



Trans-Atlantic Renal Council

2007 Annual Report

ESRD Network 3
Contract Number: 500-03-NW03

Submitted to:

Kathleen Egan, Project Officer
CMS/Division of HSQ
Boston, MA

Submitted by:

Trans-Atlantic Renal Council
109 South Main Street, Suite 21
Cranbury, NJ

June 30, 2008



I. Preface

I am pleased to submit this annual report of performance and achievement on behalf of the Board of Trustees, Medical Review Board and all ambulatory renal care facilities in New Jersey, Puerto Rico and the Virgin Islands.

Fistula rates have improved significantly although more needs to be accomplished to attain the 2009 goal of 66% in prevalent patients. More facilities have exceeded the national goal than in 2006, demonstrating that team work coupled with technical ability and cooperation can make a difference. The New Jersey Renal Coalition will continue to assist through outreach and education with primary care practitioners and patients in the early stages of chronic kidney disease so that fistulas are placed before dialysis is imminent.

The effort to reduce the number of long-term catheters in use will continue since it parallels activities aimed at increasing the number of fistulas in use, preferably inserted before the initiation of treatment.

The expected levels of treatment adequacy and anemia management are being maintained in the majority of cases as well as transplant referrals.

The newly reconstituted patient advisory committee provided consumer perspective to projects and activities, especially in patient education, that contributed to goal attainment.

Finally, I would like to express our appreciation to network staff who coordinate and support all the administrative work we perform.

We look forward to the continuation of this partnership with the Centers for Medicare & Medicaid Services, facility staff, consumers, departments of health and other interested agencies as we begin another phase of health care quality improvement projects.

Toros Kapoian, MD
President, Board of Trustees

June 30, 2008

Table Of Contents

I. Preface	ii
II. Introduction	1
A. Network Description.....	1
B. Network Structure.....	10
1) Staffing.....	10
2) Names And Titles Of Staff.....	10
3) Key Responsibilities.....	10
4) Committees	12
5) Functional Description	13
III. CMS National Goals And Network Activities	21
A. Improve the quality and safety of dialysis related services provided for individuals with ESRD;	21
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	39
C. Improve patient perception of care and experience of care and resolve patient complaints and grievances; and,	46
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 the associated possibilities/capabilities.	51
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.	54
IV. Sanction Recommendations	59
V. Recommendations For Additional Facilities.....	60
VI. Data Tables	60
VII. Appendix: Data Management.....	111

Tables And Graphs

Map of New Jersey	1
Number of New Jersey ESRD Facilities Network 3	3
Setting Distribution of New Jersey Dialysis Cases	3
Renal Transplants Performed in New Jersey by Type	5
Map of Puerto Rico	5
Map of U.S. Virgin Islands.....	6
Population of the U.S. Virgin Islands – 1990 & 2000.....	6
U.S.V.I. Population by Age.....	7
Setting Distribution of Virgin Islands Dialysis Cases	8
Setting Distribution of Puerto Rico Dialysis Cases	8
Renal Transplants Performed in Puerto Rico by Type	9
Trans-Atlantic Renal Council Staffing Structure	12
Average % Fistula Improvement Post Intervention.....	22
AVF Improvement in Hospital-Based Facilities.....	23
Average % Catheter Reduction Post Intervention	24
% Decrease in Catheters >90 Days.....	24
Catheter Reduction in Hospital-Based Facilities.....	25
Vascular Access Type in Use in Network 3 by % of Patients	26
Vascular Access Type in Use in New Jersey by % of Patients	27
Vascular Access Type in Use in Puerto Rico by % of Patients	28
Vascular Access Type in Use in Virgin Islands by % of Patients.....	28
Number of Clinical Performance Measures Participants	29
Percent of Hemodialysis Patients with Urea Reduction Ratios \geq 65%	30
Percent of Hemodialysis Patients with Hemoglobin Values \geq 11 gm/dL	31
Percent of Hemodialysis Patients with Albumin Values >4.0 Gm/dL.....	31
Percent of Prevalent Hemodialysis Patients with a Fistula Access	32
Percent of Prevalent Hemodialysis Patients with a Catheter Access.....	32
National CPM Peritoneal Dialysis Adequacy Results	32
Percent of Adult Peritoneal Dialysis Patients with Treatment Adequacy Measurements.....	33
Progress Toward Meeting CMS/TARC Goals.....	34

NonTunneled and Subclavian Catheter Reduction.....	36
2007 Monthly Total Number of Incident Patients with Subclavian Catheters.....	37
Percent of Home Patients by year in Network 3	42
Effectiveness of Site Visits	44
Patient Complaints/Grievances Category Distribution.....	47
Patient Complaints and Contacts, 2006 and 2007	49
TARC Web Visits	50
Percent of CMS-2728 Forms Received by Timeliness and Accuracy	56
Percent of CMS-2746 Forms Received by Timeliness and Accuracy	57
DATA TABLE 1: ESRD Incidence.....	62
DATA TABLE 2: ESRD Dialysis Prevalence.....	64
DATA TABLE 3: Dialysis Modality: Self-Care Settings - Home	66
DATA TABLE 4: Dialysis Modality: In-Center	71
DATA TABLE 5: Renal Transplants: Number Performed and Patients Waiting.....	76
DATA TABLE 6: Renal Transplants: by Type, Age, Race, Sex, and Primary Diagnosis	77
DATA TABLE 7: Dialysis Deaths	79
DATA TABLE 8: Vocational Rehabilitation	81
Facility Codes (for use in reading graphs)	88
Transplant Activity Profile.....	90
Goal Achievement in Home Dialysis.....	92
Goal Achievement in Federal Forms Submission: Medical Evidence Reports.....	94
Goal Achievement in Federal Forms Submission: Death Notices	103

II. Introduction

A. Network 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. Although New Jersey is geographically one of the smallest states in the nation (it ranks 46), it is the ninth most populous, with approximately 8.7 million residents. There are 1,176.2 inhabitants per square mile of land area - the most densely populated state in the nation.¹ The population is expected to increase 24% by 2030.

California and New Jersey are the only two states with a population that is 94.4% urban. The District of Columbia ranks higher at 100% urban.

Not all age groups are equally constituted. The under-5 age group constitutes 6.7% of the resident population; the 5-17 age group accounts for 18% of the population; the 18-24 group for 8.5%, the 25-44 age group for 28.9%, the 45-54 for 14.7%, the 55 to 64 group for 10.1% and the 65+ group for 13% of the population. It is important to note that from 1990 to 1998, the 85 and older age group increased by 38%. This growth in the aged population among the residents of New Jersey contributes to the increase in the mean age of consumers presenting for renal therapy due to end-stage disease.

