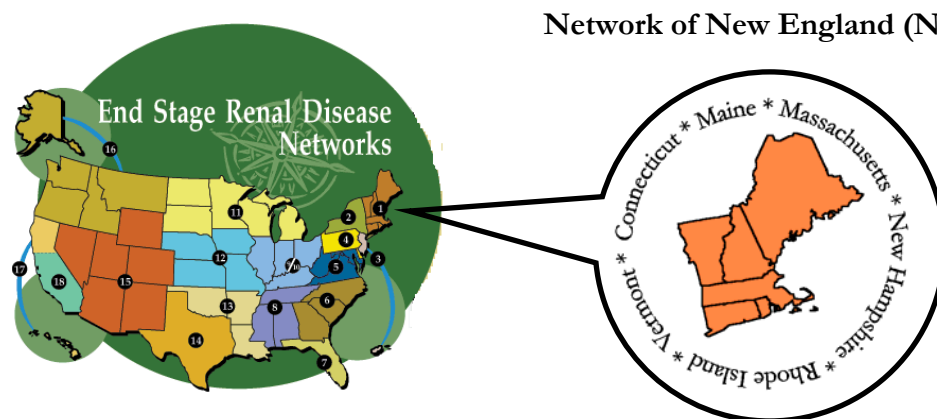


II. INTRODUCTION

The Network of New England, Inc., is one of 18 End Stage Renal Disease (ESRD) Network Organizations in the country to participate in the ESRD Network Organization Program as a contractor to the Centers for Medicare & Medicaid Services (CMS). The current Network Organization contract is from July 2006 to June 2010. This non-profit organization has been awarded Network Organization contracts since 1978. The Network of New England (Network 1) serves the New England region, consisting of six states, Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.



The ESRD Network Program was established under the ESRD Amendments to the Social Security Act of 1972 for individuals with end stage renal disease (ESRD). The Network of New England facilitates the improvement of health care and quality of life for individuals who have chronic renal insufficiency, and those treated with dialysis or transplantation. The current CMS strategic goals for the Network Program are:

- * Improve the quality and safety of dialysis related services provided for individuals with ESRD.
- * Improve the independence, quality of life, and rehabilitation (to the extent possible) of individuals with ESRD through transplantation, use of self-care modalities (e.g., peritoneal dialysis, home hemodialysis), in-center self-care, as medically appropriate, through the end of life.
- * Improve patient perception of care and experience of care, and resolve patients' complaints and grievances.
- * Improve collaboration with providers to ensure achievement of all Program goals through the most efficient means possible, with recognition of the differences among providers (e.g., independent, hospital-based, member of a group, affiliate of an organization) and the associated possibilities/capabilities.
- * Maintain a patient registry; improve the collection, reliability, timeliness, and use of data to measure processes of care and outcomes and to support the ESRD Network Program.

With respect to the above strategic goals, CMS uses the Institute of Medicine's (IOM) definition of quality, which is: "The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge." These strategic goals also fall under the Mission of the Health Care Quality Improvement Program (HCQIP) by helping to assure the IOM aims of patient centered, effective, safe, efficient, equitable, and timely care.

In 2003, CMS launched the Fistula First Breakthrough Initiative. This project is based on the revised Kidney Disease Outcomes Quality Initiative (KDOQI) Clinical Practice Guidelines (<http://www.kidney.org/professionals/kdoqi/>), which stated that 65% of prevalent hemodialysis patients should use an arteriovenous fistula (AVF) and 50% of the incident patients should use an AVF. Hemodialysis patients with fistulas have better morbidity and mortality outcomes than patients with other types of vascular access. This initiative is a contract performance requirement for all of the 18 Networks.

The Network of New England strives to accomplish the HCQIP program mission, CMS strategic program goals, as well as the objectives of CMS national breakthrough initiatives such as Fistula First through the leadership of knowledgeable individuals serving on the Network Board of Directors, Medical Review Board, and various committees, and with the cooperation of the personnel of ESRD providers throughout New England. This Network is committed to a long-standing tradition of non-punitive collaboration among professionals and patients.

A. NETWORK DESCRIPTION

The Network of New England's geographic area consists of six states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. According to Census Bureau population projections for 2009, all six states have a combined population of approximately 14.43 million people (<http://factfinder.census.gov>). The individual states in New England vary greatly in area, population, and incidence of ESRD. According to the 2000 Census, 11,220,233 people in the New England area live in urban areas and 2,702,284 people live in rural areas. Some of the access to ESRD services challenges that the Network of New England faces in its oversight responsibilities can be attributed to this distribution of population.

Geographic Distribution

In general, the New England area is considered urban/metropolitan. Individual states vary widely in demographic features. The demographic features of the New England area have an influence on availability of ESRD services and treatment choices. There is variation in population density and land area of different states. Maine is the largest of the six New England states and has the lowest population density. Rhode Island is the smallest state with highest population density. According to the 2000 Census, metropolitan areas comprise 84.2% of the population, whereas 15.8% live in non-metropolitan areas. The majority of the residents of Connecticut, Massachusetts, and Rhode Island living in metropolitan areas and the majority of the residents of Maine, New Hampshire, and Vermont living in rural areas.

