

2002 ANNUAL STATISTICAL REPORT

FOR

**END-STAGE RENAL DISEASE
NETWORK 9/10**

THE RENAL NETWORK, INC.

Submitted By:
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Sponsored By:
Centers for Medicare & Medicaid Services
Contract Numbers: 500-00-NW09
& 500-00-NW10

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June 30, 2003

The *2002 Annual Statistical Report for End-Stage Renal Disease (ESRD) Network 9/10*, which outlines a year of activities, represents a successful coordinated effort among health care providers, patients, and Network staff.

The Renal Network, Inc. (ESRD Network 9/10) is an independent agency that monitors the treatment of patients with ESRD in Illinois, Indiana, Kentucky, and Ohio. A total of 18 ESRD Networks throughout the country provide oversight of dialysis and transplant centers. The goal of the ESRD Networks is to assure appropriateness of dialytic care while fostering patient independence and well-being. ESRD Networks are funded through the Centers for Medicare and Medicaid Services (CMS).

The Renal Network is particularly proud of patient participation at all levels of its operation from the Board of Trustees, the Medical Review Board, the Patient Leadership Committee and Network Coordinating Council to each individual dialysis unit.

Network Coordinating Council and committee members are volunteers who have given of their time to assure the quality of care provided to patients receiving treatment for ESRD. These same individuals have participated in the development of various goals and outcome surveys for the Network. The Network appreciates the contributions of all of our volunteers. Their contributions of time, dedication and expertise have enabled our Network to go well beyond the requirements of our CMS contract to drive a progressive pro-active Network.

I am grateful to all the dedicated professionals, including those in each of our dialysis and transplant facilities and the Network administrative office, without whose dedication and perseverance the Network accomplishments would not have been possible. I am proud of my association with The Renal Network, Inc., and I expect that the contributions of our stakeholders will continue to make our Network a model for others to emulate.

Sincerely,



Jay B. Wish, M.D.
President

**THE RENAL NETWORK, INC.
 2002 ANNUAL REPORT**

2. INTRODUCTION

A. Network Description

The Renal Network encompasses the states of Illinois, Indiana, Kentucky, and Ohio. The total population in the four-state area is 34,273,846 ("State Population Estimates: April 1, 2000 to July 1, 2002, U.S. Census Bureau Quick Facts, Illinois, Indiana, Kentucky and Ohio," U.S. Department of Commerce, Bureau of the Census).

Small increases in incidence and prevalence during 2002 for both Network 10 and Network 9 illustrate that the chronic dialysis population continues to grow. A one-year comparison of incidence and prevalence of all ESRD patients is shown below.

Incidence	2001	2002	Percentage Change
Network 9	7153	7399	+1%
Network 10	4274	4534	+1%
Prevalence	2001	2002	Percentage Change
Network 9	20,036	21,242	+1%
Network 10	12,426	12,732	+1%

The following data for race and ethnicity are taken from "2001 Population Estimates - U.S. Census Bureau Quick Facts, Illinois, Indiana, Kentucky and Ohio," U.S. Department of Commerce, Bureau of the Census." (*Editor's Note: 2002 estimates were not available at press time.*)

Illinois, "The Prairie State," ranks 5th among all states in population. Figures from the U.S. Department of Commerce, Bureau of the Census, show the population divided by race as:

White	73.5%	Black	15.1%
Other	11.4%		

About 12% of the population is defined as Hispanic in ethnicity. Divided by age groups, approximately 26% of the population was under the age of 18; 61% were between the ages of 18 and 64; and 12% were aged 65 or greater. Currently, the female population is approximately 51% and the male population is 49%.

One-half of the population of the state lives in the metropolitan Chicago area. In total, 83 percent of the population live in urban areas and 17 percent of the population live in rural areas. Other urban areas in Illinois (with a population of greater than 100,000) are Springfield (the state capital), Rockford, and Peoria.

Indiana, "The Hoosier State," ranks 14th among all states in population. Figures from the U.S. Department of Commerce, Bureau of the Census show the population divided by race as:

White	87.5%	Black	8.4%
Other	4.1%		

About 3.5% of the population is defined as Hispanic in ethnicity. Divided by age groups, approximately 26% of the population was at age 18 or under; 62% were between the ages of 18 and 65; and 12% were over the age of 65. Currently, the female population is approximately 51% and the male population is 49%.

About two-thirds of Indiana's population live in urban areas. Indianapolis, the state capital, is the largest city in the Network area, as well as Indiana, with a population of over 1,000,000. Other urban areas in Indiana (with population greater than 100,000) are Fort Wayne, Gary, Evansville and South Bend.

Kentucky, "The Bluegrass State," ranks 25th among all states in population. Figures from the U.S. Department of Commerce, Bureau of the Census show the population divided by race as:

White	90.1%	Black	7.3%
Other	2.6%		

About 1.5% of the population is defined as Hispanic in ethnicity. Divided by age groups, approximately 25% of the population was at age 18 or under; 62% were between the ages of 18 and 65; and 13% were over the age of 65. The female population is approximately 52% and the male population is 48%.

The Kentucky population is about evenly divided between rural and urban dwellers. Urban centers (with population greater than 100,000) are Louisville, Lexington, Owensboro, Covington, Bowling Green, Paducah, Hopkinsville, and Ashland. Kentucky's state capital is Frankfort.

Ohio, "The Buckeye State," ranks 7th among all states in population. Figures from the U.S. Department of Commerce, Bureau of the Census show the population divided by race as:

White	85%	Black	11.5%
Other	3.5%		

About 1.9% of the population is defined as Hispanic in ethnicity. Divided by age groups, approximately 25% of the population was at age 18 or under; 61% were between the ages of 18 and 65; and 14% were over the age of 65. Currently, the female population is approximately 52% of total population and the male population is 48%.

About three-quarters of the population of Ohio live in urban areas. Urban centers (with population greater than 100,000) include Cleveland, Columbus (the state capital), Cincinnati, Toledo, Akron, Dayton, and Youngstown.

B. Network Structure

1. Staffing

The Renal Network employs 16 full-time employees:

Susan A. Stark, Executive Director: Project Director, responsible for the overall operation of all functions of The Renal Network, Inc.

Bridget M. Carson, Assistant Director: provides back-up in administrative responsibilities. This position is also responsible for overseeing all communications for The Renal Network, and staff responsibilities to the Medical Review Board, the Pediatric Renal Group, the Publications Committee and the Nominating Committee.

Janet Nagle, Office Manager: responsible for operation of the Network office, including bookkeeping and personnel.

Jeannette A. Cain, B.S.R.N., M.S.M., C.P.H.Q., Quality Improvement Director: Oversees all quality improvement projects and intervention activities.

Raynel Kinney, R.N., C.N.N., Quality Improvement Coordinator: assists with quality improvement and intervention activities and also coordinates the clinical performance measures project.

Mary Ann Webb, M.S.N., R.N., Quality Improvement Coordinator: assists with quality improvement and intervention activities.

Janie Hamner, Quality Improvement Assistant: responsible for support to Quality Improvement Department.

Dolores Perez, M.S., Communications Director: oversees the Network Web sites, publications and resource information; assists with implementation of all patient activities.

Kathi Niccum, Ed.D., Patient Services Director: responsible for direction of all patient activities.

Leanne Emery, M.A., Patient Services Assistant, provides secretarial support to the Patient Services Department.

Richard Coffin, Data Services Director: responsible for all programming needs and also directs the staff of the Data Services Department.

Christina Harper, Data Manager: oversees the day-to-day operation of the Data Services Department.

Helen McFarland, Data Specialist: Responsible for tracking patients for Network 10 facilities.

Deborah Laker, Data Specialist: responsible for tracking patients for Network 9 facilities.

Marietta Gurnell, C.H.T., Data Specialist: Responsible for tracking patients in Network 9 facilities.

Rita Cameron, Secretary: responsible for secretarial support.

2. Committees

Network Coordinating Council: The Network Coordinating Council (NCC) is composed of representatives of ESRD providers located in the states of Illinois, Indiana, Kentucky, and Ohio which are certified by the Secretary of Health and Human Services to furnish at least one specific ESRD service. The NCC includes a representative of each of the current Medicare approved ESRD facilities. Each facility has a single representative, designated by its chief executive officer or medical director, who is approved by the governing board of the facility. The NCC is responsible for the election of members to the Board of Trustees and the Medical Review Board. Elections are held by mail-in ballot. The Council meets once annually. During 2002, the Council met on May 3.

During 2002, the following occurred:

- ◆ The 2002 slates for membership on the Board of Trustees and Medical Review Board were presented and approved. Nominations were accepted from January through May 3 (at 5 p.m. EST) for open positions. Members were elected to both committees by mail-in ballot in the fall. Terms of office were to begin on January 1, 2003 and end on December 31, 2005.
- ◆ 2001 data were presented and the 2001 Annual Report was distributed and posted to the Network Web site (www.therenalnetwork.org).
- ◆ The Network Coordinating Council was updated on activities with CMS and the Forum of Renal Networks, and contract issues.
- ◆ The 2002 Nephrology Conference was held at the Hyatt on the Riverwalk in downtown Chicago on May 2, 3 and 4. The Conference offered educational programs for administrators, physicians, nurses, social workers, dietitians, and technicians.
- ◆ Dialysis facilities within Network 9/10 were informed of and participated in the CMS Clinical Performance Measures Project and the Catheter Reduction Quality Improvement Project.

Board of Trustees: The Board of Trustees is the chief governing body of ESRD Network 9/10. The Board of Trustees holds the Network contracts for ESRD Network 9/10 with the CMS, and is responsible for meeting contract deliverables and oversight of the administration of the Network budget.

In 2002, the Board of Trustees was composed of 24 members, elected for three year terms of office including:

Eight Renal Physicians
Four ESRD Patients
Two Non-Categorical Positions
Chairperson of the Medical Review Board/ Network 9 area
Chairperson of the Medical Review Board/Network 10 area
One Nurse
One Social Worker
One Administrator
One Dietitian
One Technician
One Legal Representative
One Financial Representative
The Past President

The Board of Trustees met in person on February 13, May 29, August 28, and November 13, 2002 (conference call).

Members of the Board of Trustees for 2002 were:

Jay B. Wish, M.D., President	Craig Stafford, M.D., Vice President
Chester Amedia, Jr., M.D., Treasurer	Pat Gunnerson, Secretary
George Aronoff, M.D., Ntwk 9 MRB Chair	Robert Mutterperl, D.O., Ntwk 10 MRB Chair
Emil P. Paganini, M.D., Past President	William (Dirk) Combs
Evernard Davis	Brian Duffy, M.D.
Jeffrey Fehn, C.P.A.	Billie Goble, M.S.W.
Thomas Golubski, M.D.	Richard J. Hamburger, M.D.
JoAnn Johnson, R.N.	Stephen Korbet, M.D.
Mark Parks, C.H.T.	Janeen Beck Leon, R.D.
Jane Robinson, M.S.N., R.N.	Stanton Schultz, M.D.
Catherine Simmons, R.N.	Joseph Scodro, Esq.
Cheryl Sweeney, R.N., C.N.N.	

During 2002, the Board of Trustees accomplished the following:

- ◆ Network financial records were reviewed and expenditure reports approved.
- ◆ The Board of Trustees heard updates from the Medical Review Board, the Patient Advisory Councils, the Nominating Committee, and the Program Committee. These updates included committee activities and action items.

- ◆ The Board of Trustees was updated on activities with CMS, The Forum of ESRD Networks, and contract issues.

Medical Review Board: The Medical Review Board (MRB) is composed of 35 members, elected for three year terms of office including:

16 Physicians	3 ESRD Nurses
3 ESRD Social Workers	3 ESRD Dietitians
3 ESRD Facility Administrators	4 ESRD Patients
3 ESRD Technicians	

The Medical Review Board functions with the concurrence and subject to the review and control of the Board of Trustees. The President of the Board of Trustees serves in an ad hoc capacity. The MRB performs functions prescribed by the regulations issued by the Secretary of Health and Human Services, as well as other duties related to quality improvement, vocational rehabilitation, and patient concerns as requested by the Network Coordinating Council. The MRB met on February 27, April 17, September 18, and November 20.

Members of the MRB for 2002 were:

George Aronoff, M.D., Chairperson	Robert Mutterperl, D.O., Ntwk 10 MRB Chair
Ashwini Sehgal, M.D., Vice Chairperson	
Steve Adley, B.S.N.	Deepa Chand, M.D.
David Charney, M.D.	Paul Crawford, M.D.
Peter DeOreo, M.D.	John Ducker, M.D.
Andrew Finnegan, C.H.T.	Sandra Fritzsich, R.N., J.D.
Elisabeth Fry, R.D., L.D.	Clifford Glynn, C.H.T.
Janet Hanson	Carol Jackson, M.S.W.
Meghan Hiland, M.S.S.A.	Stephen McMurray, M.D.
Romeo Micat, M.D.	Dennis Muter, C.H.T.
Andrew O'Connor, D.O.	Kathy Olson, R.N.
Julie Prinsen, R.D.	Rosemary Ouseph, M.D.
Harry Rubinstein, M.D.	C. Frederic Strife, M.D.
Marcia Silver, M.D.	Robert Sollod, Ph.D.
Martinlow Spaulding	Charles Sweeney, M.D.
Eddie Taylor	Linda Ulerich, R.D.
Margaret Westbrook, M.S.W.	Jay B. Wish, M.D.
Elaine Worcester, M.D.	Steven Zelman, M.D.

During 2002, the Medical Review Board:

- ◆ Continued the refinement of the tables and the distribution of The Physician Activity Report. This report, shows Network nephrologists their patient data from the Clinical Performance Measures, as reported via the unique physician identification number (UPIN). These reports were mailed to more than 600 nephrologists at three times during 2002: March, July, and October.
- ◆ Continued the refinement of the Facility Clinical Performance Measures Reports that included the Needs Assessment Reports for hemodialysis adequacy and anemia management. These reports show facility data compared to the top 20-percentile facility rates for adequacy and anemia management care processes. These reports were distributed to facility medical directors, administrators, and nurse managers. These reports were mailed to more than 450 dialysis programs and 600 nephrologists at three times during 2002: March, July, and October.
- ◆ Implemented the CMS required Catheter Reduction Quality Improvement Project, CRQIP. Based on network and national data from December 2000, the percentage of prevalent hemodialysis patients with a catheter was 30% in Network 9/10, three times higher than guideline recommendations. Twenty-five facilities were selected to participate in this collaborative project, 11 from Network 10, and 14 from Network 9. The project followed the collaborative model and rapid cycle PDSA format. Interventions included: three learning sessions, conference calls, monthly catheter data collection, posters, presentations, feedback reports, and education materials in a Change Kit. Facilities developed, implemented, and reported on improvement projects addressing reduction of hemodialysis catheters.
- ◆ Worked to refine the repository of Network aggregate data, called The Renal Network Data System (TRNDS). The repository was developed to encourage members of the Network, as well as the renal community at large, to use the data for their own quality improvement endeavors. Data from TRNDS was used to present three abstracts at the 2002 meeting of the American Society of Nephrology.
- ◆ Oversaw the dissemination of a Facility Profile, which displays descriptive data from each facility, with comparisons of regional, state, Network and national statistics for those same areas, including demographic and diagnosis data. Included also are SMR and gross mortality. These profiles are distributed annually to each facility to help them in their continuous quality improvement efforts.
- ◆ Oversaw the Intervention Profile Reports dissemination and activities. Hemodialysis and peritoneal dialysis programs were reviewed for statistical differences and assigned points for performance in adequacy, anemia management, grievances, participation in MRB-approved activities, mortality, catheter use, hospitalization, patient tracking and CMS form compliance. Programs with high points are required to implement action plans and report the improvements to the MRB. These reports are mailed annually.

- ◆ Oversaw the activities of the Pediatric Renal Group, a subcommittee of the Medical Review Board. The goal of the Group is to act as a resource to the Network on the care and treatment of pediatric dialysis and transplant patients. The Pediatric Renal Group met on May 2 and September 26 and 27. Subcommittee work was accomplished through conference calls during the year.
- ◆ Oversaw the activities of the Transplant Task Force, a specialty group organized to advise on matters regarding renal transplantation. The purpose is two-fold: to educate the transplant community on The Renal Network and to offer assistance to the transplant community. The Task Force met on April 16. It focused on redefining transplant status codes to provide better data on patients awaiting transplant, and in developing educational materials for patients and staff.
- ◆ Received continuous updates on the activities of CMS and the ESRD Network Scope of Work, the United States Renal Data System (USRDS), The Forum of ESRD Networks, and the Quality Assurance Committee of The Forum.
- ◆ Reviewed data profiles, including rates for clinical performance measures, mortality, home therapy, and transplantation.
- ◆ Reviewed grievances filed with the Network.
- ◆ Oversaw the implementation of the CMS clinical performance measures project.