The population is reported to be 76% white, 14% black, 7% Asian and 3% 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 14.5% of the population within New Jersey, and Hispanics of Puerto Rican decent comprise more than 33% of all Hispanic residents. The largest increase of New Jersey's Hispanic residents occurred in Hudson and Passaic counties.



New Jersey is surpassed by only 6 other states in the proportion of resident Hispanic or Latino residents; California (34.3%), Texas (33.6%), Arizona (27.7%), Florida (18.6%), Illinois (13.6%) and New York (16.3%) surpass New Jersey's 13.3% resident Hispanics and Latinos.

For the year 2003, New Jersey remained fifth in the number of immigrants admitted from other countries and was surpassed only by the states of California, Florida, New York and Texas. The US Census Bureau reported the admission to New Jersey of 40,699 immigrants from other countries, with 7,442 from India, 3,956 from the Dominican Republic, 2,639 from the Philippines, 1,922 from Columbia, 1,686 from China, 631 from El Salvador and 431 from Vietnam. Foreign-born residents account for 17.5% of the state's population, exceeded only by California (26.2%) and New York (20.4%).

¹ All demographic data are taken from the *Statistical Abstract of the United States:2008-127 ed.*, US Census Bureau, Washington, DC, 2007, and earlier editions unless otherwise noted.

The state ranked eighth in the number of unauthorized immigrants, surpassed by California, Texas, New York, Illinois, Florida, Arizona, and Georgia. Mexico was identified as the country of origin for 69% of these persons.

New Jersey ranks third, after California and New York, with 19.5% foreign-born population compared with 27% in California and 21% in New York.

In 1998, the latest available census data showed New Jersey per-capita personal health-care expenditures (\$2,900/resident) were exceeded only by the states of Connecticut (\$3,298), New York (\$3,255), Pennsylvania (\$2,941) and Rhode Island (\$2,937). The major portion was spent on hospital services followed by physician services, drugs and non-durables, nursing home care, other professional services, dental services, home health care, other personal health care and medical durables.

Health insurance coverage in 2005 did not extend to 14.5% of the New Jersey population; the national average was 15.3% and 14.0% in 2000. Children not covered in New Jersey in 2005 constituted 10.5%, and 9.3% in 2000; the national average was 10.9% in 2005 and 11.6% in 2000.

The New Jersey population estimated to be below the poverty level in 2005 was 6.8% while the national rate was 10.2%; five states had lower rates than New Jersey's. In 2006 New Jersey ranked second, after Connecticut, in per capita personal income, which is the same as was seen in 2000.

INCIDENCE OF RENAL DISEASE IN NEW JERSEY

According to the 2007 ESRD Facility Survey, 3,527 people initiated therapy compared to 3,401 in 2005, and 3,251 in 2004. 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 2007, 58% were 65 years or older, and 46% were 70 years or older. Twenty-one percent were ≥80 years old compared to 18% in 2006.

USRDS 2005 data show the adjusted incidence rate was 368.7/m compared to 356.1 in 2000.²

Other characteristics of the New Jersey incident population closely mirror national new case renal statistics: 52% were male and 48% female; 29% black and 66% white.

Among incident cases, the most frequently reported primary diagnoses were diabetes (44%) and hypertension (27%). Collectively, these two diagnoses represented the largest proportion of new cases in 2006.

RENAL THERAPY IN NEW JERSEY

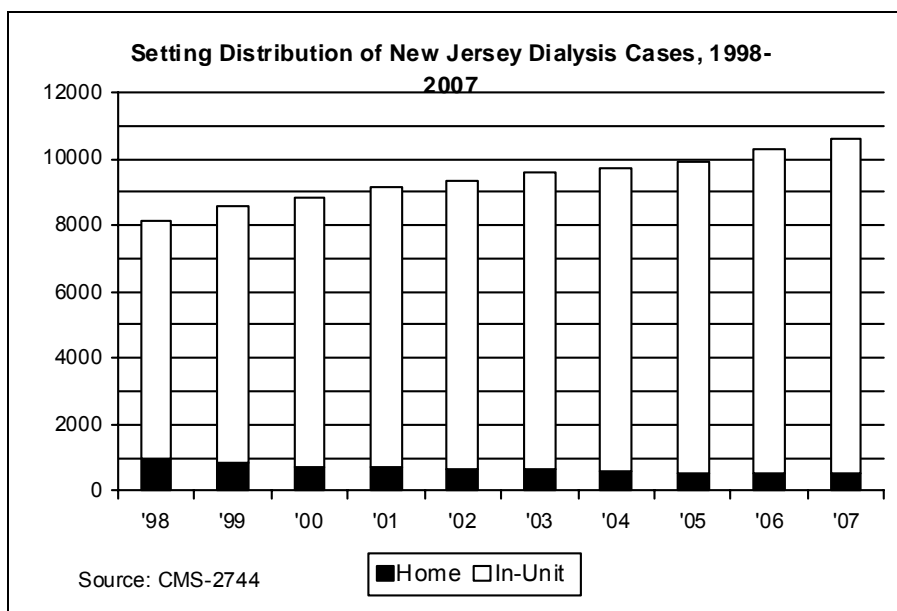
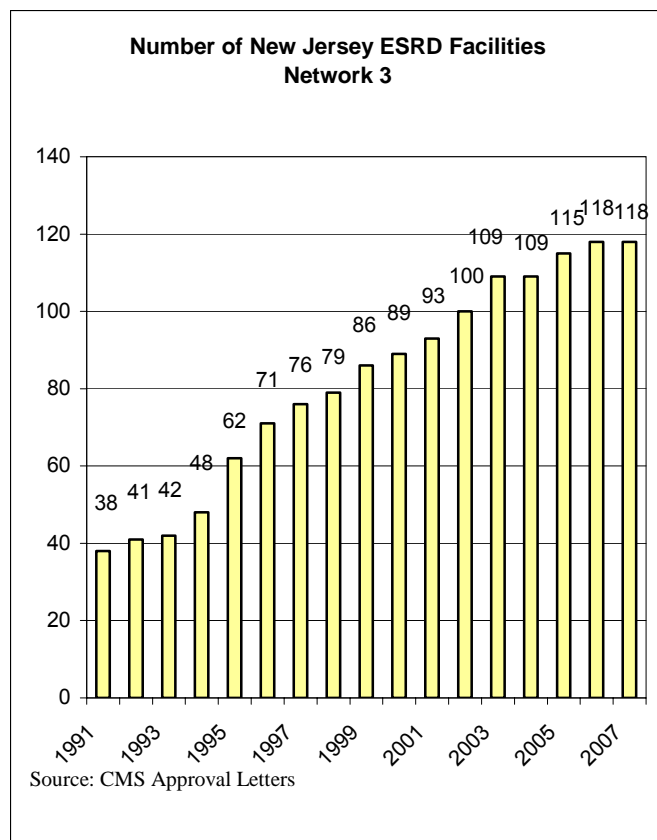
The New Jersey Department of Health regulated the approval of all new ESRD providers and expansion of services through the certificate-of-need process until January 1992. Since that time, chronic ambulatory dialysis was no longer subject to certificate-of-need requirements. The number of facilities increased from 38 in 1991 to 118 (not including a non-Medicare certified ESRD veterans' hospital) in 2007.