Population Distribution

The population distribution for the year 2009 is based on Census Bureau population projections for 2009 (Table A). ESRD incidence data is from the Standard Information Management System (SIMS) database maintained by Network of New England. The Network tracks the racial distribution of the ESRD population to identify any patterns of interest or concern. As the table shows, the New England region has a smaller percentage of black residents than than the national average. Approximately 19% of the New England population is over 60 years of age. The increasing number of elderly in the general population contributes to a rising number of CKD patients, and in turn ESRD patients.

Table A: 2009 Crude Incidence Rates (New ESRD Patients)

State	Population*	Percent African American	Percent White	Number of New ESRD Patients	Rate Per Million
Connecticut	3,518,288	9.4	79.8	1,061	301
Maine	1,318,301	1.1	95.3	281	213
Massachusetts	6,593,587	6.1	82.6	1,783	270
New Hampshire	1,324,575	1.0	94.8	265	200
Rhode Island	1,053,209	5.3	82.8	330	313
Vermont	621,760	0.8	96.0	134	215
Network	14,429,720	5.1	86.5	3,892**	269
National	307,006,550	12.3	74.3	115,458	376

* Census Bureau population estimates as of July 1, 2009; <http://factfinder.census.gov/>. ESRD incident data is based on the Network of New England Patient Registry and is based on the state of residence of the patient. ** This includes 162 patients with transplant therapy as an initial treatment; 38 patients who reside in neighboring states such as New York are not listed in this table.

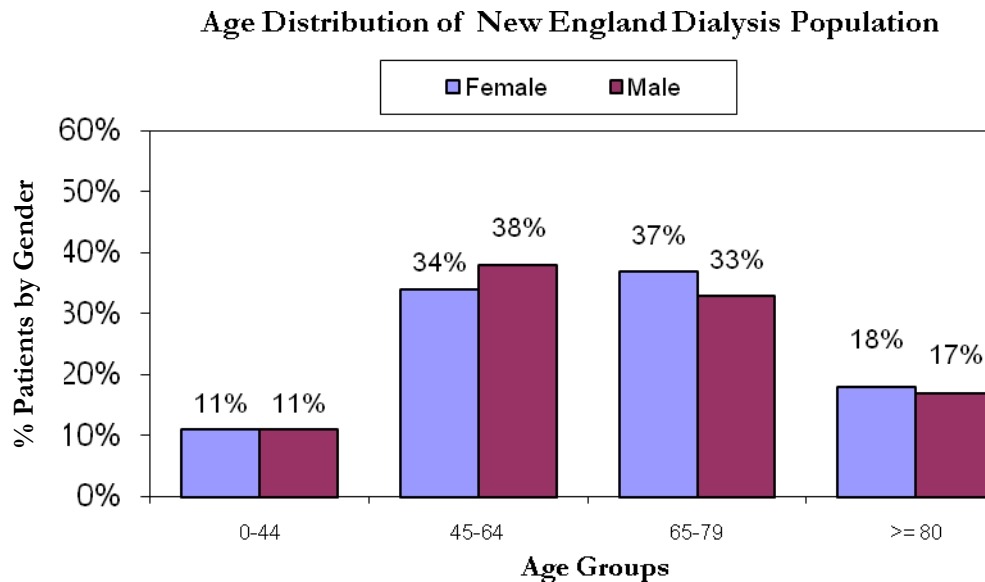
Incident ESRD Patient Population in New England States

There was a 1.0% increase in the incident ESRD population from 2008 to 2009 in the New England states. Every state in the Network of New England area has a lower ESRD incidence rate per million less than the national rate. The average age of an incident ESRD patient in New England is 65.3. Please refer to Table 1 at the end of the report for a complete analysis of incident ESRD population by age, gender, race, and primary diagnosis.