Transplantation Task Force. To further enhance its focus on transplantation, the MRB established, with the approval of the Board of Trustees, a Transplant Task Force. This group is charged to advise on the status of renal transplantation within Network 9/10; all members come from within the transplant community. During 2002, the task force focused on refining transplant status codes to develop a facility-specific report which will show dialysis facilities how their units perform in the area of placing patients on the waiting list, in comparison with regional and state achievements. A second area of focus will be to develop and disseminate educational materials. The task force met on April 16, and held conference calls throughout the year. The task force is chaired by Thomas Waid, M.D., a transplant nephrologist from the University of Kentucky. Dr. Waid is a past member of the Medical Review Board.

Other members include:

Jim Callahan, Transplant Patient Representative
Orland Park, Illinois

Nancy Durance, R.N.,
University Hospitals of Cleveland- Transplant

Brian Haag, M.D.
Methodist Hospital/Clarian Health, Indianapolis

Bruce Lucas, M.D.
University of Kentucky Medical Center, Lexington

Akinlolu Ojo, M.D., Ph.D., Consultant
University of Michigan Health System. Ann Arbor

Rosemary Ouseph, M.D.
University of Louisville, Kidney Disease Program

Ash Sehgal, M.D.
MetroHealth Medical Center, Cleveland

Roseann Sweda, R.N.
Department of Transplant Surgery, University of Chicago

Linda Ulerich, R.D.
Methodist Hospital/Clarian Health, Indianapolis

Steve Woodle, M.D.
University of Cincinnati, Department of Surgery

Jay B. Wish, M.D. (*ex officio*)
University Hospitals of Cleveland

George Aronoff, M.D. (*ex officio*)
University of Louisville, Kidney Disease Program

Caleb Alexander, M.D., Research Fellow

Academic Consortium: The purpose of the Academic Consortium is to bring together the chairs of the nephrology programs in academic institutions throughout The Renal Network. The consortium met for the first time on November 15, 2002. Dr. Emil Paganini, past president and BOT member, serves as chair for the consortium. Other members include:

George R. Aronoff, M.D.
University of Louisville - Kidney Disease Program

Jose Arruda, M.D.
University of Illinois - Section of Nephrology

Daniel Batlle, M.D.
Northwestern University Medical School - Division of Nephrology and Hypertension

William Bay, M.D.
OSU University Medical Center - Department of Internal Medicine - Nephrology

Anil Bidani, M.D.
Loyola University Chicago - Stritch School of Medicine
Department of Medicine, Division of Nephrology

Michael E. Brier, Ph.D.
University of Louisville - Kidney Disease Program

Deepa Chand, M.D.
The Cleveland Clinic Foundation - Pediatric Nephrology

Vincent Dennis, M.D.
The Cleveland Clinic Foundation - Department of Nephrology and Hypertension

Paolo Fanti, M.D.
Division of Nephrology - University of Kentucky Medical Center

Karen Griffin, M.D.
Loyola University Chicago - Stritch School of Medicine

Lee A. Hebert, M.D.
The Ohio State University, Department of Internal Medicine, Division of Nephrology

Richard N. Hellman, M.D.
Indiana University, Division of Nephrology

Donald Hricik, M.D.
University Hospitals of Cleveland - Division of Nephrology

Edmund J. Lewis, M.D.
Rush-Presbyterian St. Luke's
Medical College of Ohio

Deepak Malhotra, M.D.
Medical College of Ohio

Hartmut Malluche, M.D.
University of Kentucky, Division of Nephrology, Bone and Mineral Metabolism

Bruce A. Molitoris, M.D.
Indiana University Department of Medicine - Division of Nephrology

Andrew S. O'Connor, D.O.
MetroHealth Medical Center

Richard Quigg, M.D.
University of Chicago - Section of Nephrology

Ash Sehgal, M.D.
MetroHealth Medical Center

Nicole Stankus, M.D.
The University of Chicago - Section of Nephrology

Elaine Worcester, M.D.
University of Chicago - Lake Park

Jay B. Wish, M.D.
University Hospitals of Cleveland

Patient Leadership Committee: The purpose of the Patient Leadership Committee (PLC) is to identify and address ESRD patient needs and concerns through the development of educational projects and activities. The PLC met on April 11, June 21, September 26, and November 15, 2002.

Members of the Patient Leadership Committee during 2002:

Katrina Boehmer	Celia Chretien
William Combs	Leslie DeBaun
Loraine Edmond	Craig Fisher
Barbara Gronefeld	Pearl Hirsh
Diane Hohwald	Sonia Juhasz
Kathy Kirk	Ellen Newman
Bob Nordsiek	Ron Pinchback
Mary Ramsey	Nina Ray
Janet Schueller	David Schowogler
Fonda Setters	Yvonne Smith
Martinlow Spaulding	Eddie Taylor
Julie Thompson	Guy Tibbels
Nancy Ware, L.I.S.W.	

During 2002:

An orientation was held for new members who would also serve on the Medical Review Board or Board of Trustees.

The PLC subcommittees accomplished during 2002:

The **Pediatric Subcommittee** developed a draft of an educational project entitled *Your Kidneys and You*. It is geared toward school age children to educate them about the kidney disease of their loved ones and to help them cope with chronic illness in their family.

Work continued with the New Media program to develop a CD-ROM educational game for children.

The **Family Subcommittee** developed articles for the *Renal Outreach* on issues related to families and living with the kidney failure of a child or spouse. The committee is also working on a multimedia project for families.

The **Special Projects Subcommittee** developed a calendar for dialysis facilities that has monthly activities to encourage patient and staff communication.

The **Patient Education Subcommittee** investigated problems that staff and patients have with each other and developed potential solutions on how to resolve these issues.

Patient Advisory Council: The Patient Advisory Council (PAC) membership includes approximately 200 patients appointed by their facilities to act as liaisons to the Network. The following PAC activities were accomplished during 2002:

- ◆ The PAC Handbook was distributed to all new PAC Representatives.
- ◆ The PAC newsletter, *PAC ActionGram*, highlighted the theme “Staying Healthy.” Resources included two posters and information and activities to use within the facility.
- ◆ The BOT approved the change to make the PAC Reps totally facility-based during 2003.

3. CMS NATIONAL GOALS & NETWORK ACTIVITIES

All ESRD Network organizations are responsible for the goals listed in the following section. Under each goal are the activities accomplished during 2002 toward meeting each goal:

GOAL 1: Improving the quality of care of health care services and quality of life for ESRD beneficiaries.

Improving quality of care for ESRD beneficiaries was accomplished through clinical initiatives developed and supervised by the Medical Review Board and implemented by the Quality Improvement Department of The Renal Network, Inc.

These activities can be categorized in five main subject areas; each is described in the following section of this report:

- A. The Clinical Performance Measures Project
- B. Network 9/10 CPM Interventions
- C. CMS National CPM Project
- D. Network Special Projects/Studies
- E. Focused Quality Assurance Activities

A. The Clinical Performance Measures Project

The Clinical Performance Measures (CPM) Project contributes to a consistent clinical database to assess patient outcomes and support improvement activities at Network 9/10 and facilities. The elements of the database represent clinical measures indicating key components of ESRD patient care. In 2002, all dialysis facilities participated in the Network-wide improvement project. The goals of the project were to:

- (1) increase the knowledge and awareness of the CPM Project to Network 9/10 ESRD providers,
- (2) analyze the applicability of the CPMs on facility and Network levels,
- (3) implement improvement intervention programs on a Network-wide level, and,
- (4) improve patient outcomes.

The Renal Network maintains a process to collect, analyze, and provide data feedback reports to facilities. In the Network-wide CPM project, facilities collected data on 100% of prevalent patients and electronically submitted this to the Network for analysis. There were three hemodialysis (HD) collections: April, July, and the fourth quarter of 2002. Peritoneal dialysis (PD) data were collected in three, four-month cycles: January-April 2002 (J-A01), May-August 2002 (M-A02), and September-December 2002 (S-D02). The data were analyzed by the MRB and feedback reports were distributed after each collection. The patient demographics and facility participation rates by state and Network 9/10 are described in Tables A.1 and A.2.

Table A.1. 2002 April, July & 4th Quarter Hemodialysis (HD) Patient Demographics & Facility Participation

Patient Demographics	Illinois			Indiana			Kentucky			Ohio			Network 9/10		
	Apr	July	4Q	Apr	July	4Q	Apr	July	4Q	Apr	July	4Q	Apr	July	4Q
Total Number	10477	10838	12314	4783	4994	5627	2872	2862	3245	10245	10307	11587	28743	29001	32773
Sex															
Men	54%	54%	54%	54%	54%	53%	53%	54%	54%	53%	53%	53%	54%	54%	53%
Women	46	46	46	46	46	47	47	46	46	47	47	47	46	46	47%
Race															
Black	44%	43%	43%	31%	31%	32%	29%	28%	29%	40%	39%	39%	39%	38%	38%
White	50	50	51	67	67	65	69	70	70	58	59	59	57	58	58
Other	6	6	6	2	2	2	1	1	1	2	2	2	4	4	4
Age in years															
< 18	*%	*%	*%	*%	*%	*%	*%	*%	*%	*%	*%	*%	*%	*%	*%
18-44	15	15	15	15	14	15	16	16	16	14	14	14	15	15	15
45-64	38	38	38	36	36	35	39	39	39	35	35	36	37	37	37
65-74	24	24	24	25	25	25	25	26	26	26	26	26	25	25	25
75+	22	23	23	24	24	24	19	19	19	24	24	25	23	23	23
Primary Dx															
DM	37%	37%	37%	40%	40%	40%	43%	43%	44%	44%	44%	44%	41%	41%	41%
HTN	34	35	34	29	30	31	24	25	25	24	24	24	29	29	29
GN	10	10	10	12	12	11	13	12	12	13	13	13	12	12	12
Other	18	18	18	19	18	18	20	20	20	18	18	19	18	18	18
Unknown	*	*	1	*	*	*	*	*	*	*	1	*	*	*	*
% Facility Participation	98	98	100	95	99	95	100	100	98	98	99	96	98	99	96

*% represents less than one percent. Subgroup total may not add to 100% due to rounding or missing data elements.

Table A.2. 2002 Peritoneal Dialysis (PD) Patient Demographics & Facility Participation

Patient Demographics	Illinois			Indiana			Kentucky			Ohio			Network 9/10		
	J-A 02	M-A 02	S-D 02	J-A 02	M-A 02	S-D 02	J-A 02	M-A 02	S-D 02	J-A 02	M-A 02	S-D 02	J-A 02	M-A 02	S-D 02
Total Number	1074	1163	1164	681	669	646	277	276	235	1237	1244	1086	3269	3352	3131
Sex															
Men	53%	53%	52%	50%	50%	49%	56%	54%	51%	50%	50%	50%	51%	51%	51%
Women	47	47	48	50	50	51	44	46	49	50	50	50	49	49	49%
Race															
Black	26%	26%	29%	21%	21%	22%	14%	13%	13%	25%	23%	23%	23%	23%	24%
White	66	66	62	76	76	76	84	86	86	73	74	75	72	73	71
Other	8	8	9	2	3	3	1	1	1	3	3	2	4	4	5
Age in years															
< 18	2%	2%	2%	3%	3%	3%	3%	3%	3%	3%	3%	2%	3%	3%	2%
18-44	23	22	22	24	22	22	24	23	24	23	22	22	23	22	22
45-64	43	43	43	41	45	41	45	41	43	41	42	41	42	43	42
65-74	19	19	20	20	19	21	21	21	20	20	21	23	20	20	21
75+	13	13	13	12	11	13	8	12	11	13	13	12	12	13	13
Primary Dx															
DM	32%	32%	32%	33%	37%	33%	39%	37%	41%	41%	40%	38%	36%	37%	35%
HTN	25	25	26	24	24	25	18	17	19	16	17	19	21	21	23
GN	20	19	18	19	17	17	20	20	16	18	19	19	19	19	18
Other	21	22	22	24	23	25	23	25	24	25	24	24	23	23	23
Unknown	2	2	2	0	0	0	0	0	0	0	0	0	1	1	1
% Facility Participation	95	95	97	97	97	97	90	100	95	95	97	97	94	97	97

Subgroup total may not add to 100% due to rounding or missing data elements.

Comparison of HD Outcomes from 4th Quarter 2001 to 4th Quarter 2002

- % patients with average URR \geq 65% increased from 85% to 86%
- Average URR increased from 71.2% to 71.72%
- % patients with average Kt/V Daugirdis II \geq 1.2 increased from 89% to 89.6%
- Average Kt/V Daugirdis II increased from 1.52 to 1.54
- Average hemoglobin increased from 11.8 to 11.87 gm/dL
- % patients with average hemoglobin \geq 11 gm/dL increased from 77% to 78.9%
- % patients with average hemoglobin between 11-12 gm/dL decreased from 34% (2001) to 33% (2002)
- % patients with average hemoglobin \geq 12 gm/dL increased from 46% to 49%
- % of patients with average albumin \geq 3.5 gm/dL decreased from 82% to 81.5%
- Average albumin remained at 3.79 gm/dL

Comparison of PD Outcomes from September – December Cycle 2001 – 2002

- % patients with measurement of weekly Creatinine Clearance(CrCl) or weekly Kt/V increased from 84% to 85%
- % patients meeting weekly CrCl or Kt/V target decreased from 87% to 86%
- Average hemoglobin increased from 11.9 to 12.0 gm/dL
- % patients with average hemoglobin \geq 11 gm/dL increased from 73% to 75.9%
- % patients with average hemoglobin between 11-12 gm/dL decreased from 30% (2001) to 29% (2001)
- % patients with albumin \geq 3.5 gm/dL increased from 61% to 65%
- Average albumin increased from 3.57 to 3.59 gm/dL

1. CPM Results.

Three clinical areas are addressed in the CPM project. The treatment of anemia includes the first monthly pre-dialysis hemoglobin (HGB), transferrin saturation (TSAT), serum ferritin concentration and weekly Epogen (Epo) dosage. HD adequacy contains the first monthly-paired pre/post serum urea nitrogen for a urea reduction ratio (URR) and a calculation of Kt/V using the Daugirdas II methodology. PD adequacy uses the reported weekly creatinine clearance and Kt/V. The nutritional status is measured by the serum albumin; bromocresol purple (BCP) assay measurements are adjusted by +0.3 for comparison with the bromocresol green (BCG) measurements.

2.a. Treatment of Anemia - Hemodialysis. Figure A.1. shows the percentage of patients with average pre-dialysis HGB \geq 11 gm/dL. Network 9/10 rates had a statistical increase of 2% between the fourth quarter of 2001 and the fourth quarter of 2002; state rate increases ranged from 1%-3%. The increases for Illinois and Indiana were statistically significant using a 95% confidence interval.

Figure A.2. and Table A.3 show the distribution of HGB values for the states, Network 9/10 and the United States. The average HGB has increased for the past five years in all states. Network 9/10 data for the fourth quarter of 2002 showed an increase to 11.9 gm/dL over the previous year, which was 11.8 gm/dL. In all states, the percentage of patients with average HGB \geq 12 gm/dL increased; this percentage is higher than the national comparative.