² US RenalData System, *USRDS 2007 Annual Data Report Atlas of Chronic Kidney Disease and End-Stage Renal Disease in the United States*, NIH, NIDDK, Bethesda, MD. 2007, Vol II, Table A9, p.30.

In 2007, the total approved station count rose to 2,160 from the prior year's 2,133 in 121 Medicare-certified facilities. Most facilities are no longer hospital-based since 84 freestanding clinics and 10 hospital satellite facilities provide service. There were 25 hospital-based facilities and one veteran's administration hospital, which is not a participant in the Medicare program.

Almost all facilities were approved to provide staff-assisted hemodialysis except for 2 peritoneal dialysis-only units. Of the facilities offering home dialysis 31% had CAPD/CCPD patients; 11% had hemodialysis home patients. These services reflect the choices among patient and physician preferences for therapy and were available throughout the state.

Staff-assisted hemodialysis, favored by 95% of ESRD consumers (83% in 1996), remained the dominant therapy in the state. Continuous cycling peritoneal dialysis (CCPD) became the dominant home therapy (n=381), with continuous ambulatory peritoneal dialysis (CAPD) the second most prevalent (n=126). Home hemodialysis accounted for only 42 cases statewide in 2007.



PREVALENCE

The USRDS published adjusted annual point prevalence rates/million population for 1995-2005 by state. New Jersey results were 784, 799, 825, 851, 884, 900, 921, 937, 961, 981 and 1,005, respectively.

The 2007 New Jersey prevalent caseload increased 3% over the prior year. Of the approximately 10,600 prevalent consumers receiving dialysis in New Jersey, 57% were male and 43% female. Forty-two percent of the population on dialysis was black, 52% white, with other racial groups constituting the remainder.

Thirty-eight percent of the consumers receiving chronic dialysis in New Jersey during 2007 were seventy years or older; 61% were aged sixty years or older. The aged population continues to be the fastest growing segment both receiving long-term chronic care and initiating treatment.

Diabetes was the most frequently reported primary disease of all prevalent consumers on dialysis at 42%. Hypertension followed at 29% of the caseload and "other" ranked third at 12%. The majority of consumers (71%) in treatment were diagnosed with either diabetic nephropathy or hypertensive disease—the two leading national risk factors for ESRD.

The mean age of the prevalent patient population in 1980 was 49.6, in 1990 it was 53.4, in 2000 56.9 and in 2004 it was 57.8 showing a steady progression toward an older population.

MORTALITY DATA

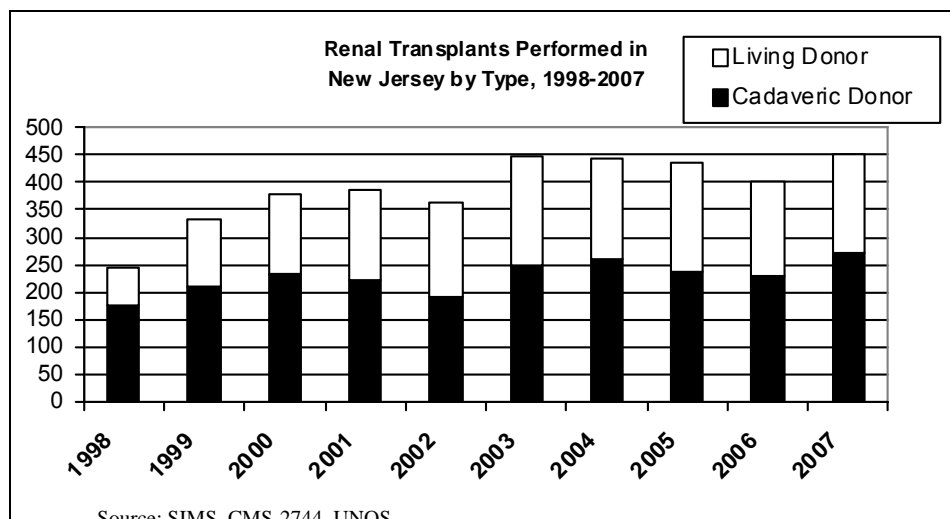
Death notification reports for New Jersey ESRD consumers were analyzed by sex, race, and cause of death. The primary cause of death reported in 2007 continued to be cardiac (47%), which again reflected national data. Infection was reported as primary cause in 17% of the 2535 death records received. Of all deaths reported in 2007, 65% were white, 31% black; 56% were male, 44% female. Primary diagnoses among deaths reported were diabetes (43%), hypertension (32%), glomerulonephritis (7%), polycystic disease (1%), and other/unknown.

TRANSPLANTATION

Five 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 as well. 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 2007, 452 transplants were performed in New Jersey at federally certified ESRD renal transplant centers, a 13% increase from 2006 total of 401 transplants. Of the 452 transplant procedures performed within New Jersey, 60% (289) had cadaveric donors and 183 had living donors.

The number of consumers on a waiting list in New Jersey decreased slightly to 2,676. 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.



Puerto Rico and the Virgin Islands

Geography and General Population Characteristics

Puerto Rico

Similar to New Jersey, Puerto Rico is densely populated (1,124/sq. mi.) with land area covering nearly 3,425 square miles and an estimated 2004 population of 3.944 million². There were 1,027.9 inhabitants per square mile according to the 2000 census. Between 1990 and 2000, the population increased 8%.



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.

Tectonic plate locations near the island make it susceptible to earthquakes, landslides and tsunamis, with the last major earthquake estimated at 7.5 on the Richter scale in 1918. Droughts are one of the naturally occurring hazards to the local population. Sediment buildup (60% storage reduction over the last 50 years) in reservoirs reduced the holding capacity of several major water supplies. Reclamation efforts are underway and should reduce the periodic threat to potable water supplies. The U.S. Geological Survey

² Source: *Statistical Abstract of the United States: 2008*, US Census Bureau, US Dept of Commerce, 2008

works with 15 local agencies to operate a real-time hazard alert network concerned with rainfall, stream flow, lake levels and beach erosion from catastrophic events³.