Prevalent Dialysis Patient Population in New England States

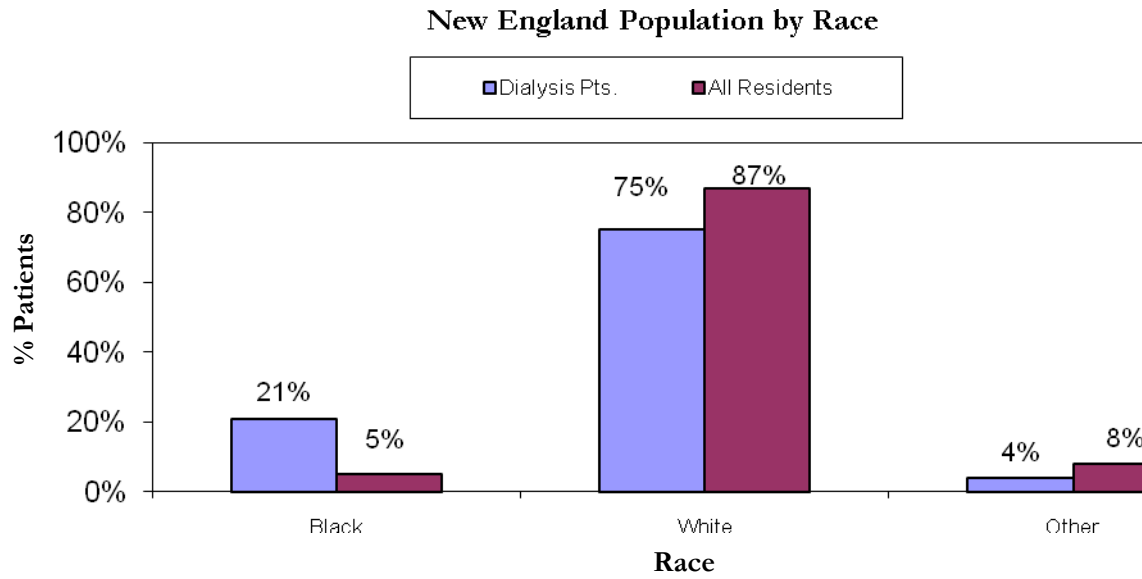
The number of prevalent patients receiving dialysis services in New England continues to slowly increase each year (Table B and Figure 5). The prevalent ESRD population increased 2.98% from 2008 to 2009. Apart from the described geographical and population factors, the availability of dialysis facilities in each state impacts the number of patients who are treated in each dialysis program. Maine, with approximately 33,000 sq miles of land area and a population of 1.3 million, has 18 dialysis facilities while Rhode Island, with approximately 1,000 square miles of land area and a population of 1.0 million, has 17 dialysis facilities. This diversity of state size reflects the range in dialysis census by state. The prevalent dialysis population data is analyzed by gender, race, primary diagnosis, and age distribution (see Figures 1, 2, 3). The gender distribution indicates that 51% are male and diabetes continues to be the leading cause of renal disease. Patients identified as Black have a disproportionate higher rate of ESRD. Analysis of the age distribution indicates that the ESRD population is older than the general population (Figure 4). The average age of a prevalent dialysis patient in New England is 64. Refer to Table 2 at the end of the report for a complete analysis of the prevalent ESRD population by age, gender, race, and primary diagnosis.

Figure 1



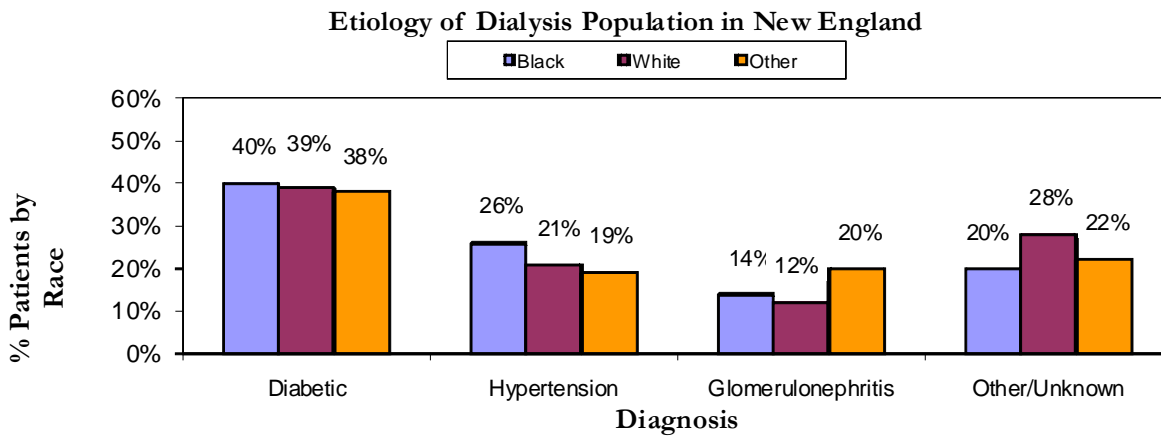
Source: Network 1 SIMS database based on provider-submitted data.

Figure 2



Source: Network 1 SIMS database based on provider-submitted data.

