framework for a fully compliant hospital-based dialysis program. At the end of 2010 this facility was demonstrating progress. A second hospital-based facility was mandated by CMS to hire a full time interim manager. The interim manager was not hired until January 2011. The third facility has achieved full compliance with the Conditions for Coverage and demonstrated best practice in some areas. Monitoring and oversight of all three facilities will continue through 2012.



d. 5 Diamond Safety Project

In 2010, Network Three launched the 5 Diamond Patient Safety Program developed by Networks 5 and 1 to the staff of the New Jersey dialysis facilities at the Annual Educational Program held on October 7, 2010.

Five Diamond Program

The QIRN3 5 Diamond Patient Safety Program was rolled out to New Jersey facilities at the October 2010 annual meeting. Nancy Gregory of the Mid-Atlantic Renal Council (NW5) presented the program overview and introduced the program modules. The modules were to be used by dialysis providers as a template for in-service training for dialysis staff and patients. The purpose of this voluntary project was to provide dialysis providers with developed staff educational modules on different safety topics. Providers register to participate in the program and can select from 13 safety modules, which include the tools and training resources necessary for implementation of each patient safety concept. Facilities may complete as many or as few modules as they wish, with only one component, Patient Safety Principles, being mandatory. As each module is completed, the provider submits a reporting form to the Network, which acknowledges finished activities. Levels of provider recognition have been established as providers move from 1 diamond status to 5 diamonds. This voluntary program is an excellent complementary tool for identifying internal quality improvement opportunities.

Since its introduction to Network facilities, 55 facilities have enrolled. Twenty–four were mandated to participate as part of their involvement in Network QI activities: 18 involved in the NW3 Infection Control Initiative and 6 in the Vaccine Project. There are 31 voluntary participants. Since the rollout in NJ in October, three facilities have attained Five Diamond Status, four have Four Diamond Status, six have Three Diamond Status, nineteen are Two Diamond and six have achieved One Diamond Status. Included are all three Virgin Island facilities and three facilities in Puerto Rico. The Network plans to introduce the 5 Diamond Program in Puerto Rico during the annual meeting in March 2011.

B. Improve the independence, quality of life, and rehabilitation (to the extent possible) of individuals with ESRD through transplantation, use of self-care modalities, as medically appropriate, through the end of life.

Supportive Activities

Network Three continues to promote independence, quality of life, and rehabilitation through various activities, as outlined below. The Network has encouraged participation in vocational rehabilitation through the promotion and distribution of patient educational materials through emails and mailings, during facility visits, patient education programs, newsletters, the Network web site and various provider meetings throughout the year.

1. Patient Advisory Committee Newsletter

The Patient Advisory Committee (PAC) produced and distributed the Kidneys R Us newsletter quarterly with assistance and contributions from the PAC members, dialysis providers and Network staff. The newsletters were translated into Spanish and distributed to all the Network facilities. Content included: nocturnal hemodialysis, transplant from a patient's perspective, fluid facts, travel and dialysis, flu shots, understanding delays from a patient's perspective and understanding the new bundled payment system. Information about the Network, the patient's toll-free number, the web site address and information on joining the PAC were included in every newsletter.

2. Web Site

The Network's web site (http://www.qirn3.org) provides information about Network Three, as well as educational and resource materials in English and Spanish. The Web site was developed to serve patients and their families, dialysis and transplant providers, and the community at large. The Web site includes information on:

- Patient/ Provider Conflict Management
- Dialysis Facility Compare
- Emergency/Disaster Preparedness
- End of Life
- Grievance Procedure

- Rights & Responsibilities
- Consumer/Provider Resources
- Local Help Groups
- Medical Issues
- Network Annual Report
- Network Events
- Patient Newsletters
- Quality Improvement
- Part D Drug Coverage
- Patient Advisory Committee
- Treatment Choices
- Vocational Rehabilitation

The Web site has a "Search" feature that allows the viewer to search within the site itself. The site meets Federal Section 508 accessibility requirements and is updated with new content on a regular basis. The "Contact Us" feature allows the viewer to contact a Network Three staff member with questions or requests for additional information.

3. Vocational Rehabilitation

Network Three processed 74 calls from patients and providers during CY2010 with questions concerning financial or reimbursement concerns, loss of benefits and requests for educational materials and resources. Patients received individualized vocational counseling on the benefits of exercise, transplantation, home dialysis options and training requirements for home dialysis.

Facility social workers were given information to help their patients address rehabilitation concerns, apply for disability, Medicaid and/or Medicare, Social Security benefits, obtain medications and Medicare Part D, apply for secondary insurance, join patient support groups, financial assistance programs, and apply for the New Jersey Pharmaceutical Assistance to the Aged and Disabled Program (PAAD).

The Network promotes the participation of patients, providers of services and ESRD facilities in vocational rehabilitation. Facilities are required to post in a prominent place the Network poster describing treatment modalities, the Patient's Rights and Responsibilities, and the patient complaint brochure titled *I Am a Dialysis Patient, What Can I Do If I Have a Complaint?*. Facilities are encouraged to provide treatment schedules that allow patients to work or refer patients to another facility with this ability.