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. In later years, other European immigrations from Corsica, France, Scotland, Ireland, Africa, Germany, China and Portugal to the island were recorded.

Tourism and manufacturing, particularly pharmaceuticals, are prime economic engines on the island. One in every four Hispanic families lives at the federal poverty level, with average earnings well below the U.S. national average. Forty percent of all households rely on some form of public assistance. The average monthly benefit paid to retired workers is \$527. The average annual employee compensation reported by the most recent Bureau of the Census publication (2000) was \$20,064; the average family income was \$33,559.

The U.S. Virgin Islands

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. The governor and lieutenant governor are elected for four-year terms.

The land area covers 134 square miles with an overall population estimated to be 109,000. There were 810 residents/sq. mi. in 2000. 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.



Storms and hurricanes have done significant damage in the past, closing the port to cruise ships for several years. These remain a threat during storm season.

Population of the US Virgin Islands, 1990 and 2000

Island	1990	2000	2007	% change
St. Croix	50,139	53,234		6.2
St. Thomas	48,166	51,181		6.3
St. John	3,504	4,197		19.8
All	101,809	108,612	108,000	6.7

Source: US Census Bureau, *Statistical Abstract 2004-2008*.

³ Source: GSA Center, US Geological Center, *Island hydrology: Puerto Rico and the US Virgin Islands*, at <http://pr.water.usgs.gov/public/webb/webb010>

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%)⁴. 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 higher than the mainland at 10.6%³.

US Virgin Islands Population by Age Group, 2000 and 2006

Age Group	2000	2006
0-24	42,855	37,792
25-54	44,883	43,286
55-64	11,652	14,630
65-74	5,931	8,096
75-79	1,626	2,217
80+	1,690	2,427
All	108,637	108,448

Source: US Bureau of the Census, International Database.

Renal Disease: Puerto Rico and the U.S. Virgin Islands

The number of newly diagnosed ESRD cases, was 1,339 in Puerto Rico and 48 in the Virgin Islands. Sixty-five percent of the newly diagnosed in Puerto Rico and 63% in the Virgin Islands were reported to have a primary diagnosis of diabetic nephropathy. This continued to parallel the national trend of the growing number of diabetics starting dialytic therapy and represents a marked increase from 1990 when diabetes as the primary cause in new cases was only 45%. Hypertension was the second highest reported diagnosis at 14% and 8% with glomerulonephritis of the newly diagnosed caseload in Puerto Rico, with comparable rates in the Virgin Islands of 19% and 6% respectively.

These rates vary when analyzing the data received on all prevalent consumers alive at year-end 2007 on the islands. At year-end, 4,031 consumers received treatment, compared to the prior year 3,928, a 3% increase from 2006 in Puerto Rico. Of these consumers, 58% reported diabetes as primary cause of renal failure, 12% glomerulonephritis, and 15% hypertensive disease. Comparable rates for the Virgin Islands were 48%, 10% and 31%. The majority of consumers in Puerto Rico were reported as white (60%), racially mixed (34%) and male (61%). In the Virgin Islands, 84% were African American and 61% male.

Age grouping was similar for both new cases and the prevalent patient population on the islands. In Puerto Rico, the incident and prevalent populations in the 50-69 age group were largest, 50% and 54% respectively. Twenty-nine percent of prevalent cases are between the ages of 30 and 54. Twenty-four percent of the incident cases are aged 70 or more.

In the Virgin Islands, the incident and prevalent populations in the 60-74 age group were largest, with 44% and 45% respectively. Twenty-nine percent of prevalent cases were between the ages of 30 and 54. Twenty-nine percent of the incident cases were aged 70 or more.

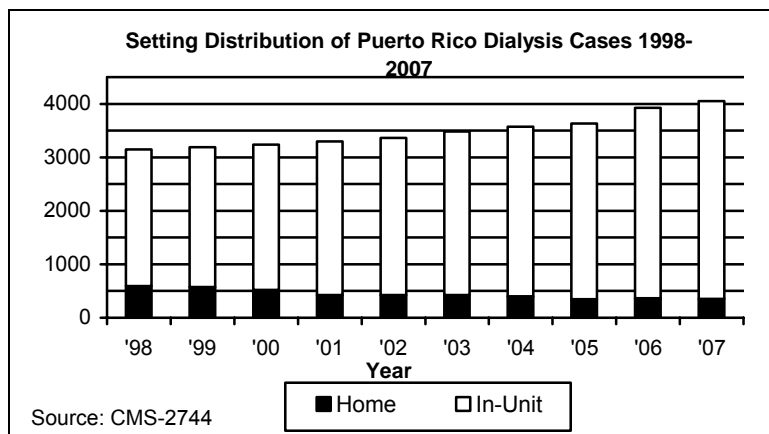
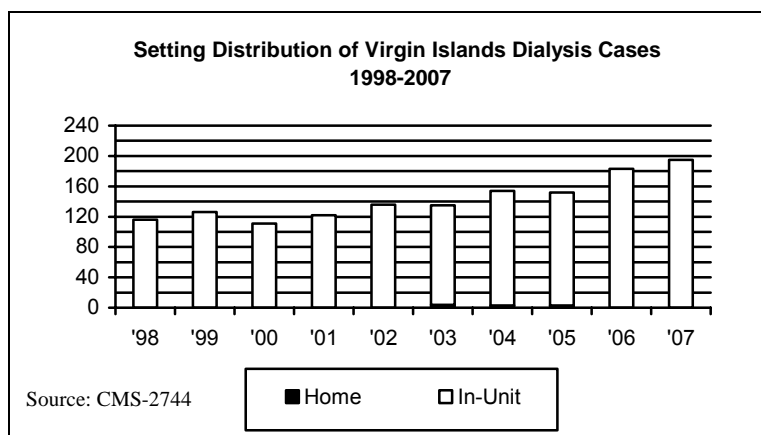
The primary cause of death for ESRD consumers treated in Puerto Rico at year-end was cardiac (36%), followed by infection (32%). The primary cause of death for ESRD consumers treated in the Virgin Islands at year-end was cardiac (29%); infection ranked second (21%).