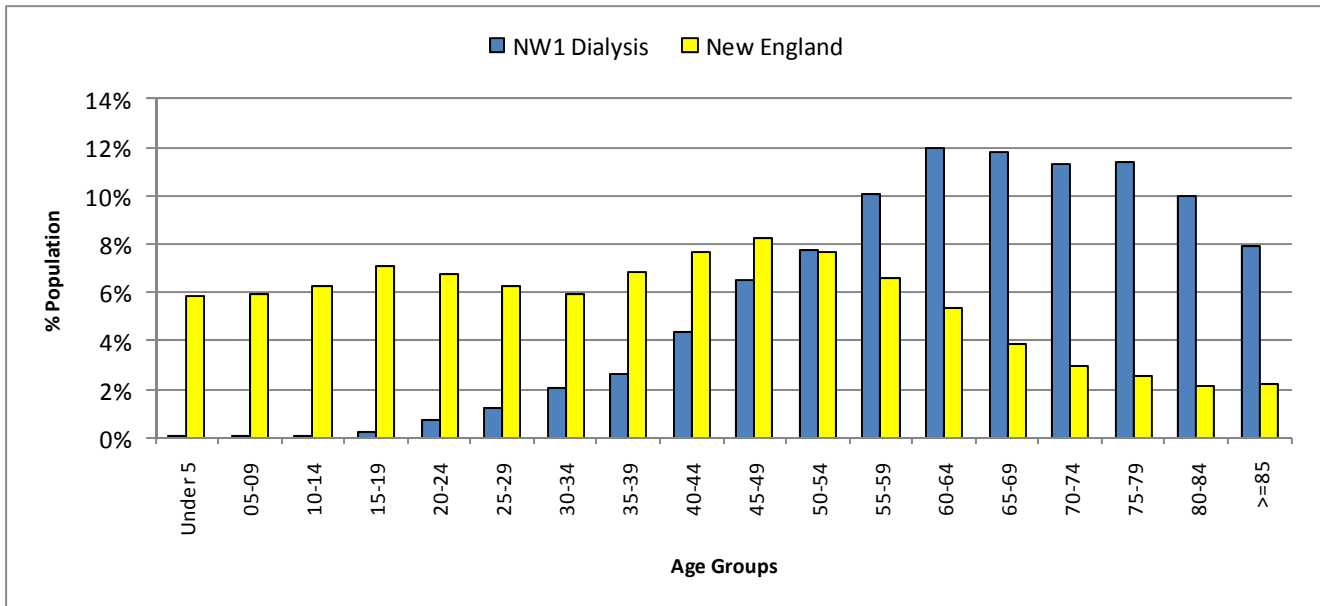
Figure 3



Source: Network 1 SIMS database based on provider-submitted data.

Figure 4

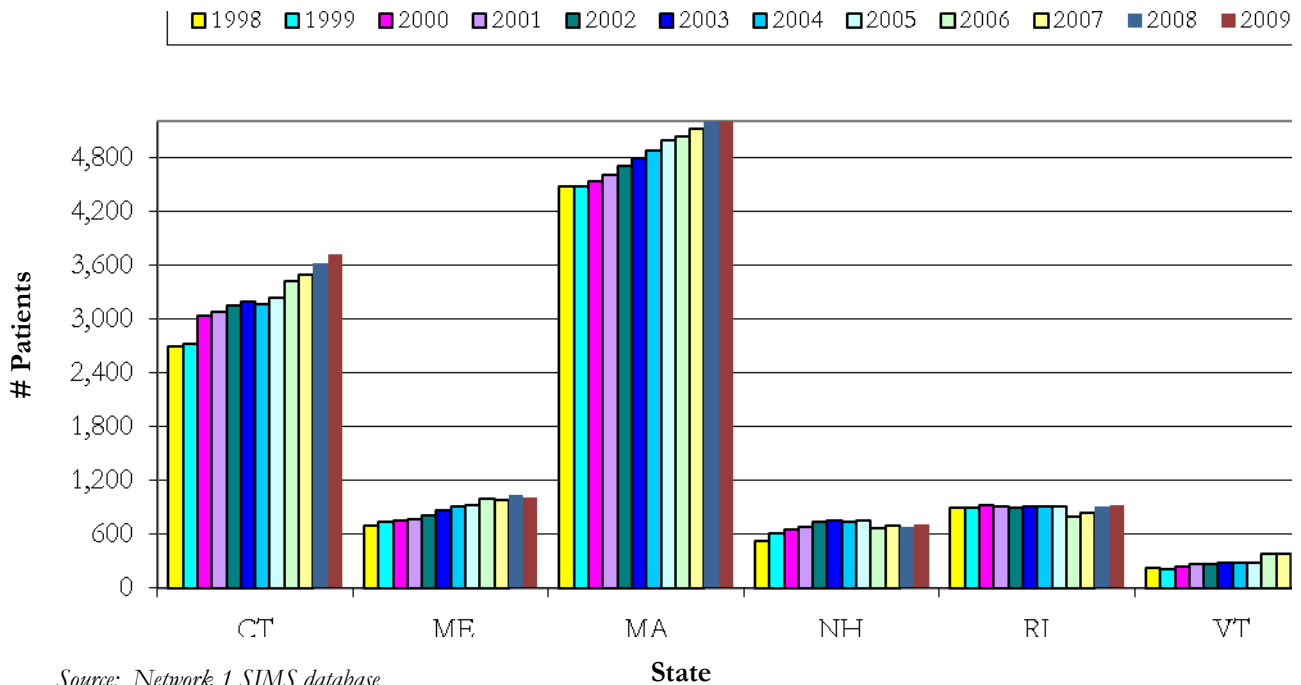
Age Distribution of General Population and Dialysis Population in New England



Source: Network 1 SIMS database

Figure 5

Prevalence of ESRD Dialysis Patients by State of Provider 1998 – 2009



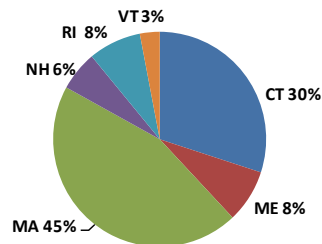
Source: Network 1 SIMS database

Table B: Prevalent Dialysis Patient Data by Year and by State of Dialysis Treatment