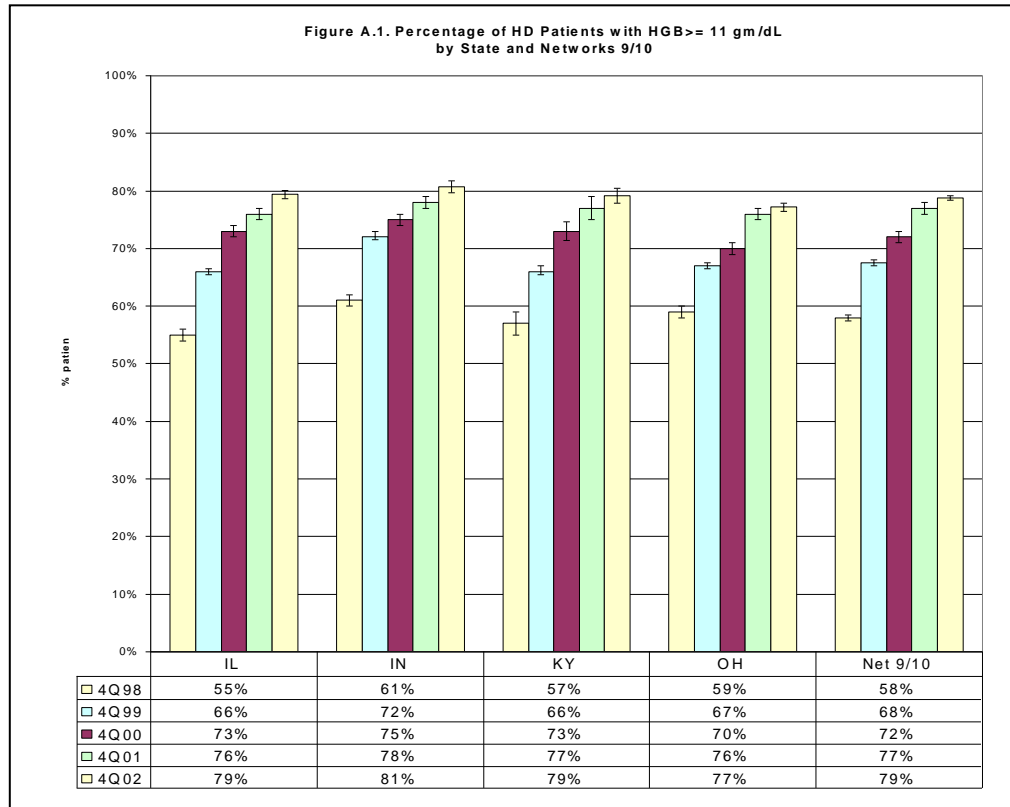


Table A.5. compares the percent of HD patients with paired TSAT $<$ 20% and Ferritin $<$ 100 ng/mL from 4th quarter 1997-2002.

**Figure A.2. Distribution of HD Hemoglobin Values (gm/dL)
in Networks 9/10 & U.S.**

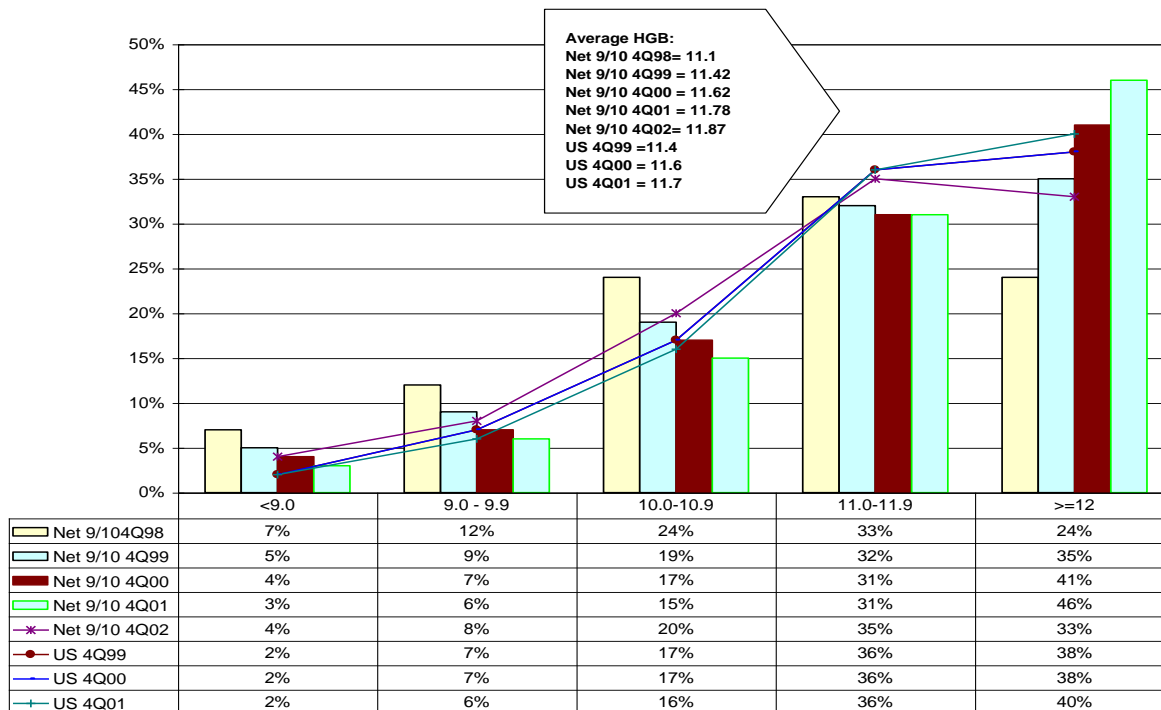


Table A.3. Distribution of HD HGB values (gm/dL) by State.

	< 9	9 – 9.9	10 – 10.9	11 – 11.9	≥12
IL 4Q98	8%	12%	25%	32%	23%
IL 4Q99	6%	9%	19%	32%	34%
IL 4Q00	4%	7%	16%	30%	43%
IL 4Q01	3%	6%	14%	30%	47%
IL 4Q02	2%	6%	13%	29%	51%
IN 4Q98	5%	10%	23%	35%	26%
IN 4Q99	4%	7%	18%	32%	40%
IN 4Q00	3%	6%	16%	31%	44%
IN 4Q01	2%	6%	14%	30%	48%
IN 4Q02	2%	5%	13%	28%	52%
KY 4Q98	8%	11%	24%	34%	23%
KY 4Q99	6%	9%	19%	34%	32%
KY 4Q00	3%	8%	17%	32%	41%
KY 4Q01	2%	6%	15%	33%	44%
KY 4Q02	2%	5%	14%	33%	46%
OH 4Q98	7%	12%	24%	34%	24%
OH 4Q99	4%	9%	20%	32%	35%
OH 4Q00	3%	8%	19%	33%	37%
OH 4Q01	3%	6%	16%	32%	44%
OH 4Q02	2%	6%	15%	31%	46%

Subgroup total may not add to 100% due to rounding

Table A.4. compares average and standard deviation values by state for HGB, TSAT, ferritin and Epo dose. The more frequent route of Epogen™ administration was reported as intravenous at 88%. This was an increase of 4% from the fourth quarter of 2001. The average Epogen™ dose increased from 276 to 287 units/kilogram/week in the fourth quarter 2002. Iron prescriptions were reported for 18,104 HD patients in the fourth quarter of 2002. Of the patients who were prescribed iron, 93% were prescribed intravenous iron, an increase of 1% from the previous fourth quarter. Between the fourth quarters of 1997 and 2002, the average TSAT range stayed between 28% and 29.0%. The average ferritin decreased from 679 ng/mL to 654 ng/mL.

Table A.4. HD Anemia Management Measures by State and Networks 9/10.

	Illinois		Indiana		Kentucky		Ohio		Net 9/10	
	avg	sd	avg	sd	avg	sd	avg	sd	avg	sd
HGB 4Q98	11.0	1.6	11.2	1.3	11.0	1.3	11.1	1.3	11.1	1.4
HGB 4Q99	11.4	1.4	11.6	1.4	11.4	1.4	11.4	1.4	11.4	1.4
HGB 4Q00	11.7	1.4	11.7	1.3	11.7	1.4	11.5	1.3	11.6	1.4
HGB 4Q01	11.8	1.4	11.9	1.3	11.8	1.3	11.7	1.3	11.8	1.4
HGB 4Q02	11.9	1.4	12.0	1.3	11.8	1.3	11.8	1.3	11.9	1.3
TSAT 4Q97	29.0	13.9	29.5	13.3	28.5	13.7	26.7	13.0	29.0	13.9
TSAT 4Q98	30.2	14.3	27.6	13.0	27.5	13.4	26.9	13.2	28.4	13.7
TSAT 4Q99	29.7	13.4	27.2	12.9	26.4	12.3	26.9	12.6	28.0	13.0
TSAT 4Q00	29.7	13.2	27.7	12.4	27.8	11.9	27.1	12.7	28.3	12.8
TSAT 4Q01	28.7	12.3	28.2	12.1	28.4	12.3	27.8	12.7	28.3	12.4
TSAT 4Q02	29.0	12.3	28.8	12.1	29.6	12.5	28.3	12.5	28.8	12.4
Ferritin 4Q97	431	425	523	429	409	391	508	437	469	429
Ferritin 4Q98	459	430	534	462	436	400	516	421	489	431
Ferritin 4Q99	465	461	545	469	507	424	558	446	514	456
Ferritin 4Q00	556	437	565	426	547	425	568	442	561	436
Ferritin 4Q01	693	484	674	444	651	480	676	507	679	485
Ferritin 4Q02	670	477	647	449	655	432	641	440	654	455
Epo dose										
u/kg/wk 4Q97	227	880	205	158	229	223	228	205	223	570
u/kg/wk 4Q98	250	200	220	180	241	191	243	193	241	194
u/kg/wk 4Q99	257	194	239	197	223	183	228	200	240	196
u/kg/wk 4Q00	247	199	240	210	232	188	235	208	240	203
u/kg/wk 4Q01	283	221	262	213	274	212	275	221	276	219
u/kg/wk 4Q02	296	242	296	253	281	230	275	232	287	240

Figures A.3. & A.4. compare HD patients TSAT and ferritin rates between states and Network 9/10 for the fourth quarters of 2000 - 2002.

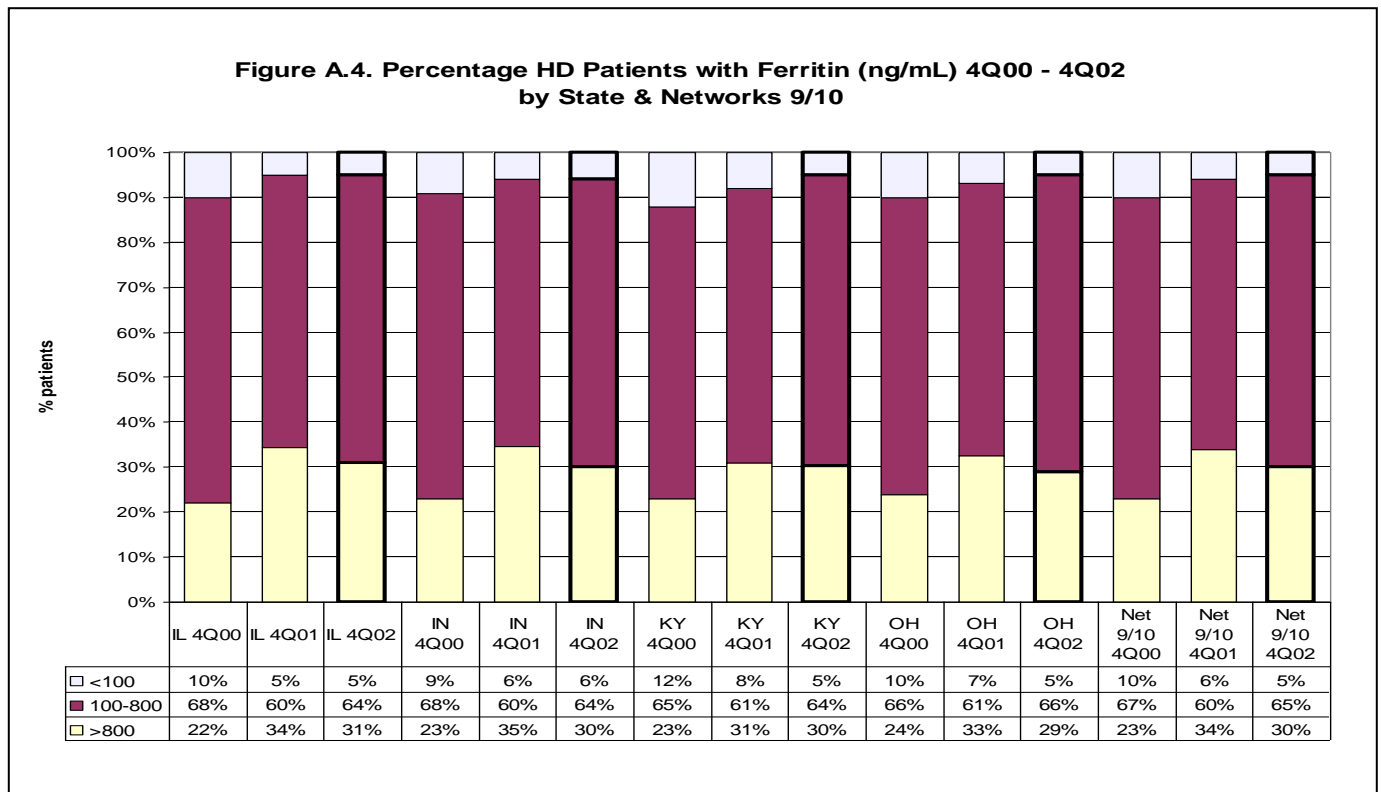
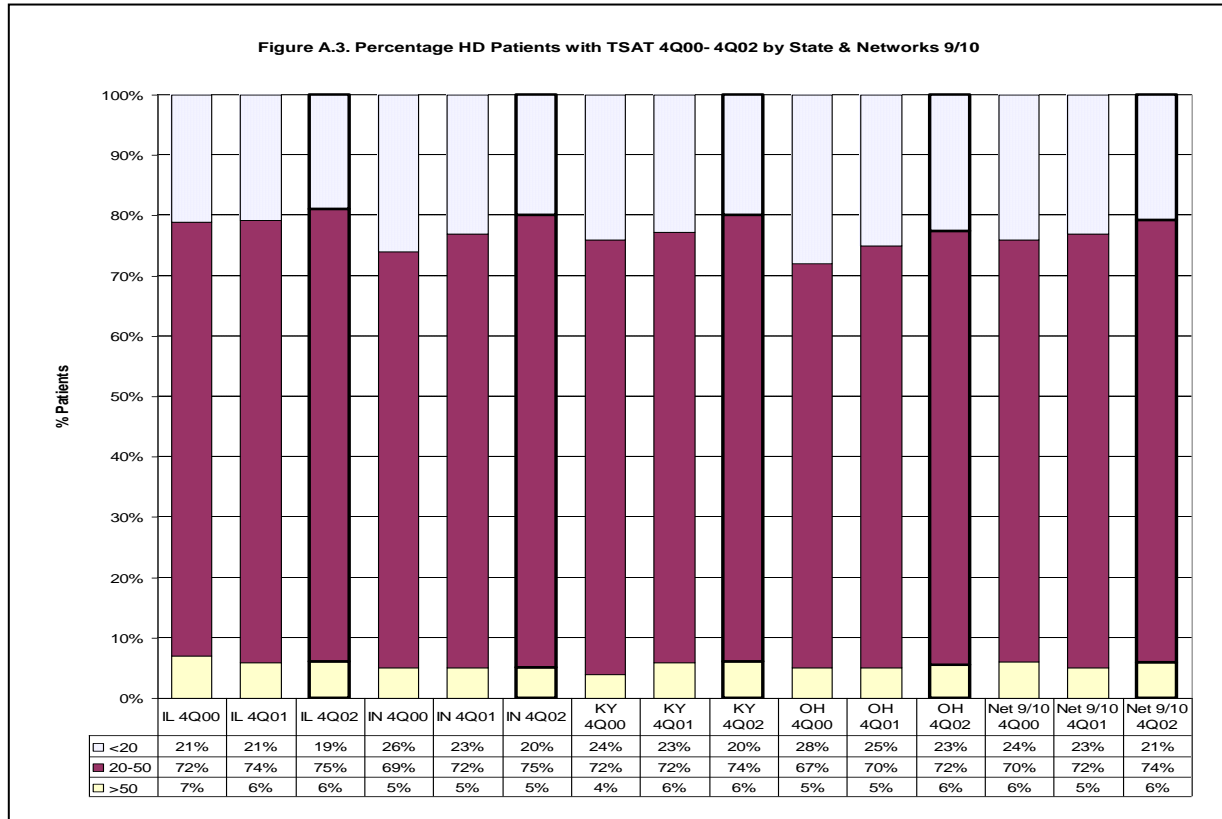


Table A.5. Anemia Management Measures for Percentage of HD Patients in 4th Quarter 1997-2002 with Paired TSAT <20% & Ferritin < 100 ng/mL by State and Networks 9/10

4 th Quarter – Year	Illinois	Indiana	Kentucky	Ohio	Net 9/10
1997	10%	6%	12%	6%	8%
1998	8%	7%	12%	6%	8%
1999	7%	6%	9%	6%	7%
2000	4%	5%	6%	5%	5%
2001	3%	3%	4%	3%	3%
2002	3%	3%	3%	3%	3%

2.b.Treatment of Anemia – Peritoneal Dialysis. Anemia management measures show improvement in each of the reporting cycles.