Annually, at the Network education program the Ahmet Ahmet Rehabilitation Award is presented to a dialysis patient who was nominated by his/her dialysis facility for exemplary behavior as an individual who through rehabilitation has overcome the many challenges of dialysis and best embodies the spirit of rehabilitation.

The Network provided several vocational rehabilitation education programs during CY2010, they are listed below:

- On April 15 the 20th Annual Transplant Designee program was held in central New Jersey by the Network in collaboration with the Saint Barnabas Healthcare Kidney and Pancreas Transplant Program. The Network has over 300 certified transplant designees in New Jersey after completion of this program. On April 27, the Network hosted a Transplant Designee program in Puerto Rico in collaboration with Auxilio Centro de Transplante. The Network has over 100 certified transplant designees in Puerto Rico and the U.S. Virgin Islands as a result of this program. These designees are asked to work with dialysis patients to get listed for transplant. The goal of transplant is to improve the quality of life of the renal patient and allow for the return to employment, education and volunteerism.
- In April 2010, the Network and the Saint Barnabas Healthcare Renal and Pancreas Transplant Program co-sponsored a patient education program on the benefits of transplantation. Another topic covered during this meeting was home dialysis and the options available. This information provided directly to patients will help to empower them and move them toward transplant and the return to employment, education and volunteerism.
- In October 2010, the Network and Our Lady of Lourdes Transplant Program co-sponsored a patient education program at Atlantic Healthcare on kidney transplantation, medication management and bone mineral metabolism in CKD.
- On October 7, the Network held its Annual Meeting. Topics included: The Five Diamond Patient Safety Program, Dispelling the Myths of Fluid Management, and Infection Control. A special break-out session was held for social workers in the afternoon with topics including Measuring Health Related Quality of Life and Using KDQOL Results to Plan Care and Mental Health in Dialysis. The program was attended by almost 400 physicians, patients, administrators, nurses, dietitians and social workers. Increasing patient quality of life will enable many patients to consider returning to active employment, education and volunteerism.
- Annually, the Network provides the social workers with the list of rehabilitation centers from the Division of Vocational Rehabilitation Services for New Jersey, Puerto Rico and the U.S. Virgin Islands.

C. Improve patient perception of care and experience of care and resolve patient complaints and grievances

Network Three worked consistently during CY2010 to ensure that all patients' complaints and grievances were investigated and resolved in a timely manner. The Network required each facility to post in a prominent place the Patient's Rights and Responsibilities and distribute annually paper copies provided by Network staff. Each facility must fully document all involuntary discharges and notify the Network of each occurrence as required in the Conditions for Coverage.

Supportive Activities

The Patient Rights and Responsibilities and Complaint Brochure were distributed to all facilities in English and Spanish. Facilities were asked to display the material in a prominent place such as the waiting room, and distribute paper copies provided to all patients. In addition to paper copies, Network Three Rights and Responsibilities and Complaint Brochure are posted on the Web site in English and Spanish. When a new facility was approved by CMS as an ESRD provider, a package of materials was sent which contained the above mentioned documents.

The patient education brochure titled *I Am a Kidney Patient What Can I Do If I Have a Complaint?* describes in basic terms the complaint process and how to contact the Network. The brochure was provided in both English and Spanish and distributed to all facilities. All facilities were required to get patients' signatures verifying they received the brochures. The signature sheets were then faxed back to the Network as verification of the distribution. One hundred percent of facilities provided Network Three with signature sheets. Additionally, the Network promoted an increase in beneficiary awareness of Network functions and responsibilities through patient education programs. The Patient Advisory Committee newsletter: *Kidneys R Us* and a new poster titled *Did You Know* provided information on Network Three and the contact information.

Evaluate and Resolve Patient Complaints and Grievances

Network Three may receive a written or oral complaint or grievance from a stage 5 chronic renal failure patient, patient representative, family member, friend, or others concerning either dialysis or transplant providers.

Referrals of ESRD consumer complaints or other concerns may be received from quality improvement organizations, state agencies, Medicare hotline numbers and Medicare intermediaries. When an oral grievance is received, the person handling the grievance will ask the consumer to document it in writing. During complaint or grievance investigations, consumers may designate representatives to act on their behalf. Immediate investigation is started for a potentially life-threatening issue. Network Three had no formal grievances

in CY2010. The Network investigated forty-six complaints in CY2010; nineteen were for treatment related/quality of care issues. Staff related and physical environment were the next most commonly cited reasons for complaints with sixteen and eight respectively.

Consumers were encouraged to use facility internal processes prior to referring a complaint or grievance to the Network because local problem solving can preclude escalation to a more serious level. When a patient did not wish to use the facility process (it is not mandatory that consumers first use the facility grievance process), they contacted Network Three for assistance.

The Network's responsibility for complaints/grievances is to review issues raised and determine the required action (i.e., investigation or referral). Consumers were asked to provide permission to Network staff to contact facilities for investigation of the complaint. Attempts were made to resolve complaints by acting as an investigator, facilitator, referral agent, or coordinator between a patient and the provider.