⁴ Source: www.infoplease.com/ipa/A0113951; www.cia.gov/cia/publications/factbook/print/vq

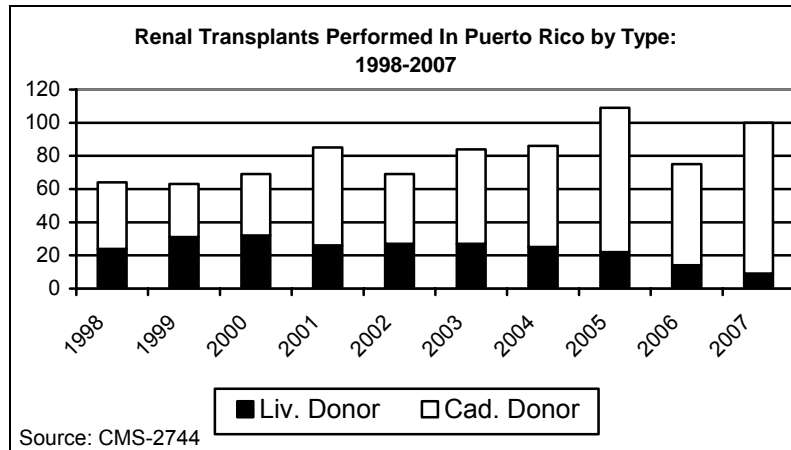
Treatment Modalities

Thirty-six facilities were approved to provide dialysis services on the island of Puerto Rico, one transplant center, and a non-Medicare veterans' hospital; 3 dialysis facilities were approved in the Virgin Islands. Twenty-nine facilities located on Puerto Rico were freestanding clinics and 7 were hospital-based units and a veterans administration hospital. The station count increased in 2007 to 750 from 734 in (inclusive of Puerto Rico and the Virgin Islands). The three facilities on the Virgin Islands had a total of 30 stations and 196 cases at year-end.

Treatment choice by 3,697 (91%) consumers in Puerto Rico and all consumers in St. Thomas and St. Croix continued to favor staff-assisted hemodialysis. Self-care training in CAPD, CCPD and home hemodialysis was provided in Puerto Rico. Eighty-three percent of the home population in Puerto Rico was on home CCPD. In 2007, 293 consumers were on CCPD and 57 consumers were on CAPD; 2 consumers used home hemodialysis. The combined total of consumers on various forms of home dialysis in Puerto Rico was 352 in 2007, 363 in 2006, 400 in 2004, 521 in 2000, and 679 in 1998. In St. Croix, no consumers were on CAPD or CCPD.



In 2007, 100 transplants were performed in Puerto Rico's one Medicare-approved transplant center in which was an increase of 33% above 2006 level. Of these procedures, 91 were from cadaveric donors and 9 from living donors. There were 453 consumers on an active waiting list which is a slight decline from the previous year's 481.



Formerly, the organ procurement agency was located at the transplant hospital and was part of that organization. In 1996, a separate agency, Life Link of Puerto Rico, was established, which is affiliated with Life Link of Florida.

B. Network Structure

1) Staffing

Professional and clerical staff conducted daily activities of the network organization under the direction of the Board of Trustees and in accordance with federal guidance.

2) Names and Titles of Staff

Cheryl Brown <i>Data Clerk</i>	Beverly Hoek <i>QI Administrator</i>	Tricia Phulchand <i>Office Manager</i>
June Chronic Huhn <i>Patient Services Coordinator</i>	Chris Brown <i>Data Manager</i>	Patricia Llewelyn <i>QI Coordinator Community Outreach Coordinator</i>
Patricia Dorsa <i>Bookkeeper</i>	Joan Solanchick <i>Executive Director</i>	Amy Yeager <i>Clerk</i>

3) Key Responsibilities

Joan Solanchick, MSW, RN, Executive Director

Administered the financial and operational aspects of the contract, provided advice to the Board of Trustees and Network Council on goals, objectives, work plans, policies and procedures; maintained external relations through ongoing communication with other agencies, state programs and the general public; processes all patient grievances following established procedures, and supervised daily operations.

Beverly Hoek, RN, CNN, Quality Improvement Administrator

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.

Patricia Llewelyn, RN, CNN, Quality Improvement Coordinator (part-time)

Assisted with the conduct of improvement activities, including data collection, analysis and writing reports. Performed on-site facility visits, did clinical data review, responded to consumer problems and assisted with the clinical performance measures project.

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.

June Chronic Huhn, MPA, RN, CNN, Patient Services Coordinator

Assumed a proactive role in the facilitation and resolution of patient and/or facility situations. Maintained a computerized log of contacts in SIMS. Coordinated Patient Advisory Committee and appropriately focused their activities. Wrote patient newsletters and developed or identified new educational material for dialysis unit personnel and patients. Through educational programs promoted an increased awareness of treatment options and rehabilitation.

Chris Brown, BS, 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 of patient data and security, maintenance of computer systems and updated the patient and facility-specific database; served as a resource to providers and network staff.

Cheryl Brown, Data Clerk

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; and, 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 and part-time clerk. Monitored all project submissions as well as assisted in the implementation of facility transmission of VISION data and monitored complete and timely data submission. Assisted in meeting arrangements, supervised all bulk mailings and supported QI activities.

Amy Yeager, Clerk

Performed data entry of medical forms, provided copying and mailing support, assisted the office manager with QI activities.