Year	CT	ME	MA	NH	RI	VT	Network
1988	1,359	271	2,220	249	473	98	4,670
1989	1,508	299	2,309	287	531	101	5,035
1990	1,628	306	2,541	318	574	108	5,475
1991	1,786	328	2,746	357	612	127	5,956
1992	1,967	358	3,223	377	624	127	6,676
1993	2,106	426	3,433	401	693	121	7,180
1994	2,214	473	3,683	421	751	134	7,676
1995	2,328	534	3,683	457	764	153	7,919
1996	2,442	572	3,895	451	799	165	8,324
1997	2,607	655	4,271	493	807	182	9,015
1998	2,696	690	4,474	531	897	221	9,509
1999	2,725	732	4,472	604	901	213	9,647
2000	3,035	752	4,535	648	920	241	10,131
2001	3,083	767	4,601	682	910	266	10,309
2002	3,146	806	4,698	732	894	272	10,548
2003	3,196	870	4,783	751	903	288	10,791
2004	3,168	916	4,880	732	913	277	10,886
2005	3,237	927	4,981	758	908	289	11,100
2006	3,423	988	5,034	667	797	383	11,340
2007	3,497	975	5,123	690	838	380	11,558
2008	3,620	1,044	5,284	677	915	381	11,966
2009	3,724	1,003	5,522	712	922	388	12,323

Source: Network 1 SIMS Database - Includes CT Veterans Administration patients for 1988-1989 and all Veterans Administration patients for 1990 – 2009.

Analysis of the crude percent prevalence of dialysis patients in New England indicates a range of 0.05% to 0.1% of the population on dialysis in the New England states. The Network average is 0.08%, which is less than the national average of 0.12% (Table C). Analysis of the same data by race indicates that dialysis is four times as prevalent in Blacks as in Whites.

Figure 6**Distribution of Prevalent Patients by State**

Source: Network 1 SIMS database.

Table C: 2009 Crude Dialysis Prevalence

State	State Population*	Black Population*	White Population*	Prevalent ESRD Patients	Crude Dialysis Prevalence
Connecticut	3,518,288	361,879	2,950,808	3,724	0.106%
Maine	1,318,301	13,588	1,268,930	1003	0.076%
Massachusetts	6,593,587	455,880	5,601,486	5522	0.084%
New Hampshire	1,324,575	16,015	1,256,429	712	0.054%
Rhode Island	1,053,209	76,845	944,260	922	0.088%
Vermont	621760	5,378	598,959	388	0.062%
Network	14,429,720	9,29,585	12,620,872	12,323	0.085%
National	307,006,550	41,126,808	247,112,954	357,785	0.12%

* Census Bureau population estimates as of July 1, 2009; <http://factfinder.census.gov/>. Dialysis prevalent data is from the Standard Information Management Systems (SIMS) database and is based on the state of residence of the patient.

ESRD Facilities in New England States

There are 169 dialysis facilities in the Network 1 area at the end of 2009. The total number of kidney transplant programs (15) remained the same as in 2008. Hospital-based outpatient dialysis centers continue to be purchased by large dialysis corporations. Lack of hospital-based dialysis units can create challenges in treating difficult patients and patients with multiple co-morbid conditions.

Treatment Options: Home Dialysis and In-Center Dialysis

ESRD patients have two dialysis options, hemodialysis and peritoneal dialysis. Dialysis treatment can be obtained in a facility or can be performed at home with a back-up facility for emergencies and periodic clinical assessment. Home dialysis allows for a flexible schedule, more control over the dialysis treatment, and relatively less travel for clinical management. In 2009, 90% of the ESRD patients in New England were receiving dialysis in outpatient dialysis clinics called ESRD providers. Ten percent of ESRD patients in New England were utilizing different forms of home dialysis (Table D). Of the 1,211 home dialysis patients in New England, only 11.3% are on hemodialysis, 59.2% are on Continuous Cycling Peritoneal Dialysis (CCPD), and 29.3% are on Continuous Ambulatory Peritoneal Dialysis (CAPD). In 2009 there is a 1.1% increase in the use of home hemodialysis compared to 2008. This shift may be due to improvements in the technology and equipment to perform home hemodialysis. Several New England clinics are utilizing newer technologies of frequent and nocturnal dialysis, which can move patients toward more frequent hemodialysis and home dialysis in the coming years. The Network of New England distributes

information to providers to educate patients about the various treatment options that are available to them including transplantation. (For distribution and analysis of the use of the self-care setting and hemodialysis, please refer to data tables 3 and 4 at the end of the Annual Report.)