Quarterly, the Network reviewed and analyzed contact information at internal quality improvement meetings. Data were evaluated for trends, interventions formulated and discussed with the Patient Advisory Committee and Boards, if indicated. Network Three noted a similar number of calls from facilities in 2010 as in 2009 regarding patients who were being considered for involuntary discharge. Ten facilities made contact with the Network when involuntary discharge was being considered in 2010. Nine of the contacts involved verbal threats of physical violence or physical abuse from a patient towards a staff member. One case was for lack of payment. Four of the cases resulted in the patient being transferred to another outpatient dialysis facility. Two patients remained in their facility after NW intervention. Three patients were discharged and continue to be treated at local hospital emergency departments. One patient was being treated at an emergency department and expired prior to locating an out-patient facility willing to accept for out-patient care.

Network staff worked with facility leadership to avoid involuntary discharges and recommended the use of the Dialysis Patient Provider Conflict Resolution Tool Kit. All facilities were encouraged to work with patients who are at risk for involuntary discharge to help modify their behavior enabling them to remain in the facility.

Patient Advisory Committee

The Patient Advisory Committee consists of patients from dialysis facilities in NW3's area and represents all modalities. Members have a genuine concern for quality of care issues. The committee serves as a link between patients and the Network, and encourages patients to be involved in their healthcare, share skills, knowledge and experience.

The committee supported Network Three's mission to improve the quality of care provided to patients and represented the entire patient population. The committee provided consumer advice to the Medical Review Board and the Board of Directors. The members were involved in creating the patient newsletter, *Kidneys R Us*, and assisted with the development and promotion of educational materials and resources for patients.

In 2010, the committee developed, reviewed and organized the content for the newsletter, which was distributed in March, June, September and December. The newsletters were also translated into Spanish and distributed to all the Network facilities. Content included: nocturnal hemodialysis, transplant from a patient's perspective, fluid facts, travel and dialysis, flu shots, understanding delays from a patient's perspective and understanding the new bundled payment system. Information about NW3, the patients' toll-free number, the web site address and information on joining the PAC were included in every newsletter.

The committee collaborated with the New Jersey Renal Coalition to review and determine patient educational handouts and materials for the patient education programs that were held on April 19, 2010 at Robert Wood Johnson University Medical Center in New Brunswick and October 28, 2010 at AtlantiCare Regional Medical Center in Atlantic City. Both programs highlighted transplantation and had presentations from a transplant surgeon or a transplant nephrologist, a transplant Coordinator, a transplant Social Worker, a Renal Pharmacist, and a Renal Dietitian.

The Patient Advisory Committee continued to add new members who are acting as Patient Representatives for their facilities. These patients attend the meetings by conference call or in person when possible. Their role is to participate on the committee with the same responsibilities as the PAC members without the expectation they will attend meetings in person. At the end of 2010, fifty-nine patients had signed up to be Patient Representatives from their facilities. Meetings were held quarterly at a location in central New Jersey. Conference calling was utilized during each meeting.

D. Improve collaboration with providers and facilities to ensure achievement of goals A through C through the most efficient and effective means possible, with recognition of the differences among providers and associated possibilities/capabilities.

Establish and Improve Partnerships and Cooperative Activities

CMS encourages Networks to establish and enhance partnerships with other health agencies and groups. The Network collaborated with CMS regional offices, state survey agencies, New Jersey and Puerto Rico Departments of Health, quality improvement organizations, the New Jersey Renal Administrators Association, American Nephrology Nurses Association (ANNA), Council of Nephrology Social Workers, and interested agencies to improve the quality of care provided to consumers.

State Survey and Certification Agencies

The Network collaborated with the State Survey agencies in New Jersey and Puerto Rico. Health and safety problems and complaints were referred to the appropriate state agency for investigation and resolution. The Network held monthly telephone conferences with the Network's CMS COTR, the New York Regional Office and state surveyors in New Jersey and Puerto Rico.

The Network collaborated with the State surveyors to establish a communication process to provide State surveyors with clinical data utilized during routine or re-certification surveys. A tool that was developed last year was completed by Network staff prior to a scheduled State or Federal survey. The tool included vascular access data, clinical performance measures and related quality improvement plans. The Network reported facility specific complaints and grievances and involuntary discharges. The data sharing supported focused intervention by the State surveyors and has resulted in improved outcomes due to collaborative efforts by the NW and State Survey Agencies.

The Network Council

For decades Network Three held the Annual Renal Council Meeting and sought the input of providers, consumers and renal professionals attending the meeting. In an effort to increase communication and collaboration with the providers and consumers the Network Council was reorganized in 2009. The Network Council served as a liaison between its provider membership and the Network, which included renal providers and transplant facilities, and represented various geographic locations and types of professionals working for facilities in the area. Volunteers for the council were sought via email and during Network meetings. The first New Jersey conference call was held on December 15, 2009 with 21 attendees, including one patient from the PAC committee.

In 2010, the Council members considered topics for the 2010 Annual Educational Programs and indicated their top 3 choices during the April 6th meeting. Additional meeting agendas included review of the National Elab Clinical Performance Measures, NW performance improvement activities related to Elab data, and questions to be addressed by the State Survey Agencies.