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

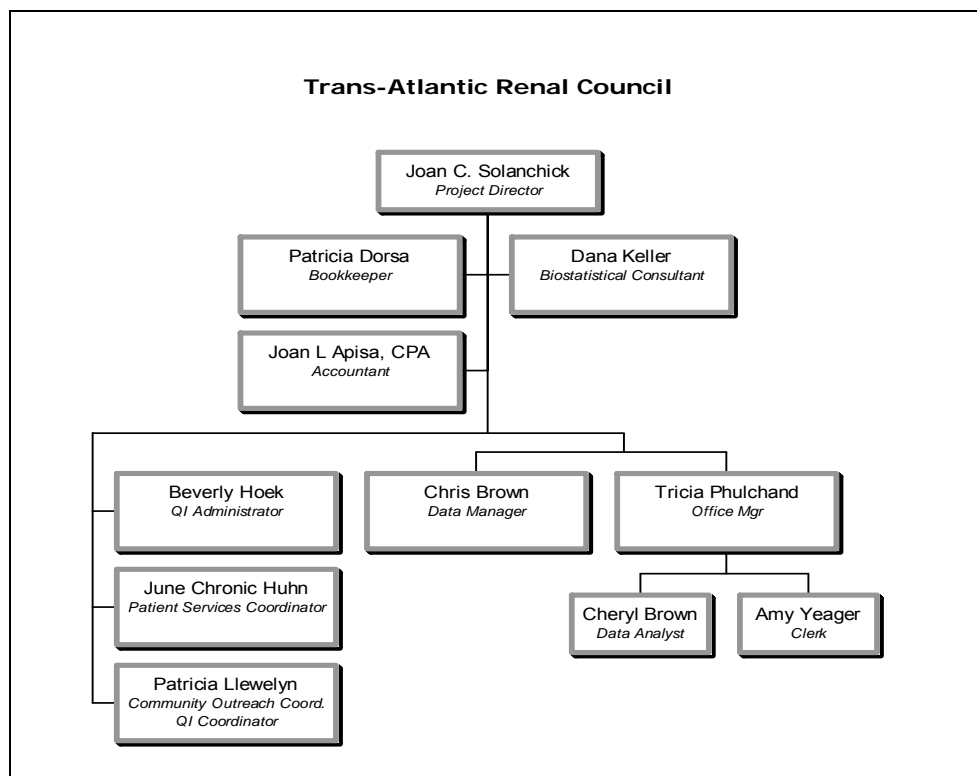
OPERATIONS

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 clinical performance measures project, 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 diskettes 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.



Network staff conducted ongoing data collection and processing, review of compliance with federal requirements as well as network goals and objectives, and distribution of pertinent information to all facilities within the defined geographic region.

The Council of member facilities provided the direction for monitoring performance outcomes and measuring the quality and appropriateness of care. The Medical Review Board and the Board of Trustees provided advice and expertise to achieve improvements in patient care. In addition, a resource pool of knowledgeable consumers and other highly skilled clinical nephrology professionals (physicians, registered nurses, social workers and dietitians) was developed to act in a consulting role for periodic review of educational materials, special studies, core indicators and speakers at educational meetings.

This resource pool has been valuable in assisting staff to test new data requirements and changes in quality improvement activities, and to analyze the impact of advancing technology or areas of interest. All board and committee members serve voluntarily with no compensation.

4) Committees

The basic committee structure included the Board of Trustees, the Medical Review Board and the Patient Advisory Committee. Other committees and subcommittees are established when the need arises.

5) Functional Description

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.

The Council was composed of thirty-three (33) regular members: twenty-four (24) from New Jersey, six (6) from Puerto Rico/Virgin Islands, and three (3) consumers. The formal Council representatives reflect the geographic area encompassed by the network as well as the various disciplines and types of facilities contained within the network. All Council members were selected from volunteers and approved by the Board of Trustees. Liaison members from governmental and voluntary agencies affiliated with the care of ESRD consumers were invited. Council meetings are open and a significant number of the renal community attends the annual meeting. The following chart illustrates the Council's composition.

North NJ	South NJ	Puerto Rico	Virgin Islands
2 consumer	1 consumer		
10 physicians	4 physicians	2 physicians	1 physician
3 registered nurses		2 registered nurses	
1 social worker	1 social worker		
2 administrator	1 administrator	1 administrator	
1 dietitian	1 dietitian		

Council formal representation by type of facility follows:

	New Jersey	Puerto Rico	Virgin Islands
Hospital-based	7	1	1
Non-profit satellite	4		
Corporate provider	13	4	
Patients	3		

Members included:

Alexandre Ackad, MD
Nephrologist
Hackensack University MC
Hackensack, New Jersey

Rosemary Acuna, RN
Kidney Transplant Patient
Livingston, New Jersey

Kevin Barber, MD
Nephrologist
Bridgeton South Jersey Hospital
Bridgeton, New Jersey

David Blecker, MD
Nephrologist
DCA Vineland
Vineland, New Jersey

Raphael Burgos Calderon, MD
Nephrologist

Toros Kapoian, MD
Nephrologist
Robert Wood Johnson U MC
New Brunswick, New Jersey

Phyllis Leggett, MSW
Social Worker
DCA Manahawkin
Manahawkin, New Jersey

Mary Lorenzo, MSW
Kidney Transplant Patient
Matawan, New Jersey

Neil Lyman, MD
Nephrologist
ST. Barnabas MC
Livingston, New Jersey

Phyllis Micchelli, LCSW
Social Worker

Atlantis Mayaguez
Mayaguez, Puerto Rico

John Capelli, MD
Nephrologist
Our Lady of Lourdes Hospital
Camden, New Jersey

William Chenitz, MD
Nephrologist
FMC Irvington
Irvington, New Jersey

Kim Davis, RN
Administrator
Lillian Booth Dialysis Unit
Westwood, New Jersey

Debra DiNuzzo, RD
Renal Dietitian
DVA Atlantic AAKC
Eatontown, New Jersey

Luis Emanuelli, MHA
Chief Executive Officer
Fresenius Medical Care
Puerto Rico

Paul Fine, MD
Nephrologist
Morristown Memorial Hospital
Morristown, New Jersey

Noemi Figueroa, BSN
Nurse manager
FMC Carolina
Carolina, Puerto Rico

Melvin Goldblat, MD
Nephrologist
Newark Beth Israel MC
Newark, New Jersey

Stuart Homer, MD
Nephrologist
DVA Perth Amboy
Perth Amboy, New Jersey

Wishburne Hunte, MD
Nephrologist
Roy Schneider Hospital
St. Thomas, USVI

Kevin James, MD
Vascular Surgeon
Morristown Memorial Hospital
Morristown, New Jersey

FMC East Orange
East Orange, New Jersey

Robert Motacki
Administrator
DCI North Brunswick
North Brunswick, New Jersey

Kenneth Noonan
Hemodialysis Patient
Neptune, New Jersey

Linda Powell, RD
Renal Dietitian
DCI Princeton
Princeton, New Jersey

Robert Rigolosi, MD
Nephrologist
Holy Name Hospital
Teaneck, New Jersey

Carlos Rivera, MD
Nephrologist
FMC San Juan
San Juan, Puerto

Paula Ruiz de Somocurio, RN
Administrator
Hackensack Medical Center
Hackensack, New Jersey

Marien Saade, MSN, CNN
Administrator, Lifelink
San Juan, Puerto Rico

Judith Scerbo
Regional Director
DVA Dialysis Centers, NJ

Judith Semptimphelter
Area Administrator
FMC Medical Care
New Jersey

Richard Sherman, MD
Nephrologist
Robert Wood Johnson U MC
New Brunswick, New Jersey

Ronald Zanger, MD
Nephrologist
DVA Cherry Hill
Cherry Hill, New Jersey

Suzanne Juliano, RN
Administrator
Holy Name Hospital
Teaneck, New Jersey

The Council met one time. Comparative data on local and national goal attainment were discussed and the following educational programming about new technology and areas of clinical relevance was provided. The meeting was held on October 24, 2007, at the Sheraton Woodbridge Place, Iselin, New Jersey. Topics and speakers were:

<i>Quality Improvement</i>	Toros Kapoian, MD <i>President, Board of Trustees</i>
<i>Vascular Access in the United States: Trends and Association with Outcomes</i>	Robert N. Foley, BSc, MSc, MB BCh, BAO, FRCPI, FRCPC Deputy Director United States Renal Data System Hennepin Faculty Associates
<i>MRSA Infections in Renal Dialysis Patients</i>	Jeremias L. Murillo, M.D. Hospital Epidemiologist Newark Beth Israel Medical Center
<i>Management of Hemodialysis Catheters: Including Monitoring of Catheter Infections</i>	Lucille Plantemoli, RN, MPH, CI Infection Control Consultant

Presentation of the *Ahmet B. Ahmet Award* to a consumer elected by the Boards from the many deserving nominations submitted by facility staff was a meeting highlight.