Table D: 2009 Dialysis Prevalence by Modality: By State of Provider Service

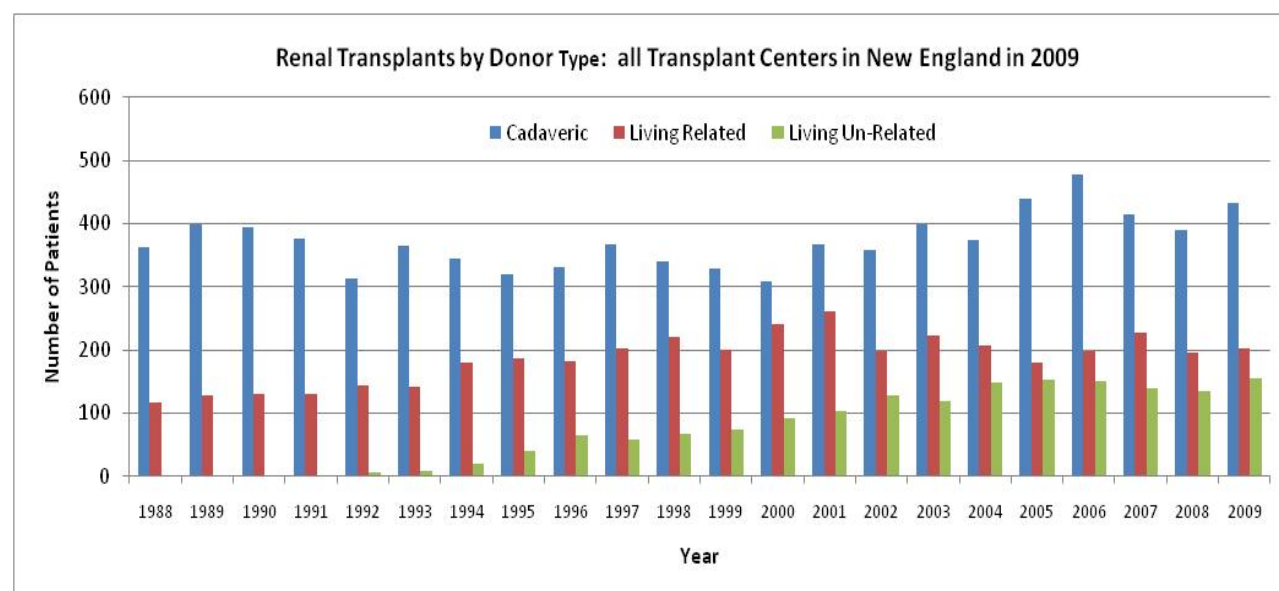
State	In-center	Home Hemodialysis	IPD	CAPD	CCPD	Total Home	Total Patients
CT	3,181	40	0	168	318	526	3,707
MA	5,062	68	0	137	288	493	5,555
ME	890	14	0	20	38	72	962
NH	679	10	0	19	38	67	746
RI	976	1	0	11	22	34	1,010
VT	321	4	0	1	14	19	340
Network 1	11,109	137	0	356	718	1,211	12,320

Source: CMS Facility Survey (includes Veteran Administration patients)

Kidney Transplantation

Kidney transplantation is the preferred treatment choice for kidney failure. The number of individuals on the kidney transplant waitlist as of December 31, 2009, in the New England states was 2,558 (CMS Facility Survey 2009). Forty-five percent of the total kidney transplants in 2009 were from living donors (156 living unrelated, 202 living related) (Figure 7). Comparing 2008 to 2009, there is an overall increase of 9.6% in kidney transplantation in the Network area. (For analysis of the transplantation data, please refer to data tables 5 and 6 at the end of the Annual Report).

Figure 7



Source: CMS Facility Survey (includes Veterans Administration patients)

NETWORK STRUCTURE

The Network of New England, Inc., is responsible for dialysis and kidney transplant providers in a geographic area that covers the six New England states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

1. NETWORK STAFF

The Network Executive Director supervises the administrative staff. The Executive Director is accountable to the Board of Directors (BOD) for the overall performance and activities of the Network staff. The office staff works within a team model. Each professional employee has a primary area of responsibility, which falls within one of four major themes – Administrative, Quality Management, Information Management, and Patient/Community Services. The employees as of December 31, 2009, were:

Network Personnel

– Administration

- Jenny Kitsen, BA, Executive Director
Administrator of CMS contract; supervises Network staff; reports to Network Board of Directors; directs conduct of special projects.
- Joan Kliger, MS, Financial Manager
Provides office management support; performs payroll and bookkeeping duties; assists Executive Director with corporate reporting activities.
- Cynthia Andrzejewski, BS, Administrative Assistant
Provides administrative support for Board of Directors, maintains corporate documents and assists with coordination of internal quality controls.

– Quality Improvement

- Cynthia Lambert, RN, BSN, Medical Quality Manager
- Margaret Lynch, RN, BSN, CNN, Medical Quality Manager
Directs all quality improvement initiatives; reports to Medical Review Board; responds to all clinical inquiries and regulation related to nephrology nursing; provides consultation to professional community on ESRD clinical policies and procedures.

– **Community Outreach and Patient Grievances**

- Amber Maneca, MSW, Patient Services Coordinator

Provides and develops educational materials for patients and providers; handles patient grievances/complaints; manages activities of Patient Advisory Committee (PAC); supports ESRD community partnership activities; editor of Network newsletter.