New Jersey Renal Coalition

In March 2005, CMS introduced the Strategic Partnership for Change initiative to ESRD Networks. The goal of the program was to …*ensure optimum quality of care along the continuum of Chronic Kidney Disease (CKD/ESRD) and End Stage Renal Disease by using coalition and partnership building as strategic tools.* The coalition structure and mission were introduced to the Network's renal community.

The New Jersey Renal Coalition (NJRC) mission states that it will provide a multifaceted approach to improve patient education and professional clinical practice patterns for the pre-ESRD and prevalent dialysis patients. Members included nursing administrators, insurance carriers, the New Jersey Department of Health, New Jersey Healthcare Quality Strategies Organization, American Nephrology Nurses Association, American Dietetic Association, patients, a nephrologist, nurses, social workers, dietitians, PharmDs, transplant coordinators, New Jersey Hospital Association, social workers, the Renal Support Network and other interested groups. The coalition meets at least quarterly in person and/or by conference call if members are unable to attend in person.

Since 2006 the coalition has distributed the quarterly vascular access Medical Director Report Cards to all dialysis facilities in New Jersey. The quarterly report ranked the facility within the state by prevalent fistula and catheter rates. The report also included the percentage of incident patients starting dialysis with a catheter or functioning fistula.

In 2010 the NJRC collaborated with the Patient Advisory Committee (PAC), the New Jersey News (TV Channel 12), Robert Wood Johnson University Medical Center and Kidney and Transplant Program, Overlook Hospital, Atlantic City Medical Center and Meridian Health: Jersey Shore University Medical Center to develop educational programs for patients and professionals. The following programs were sponsored by the Coalition:

- March 3, 2010, The NJRC Chair and a dialysis patient who was awarded the 2009 Ahmet Ahmet Rehabilitation award were interviewed on the New Jersey News (TV Channel 12) Program "12 to Your Health" about Chronic Kidney Disease (CKD) and dialysis.

- April 19, 2010, the NJRC co-sponsored a patient education program on kidney and pancreas transplantation, the financial aspects of transplantation and transplant medication and interventions with the Robert Wood Johnson University Medical Center and Kidney and Transplant Program held in New Brunswick, New Jersey.

- June 18, 2010, a primary care physician program on CKD was held at Overlook Hospital on the new trends for early treatment of CKD. The coalition provided educational contact hours for physicians and nurses.

- October 28, 2010, a patient education program was held at Atlantic City Medical Center on kidney and pancreas transplantation, medications and interventions, nutrition and bone mineral metabolism in CKD in Atlantic City, New Jersey.

- December 1, 2010, a primary care physician program on CKD was held at Meridian Health: Jersey Shore University Medical Center on the new trends for early treatment of CKD. The coalition provided educational contact hours for physicians and nurses.

Emergency/Disaster Preparedness and Response

In 2010, the Network continued to enhance the Patient and Provider Continuity and Contingency Manual, a network-specific manual that outlines NW3's responsibilities related to emergency and disaster preparedness and response.

Contents included information for New Jersey, Puerto Rico and the U.S. Virgin Islands:
- NW3's emergency disaster preparedness and response policy;
- Universal codes for Networks; Emergency Network staff contacts;
- Facility contacts by state, county and affiliation (large dialysis organization, hospital based or independent);
- Emergency state contacts; NJ/PR/VI utility contacts; NJ/PA generator retail locations;
- List of patients by zip codes and age group; and list of Network executive directors; and
- Back-up agreement with Network 13.

Network staff participated in the national Kidney Community Emergency Response Coalition (KCER) and participated on the NJ Special Needs Advisory Panel (SNAP).

The Network was involved in the KCER calls that were in response to the catastrophic earthquake that hit Haiti on January 12, 2010. The international renal community came together to determine the needs of the citizens of Haiti who were either on dialysis or who may have suffered crush injuries resulting in acute kidney injury and a need for dialysis. The Network was in communication with dialysis providers in Puerto Rico and the US Virgin Islands to determine the availability of dialysis should Haitian citizens need to be moved off island for care. Ultimately, this option was not needed as care was able to be provided in Haiti or the Dominican Republic. The US Naval Ship, USS Comfort, was dispatched to Haiti and was equipped with dialysis supplies provided by private dialysis corporations who learned of the need and acted immediately. Dialysis care was available on board the hospital ship for those Haitian citizens in need.

On May 27, the NW hosted a "Lessons Learned from Winter Storms" conference call for all facilities in NJ. The agenda included a review of the heavy snow storms as well as the flooding from a nor'easter that hit the state in the winter of 2009. Effective planning and a review of the outcomes were discussed. The strategies implemented for dealing with these storms was a topic of discussion that proved very beneficial for attendees of the call. This type of ongoing communication between the Network and the facilities has proven to be effective in the preparation for storm disruption and the continuation of care for dialysis patients.

Network Three hosted a table at the New Jersey Emergency Preparedness Conference on May 5 and 6 in Atlantic City. The Network provided information on the needs of the renal community in the event of a disaster. KCER information was handed out to hundreds of attendees at this year's conference. Network staff was able to make contacts with multiple emergency providers throughout the state to ensure renal patients are considered when disaster plans are being formulated.