Figure A.5. shows the percentage of patients with average HGB \geq 11 gm/dL for the states and Network 9/10. Network 9/10 rates improved to 76% an increase of 3% from September – December 2001-2002. This kept pace with the U.S. rate of 76%, an increase of 3%.

Table A.6. shows the distribution of HGB values for the states. The distribution is shifting to the right, indicating improvement.

Table A.7. reports averages and standard deviations of the HGB, TSAT, Ferritin and EPO dose measurements. In the September-December 2001 cycle, the more frequent route of Epogen™ administration was reported as subcutaneous at 98%. The average Epogen™ dose decreased from 162 to 152 units/kilogram/week between September-December 2001-2002.

Figures A.6. and A.7. compare the TSAT and ferritin values by state and Network 9/10 for the periods January through April 2002, May through August 2002, and September through December 2002.

Table A.8. shows state comparisons for paired TSAT <20 % and ferritin <100 ng/mL measures. The Network 9/10 rate is 6% as compared to the U.S. rate of 5%. Iron prescriptions were reported for 1,875 patients in September – December 2001; 15% of these patients were reported having an IV iron prescription. This represents an increase of 5% from the same time period in 2000.

Figure A.5. Percentage of PD Patients with HGB \geq 11 gm/dL by State and Networks 9/10

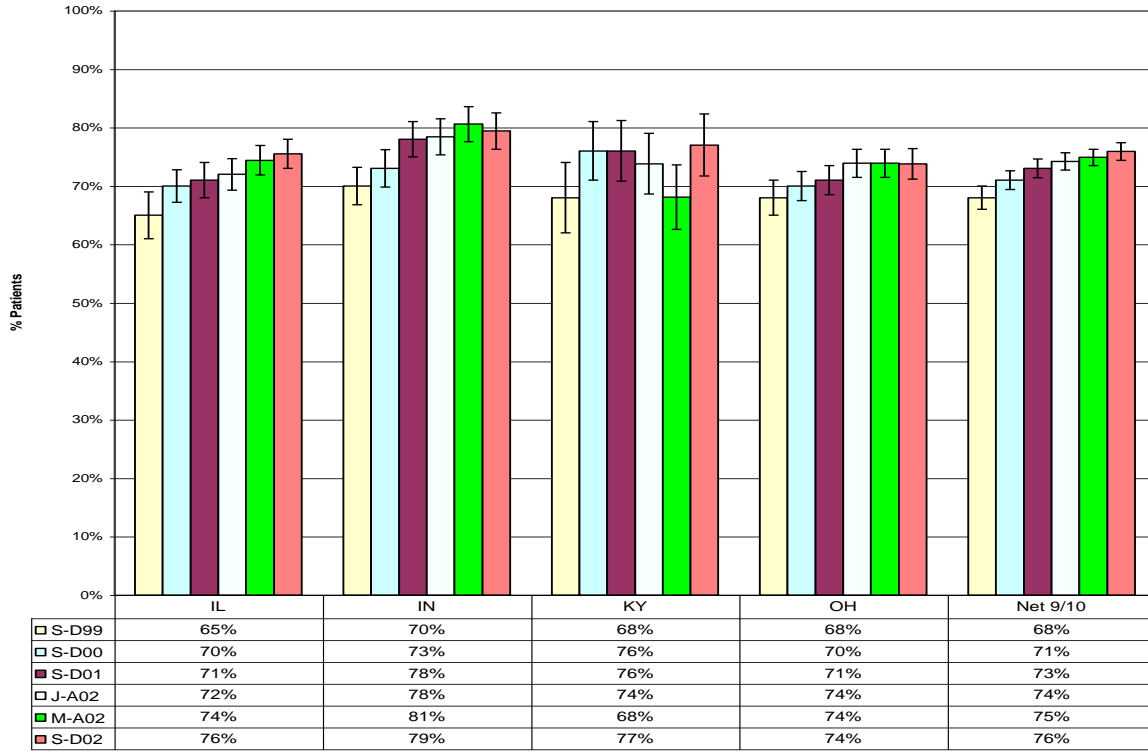


Table A.6. Distribution of PD HGB values (gm/dL) by State & Network 9/10

	< 9	9-9.9	10-10.9	11-11.9	12+
IL S-D99	6%	10%	20%	25%	40%
IL S-D00	4%	8%	19%	27%	43%
IL S-D01	4%	8%	17%	24%	48%
IL J-A02	4%	8%	16%	25%	47%
IL M-A02	5%	6%	14%	28%	46%
IL S-D02	4%	6%	15%	26%	50%
IN S-D99	4%	9%	18%	27%	43%
IN S-D00	4%	6%	17%	28%	45%
IN S-D01	3%	5%	15%	25%	53%
IN J-A02	2%	5%	15%	27%	51%
IN M-A02	2%	5%	12%	31%	50%
IN S-D02	2%	4%	14%	25%	55%
KY S-D99	6%	6%	18%	25%	46%
KY S-D00	5%	5%	14%	27%	50%
KY S-D01	3%	4%	17%	29%	47%
KY J-A02	3%	10%	13%	26%	48%
KY M-A02	6%	6%	19%	25%	43%
KY S-D02	2%	5%	16%	24%	53%
OH S-D99	4%	9%	19%	27%	40%
OH S-D00	4%	7%	18%	26%	44%
OH S-D01	2%	10%	17%	29%	42%
OH J-A02	3%	7%	15%	28%	46%
OH M-A02	3%	6%	17%	27%	47%
OH S-D02	3%	8%	16%	27%	46%
Net 9/10 S-D99	5%	9%	19%	26%	41%
Net9/10 S-D00	4%	7%	18%	27%	44%
Net9/10 S-D01	3%	8%	17%	26%	46%
Net 9/10 J-A02	3%	7%	15%	27%	48%
Net 9/10 M-A02	4%	6%	15%	28%	47%
Net 9/10 S-D02	3%	6%	15%	26%	50%
Subgroup total may not add to 100% due to rounding					

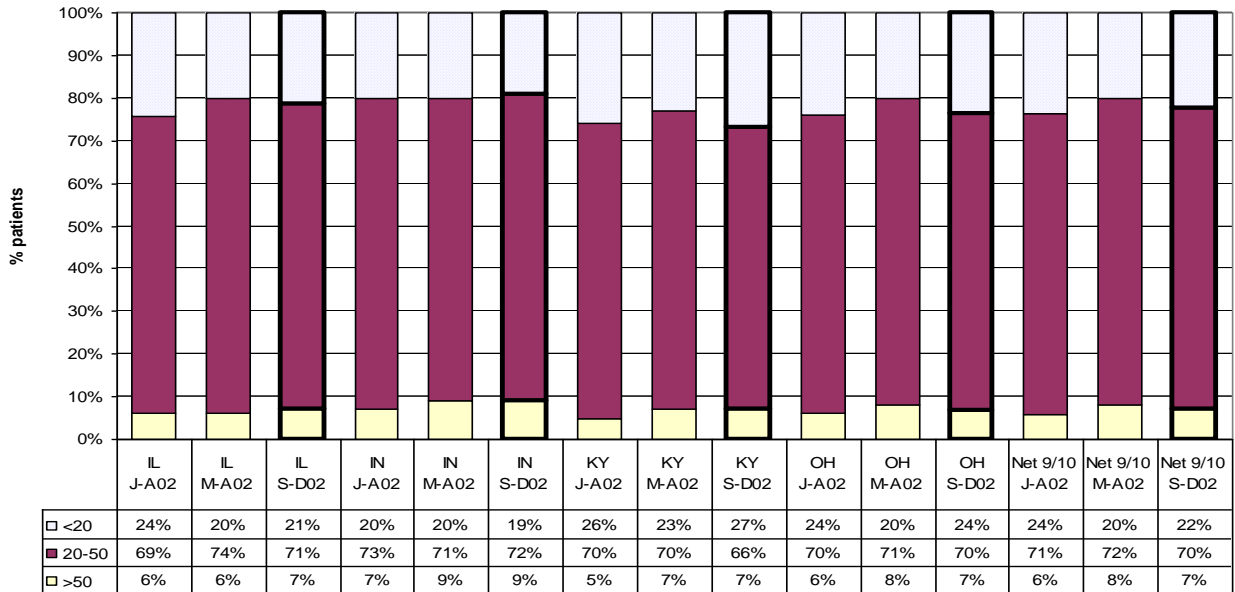
Table A.7. PD Anemia Management Measures by State & Networks 9/10.

	Illinois		Indiana		Kentucky		Ohio		Net 9/10	
	avg	sd	avg	sd	avg	sd	avg	sd	avg	sd
HGB S-D99	11.6	1.7	11.7	1.6	11.8	1.7	11.7	1.7	11.7	1.7
HGB S-D00	11.7	1.6	11.6	1.6	12.0	1.7	11.7	1.6	11.7	1.6
HGB S-D01	11.8	1.7	12.1	1.6	12.0	1.6	11.8	1.7	11.9	1.7
HGB J-A02	11.8	1.7	12.1	1.6	11.9	1.7	11.8	1.6	11.9	1.6
HGB M-A02	11.8	1.7	12.1	1.6	11.7	1.6	11.9	1.6	11.9	1.6
HGB S-D02	11.9	1.6	12.2	1.7	12.1	1.7	11.9	1.6	12.0	1.7
TSAT S-D99	29.8	13.9	29.1	14.5	28.9	13.6	27.3	12.4	28.6	13.6
TSAT S-D00	28.7	13.2	30.2	14.3	29.4	12.9	28.7	13.2	29.1	13.5
TSAT S-D01	30.1	13.7	29.1	13.4	28.7	11.4	29.3	13.2	29.4	13.3
TSAT J-A02	30.0	14.7	30.8	14.1	29.0	13.7	29.2	14.1	29.8	14.3
TSAT M-A02	29.6	13.3	30.9	14.6	29.8	13.7	30.1	14.1	30.1	14.0
TSAT S-D02	30.9	13.5	31.1	14.4	32.3	14.1	29.1	12.6	30.5	13.5
Ferritin S-D99	346	418	465	505	294	282	359	394	378	429
Ferritin S-D00	385	396	510	520	389	435	394	438	418	450
Ferritin S-D01	463	492	470	422	403	327	404	455	440	450
Ferritin J-A02	477	529	487	476	429	398	423	474	455	488
Ferritin M-A02	434	452	462	395	482	470	426	429	441	433
Ferritin S-D02	447	455	521	490	463	379	439	430	462	451
Epo Dose										
u/kg/wk S-D99	147	127	147	127	147	114	140	135	147	127
u/kg/wk S-D00	155	136	154	142	164	138	153	143	155	141
u/kg/wk S-D01	159	151	156	138	184	136	163	162	162	151
u/kg/wk J-A02	162	152	147	127	170	135	165	157	161	148
u/kg/wk M-A02	162	140	154	122	189	224	159	129	161	142
u/kg/wk S-D02	155	149	145	118	171	131	149	144	152	140

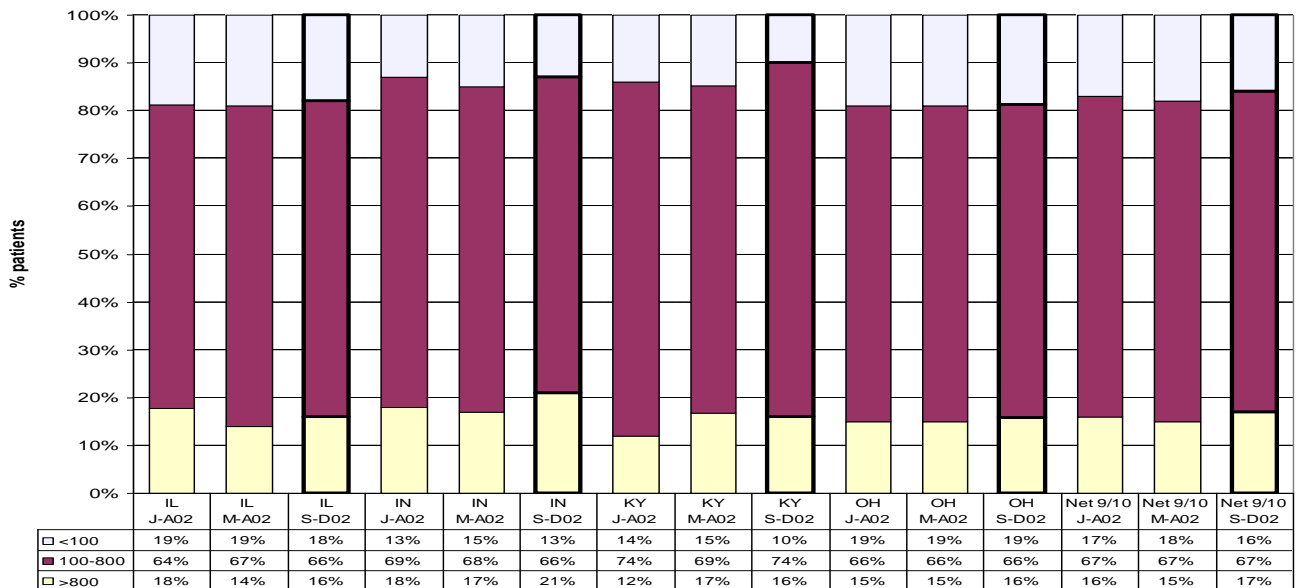
Table A.8. Percentage of Patient Measurements from September-December 1999 to 2002 with Paired TSAT <20% & Ferritin <100 ng/mL by State & Networks 9/10.

	Illinois	Indiana	Kentucky	Ohio	Network 9/10
S-D99	10	9	8	11	10
S-D00	8	6	9	9	8
S-D01	8	6	10	8	7
J-A02	9	5	7	8	8
M-A02	9	6	7	8	8
S-D02	7	5	4	8	6

**Figure A.6. Percent PD Patients with TSAT
 January-April 2002 - September-December 2002
 by State & Networks 9/10**



**Figure A.7. Percent PD Patients with Ferritin (ng/mL)
 January-April 2002- September-December 2002
 by State & Networks 9/10**



2.c. Adequacy of Hemodialysis. Figure A.8. shows the percentage of patients with an average URR of 65% or greater by state, Network 9/10, and by year. An increase of 1% was noted from the fourth quarter of 2001 to the fourth quarter of 2002. There has been progressive improvement for the last six years with a total increase of 20%.

Figure A.9. shows the percentage of patients with an average Kt/V_{Daugirdis II} of 1.2 or greater. There was a 3% increase from one year ago in the Network 9/10 rate. The fourth quarter 2002 average URR was 71.7% with a standard deviation of 7.1 and the average Kt/V_{Daugirdis II} of 1.54 (standard deviation of 0.33). The average HD treatment time increased one minute, from 223 to 224.

Table A.9. shows URR, Kt/V_{Daugirdis II} and treatment time averages and standard deviations by state and Network 9/10.

Figures A.10. and A.11. show the distribution of URR and Kt/V_{Daugirdis II} values for the fourth quarters of 1996- 2002. The curves shift to the right, which indicates adequacy outcome improvements over time.