Fistula First Commendation Awards were given to six facilities for having made and sustained significant progress among TARC's one hundred forty-five facilities in improving the rate of arteriovenous fistula placement. The awards were given to: *Renal Care Group of Elizabeth, St. Joseph Hospital and Medical Center Facilities, Renal Ventures of Newton Dialysis Center, FMC of Hoboken Dialysis Center, Cayey Dialysis Center, FMC of Aguadilla Dialysis Center.*

Facility staff are invited each year to highlight specific internal quality projects for the benefit of all meeting participants. Eight posters were displayed at the annual meeting:

DCI North Brunswick

Evaluating The Effectiveness of Our Patient Education Program, Lisa Bross Gajary, LPN, Marylou Clancy, RN, CNN

DCI St. Peter's University Hosp

Calcium and Phosphorous Homeostasis, Madelaine Somera, PCT, Camille Angeles PCT
Eduardo Agbanlog RN,BSN, Teresita Moulic RN,BSN,CNN

Hackensack University Medical Center

In-Center Nocturnal Hemodialysis, Paula Ruiz de Somocurcio, RN, BSN, CNN
Marianne Watson, RN, BSN, CNN, Laureen Vespoli, RN, Anne Larkin, RN
Nancy Weland, RN, BSN, CNN, Dr. Alexander Ackad

Morristown Memorial Hospital

Utilization of the Six Sigma Method to Improve the Punctuality of Start Times for Hemodialysis Inpatients in the Acute Hemodialysis Unit, Kathleen Vnenchak RN, BSN, CNN
Maura Sundberg RN, BSN, CNN, Sharon Sipple, RN Coordinator Special Projects
Jennifer Simpson, Medical Records Analyst

Our Lady of Lourdes Medical Center

A Penny Saved is a Budget Earned, Marcia Kopytko, RN CNN

Holy Name Hospital

Managing Anemia: An Ongoing Challenge, Debra Wells BSN, RN, CNN

Alice Campanelli RN, BSN, CNN, CURN, Timothy V. Nguyen, PharmD, CCP, FASCP

Our Lady of Lourdes Medical Center

Evidenced Based Practice and Outcomes

Martha Streed RN CNN

Robert Wood Johnson University Hospital

Intravenous Ascorbic Acid for Anemia: Three Years of Experience

Sarah Tomasello, PharmD, BCPS, Lynne Weiss, MD; Garletha Allen, RN, BSN, CNN;

Robin Roberts, RN; Donna Nelson-Henry, RN; Dan Pieloch, RD; Colleen Dioguardi; Toros Kapoian, MD

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: twelve (12) 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 two patient representatives. All of the members are engaged in ESRD treatment.

The 2007 Medical Review Board was composed of two consumers, one registered dietitian, one social worker, one administrator, three registered nurses and seven physicians. Three members were from Puerto Rico and the remainder from New Jersey. The following chart illustrates the Medical Review Board's composition.

Type of Facility	North NJ	South NJ	Puerto Rico
Hospital-based	3 physicians	1 dietitian 2 physicians	
Non-profit satellite		1 administrator	
Corporate provider	1 nurse	1 social worker	2 physician
Patient	1 patient	1 patient	

Members included:

Paul Fine, MD- Chairman
Nephrologist
Morristown Memorial Hospital
Morristown, New Jersey

Rosemary Acuna, RN
Patient Representative
Newark Beth Israel Medical Center
Newark, New Jersey

Joseph Albanese, MD
Nephrologist
Jersey Shore Medical Center
Neptune, New Jersey

Kevin James, MD
Vascular Surgeon
Morristown Memorial Hospital
Morristown, New Jersey

Cathy Stevens, RN
Disaster Coordinator
Hackensack Medical Center
Hackensack, New Jersey

Sadanand Palekar, MD
Program Director of Pancreas and Renal
Transplant Program
Newark Beth Israel Medical Center
Newark, New Jersey

Judy Semptimphelter, RN
Area Administrator
Fresenius Medical Care, NJ

Shaun Segal, RD
Dietitian
Winslow Dialysis Center
Sicklerville, New Jersey

Ira Strauss, MD
Nephrologist
DaVita Freehold AKC
Manalapan, New Jersey

Manual Cruz Soto, MD
Nephrologist
Vega Baja Renal Dialysis Center
Vega Baja, Puerto Rico

Cori Nunziata, LSW
Social Worker
DCI North Brunswick Dialysis Ctr
North Brunswick, New Jersey

Josue Castresana, MD
Nephrologist
Cayey Dialysis Center
Cayey, Puerto Rico

John O'Grady
Patient Representative
Piscataway, New Jersey

The Board of Trustees accepted nominees for election to the Medical Review Board from active organizational members. An individual must have demonstrated an ability to evaluate the quality and appropriateness of care delivered to renal failure patients to serve on the Medical Review Board.

The Medical Review Board has the responsibility for the development of criteria and standards for evaluation of care; review of facility protocols for patient modality selection; review of patient grievances as necessary, according to standard procedures adopted by the Board; development of protocols for individual case review; evaluation of existing available services and recommendations for the addition of alternative services as needed; the analysis of facilities' compliance with network goals and recommendations for improvement.

No person serving on the Medical Review Board had responsibility for review of any case in which he or she has, or had, any professional involvement, received reimbursement or supplied goods. No person serving on the Medical Review Board with a financial interest, direct or indirect, in a facility furnishing ESRD services reviewed the ESRD services of that facility. Confidentiality assurances were utilized by the Medical Review Board to protect the rights of consumers, providers, and facilities.

The 2007 activities included review of facility-specific data, reports of the Clinical Performance Measures project, the lab data collection for the last quarter of 2006, the Fistula First Breakthrough Initiative, and other data from CMS. There were no patient grievances to review.