Ongoing communication between the Network and dialysis facilities and the Network and emergency providers is the focus of emergency/disaster planning. The dissemination of information to facilities in anticipation of weather related emergencies and natural disasters is crucial to the Network goal of minimizing the impact of such events on renal patients. The ongoing relationship with national, state, county and municipal emergency planners helps to facilitate this type of communication.

Professional Organizations

The Network participated in the planning of the Transplant Designee conferences held in New Jersey and Pennsylvania. The programs were developed in collaboration with the Saint Barnabas Kidney and Pancreas Transplant Program on April 15, 2010 and with the Penn Transplant Institute – Kidney Transplant Program Annual Nursing Symposium for Dialysis and Nephrology Nurses, University of Pennsylvania on April 20, 2010.

The Network collaborated with the Auxilio Mutuo Transplant Center and the Organ Procurement Organization, Life Link Foundation in San Juan, Puerto Rico to provide the Transplant Designee Program on April 28, 2010 in Aguadilla, Puerto Rico.

The Network conducted activities with the American Nephrology Nurses Association (ANNA) both nationally and with local chapters. ANNA provides the contact hours for the Network Annual Education Program. Network staff provided presentations at the ANNA educational programs in New Jersey in Atlantic City about Demystifying QAPIs on August 19, 2010 and on Hospice in Spring Lake on May 20, 2010.

The Network co-sponsored a Webinar with the Northwest Renal Network on improving Buttonhole Techniques on January 28, 2010 and will provide an update in 2011.

Annual Network Education Program

On October 7, 2010, the Network held the 2nd Annual Quality Insights Renal Network Three (QIRN3) Education Program. Approximately 400 dietitians, social workers, physicians, nurses and patients attended the meeting. Guest speakers included Nancy Gregory, RN, CNN, who discussed The 5 Diamond Patient Safety Program, Diana Hlebovy, BSN, RN, CHN, CNN, who presented Dispelling the Myths of Fluid Management Part I and Part II and the importance of incorporating fluid management into the facility Quality Assessment and Performance Improvement Plan. Donna Joiner RN, BS, from the NJ DOH discussed the common infection control issues found during the NJ State and Federal surveys and Dr. Toros Kapoian, BOD Vice-Chair presented Clinical Outcomes and Network Initiatives. The program provided a separate social worker session with Beth Witten, MSW, ACSW, LSCSW, who discussed Measuring Health-Related Quality of Life & Using Results to Plan Care and Rick Russo, MSW, LMSW, who presented on Mental Health in Dialysis: A Chronic Treatment.

Presentation of the Ahmet B. Ahmet Rehabilitation Award to a consumer elected by the Boards from the many deserving nominations submitted by facility staff was a meeting highlight.
Facility staff were invited to highlight specific internal quality projects for the benefit of all meeting participants. Fifteen posters were displayed at the 2010 annual meeting:

Booker Outpatient Dialysis at Riverview MC
Kidney Transplant
Vimla Christian, RN, CNN

Dialysis Clinic, Inc
Transplant is an Essential Patient Education Topic
Lisa Bross Gajary RN, Mary Lou Clancy BSN,RN,CNN, Mary Jane Walsh RN, Pamela McNeill RN, Lois LaManna RN, Amelia Gajary BA

FMC Harrison
Improvements in Anemia Management
Lucila Jose BSN, RN , CNN, Deena Natale, MS, RD, Judy Ratcliffe, RN,CNN

FMC Harrison
Best Practices to Achieve 96% of Patients with Kt/V $\geq$ 1.2
Lucila Jose, BSN, RN, CNN, Deena Natale, MS, RD, Judy Ratcliffe, RN,CNN

FMC Hoboken
Depression and the Renal Patient
Anita C. Kahan, MSW, LSW

FMC Kenvil
In-Center Nocturnal Hemodialysis
Donna Buglisi, BSN,RN,CNN, Jeannette P. Berdowski, MSPH,RN,CNN
Shan-Li Chen, RD, MBA, Barbara Tepper, LSW, ACSW

FMC Kings Court Flemington
KDQOL: What Gives You Quality of Life
Julie Somers, MSW, M Ed, LCSW

Fresenius Medical Care
Anemia Management – Faster ,Easier, Better
Lenna Lipman RN

Fresenius Medical Care-NA CKD service
The Advantages of an NP Managed CKD Program
Virginia Cox RN, MSN, CNN, APN-C, Sharon Flynn MS, RD, CDE, Judy Amir MSW, LCSW

Holy Name Medical Center
Improving Patient Outcomes by Utilizing an Interdisciplinary Approach to Phosphorus Management
Alice Hellebrand MSN, RN, CNN, CURN, Mary Cervino RN, Debra Wells BSN, RN, CNN

Jane H Booker Dialysis Center-Jersey Shore University MC
The Theory of Human Becoming: The Importance of Hope for Quality of Life In Patients With Chronic Disease and Depression
Rosemarie Rizzo Parse, Sara Jane Campbell, BSN, RN, CHN