**Figure A8. Percentage of HD Patients with URR >= 65%
by State & Networks 9/10**

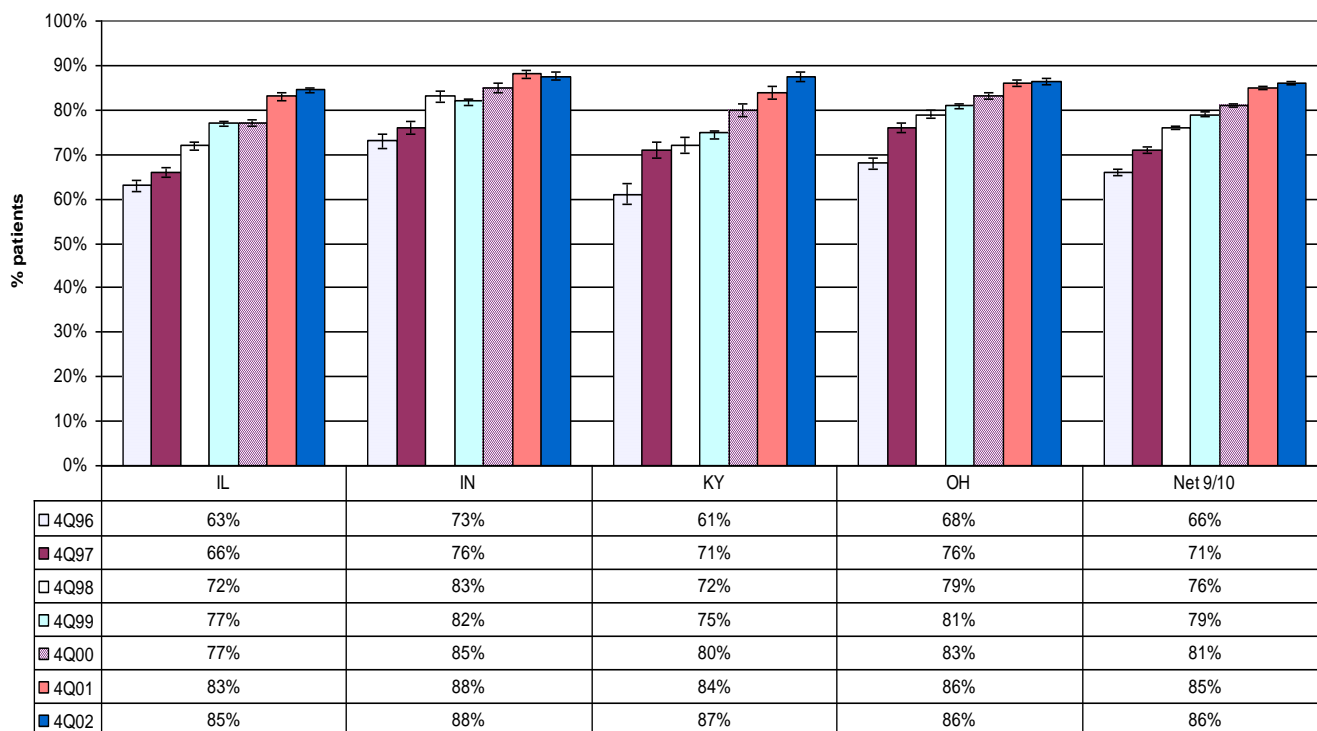


Figure A.9. Percentage of HD Patients with Kt/V_{Daugirdas II} >= 1.2 by State & Networks 9/10

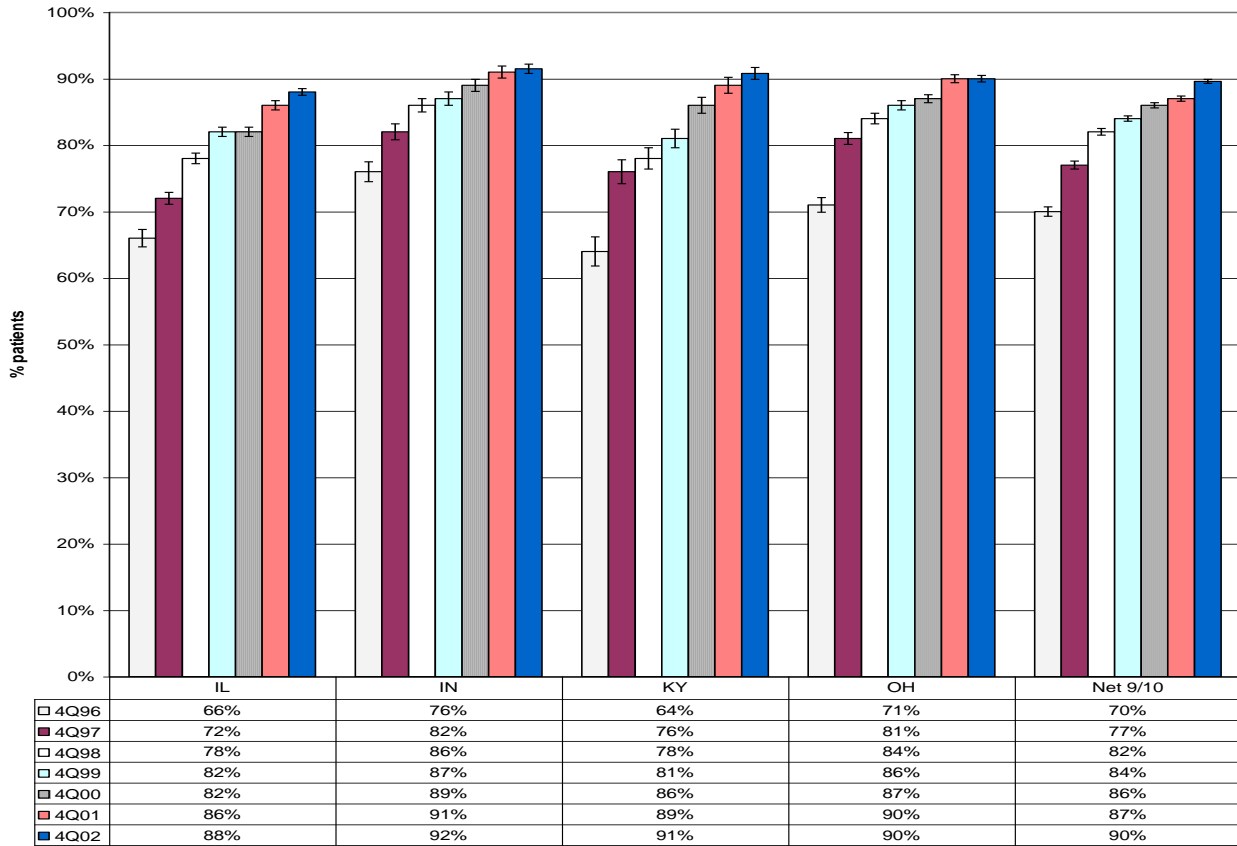


Table A.9. HD Adequacy Performance Measures by State & Networks 9/10.

	Illinois		Indiana		Kentucky		Ohio		Net 9/10	
	avg	sd	avg	sd	avg	sd	avg	sd	avg	sd
URR 4Q96	66.3	9.2	68.6	7.9	65.9	9.0	67.3	7.8	67.1	8.5
URR 4Q97	67.1	8.9	69.4	7.9	68.2	9.4	69.0	7.7	68.2	8.5
URR 4Q98	68.5	8.5	70.7	7.3	68.4	8.1	69.8	7.4	69.3	7.9
URR 4Q99	69.4	7.8	70.7	7.6	70.0	7.8	70.1	7.2	69.8	7.6
URR 4Q00	69.6	7.8	71.5	7.2	70.1	7.1	70.6	6.9	70.3	7.4
URR 4Q01	70.6	7.4	71.8	6.9	70.8	6.8	71.6	6.6	71.2	7.0
URR 4Q02	71.5	7.2	72.4	7.1	71.4	6.6	71.7	6.8	71.7	7.0
Kt/V 4Q96	1.32	.35	1.39	.32	1.30	.32	1.34	.28	1.34	.32
Kt/V 4Q97	1.38	.37	1.47	.36	1.41	.35	1.44	.34	1.42	.36
Kt/V 4Q98	1.43	.36	1.52	.35	1.43	.35	1.48	.36	1.47	.36
Kt/V 4Q99	1.48	.38	1.54	.40	1.45	.35	1.50	.37	1.49	.38
Kt/V 4Q00	1.47	.36	1.56	.35	1.49	.32	1.52	.37	1.52	.37
Kt/V 4Q01	1.50	.33	1.56	.34	1.51	.34	1.54	.33	1.52	.33
Kt/V 4Q02	1.53	.32	1.59	.35	1.54	.33	1.54	.32	1.54	.33
Min 4Q96	209	31	209	36	209	32	209	29	209	32
Min 4Q97	213	28	215	31	212	30	213	29	214	29
Min 4Q98	217	28	222	30	214	29	216	28	217	29
Min 4Q99	218	27	221	35	216	30	216	28	218	30
Min 4Q00	221	27	227	30	218	30	218	29	221	29
Min 4Q01	222	28	229	30	221	30	222	31	223	30
Min 4Q02	223	28	230	32	219	30	223	32	224	31

Figure A.10. Distribution of URR Values from 4th Quarter 1996 - 2002 for HD Patients in Networks 9/10

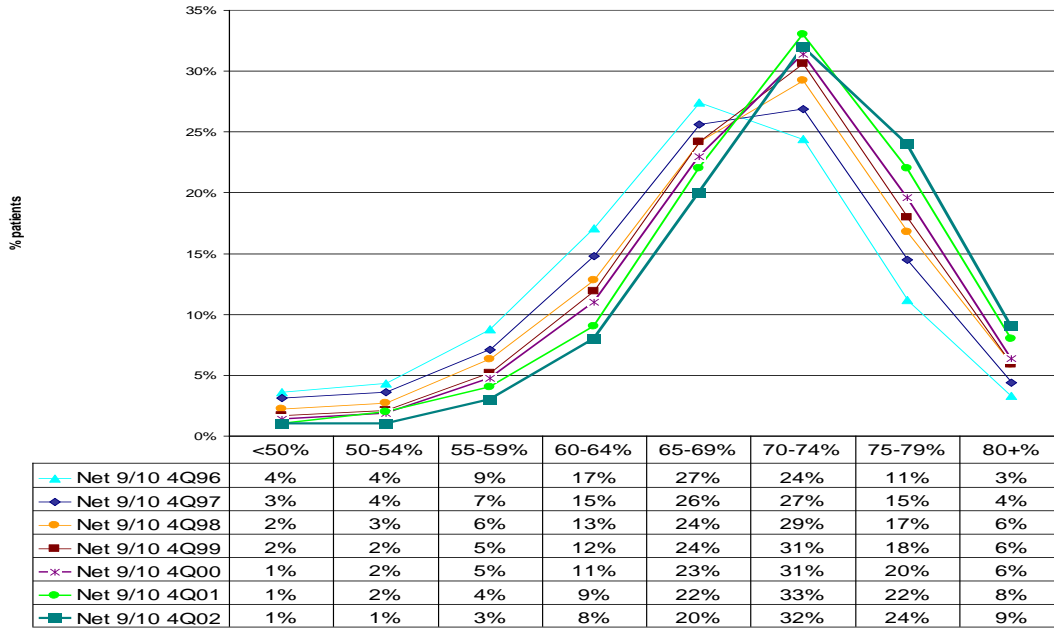
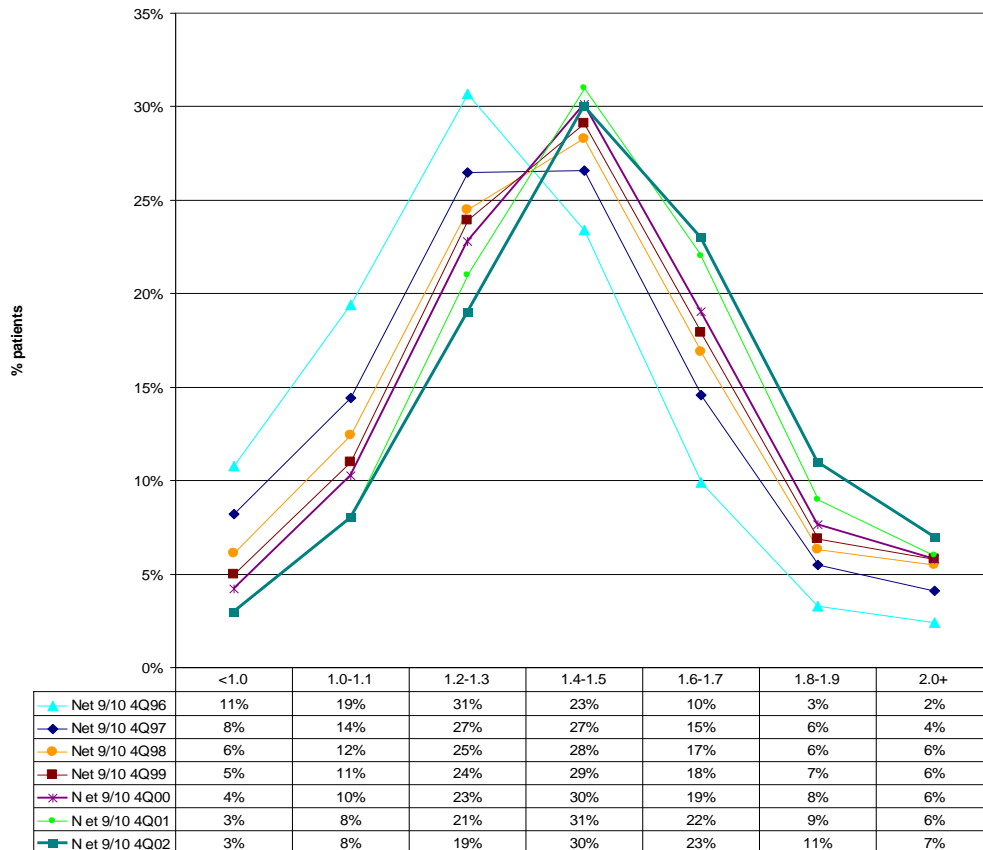


Figure A.11. Distribution of Kt/V_{Daugirdis II} Values from 4th Quarter 1996-2002 for HD Patients in Networks 9/10



2.d. Adequacy of Peritoneal Dialysis. Three cycles of PD Clinical Performance Measures were collected in 2002, January–April 2002 (J-A02), May-August 2002 (M-A02), and September–December 2002 (S-D02). PD adequacy measures included the weekly creatinine clearance (CrCl) and weekly Kt/V. Facilities reported patient measurements in the collection time frames. The percentage of patients measured for adequacy improved from 83% to 85%. Figure A.12. shows the percentage of PD patients in Network 9/10 measured and meeting weekly CrCl or Kt/V DOQI™ guidelines from September – December 1999-2002. In the last reporting cycle of 2002, 27% of the PD population was not measured or did not meet DOQI™ guidelines.

Figure A.12. Percentage of PD Patients in Network 9/10 with Reported Weekly CrCl or Kt/V Measured & Meeting DOQI

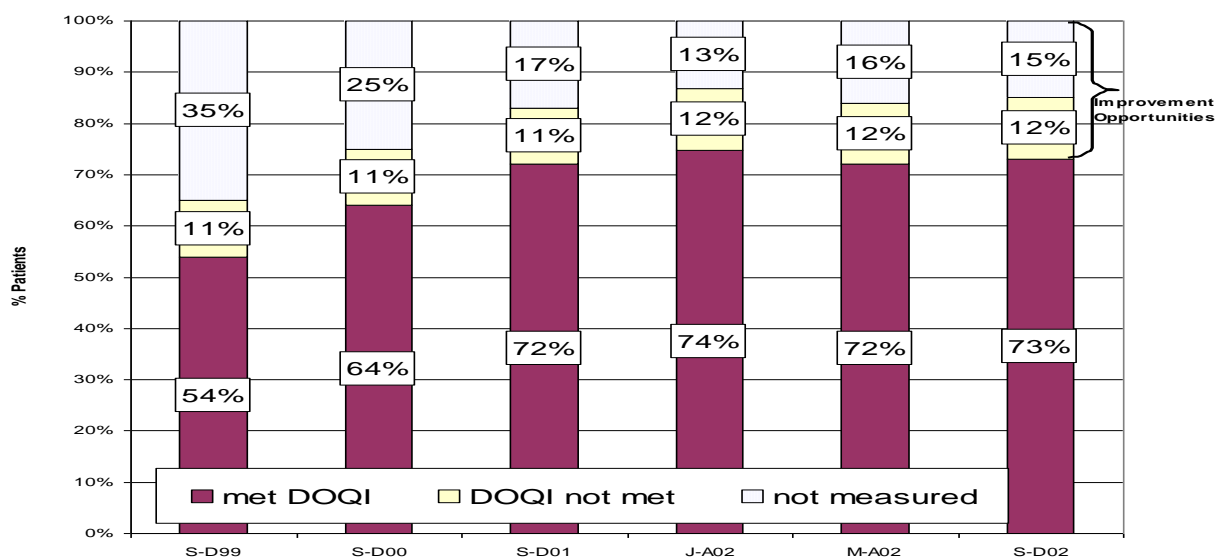
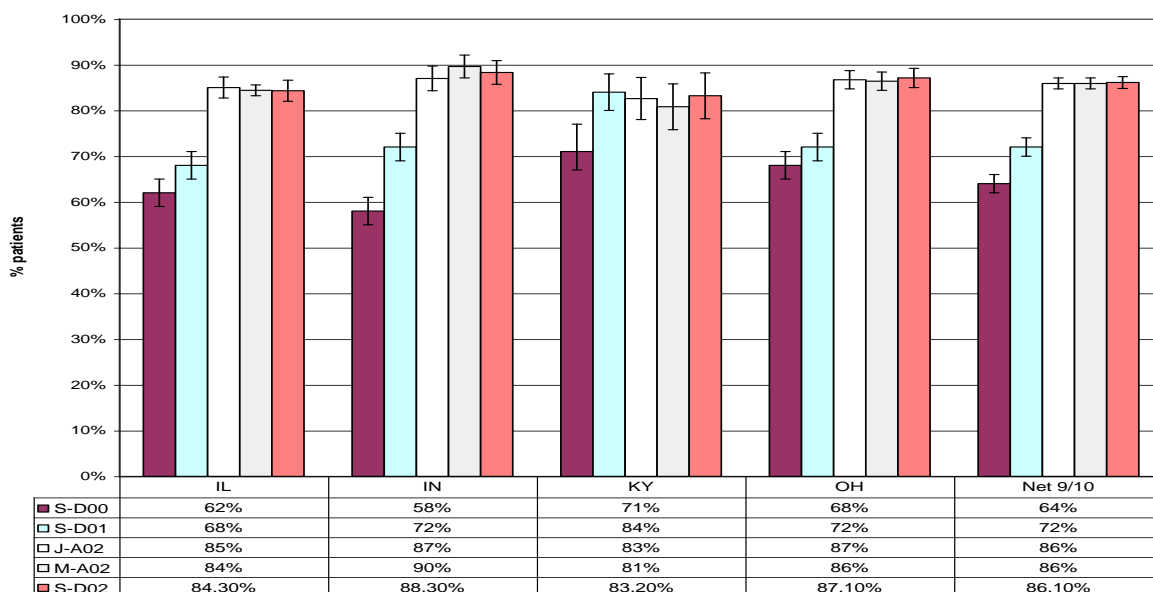


Figure A.13. Percentage of PD Patients Measured with Reported Weekly CrCl or Kt/V meeting DOQI by State and Networks 9/10



2.e. Hemodialysis Vascular Access. Figure A.14. shows the percentage of patients greater than 90 days ESRD with catheter, fistula and graft in Network 9/10 for December 1997-2002. Catheter and fistula rates have increased. Figure A.15. shows the reason for catheter use within the same time frame. Information on reasons for catheter placement was collected in order to identify care process areas that could be targeted for improvement. There are five categories: (1) no vascular sites, (2) no fistula/graft created, (3) temporary interruption, (4) fistula/graft maturing, and (5) other reasons. More than 50% of the reasons for catheters were reported as “no fistula/graft created” or “other reasons,” an increase of 4%.