The 2007 Medical Review Board meeting dates and locations were:

March 21 - Forsgate (Jamesburg, NJ)
September 12 - Forsgate (Jamesburg, NJ)

June 6 - conference call
December 5 - conference call

BOARD OF TRUSTEES

The Board of Trustees consisted of fourteen (14) members. Upon resignation of a member, inability to complete a term of office, or non-attendance at two (2) consecutive board meetings, the position would be deemed vacant and filled by a new member selected by the president of the board. The new member then would serve for the unexpired term held by the member whose position he or she filled.

The Board elected from among its membership the following officers: president, vice president, secretary and treasurer. The president served as the president of the board and chairman of the Council, and monitored all network operations with the project director. The vice president presided or acted in the absence of the president. The secretary was responsible for keeping minutes of all board meetings and assured proper maintenance of all records and reports (except financial) for the Council. The treasurer was responsible for reporting the financial status and budget preparation of the Council.

The Board of Trustees was composed of two consumers, one dietitian, one social worker, two administrators, two nurses and six physicians. In order to more completely review vascular access a surgeon was invited to join the Board. Two board members were from Puerto Rico, one from the Virgin Islands with the remainder from New Jersey. The chart below shows the Board's composition.

Type of Facility	North NJ	South NJ	Puerto Rico	Virgin Islands
Hospital-based	2 administrators 2 physicians	1 physician		1 physician
Non-profit satellite				
Corporate provider	1 social worker	1 dietitian 2 physicians	2 nurses	
Patient		2 patients		

Toros Kapoian, MD- President
Robert Wood Johnson U MC
New Brunswick, New Jersey

Alexandre Ackad, MD
Nephrologist
Hackensack University MC
Hackensack, New Jersey

Jennifer Kurzawa, RD
Renal Dietitian
DVA Old Bridge
Old Bridge, New Jersey

Mary Lorenzo, MSW
Patient Representative
Matawan, New Jersey

Marien Saade, RN, MSN, CNN
LifeLink de Puerto Rico
Guaynabo, Puerto Rico

Ron Zanger, MD
Nephrologist
DVA Cherry Hill
Cherry Hill, New Jersey

Michael Conrad, MD
Nephrologist
DVA Burlington
Lumberton, New Jersey

Suzanne Juliano, RN
Nurse Administrator
Holy Name Hospital
Teaneck, New Jersey

Phyllis Micchelli, MSW
Social Worker
FMC East Orange
East Orange, New Jersey

Wishburne Hunte, MD
Nephrologist
Roy Schneider Hospital
St Thomas, VI

Paula Ruiz de Somocurio, RN
Administrator
Hackensack Medical Center
Hackensack, New Jersey

Chandra Chandran, MD
Nephrologist
St. Joseph's Medical Center
Paterson, New Jersey

Kenneth Noonan
Patient Representative
Neptune, New Jersey

Pascual Muniz, RN
Regional QI Manager
Fresenius Medical Care
Mayaguez, Puerto Rico

The election of officers took place at a regularly scheduled meeting of the Board. Election of officers was by simple majority of those members present and voting.

The Board monitored and directed the daily operation of the network organization. The board has the authority to:

- Employ and terminate any personnel required for the business of the network;
- Prepare a plan which defines network goals, objectives and implementation of objectives;
- Prepare an evaluation methodology to measure progress;
- Develop network operating and governing policies and procedures;
- Suggest alternative approaches to meeting goals and objectives for the network's consideration;
- Review and update the network plan on a regular basis;
- Review all fiscal matters of the network and review records on such matters, which include, but are not limited to, the collection and disbursement of all funds;
- Certify the representatives for appointment to the Council, and keep up-to-date records of the membership of the Council;
- Appoint members and designated alternates to the Medical Review Board; and
- Review the By-Laws, amending them when necessary.

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.

The 2007 Board of Trustees meeting dates and locations were:

March 28 - Forsgate (Jamesburg, NJ)
June 20 - conference call

September 19 - Forsgate (Jamesburg, NJ)
December 12 - conference call

PATIENT ADVISORY COMMITTEE

The Patient Advisory Committee (PAC) was organized in 2006 with patient volunteers from throughout New Jersey. The mission of the Patient Advisory Committee is to support the mission of the Trans-Atlantic Renal Council 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 TARC'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 committee held its first meeting on September 28, 2006, when members reviewed and discussed the goal statement, member agreement, and the conflict of interest statement. A logo was selected and a plan for the patient newsletter entitled *Kidneys R US* was formulated. At subsequent meetings the group formatted the newsletter, adopted a logo, and agreed upon these initial articles for publication: *What is the Patient Advisory Committee?*, *Ahmet Ahmet Rehabilitation Award Winner* and *What is TARC?* Additional information included the TARC toll free number and how to join the PAC. Membership was open to all patients, family members and interested parties.

In 2007, the committee developed, reviewed and organized the content for the PAC newsletter, which was distributed in January, May and August 2007. The newsletter was written in English and Spanish and distributed throughout New Jersey, Puerto Rico and the US Virgin Islands.

The PAC 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 May 22 and October 11, 2007. The chart below shows the PAC composition.

Modality	North NJ	South NJ	Puerto Rico/VI
Hemodialysis	5	5	2008
Peritoneal dialysis	1		
Transplant	2	1	

Membership included:

Rosemarie Acuna, RN
Livingston, New Jersey
Transplant

Robert Horst
Plainsboro, New Jersey
Peritoneal Dialysis

Sabrina Sims
Bloomfield, New Jersey
Hemodialysis

William Curry
Camden, New Jersey

Joseph Jean-Mary
Roselle, New Jersey

Angela Taggart
Rahway, New Jersey

Hemodialysis	Transplant	Hemodialysis
John DiFabio Harrington Park, New Jersey Transplant	Mary Lorenzo, MSW Matawan, New Jersey Transplant	Constance O'Grady Piscataway, New Jersey
Susan Esposti Mercerville, New Jersey Hemodialysis	Kenneth Noonan Neptune, New Jersey Hemodialysis	John O'Grady Piscataway, New Jersey Hemodialysis
Rose Forte Freehold, New Jersey, Hemodialysis	Mani Swaminathan Lakewood, New Jersey Hemodialysis	

The 2007 Patient Advisory Committee meeting dates and locations were:

January 18 Conference call	April 19 - Marriott (Monroe)
September 11 healthcare Quality Strategies (East Brunswick)	October 24 – Sheraton (Iselin)

TARC plans to hold the first Patient Advisory Committee meeting in Puerto Rico and the U.S. Virgin Islands during 2008.