Jane H Booker Dialysis Center-Jersey Shore University MC
Phosphorus and the Dialysis Patient
Beverly Crudup, CCHT, Jane Reinertsen, RD

Liberty Dialysis Runnemede
Advanced Directives
Jennifer Geiger, MSW, LSW

Morristown Memorial Hospital & Morristown Memorial Northwest Jersey Succasunna
The Impact of Patient Education on Phosphorus Levels in Hemodialysis Out-patients
Mary Buckley O'Dell, RN, MBA, CNN, Kathleen Vnenchak, BSN, RN, CNN
Phoebe Aliparo, BSN, RN,CNN, Madeline McLoughlin, BSN, RN, CNN,

Wellbound of Mercer
Critical Elements for Success: Peritoneal Program
Eileen MacFarlane, RN, BSN, CNN, Patricia Llewelyn, RN CNN, Anita Lipman, RN, BSN, MS

Registrants were asked to complete an evaluation of the event and to evaluate the effectiveness of Network activities over the last 12 months. The Network received a weighted 8.5 effectiveness score on a scale of 1-10. The participants were asked to select areas in which the Network could improve; staff education, patient education and quality improvement received 36%, 25%, and 21% of the responses respectively. During 2010, the NW provided seventeen educational programs for consumers and professionals along with educational information provided to the facilities for distribution to the patient, dialysis staff and nephrologists. The NW obtained the following continuing education hours: dietitians 9 CPEUs, nurses and technicians 22.75 CEUs, physicians 10.5 CMEs and social workers 9 CEUs. In response to this evaluation the Network has scheduled at least quarterly provider and patient education programs in 2011.

E. Improve the collection, reliability, timeliness, and use of data to measure processes of care and outcomes; to maintain a patient registry; and to support the goals of the ESRD Network Program.

Supportive Activities

The goal of improving standardization of information management within the Network consists of several measures.

SIMS

SIMS is an integrated system that provides communication and data-exchange links among the Networks, facilities, and CMS. Each Network has a local database where patient, facility, and facility personnel data are entered and maintained. Through an automated data transfer application, the SIMS database was replicated to the central repository on a nightly basis. Replication was checked daily to ensure that the process occurred successfully. This monitoring process continued through November 9, 2010 at which time replication monitoring was taken over by the CMS contractor, Buccaneer.

SIMS has the capability to produce various reports used by facilities to ensure facility reporting accuracy. In particular, the annual CMS-2744 form was completed, and used to validate patient activity throughout the year. The validated data is patient-specific and provides elements such as age, race, sex, ethnicity, diagnosis and modality/setting of care, as well as patients' county and state of residence. This information was used to reconcile the SIMS database.

SIMS was also used for receiving and processing notifications from CMS. Notifications are records in which particular elements, such as patient date of birth, date of death, first name, HIC number, most recent transplant date, most recent transplant failure date, sex, social security number, or surname are found to be different than what is on file with the Social Security Administration. QIRN3 sent these records to the appropriate facility once each month, where the facility verified the data, and returned to the Network office the correct information.

All data discrepancies were reviewed for validity and accuracy through notifications and discrepancies were resolved within the SIMS database. This process was run on a monthly basis. Data clean-up activities were also run on a monthly basis; utility logs showed resolved queries and any that needed to be addressed.

To accomplish accurate and timely data reporting, all facilities notified QIRN3 of all patient status changes on a monthly basis. Any changes in the dialysis caseload were noted, including:

- Newly-diagnosed consumers who started a regular course of dialysis;
- Changes in modality during the month (e.g., hemodialysis to CAPD);
- Changes in setting during the month (e.g., in-center patient who started home dialysis);
- Transfers into or out of the facility during the month;
- Returns to dialysis after renal transplant grafts failed;
- Restarts to dialysis after temporarily regaining kidney function;
- Patient deaths;
- Discontinuation of dialysis treatment;
- Patients who became lost to follow-up; and
- Patients who regained native kidney function to the extent that dialysis was stopped.

Data Reconciliation

Forms employed to maintain QIRN3's patient-specific data system included:

- Monthly Caseload Changes/Census form
- End Stage Renal Disease Medical Evidence Report: Medicare Entitlement and /or Patient Registration (CMS-2728)
- ESRD Death Notification form (CMS-2746)

Forms used to check and reconcile data that were submitted as required, included:

- ESRD Facility Survey (CMS-2744)
- Accretions lists from CMS
- Notifications from CMS
- Federal REMIS web site

QIRN3 staff validated and monitored the accuracy and timeliness of data submissions from all dialysis and transplant programs in New Jersey, Puerto Rico and the Virgin Islands. Facility compliance was monitored for each of the federal medical information system forms listed. Semiannually, the data file was run through customized programming. Two aspects of facility feedback were generated for each of the required forms:

- Compliance rate summary report
- Detail of each form submitted

The compliance rate summary report presented calculations of the total number of forms transmitted, the number of forms submitted that were within the 30 or 45 day goal, the number of forms with errors and the percent compliance by each facility. The detail report generated patient-specific information on each form.