Table A.10. shows the number and percentage of facilities with standardized access ratios for December 1997-2002. For the 2002 data, the individual demographic probabilities were adjusted. There has been a shift which shows increases in catheter and fistula rates and decreases in graft rates. This methodology adjusts for patient demographics, i.e., age, race, sex, height/weight, cause of ESRD, and number of years on dialysis. The standardized ratio methodology includes patients who had been on dialysis greater than 90 days. Facilities were included in the analysis if the number of total patients was 30 or greater.

The standardized ratios for catheters (SCR), fistula (SFR) and grafts (SGR) are analogous to the standardized mortality ratio (SMR) or the standardized hospitalization ratio (SHR). The ratio is the actual number of patients with a specific access divided by the expected number of patients with the specific access. The SCR, SFR, and SGR for a facility are compared to the Network 9/10 ratios.

Figure A.14. Vascular Access Type in Patients(ESRD >90days) in Networks 9/10 for December 1997-2002

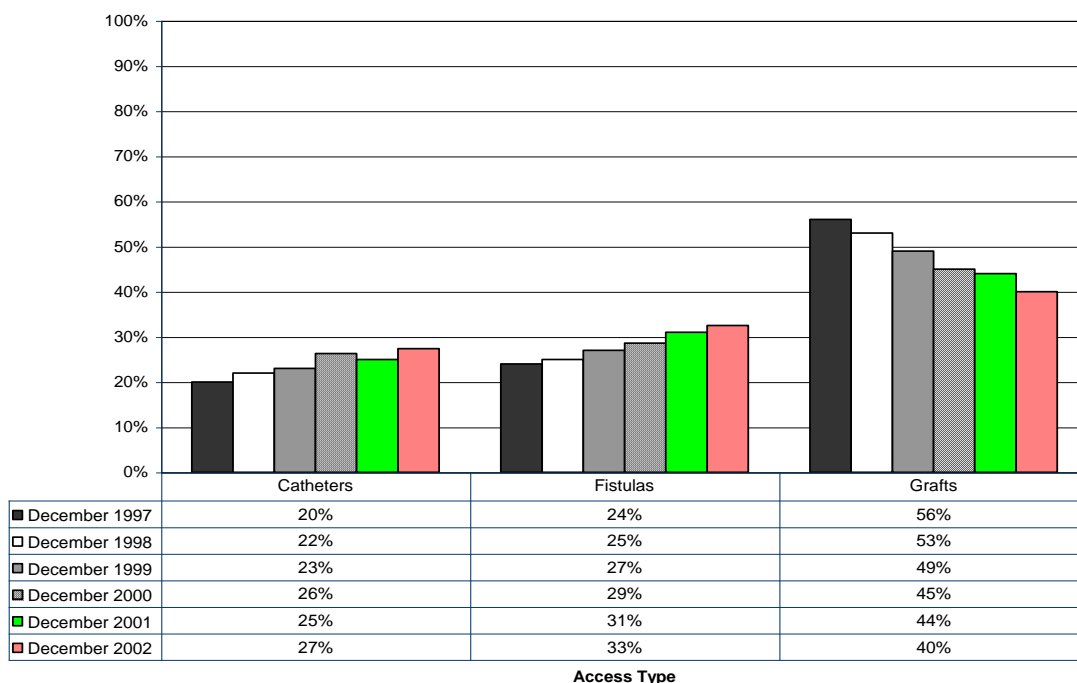


Figure A. 15. Reasons for Catheter Use in Patients (ESRD >90 days) in Network 9/10 for December 1997-2002

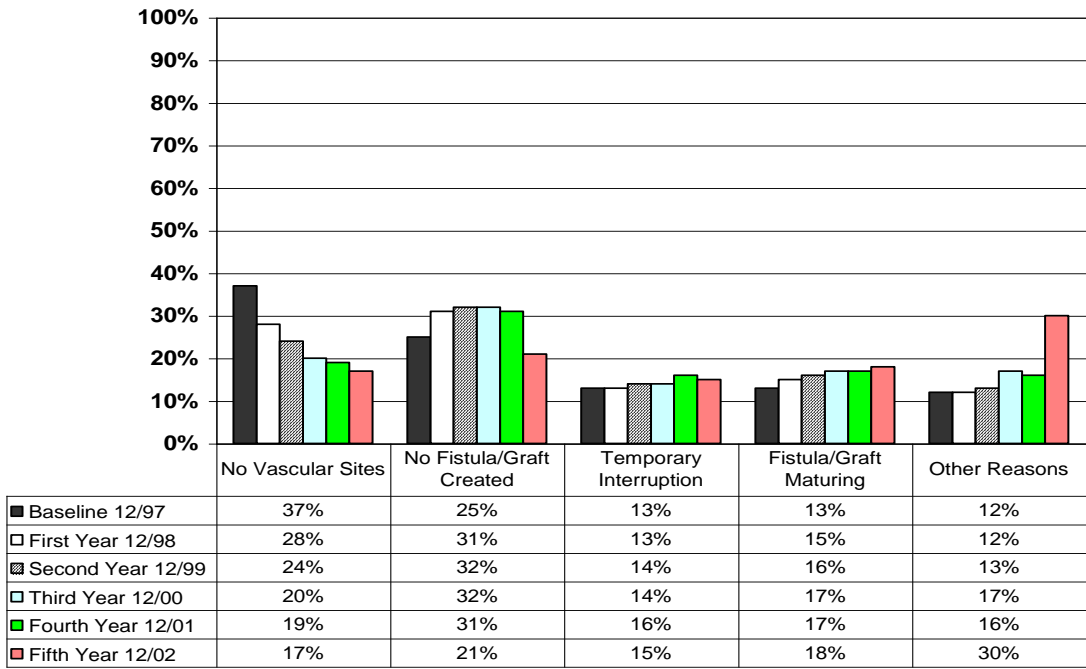


Table A.10 Number and percentage of facilities with standardized access ratios statistically different than 1.0 for December 1997-2002.

	Baseline		Year 1		Year 2		Year 3		Year 4		Year 5 [^]	
	Dec. 1997		Dec. 1998		Dec. 1999		Dec. 2000		Dec. 2001		Dec. 2002	
	#	%	#	%	#	%	#	%	#	%	#	%
SCR > 1.0*	32	15	28	12	36	18	64	25	77	31	12	4
SCR < 1.0*	38	18	24	10	30	15	12	5	21	8	14	5
SCR not different from 1.0	146	68	182	78	138	68	185	71	154	61	242	90
SFR > 1.0*	28	13	42	18	48	24	66	25	76	30	14	5
SFR < 1.0*	25	12	18	8	21	10	13	5	7	3	21	8
SFR not different from 1.0	163	75	174	74	135	66	182	70	169	67	233	87
SGR > 1.0*	18	8	8	3	6	3	2	1	1	0.4	19	7
SGR < 1.0*	23	11	29	12	49	24	74	28	84	33	10	4
SGR not different from 1.0	175	81	197	84	149	73	185	71	167	66	239	89
Total	216	100	234	100	204	100	261	100	252	100	268	100

[^]Data tables recalculated from baseline.

*Statistically different than 1.0. Facilities included if n≥30 for reported December access. Patients included if ≥18 years of age and had complete demographic information. May not add up to 100% due to rounding.

2.f. Nutritional Status. The serum albumin was measured as a nutritional outcome. 87% of the HD patients had an albumin measured with the bromocresol green (BCG) assay and 13% were reported with the bromocresol purple (BCP) assay. 81% of the PD patients had an albumin measured with a BCG assay, and 19% with a BCP assay. An adjustment of +0.3 was made to serum albumin measured using the BCP assay for comparisons.

Hemodialysis - Albumin. Table A.11. outlines the average and standard deviation values by state and by Network 9/10. The average albumin in the fourth quarter 2002 was 3.79 gm/dL. The percentage of patients with an average albumin ≥ 3.5 gm/dL decreased from 82% to 81%. 38% of the patients had an average albumin ≥ 4.0 gm/dL, no change from previous year.

Figure A.16. compares the percentage of patients with average albumin ≥3.5 gm/dL by state and by Network 9/10 from the fourth quarter of 1996-2002. Table A.12. shows the distribution of average albumin by state and Network 9/10 from the fourth quarter 1996-2002.

Table A.11. HD Average (avg) and Standard Deviation (sd) Values for Albumin by State & Networks 9&10.

	Illinois		Indiana		Kentucky		Ohio		Network 9/10	
	avg	sd	avg	sd	avg	sd	avg	sd	avg	sd
Albumin 4Q96	3.67	.49	3.74	.40	3.71	.42	3.67	.44	3.69	.45
Albumin 4Q97	3.76	.46	3.82	.45	3.79	.50	3.78	.44	3.78	.46
Albumin 4Q98	3.78	.43	3.81	.42	3.78	.45	3.75	.44	3.77	.44
Albumin 4Q99	3.78	.43	3.79	.51	3.72	.44	3.70	.45	3.75	.46
Albumin 4Q00	3.78	.42	3.71	.50	3.69	.42	3.69	.43	3.73	.44
Albumin 4Q01	3.82	.42	3.79	.41	3.74	.46	3.77	.44	3.79	.44
Albumin 4Q02	3.83	.45	3.79	.44	3.76	.44	3.76	.44	3.79	.44

**Figure A 16. Percentage of HD Patients with Average Albumin \geq 3.5 gm/dL
 by State & Networks 9/10**

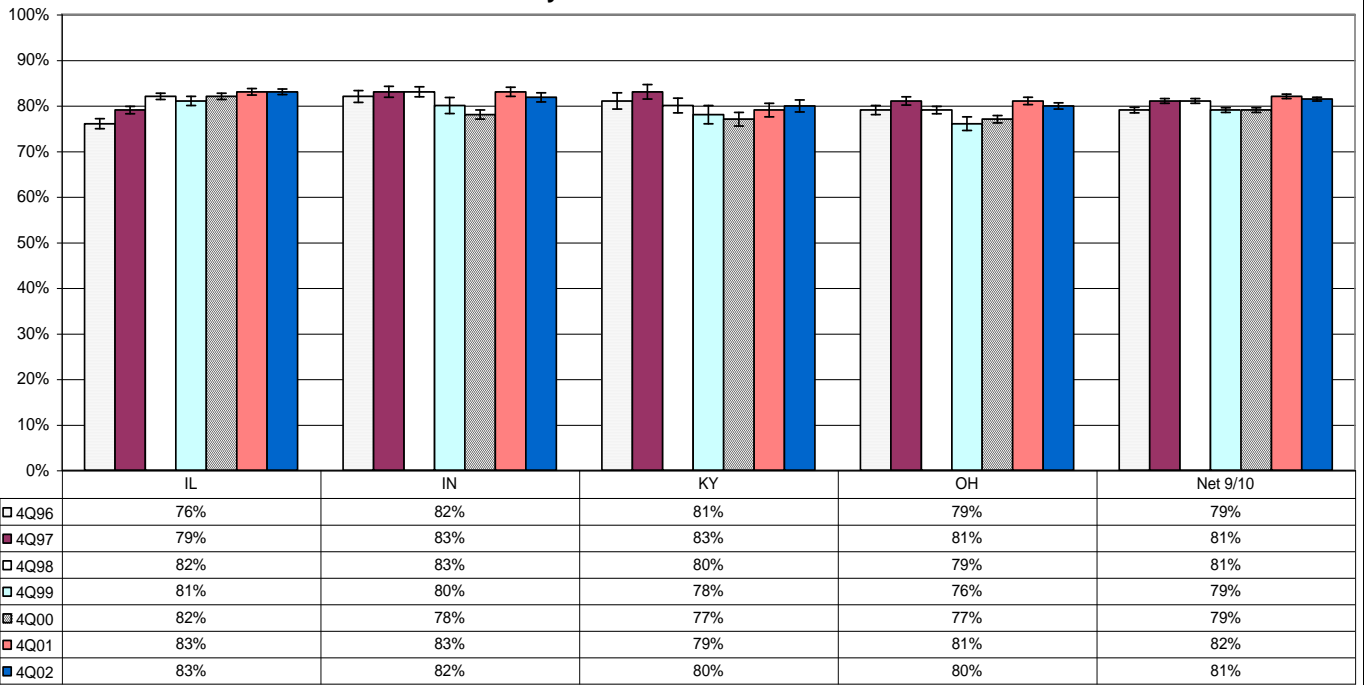


Table A.12. Distribution of HD Average Albumin Values (gm/dl) by State & Networks 9/10.