- Danielle Daley, MBA, Community Development Coordinator

Responsible for coordinating the coalition activities of this Network; development of regional disaster plan; coordination of local ESRD provider-related emergencies; maintains Network website; assists in preparation of educational materials for patients and professionals.

– **Information Management**

- Jaya Bhargava, PhD, Information Systems Manager

Oversees the internal processing and tracking of data forms; promotes and supports VISION for independent providers; provides cross-departmental IT support; tests and promotes deployment of CROWNWeb.

- Karen DeGeorge, AS, Information Management Specialist

Assists in the maintenance of the Patient Registry; coordinates the year-end Facility Survey, resolves CMS Accretions and Notifications; responsible for registration of providers into Quality Net Identity Provisioning Systems (QIPS); evaluates provider data compliance.

- Sheri Grifa - Data Clerk

Processes the required CMS patient forms.

– **Support Staff**

- Laurene Jones, Project Assistant

Processes Patient Monthly Activity Forms; maintains provider personnel files and provider reports; provides phone reception services.

- Terri Ross, Office Assistant

Information processing for clinical projects; responsible for patient packet returns; maintains registration materials for educational meetings.

2. COMMITTEE FUNCTION AND ACTIVITIES

Network Council: Facility Constituents

All ESRD providers in the New England area that have been issued an ESRD provider number by the Centers for Medicare & Medicaid Services (CMS) are facility constituents of the Network Council. One of the conditions of participation in Medicare's ESRD program requires every ESRD provider to be a member of the ESRD Network Council in its respective regions. The Network Patient Advisory Committee (PAC) serves as the patient representatives on the Council. An ESRD facility that has been issued a Department of Veterans Affairs Station Number is also eligible to participate in Network activities. Effective in 1990, all Veterans Administration Dialysis/Transplant Programs are required by the Veterans Administration to submit ESRD data in order to participate in Network activities.

As a facility constituent, an ESRD provider shall:

- Acknowledge its agreement to comply with CMS regulations;
- Acknowledge its agreement to comply with the ESRD Network goals and objectives;
- Designate to the ESRD Network in writing the names and telephone numbers of its key management personnel;
- Participate in the Network Annual Meeting; and
- Submit quality of care recommendations to the Network.

Board of Directors

The Board members govern the affairs of this Network Organization. The Board has all the powers and duties necessary and appropriate for the administration of the affairs of the Network and for compliance with the rules and regulations of Medicare's ESRD program, contained in the Code of Federal Regulations. The Board has all such powers that state law, the Certificate of Incorporation, or the bylaws permit in accordance with regulations in Connecticut.

The number of Board members shall be no less than 25 or more than 40. As of December 2009, there were 32 members on the Board. The Board includes physicians and other professionals who work in the ESRD field as well as informed consumers. It is composed of a Chairperson, Vice-Chairperson, Secretary, Treasurer, the Chairperson of the MRB, as well as nurses, social workers, dietitians, patients, and multidisciplinary members at large.

Douglas Shemin, MD*	Chairperson
Rhode Island Hospital	Medical Director, Dialysis Unit
Candace Walworth, MD*	Vice-Chairperson
Lewiston Auburn Kidney Center	Medical Director
Donna M. Harrington, RN, CNN*	Secretary
Manchester Kidney Center	Charge Nurse
Douglas Mesler, MD*	Treasurer
Nephrology Associates	Clinical Director Renal Section

<u>Name</u>	<u>Facility</u>	<u>Discipline</u>
Howard Alfred, MD	PDI – Worcester	Medical Director
Steve Bogatz, LCSW	Central CT Dialysis	Renal Social Worker
Andrew Brem, MD	Rhode Island Hospital	Pediatric Nephrologist
Doris Briggs, RN	Rhode Island Hospital	Nurse Manager
Mathew Brown, MD	Hartford Transplant Associates	Vascular Access Surgeon
Robert Brown, MD	Beth Israel Deaconess Medical Center – East	Nephrologist
Jane Connor, RN, CNN	Harvard Vanguard Medical Associates	Clinical Manager of Nephrology
Jodi Cooney, RN	New Haven Dialysis	Facility Administrator
Robert Cooper*	Pittsfield, MA	TX Patient/Consumer
Mark DeWever	Casco Bay	TX Patient/PT Care Technician
Leslie Evans, RN	Monadnock Dialysis Center	Renal Nurse
Jay Ginsberg, MD*	Southeastern CT Nephrology Associates, PC	Nephrologist
Jill Goldstein, MSW, LICSW, LCSW	Western Mass Kidney Center	Renal Social Worker
Sandie Guerra Dean, MSW, LICSW	Fresenius Medical Care North America	Corporate Social Worker
Betty Ann Hughson, MS, RN	Children’s Hospital Boston	Nurse Manager
Geraldine Hurley, RD	Berkshire Medical Center – Renal Division	Renal Dietitian
Carol Lee Lane	Seacoast Dialysis Center	Patient Care Technician
Joseph Lindsay	Dorchester, MA	Patient/Consumer
David Lockwood	West Haven, CT	Patient/Consumer
Charles McCoy, MD	Nephrology Associates, Inc.	Nephrologist
Klemens Meyer, MD*	New England Medical Center	Director, Dialysis Services
Paul Nussbaum, MD	Griffin Hospital	Medical Director
Salah Reyad, MD	Norwood Dialysis	Medical Director
Deborah Savaria, RN	LifeChoice Donor Services	Executive Director
Shimul Shah, MD	University of Massachusetts	Transplant Surgeon
Marion Smith, RN, CNN	New Hampshire Kidney Center (FMC)	Nurse Manager
Michael Somers, MD	Children’s Hospital Boston	Pediatric Nephrologist
Helen Warner, RN	Damariscotta Dialysis	Nurse Manager