Forms compliance reports were distributed to facility administrators with the request that they positively recognize those employees who achieved the reporting goal of submitting forms within 30 or 45 days of events. Alternately, if the compliance reports reflected forms that were overdue and outstanding, administrators were expected to follow-up with their employees to correct factors that affected non-compliance.

CMS Notifications

CMS notifications are requests for patient database validity information. Each month notifications were sent to those facilities where discrepancies were noted by CMS. Facilities then reviewed the element in question and either reported the value as correct or provided to QIRN3 with the corrected data element. The corrected/validated information was entered in the SIMS database, which ensured accurate data in the national database and REMIS.

End Stage Renal Disease Medical Evidence Report: Medicare Entitlement and /or Patient Registration (CMS-2728)

End Stage Renal Disease Medical Evidence Report: Medicare Entitlement and /or Patient Registration (CMS-2728) is the initial reporting form for all persons with end-stage renal failure who began a regular course of dialysis or had a renal transplant as a first form of therapy. The form was completed and submitted to QIRN3 by facilities and veterans' administration hospitals according to federal regulations. Submission is expected within 45 days of the start of renal replacement therapy whether or not the patient applied at that time for financial coverage under the federal Medicare program.

QIRN3 staff entered data from the forms into computer software supported by the federal government. If data required on the form were missing or incompatible with CMS software, the form was rejected by the software and returned to the facility for correction.

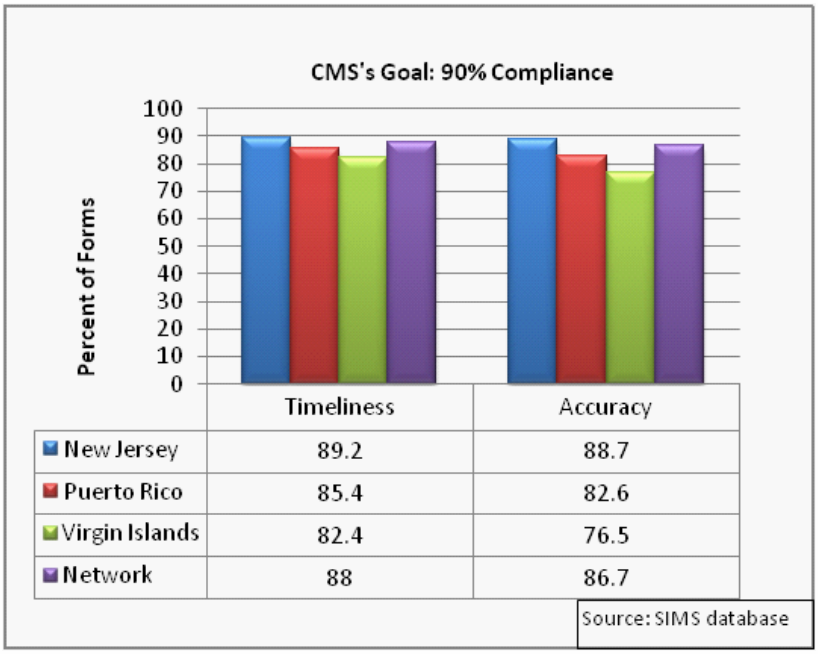
QIRN3's dialysis facilities submitted 5,099 Medical Evidence Reports (CMS-2728) during the year. Out of the forms submitted 4,486 (88.0%) were on time and 4,422 (86.7%) were accurate.

New Jersey facilities submitted 3,505 forms, of which 3,126 (89.2%) were submitted on time, and 3,108 (88.7%) were completed accurately.

Facilities in Puerto Rico submitted 1,543 forms of which 1318 (85.4%) were on time and 1,275 (82.6%) were completed accurately.

Fifty one forms were received from the Virgin Islands of which 42 (82.4%) were on time and 39 (76.5%) were accurate.

Figure 29. Percent of CMS-2728 Forms Received by Timeliness and Accuracy



ESRD Death Notification Form (CMS-2746)

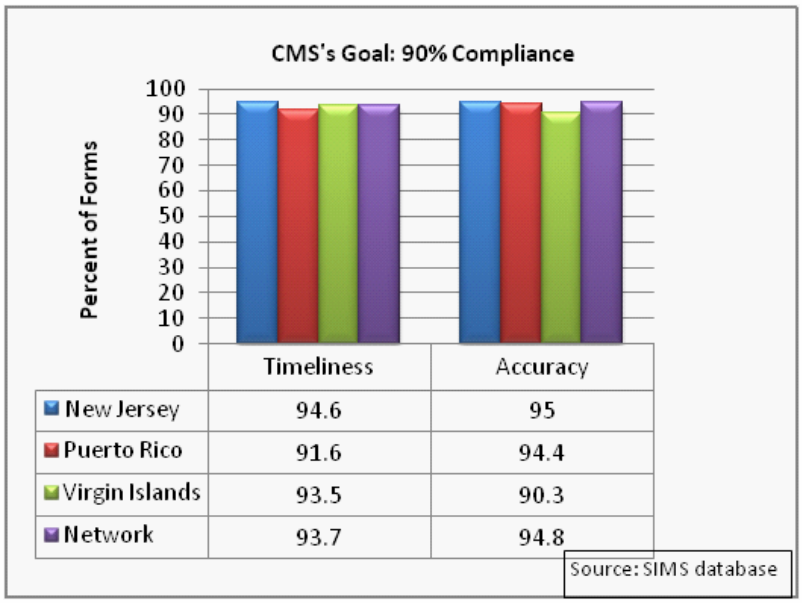
The ESRD Death Notification form is due within 30 days of a patient's death. QIRN3's 2746 forms compliance exceeded 90% in both timeliness and accuracy.