	< 2.0	2.0-2.4	2.5-2.9	3.0-3.4	3.5+
IL 4Q96	0.3%	1.0%	4.2%	18.6%	76.0%
IL 4Q97	0.2%	0.8%	3.6%	16.9%	78.7%
IL 4Q98	0.1%	0.6%	3.3%	14.0%	82.0%
IL 4Q99	0.1%	0.6%	3.3%	15.0%	80.7% (35.7)*
IL 4Q00	0.2%	0.8%	3.3%	13.7%	82.1% (36.1)*
IL 4Q01	0.2%	0.7%	3.0%	12.8%	83.3% (42.1)*
IL 4Q02	0.2%	0.7%	3.3%	12.8%	83.1% (42.1)*
IN 4Q96	0.1%	0.6%	2.4%	15.3%	81.7%
IN 4Q97	0.3%	0.5%	2.5%	13.7%	83.1%
IN 4Q98	0.1%	0.6%	2.6%	13.9%	82.8%
IN 4Q99	0.1%	0.9%	3.3%	15.7%	79.7% (35.2)*
IN 4Q00	0.1%	0.6%	3.9%	17.5%	77.9% (24.9)*
IN 4Q01	0.2%	0.5%	2.8%	14.0%	82.5% (36.3)*
IN 4Q02	.03%	1.0%	3.2%	13.9%	81.9% (37.9)*
KY 4Q96	0.2%	0.3%	3.7%	14.9%	80.8%
KY 4Q97	0.1%	0.7%	2.9%	13.6%	82.6%
KY 4Q98	0.2%	0.8%	3.5%	15.9%	79.5%
KY 4Q99	0.2%	0.8%	4.0%	16.2%	78.2% (30.4)*
KY 4Q00	0.2%	0.8%	4.6%	17.3%	77.1% (26.0)*
KY 4Q01	0.4%	0.9%	4.0%	15.8%	78.9% (33.6)*
KY 4Q02	0.2%	0.9%	3.7%	15.1%	80.2% (34.4)*
OH 4Q96	0.2%	0.7%	3.5%	16.7%	78.8%
OH 4Q97	0.1%	0.8%	3.1%	14.8%	81.0%
OH 4Q98	0.2%	0.8%	4.0%	16.2%	78.8%
OH 4Q99	0.2%	1.0%	4.9%	17.8%	75.8% (30.0)*
OH 4Q00	0.4%	1.1%	4.3%	17.6%	76.7% (27.3)*
OH 4Q01	0.2%	0.9%	3.5%	14.5%	80.8% (35.7)*
OH 4Q02	0.2%	1.0%	3.8%	15.1%	79.9%(35)*
Net 9/10 4Q96	0.2%	0.7%	3.6%	16.9%	78.7%
Net 9/10 4Q97	0.2%	0.7%	3.2%	15.3%	80.6%
Net 9/10 4Q98	0.1%	0.7%	3.4%	14.9%	80.8%
Net 9/10 4Q99	0.2%	0.8%	4.0%	16.2%	78.6% (33.1)*
Net 9/10 4Q00	0.2%	0.9%	3.9%	16.0%	79.0% (30.2)*
Net 9/10 4Q01	0.2%	0.8%	3.2%	13.9%	81.8% (38)*
Net 9/10 4Q02	0.2%	0.8%	3.5%	14.0%	81.5%(38.1)*

*The percentage of patients with average albumins ≥ 4.0 gm/dL are noted in parentheses for 4Q99-4Q02 only.

Peritoneal Dialysis - Albumin. The Network 9/10 average albumin for the September – December 2002 reporting cycle was 3.59 gm/dL. Table A.13. shows the percentage of patients in Networks 9/10 with an average albumin ≥ 3.5 gm/dl was 65%.

Figure A.17. compares the percentage of patients with an average albumin ≥ 3.5 gm/dl by state and Networks 9/10 from September – December 1999 - 2002 reporting cycles.

Table A.14. shows the distribution of average albumin values by state and Network 9/10.

Table A.13. PD Average and Standard Deviation Values for Albumin by State & Network 9/10.

	Illinois		Indiana		Kentucky		Ohio		Network 9&10	
	avg	sd	avg	sd	avg	sd	avg	sd	avg	sd
Albumin S-D99	3.60	.52	3.61	.50	3.59	.51	3.48	.54	3.55	.53
Albumin S-D00	3.55	.48	3.59	.47	3.53	.53	3.49	.54	3.53	.51
Albumin S-D01	3.61	.50	3.64	.48	3.54	.55	3.50	.50	3.57	.50
Albumin J-A02	3.62	.52	3.67	.49	3.51	.51	3.49	.50	3.57	.51
Albumin M-A02	3.57	.50	3.64	.51	3.47	.52	3.49	.49	3.54	.51
Albumin S-D02	3.60	.53	3.68	.52	3.50	.55	3.55	.47	3.59	.51

Figure A.17. Percentage PD Patients with Average Albumin \geq 3.5 gm/dL by State & Networks 9/10

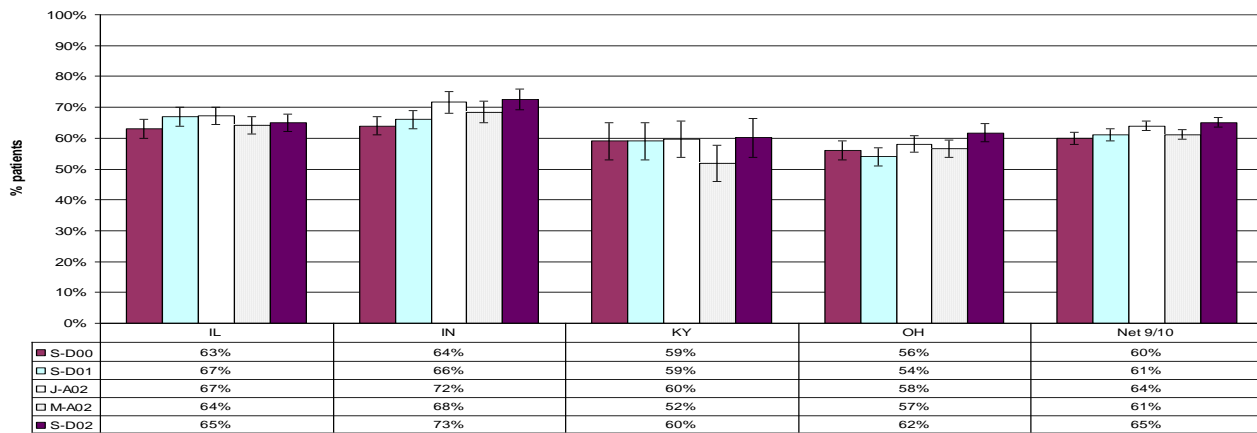


Table A.14. Distribution of PD Average Albumin Values by State & Networks 9&10.

	< 2.0	2.0-2.4	2.5-2.9	3.0-3.4	3.5+
IL S-D99	0.5%	1.7%	7.9%	24.8%	64.8% (25.0)*
IL S-D00	0.2%	2.1%	9.1%	25.2%	63.2% (19.4)*
IL S-D01	0.1%	1.8%	9.3%	22.0%	66.8% (25.3)*
IL J-A02	0.4%	2.4%	6.2%	23.8%	67.3%(26.1)*
IL M-A02	0.3%	2.8%	7.7%	24.9%	64.2%(22.2)*
IL S-D02	0.5%	2.0%	8.4%	24.0%	65.1%(26.3)*
IN S-D99	0.1%	1.6%	7.1%	25.9%	65.0% (23.3)*
IN S-D00	0.4%	1.0%	7.4%	27.5%	63.7% (21.3)*
IN S-D01	0%	1.3%	6.7%	25.7%	66.4% (25.7)*
IN J-A02	0.5%	1.1%	6.3%	20.5%	71.6%(29.3)*
IN M-A02	0.9%	0.9%	6.5%	23.2%	68.4%(26.9)*
IN S-D02	0.3%	2.9%	6.0%	18.1%	72.7%(31.3)*
KY S-D99	1.2%	1.2%	6.3%	25.6%	65.4% (23.9)*
KY S-D00	0%	2.8%	10.1%	28.6%	58.5% (20.6)*
KY S-D01	1.1%	2.8%	7.8%	29.8%	58.5% (21.6)*
KY J-A02	0.7%	2.6%	7.7%	29.2%	59.8%(17.0)*
KY M-A02	0.4%	3.3%	12.6%	31.9%	51.9%(18.5)*
KY S-D02	0.9%	1.7%	13.0%	24.2%	60.2%(22.5)*
OH S-D99	0.5%	2.9%	11.8%	34.7%	53.0% (18.3)*
OH S-D00	1.0%	2.8%	10.5%	29.8%	55.8% (17.4)*
OH S-D01	0.4%	2.2%	9.9%	32.9%	54.6% (16.7)*
OH J-A02	0.8%	2.7%	8.6%	29.7%	58.1%(16.4)*
OH M-A02	0.8%	1.6%	10.6%	30.4%	56.7%(15.9)*
OH S-D02	0.1%	1.4%	8.4%	28.3%	61.8%(19.0)*
Net 9/10 D-S99	0.5%	2.1%	9.2%	27.8%	60.1% (21.8)*
Net 9/10 S-D00	0.6%	2.2%	9.4%	27.9%	60.0% (19.1)*
Net 9/10 S-D01	0.3%	1.9%	8.8%	27.6%	61.4% (21.8)*
Net 9/10 J-A02	0.6%	2.2%	7.3%	25.8%	64.0%(22.3)*
Net 9/10 M-A02	0.6%	2.0%	9.0%	27.2%	31.2%(20.5)*
Net 9/10 S-D02	0.4%	1.9%	8.3%	24.3%	65.1%(24.5)*

*The percentage of the total PD patients with average albumin \geq 4.0 gm/dL is noted in parentheses.

B. Network 9/10 CPM Interventions.

The goals of the CPM interventions are to:

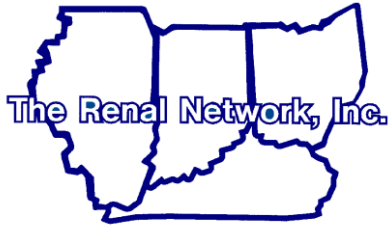
- (1) increase the knowledge of the CPM project to Network 9/10 ESRD providers,
- (2) standardize the data collection process
- (3) analyze the applicability of the CPM on the facility and network levels, and,
- (4) implement programs and projects that can be repeated on a facility and Network-wide level.

Interventions included facility and physician data collection, feedback reports, and regional education workshops. The focus was on K/DOQI™ guidelines, physician-patient outcome data, and facility plans for improvement. Feedback reports were specifically targeted to physicians, medical directors, administrators and nurse managers. In addition to the physician reports, 18 physician practice reports were requested and distributed. Multi-color reports displayed data in tables and charts. Table B.1. outlines the number of reports distributed.

Table B.1. Network 9/10 CPM Feedback Reports to Physicians and Dialysis Programs distributed in 2002 for each collection cycle.		
Review Cycle:	# Physicians	# Facilities
HD 4Q01	607	412
HD April 2002	591	408
HD July 2002	595	425
PD S-D01	411	164
PD J-A02	425	168
PD M-A02	422	182

In 2002, hemodialysis adequacy and anemia management Needs Assessment Reports were distributed as a part of the facility feedback reports. Tables. B.2. and B.3. show the Needs Assessment Reports for Network 9/10 rates compared to the December 2002 top 20-percentile facility rates. Areas for comparison were (1) percentage of patients with URR \geq 65%, (2) average treatment time, (3) frequency table of treatment time distribution, (4) average blood flow at one hour, (5) frequency table of blood flow distribution, (6) percentage patients with catheter, (7) percentage of diabetic patients, and (8) average patient age. These reports were distributed after each data collection cycle.

Table B.2. Network 9/10 Needs Assessment Report for Adequacy Management April – December 2002 with comparison to the December 2002 top 20-percentile facility rates.



Network 9/10 Needs Assessment
Adequacy
Clinical Performance
In-Center Hemodialysis

April - December 2002

	April 2002	July 2002	October 2002	November 2002	December 2002	Average Top 20% Facility Rates December 2002
% Pts URR >= 65%	84%	83%	85%	85%	85%	95%
% Pts Kt/V >= 1.2	87%	87%	88%	88%	88%	98%
Average Actual Treatment Time (hours)	3.72	3.73	3.73	3.73	3.73	3.80
Minutes of treatment time per kg of body weight	3.1	3.1	3.1	3.1	3.1	3.1
Actual Treatment Time % Pts Breakdown *						
<= 3.0 hours	13%	12%	13%	12%	13%	9%
3.1 - 3.5 hours	27%	27%	27%	27%	27%	25%
3.6 - 4.0 hours	42%	43%	42%	42%	42%	42%
> 4.0 hours	18%	18%	19%	19%	19%	24%
Shortened Treatments % Pts Breakdown Shortened Time						
<= 15 minutes	7%	8%	7%	7%	7%	6%
16 - 30 minutes	3%	3%	3%	3%	3%	1%
> 30 minutes	3%	3%	3%	3%	3%	1%
Average Blood Flow @ 1 hour	398	400	402	401	401	413
Blood Flow % Pts Breakdown *						
<= 300 ml/min	14%	13%	12%	13%	12%	10%
301 - 350 ml/min	16%	15%	15%	15%	15%	14%
351 - 400 ml/min	31%	31%	31%	31%	31%	31%
401 - 450 ml/min	22%	22%	23%	22%	23%	21%
> 450 ml/min	17%	18%	19%	19%	19%	25%
Average Dialysate Flow @ 1 hour	682	690	686	684	686	697
% Pts with HD Catheter	30%	30%	30%	30%	30%	29%
% Pts on Hi-Flux Dialyzers (Kuf >= 20)	72%	75%	79%	79%	80%	78%

The three major barriers to adequate hemodialysis are underprescription, catheter use, and shortening of treatment time. This table summarizes prescription, catheter, and shortening data for your facility. Also included are data from the top 20% of the facilities in the Network based on Kt/V outcomes. For additional information, look at American Journal of Kidney Diseases, 1998;31:593-601 (copy can be requested from Network). * May not add to 100% due to rounding

Table B.3. Network 9/10 Needs Assessment Report for Anemia Management April – December 2002 with comparison to the December 2002 top 20-percentile facility rates.



Network 9/10 Needs Assessment
Anemia Management
Clinical Performance Measures
In-Center Hemodialysis Patients

April - December 2002

	April 2002	July 2002	October 2002	November 2002	December 2002	Average Top 20% Facility Rates December 2002
% Pts HGB >= 11 mg/dL	75%	75%	77%	77%	77%	87%
% Pts HGB >= 11 mg/dL with SQ EPO Rx	75%	76%	78%	78%	78%	92%
% Pts HGB >= 11 mg/dL with IV EPO Rx	74%	75%	76%	76%	76%	85%
Average HGB mg/dL	11.8	11.8	11.9	11.9	11.9	12.3
Average HGB mg/dL with SQ EPO Rx by ESRD length in months						
<= 3.0 months	11.3	11.2	11.2	11.2	11.2	12.8
3.1 - 5.9 months	12.3	12.4	12.3	12.5	12.3	12.7
6.0 - 11.9 months	12.0	12.1	12.1	12.2	12.1	12.8
> 12 months	11.8	11.8	11.9	11.9	12.0	12.3
Average HGB mg/dL with IV EPO Rx by ESRD length in months						
<= 3.0 months	11.2	11.2	11.3	11.2	11.2	11.8
3.1 - 5.9 months	12.0	12.2	12.2	12.2	12.2	12.8
6.0 - 11.9 months	11.9	11.9	12.0	12.0	12.0	12.4
> 12 months	11.7	11.8	11.8	11.8	11.8	12.2
% Pts with SQ EPO Rx	13%	12%	11%	11%	11%	11%
Average SQ EPO dose units/kg/week	227	231	230	231	225	212
Average SQ EPO dose units/kg/week by ESRD length in months						
<= 3.0 months	297	294	285	297	296	264
3.1 - 5.9 months	268	273	287	270	271	237
6.0 - 11.9 months	211	223	221	215	217	207
> 12 months	216	221	221	223	215	207
Average IV EPO dose units/kg/week	280	285	288	287	286	282
Average IV EPO dose units/kg/week by ESRD length in months						
<= 3.0 months	340	356	361	356	361	386
3.1 - 5.9 months	315	327	352	334	337	348
6.0 - 11.9 months	261	266	279	276	274	267
> 12 months	273	276	277	278	276	271
% Pts TSAT >= 20%	77%	77%	78%	77%	77%	78%
% Pts Ferritin >= 100 mg/dL	94%	94%	95%	95%	95%	93%
% Pts with IV Iron Rx	50%	52%	51%	51%	51%	53%
Average IV Iron dose/month	375	289	298	290	290	309
% Pts TSAT >= 20% with IV Iron Rx	75%	74%	75%	74%	74%	71%
% Pts Ferritin >= 100 mg/dL with IV Iron Rx	94%	94%	95%	96%	95%	93%

The following describes the current indicator level, along with the change in percentage, from the fourth quarter of 2001 to the fourth quarter of 2002 for hemodialysis patients in Network 9/10 meeting the recommended DOQI™ Guidelines for care:

		<u>change</u>
➤ Hemoglobin between 11-12 gm/dL	33%	- 1%
➤ Hemoglobin > 12 gm/dL	45%	+3%
➤ Epo dose between 120-180 u/kg/wk	16%	no change
➤ TSAT between 20-50%	74%	+2%
➤ Ferritin between 100-800 ng/ml	65%	+5%
➤ Albumin ≥ 4.0 mg/dl	38%	no change
➤ URR ≥ 65%	86%	+1%
➤ Kt/V Daugirdas II ≥ 1.2	90%	+1%
➤ % Catheters (pts >90 days ESRD)	25%	-1%
➤ % Fistula (pts >90 days ESRD)	31%	+2%

The following describes the current level, along with the change in percentage, from September - December 2001 compared to September - December 2002 for peritoneal dialysis patients in Network 9/10 meeting the recommended DOQI™ Guidelines for care:

		<u>change</u>
➤ Hemoglobin between 11-12 gm/dL	29%	-1 %
➤ Albumin ≥ 4.0 gm/dL	24%	+2%
➤ Weekly CrCl or Kt/V	85%	+1%

In 2002, Network 9/10 Clinical Performance Goals for adequacy of dialysis, anemia management, and vascular access were revised, approved and published.