The disciplines of professionals on the BOD are as follows:

Administrator	3	Renal Nurse:	1
Dietitian:	1	Nurse Manager:	5
Dialysis/Transplant Director:	7	Patient/Consumer:	3
Nephrologist:	5	Social Worker:	3
Transplant Surgeon:	2	Patient Care Technician:	2

Medical Review Board

As required by Public Law 95-292, the Network of New England established a Medical Review Board (MRB). The provisions of Network bylaws require representation from professional disciplines and consumers. The Medical Review Board is responsible for analyzing the comparative performance of facilities with regard to the volume of chronic in-center dialysis, home dialysis, and transplantation. Quality oversight utilizes the principles of continuous quality improvement by addressing management areas for potential improvement on issues of adequacy of dialysis, anemia, nutrition, and vascular access. The MRB also supervises the study design and data abstraction for studies to support the United States Renal Data System (USRDS) and Network quality management activities.

The Network staff and Grievance Committee handle patient/family inquiries throughout each year – a summary can be seen in Section C of this report. All interventions and disposition of these contacts are entered into a database for reporting and data trending purposes.

The Grievance Committee becomes involved in serious complaints and handles formal grievances that are filed with the Network. The Grievance Committee chair is a member of the Network BOD. The Grievance Committee members are called upon to review cases and provide expertise / input in situations as indicated by staff assessment. For example, if a case involves issues related to nutrition, an RD committee member will review the specifics and or consult directly with the patient as needed. The Grievance Chair also conducts case review, makes recommendations, and communicates directly with the patient or professional as appropriate.

Network Advisory Committee

This committee is comprised of the individuals who serve in leadership positions for the Network. The committee consists of the four Board officers, the MRB Chairperson, the MRB Vice-Chairperson, the past Chair of the Network Grievance Committee Chair, the Forum Medical Advisory Representative, the Network Executive Director, and a representative from the Patient Advisory Committee. These individuals are noted with an asterisk on prior pages. They meet by conference call and communicate regularly by email to develop recommendations regarding Network policy issues that impact patient care and the operational strategies of the Network. The committee determines the short and long-term objectives of the Network and makes recommendations to the Network Board.

Nominating Committee

The Network bylaws require the nominating committee to prepare a ballot bi-annually for electing Board officers and members of the BOD and Medical Review Board. In accordance with the bylaws, approximately one-third of the membership of both boards rotates every two years. The past Network President chairs this committee. The composition of the committee changes every two years.

Ad Hoc Committees

A task group or subcommittee of the Board of Directors or the Medical Review Board is appointed as necessary to fulfill the work of the CMS contract.

Ad Hoc: 2009 Annual Meeting and Technician Meeting Committee

The Annual Meeting Program Committee consists of the BOD Chair, BOD Vice-Chair, MRB Chair, Network Director, and Network Managers. This committee plans presentations on specific topics and identifies speakers based on requests and evaluations from the previous Annual Meeting. Because of the large annual attendance, topics are chosen that reflect the priority needs of the multidisciplinary audience.

Ad Hoc: Vascular Access Steering Committee

As part of the Network Quality Improvement Initiative on Vascular Access, the committee members guide Network staff in the development of strategies to improve AVF rates by making recommendations to the Medical Review Board. Committee members assist by participating in conference calls and providing technical assistance or professional experience.

Patient Advisory Committee (PAC)

The New England Patient Advisory Committee (PAC) had the following nine members during 2009:

Robert “Bob” Cooper – Hemodialysis Massachusetts	David Lockwood – Nocturnal Hemodialysis Connecticut
Mary Ludwig – Hemodialysis Maine	Wayne Ludwig – Spouse of Patient Maine
Charles Paige Sr. – Hemodialysis Massachusetts	Judy Paige – Spouse of Patient Massachusetts
Beverly Tomar – Transplant Recipient Rhode Island	Charles Witaszek New Hampshire

The PAC is comprised of members from the six New England states and has balanced representation in terms of age, gender, ethnicity, and treatment modality. The PAC celebrated its 11th year of service in 2009. The PAC is advisory to the BOD, MRB, and Network staff and guided by the following mission statement.

The ESRD Network of New England Patient Advisory Committee (PAC) is committed to enhancing the quality of life for New England ESRD patients through education, communication, and active representation.