Facilities in Network Three submitted 3,737 death notification forms during the year, of which 3,502 (93.7%) were on time and 3,543 (94.8%) were accurate.

New Jersey dialysis units submitted 2,602 death notification forms during the year, of which 2,462 (94.6%) were on time and 2,473 (95.0%) were accurate. New Jersey exceeded both accuracy and timeliness goals.
Puerto Rico's dialysis programs submitted 1,104 death notification forms of which 1,011 (91.6%) were on time, and 1,042 forms (94.4%) were completed accurately. Puerto Rico also exceeded the goal for accuracy and timeliness.

The three Virgin Island facilities submitted 31 death notification forms of which 29 (93.5%) were received on time and 28 forms (90.3%) were completed accurately. Virgin Islands facilities also exceeded the goal for accuracy and timeliness.

Figure 30. Percent of CMS-2746 Forms Received by Timeliness and Accuracy



In addition to receiving, processing, and transmitting data reported on the federal medical information system forms, QIRN3 maintained a patient tracking system (SIMS) that tracked end-stage renal disease consumers through changes in treatment modality and setting. Changes in provider were also tracked. These activities were necessary to support federal quality projects and special studies. Monitoring patient events was also necessary for the reconciliation of the annual federal ESRD Facility Survey, preparation of facility profiles for goal achievement in home dialysis use and referral, and local quality of care improvement efforts.

Data accuracy and forms timeliness was reviewed biannually and documented. Both federal forms were profiled for compliance rate analysis.

UNOS

Renal transplant registrations and follow-ups were resolved through updates and verifications within the SIMS and UNOS databases. Data were received monthly from UNOS and entered into the SIMS database. Discrepancies were reviewed with transplant facilities and accurate reconciliation of patients was obtained through the SIMS report summary.

VISION

CMS requires that patient and physician signatures on 3% of all CMS-2728 (Medical Evidence Reports) forms submitted through VISION be verified annually. In 2010, QIRN3 received 1,122 CMS-2728 forms through VISION and thus were required to verify 33 forms; 42 forms were randomly requested and received from 33 facilities. All 33 forms had patient and physician signatures on them.

REMIS

The federal REMIS system is an important component of the CROWN system and is based on federal billing records. Data entered into SIMS by QIRN3 staff can be viewed there, as can data sent from sources such as CMS, the Social Security Administration, and UNOS. The data can be used to resolve discrepancies and complete patient event histories.

Network staff used the Alerts tool in REMIS to identify incorrect patient identifiers and maintain a more accurate data set. Out-of-area transfers were verified in this database.

CROWNWEB

CROWNWeb is a Web based application that is part of the CROWN application suite which includes: SIMS, REMIS, and VISION. It supports the collection of patient records, clinical performance measures, and facility data and will ultimately replace SIMS and VISION. In 2010, the data management staff at Network Three took part in many CROWNWeb Phase II activities including: data entry and data discrepancy resolution, facility support, facility recruitment and more.

Throughout 2010, Network Three worked to register QualityNet Identity Provisioning System (QIPS) security administrators for nearly every facility in the Network. QIPS is the main user administration interface that is used by CROWNWeb to create new user and security administration accounts. At the end of 2010, 94.5% of Network Three facilities were registered with QIPS Security Administrator Accounts.

Network Three also recruited facilities for the next planned phase in CROWNWeb, Phase III, which increased the number of facilities participating from 10 (Five large dialysis organizations and five independent organizations) to 20 (10 dialysis organizations and 10 independent). This phase of CROWNWeb was not deployed in 2010, but Network Three met CMS expectations by enlisting the facilities required.

Effectiveness

All tracking databases must have current, accurate information and facility cooperation is essential to this effort.

QIRN3 continued to support VISION software by training facility staff in existing facilities when assigned staff changed. No new VISION facilities were trained in 2010.

Consumer Impact

An accurate database is essential for the analysis of clinical indicators. Performance analysis activities utilize current, reliable data to monitor clinical patient outcomes. QIRN3's efforts to improve data accuracy enhanced data reliability and assured appropriate facility review with improvement plan oversight.

Accurate and timely reporting of patient data is essential for determining the starting date of Medicare coverage. QIRN3 continued to maintain a database high in accuracy and timeliness.

IV. SANCTION RECOMMENDATIONS

No recommendations for sanctions were made in 2010.

V. RECOMMENDATIONS FOR ADDITIONAL FACILITIES

In all three geographic areas, access to dialysis therapies is within reasonable travel distances from ESRD consumers' homes. No additional New Jersey, Puerto Rico, or Virgin Islands dialysis facilities were recommended.