Adequacy of Dialysis Goals 2002-2003

Hemodialysis

All patients measured for adequacy every month.

≥ 95% of patient population achieve URR ≥65%

≥ 95% of patient population achieve Kt/V Daugirdas II ≥1.2

Peritoneal Dialysis

All patients measured for adequacy every four months.

CAPD ≥ 85% of patient population achieve weekly creatinine clearance ≥ 60 L/bsa
or weekly Kt/V ≥2.0

CCPD ≥ 85% of patient population achieve weekly creatinine clearance ≥ 63 L/bsa
or weekly Kt/V ≥2.1

Anemia Management Goals 2002-2003

Hemodialysis & Peritoneal Dialysis

All patients measured every month of PD clinic visit.
≥ 85% of patient population achieve hemoglobin ≥11 gm/dL

Hemodialysis Vascular Access Goals 2000-2003

≥ 40% prevalent patient population fistula rate ^{DOQI™}
≤ 10% prevalent patient population catheter rate ^{DOQI™}

2003 Interventions. Interventions will continue to include facility, physician, and corporate data collection, feedback reports, and regional educational workshops. The focus will be on KDOQI™ guidelines, physician-patient, corporate-facility-patient outcome data, and facility plans for improvement. Facilities will be targeted for specific interventions based on facility outcomes.

C. CMS National CPM Project.

All 18 Networks participated in the national Clinical Performance Measures (CPM) project. Random samples of hemodialysis and peritoneal dialysis patients were drawn. The hemodialysis sample had sufficient size to be representative of each Network. The peritoneal dialysis sample size was used for national rates only. Table C.1. shows the national comparison of Network 9 and Network 10 rankings for clinical outcomes to the other 16 networks for the past four years.

Table C.2. shows the Network 9 and Network 10 random samples for the CMS National CPM Project. Hemodialysis facility survey forms were collected from a national random sample: 17 from Network 9 and eight from Network 10. The facility survey collected information on facility policies and procedures concerning post-BUN sampling and dialyzer total cell volume measurement. Data validation of the national sample was conducted on five percent of the random sample. Network 9/10 staff abstracted patient charts for this process.

Table C.1. Network 9/10 National Ranking for 4Q96-4Q01 Data for Adult (≥18 years) In-center Hemodialysis Patients. Source: 2002 Annual Report, ESRD Clinical Performance Measures Project, CMS, December 1997. 1998, 1999, 2000& 2001 Annual Report, ESRD Clinical Performance Measures Project, CMS, December 2002.

Clinical Characteristic	Network 9						Network 10					
	4Q96	4Q97	4Q98	4Q99	4Q00	4Q01	4Q96	4Q97	4Q98	4Q99	4Q00	4Q01
Percentage Patients with Average:												
URR ≥ 65%	10	9	8	4	10	5	18	17	17	16	15	13
Kt/V ≥ 1.2	12	7	9	8	8	5	17	17	18	15	11	10
Percentage Prevalent Patients:												
AV Fistula			9	10	10	13			12	13	13	8
Catheter (low rate)			13	11	18	17			16	15	8	13
Albumin ≥3.5 gm/dL	14	2	12	10	17	10	17	17	12	10	1	3
Albumin ≥4.0 gm/dL	--	--	--	--	16	16	--	--	--	--	1	7
Hgb ≥ 11gm/dL	--	--	10	5	12	16	--	--	16	15	1	8
Ferritin ≥100 ng/mL	10	13	17	8	4	1	13	15	16	16	1	4
TSAT ≥ 20%	14	17	18	12	15	14	6	1	15	4	2	7
% patients receiving EPO with:												
HGB value 11-12 gm/dL	--	6	9	--	10	18	--	13	16	--	12	16
% patients prescribed IV Iron	4	1	1	1	1	1	13	4	6	6	3	3
% patients prescribed EPO Subcutaneous	--	1	1	1	1	1	--	5	6	6	4	7

Table C.2. National Clinical Performance Measures Project Network Random Samples, 4Q01 – HD Oct01-Mar02 – PD (Adult ≥ 18 years)

Pt. Characteristic	Net 9 HD		Net 10 HD		U.S. HD*		Net 9 PD		Net 10 PD		U.S. PD*	
	#	%	#	%	#	%	#	%	#	%	#	%
Total	496	100	490	100	8399	100	129	100	67	100	1352	100
Male	265	53	234	48	4431	53	71	55	31	46	676	50
Female	231	47	256	52	3967	47	58	45	36	54	676	50
Race												
AI/AN	1	.2	1	.2	161	2	0	0	0	0	25	2
AS/PI	0	0	10	2	338	4	0	0	1	1	61	5
Black	202	41	207	42	3135	37	33	26	20	30	361	27
White	292	59	258	53	4473	53	93	72	45	67	863	64
Oth/Unk	1	.2	14	3	292	3	3	2	1	1	42	3
Ethnicity												
Hispanic	9	2	38	9	1008	12	5	4	5	9	161	12
Non-Hispanic	469	98	404	91	7247	86	112	95	51	89	1172	87
Oth/Unk	2	.4	4	.9	144	2	1	2	1	2	19	1
Age												
18 – 49	101	20	128	26	2012	24	46	36	28	42	521	39
50 – 59	84	17	89	18	1599	19	32	25	9	13	287	21
60 – 64	57	12	48	10	936	11	7	5	7	10	132	10
65 – 69	64	13	47	10	1030	12	12	9	5	7	132	10
70 – 79	135	27	127	26	1990	24	27	21	12	18	220	16
80+	55	11	51	10	831	10	5	4	6	9	59	4
Primary Diag.												
DM	229	46	176	36	3599	43	50	39	18	27	463	34
HTN	111	22	148	30	2116	25	23	18	12	18	297	22
GN	63	13	62	13	955	11	24	19	19	28	233	17
Other/Unk	93	19	104	21	1729	21	32	25	18	27	359	27
Duration - years												
< 0.5	74	15	71	14	1025	12	17	13	10	15	320	24
0.5 – 0.9	62	13	57	12	1158	14	33	26	13	19	177	13
1.0– 1.9	102	21	78	16	1551	19	24	19	14	21	273	20
2.0+	256	52	284	58	4607	55	55	43	30	45	574	43

*CMS 2002 Annual Report, ESRD Clinical Performance Measures Project, December 2002.
May not add up to 100% or totals due to rounding or missing data elements.

D. Network Special Projects/Studies

1. Quality Improvement Projects.

The development of Quality Improvement Projects (QIP) is mandated in the Network 9/10 contract with CMS. The QIPs are developed and directed by the Medical Review Board (MRB).

1.a. Network 9 Hemodialysis Adequacy of Dialysis QIP. This project concluded December 2001. The final report was approved in October 2002.

1.b. Network 10 Hemodialysis Adequacy of Dialysis QIP. This project concluded December 2001. The final report was approved in October 2002.

1.c. Network 9 Assessment and Reduction of Catheters in Hemodialysis QIP. This project was conducted throughout 2002 and the final report was approved on June 30, 2003.

Background: At year-end 2000, Network 9 reported 15,900 hemodialysis patients on dialysis for greater than 90 days (28% Indiana, 16% Kentucky, and 56% Ohio). December 2000 vascular access data showed the patients were divided as follows: 28% catheter, 26% fistula, and 47% graft. The reported reasons for catheter use were 32% “No fistula/graft created,” a surrogate for no permanent access created. An estimated nine percent of the adult hemodialysis patients, greater than 90 days ESRD had a catheter and no permanent access created. Data trended from 1997 through 2000 showed catheter use with no permanent access created increasing.

Primary objectives: This quality improvement project addressed the topic of hemodialysis vascular access catheters (inappropriate catheters), as prescribed by CMS. The objectives of the project were to increase the referral of catheter patients to a surgeon for placement of fistula/graft, assessment of patients with catheters, and the employment of appropriate clinical processes to ensure appropriate and timely referral for an access (graft or fistula). The objectives included decreasing patients with catheters as the primary vascular access for 90 days or greater. The long-range objective was to lower the number of catheters in the selected facilities and the percentage of patients with catheters in this sample toward the DOQI™ guideline of 10% per facility.

Methods: To select an intervention group, a rank order from high to low was calculated for 192 facility catheter rates for December 2000. Pediatric units, facilities with fewer than 30 in-center hemodialysis patients, and facilities with fewer than five catheter patients were excluded (n = 46). The top half of facilities was divided into three categories: 1. average, 2. middle-high, 3. high. A power analysis was conducted to determine catheter sample size needed to see a 10% effect in process indicator 1: Increase referral to surgeon for placement of fistula/graft, where the numerator was the actual referral of catheter patients to surgeon in denominator of all patients with a catheter dialyzing in the unit was conducted using Power and Precision 2 for paired proportions. Fourteen facilities were selected based on category (seven average, two middle-high, five high), number of catheter patients, and the Cleveland-Youngstown and Indianapolis location. Network staff abstracted January- March 2002 baseline data and facility staff abstracted April-December data and entered into an Excel™ spreadsheet. Intervention facilities participated in an Institute for Healthcare Improvement collaborative model that included a change kit with educational material for professionals and patients, as well as vascular access management tools (VAMT).

Univariate analysis of variance was performed on the slope and intercept of the proportions in the following way. Proportions were divided into three test periods of three months each. Period 1 was January, February, and March; this served as the control period. Period 2 was April, May, and June; this was the initial treatment effect. Period 3 was October, November, and December; this was the final treatment effect. A student-newman-keuls post-test was performed to distinguish the treatment periods from control. The process quality indicators were calculated for each month and these data were imported into SPSS version 11 for analysis.

Main findings: Process indicator- referral rate to surgeons showed an increase from a mean of 0.08 in the control period to a mean of 0.53 at the end of the study ($p = 0.05$). The intervention facilities met the primary improvement goal by increasing by 10% the proportion of patients referred to surgeon for placement of fistula/graft from baseline.

The process indicator of scheduling rate showed no difference between treatment periods 1-3 with means of 0.59, 0.48, 0.41. However, there is a trend for a decrease in the rate ($p = 0.08$). The process indicator VAMT use showed no significant difference in the early and late use of this tool.

Outcome indicator of inappropriate use of catheter showed that the proportion of inappropriate catheter use decreased from a mean of 0.53 in the control period to a mean of 0.03 at the end of study ($p = 0.05$). Outcome indicator of ≥ 90 -day catheter use showed no effect of the treatment with a mean in the three periods of 0.25, 0.21, and 0.23. Outcome indicator of catheter use in hemodialysis patients showed no effect of the treatment on catheter rate for those catheters with a mean in the three periods of 0.32, 0.31, and 0.31. These indicators showed a decreasing trend.

Principle conclusion: Facilities can impact referral rates and as a result decrease inappropriate catheter use. The collaborative model intervention strategy fostered facility ownership of improving vascular access care and change.

1.d. Network 10 Assessment and Reduction of Catheters in Hemodialysis QIP. This project was conducted throughout 2002 and the final report was approved as of June 30, 2003.

Background: At year-end of 2000, 5% of the national prevalent HD population was dialyzing in Illinois. December 2002 vascular access data showed approximately 9,700 hemodialysis patients greater than 90 days ESRD with 24% catheter, 30% fistula, and 46% graft. Reported reasons for catheter use were 32% "No fistula/graft created" a surrogate for no permanent access created. An estimated 9% of the adult hemodialysis patients, greater than 90 days ESRD had a catheter and no permanent access created. Data trended from 1997 through 2000 showed catheter use with no permanent access created increasing.

Primary objectives: This quality improvement project addressed the topic of hemodialysis vascular access catheters (inappropriate catheters), as prescribed by CMS. The objectives of the project were to increase the referral of catheter patients to a surgeon for placement of fistula/graft, assessment of patients with catheters, and the employment of appropriate clinical processes to ensure appropriate and timely referral for an access (graft or fistula). The objectives included decreasing patients with catheters as the primary vascular access for 90 days or greater. The project's long-range objective was to lower the number of catheters in the selected facilities and the percentage of patients with catheters in this sample towards the DOQI™ guideline of 10% (per facility).

Methods: A rank order (high to low) was calculated of 99 facility December 2000 catheter rates to select the intervention group. Pediatric units, facilities with fewer than 30 in-center HD patients, and facilities with fewer than 5 catheter patients were excluded, n=12. The top half of facilities was divided into three categories, average, middle-high and high. A power analysis was conducted to determine the size of the catheter sample needed to see a 10% effect in process quality indicator 1: Increase referral to surgeon for placement of fistula/graft, where the numerator was the actual referral of catheter patients to surgeon in denominator of all patients with a catheter dialyzing in the unit was conducted using Power and Precision 2 for paired proportions. Eleven facilities were selected based on category (3 average, 4 middle-high, 4 high), number of catheter patients, and the Chicago area location. Network staff abstracted January- March 2002 baseline data and facility staff abstracted April–December data and entered into an Excel™ spreadsheet. Intervention facilities participated in an Institute for Healthcare Improvement collaborative model that included a change kit with educational material for professionals and patients, as well as vascular access management tools (VAMT). Univariate analysis of variance was performed on the slope and intercept of the proportions in the following way. Proportions were divided into 3 test periods of 3 months each. Period 1 was Jan, Feb, Mar and is the control period. Period 2 was Apr, May, Jun and was the initial treatment effect. Period 3 was Oct, Nov, Dec and was the final treatment effect. A student-newman-keuls post-test was performed to distinguish the treatment periods from control. The process quality indicators were calculated for each month and these data were imported into SPSS version 11 for analysis.

Main findings: Process indicator- referral rate to surgeons showed an increase from a mean of 0.08 in the control period to a mean of 0.44 at the end of the study ($p = 0.05$). The intervention facilities met the primary improvement goal by increasing by 10% the proportion of patients referred to surgeon for placement of fistula/graft from baseline.

The process indicator of scheduling rate showed a significant difference between treatment periods 1, 2, and 3 with means of 0.60, 0.48, 0.39 ($p = 0.05$). The process indicator VAMT use showed no significant difference in the early and late use of this tool.

Outcome indicator of inappropriate use of catheter showed that the proportion of inappropriate catheter use decreased from a mean of 0.47 in the control period to a mean of 0.15 at the end of study ($p = 0.05$). Outcome indicator of ≥ 90 -day catheter use showed no effect of the treatment on catheter rate for those catheters greater than 90 days with a mean in the three periods of 0.19, 0.20, and 0.18, respectively. Outcome indicator of catheter use in hemodialysis patients showed a decrease in catheter rate with a mean in the three periods of 0.31, 0.27, and 0.24, respectively with period 1 different from period 3 ($p = 0.05$) and period 2 not different from either period 1 or 3.

Principle conclusion: Facilities can impact referral rates and as a result decrease inappropriate catheter use. The collaborative model intervention strategy fostered facility ownership of improving vascular access care and change.

E. Focused Quality Assurance Activities

1. Intervention Profiling. The MRB conducted an annual facility profiling process that integrates several quality domains: (1) CPM measurements for adequacy of dialysis and treatment of anemia, (2) standardized mortality ratio (SMR), (3) standardized catheter ratio (SCR), (4) standardized hospitalization ratio (SHR), (5) data compliance, (6) MRB project participation, and (7) grievances.

The facility profiling process identifies facility outliers in order to assist in improving quality of care. The process assigns points (weights) to each quality indicator based on its importance to patient care. Facilities acquire points when the facility rate is statistically different from the Network or the standardized rate using a 95% confidence interval or p value < 0.05. Consumer grievances are reviewed by the MRB and points are assigned on a case-by-case basis.

Based on the number of points, an intervention is determined. Interventions become more intensive with the number of points acquired. MRB - Facility interventions are based on the total points acquired in the profile year. The Network goal is that all facilities have zero points.

Point Level	Intervention
0	Process Notification
1 - 9	Process Notification and no required action
10 - 40	Facility internal review
40 - 49	MRB required facility review and action plans
50 or more	MRB required facility review, action plans and site visit

Network staff maintains monthly contact with facilities acquiring 40 points or greater. Network staff report quarterly to the MRB on facility action plan updates and outcomes.

2. Cooperative Activities with Other Agencies

2.a. Network 9/10 distributed unit specific reports for the KECC in June 2002 to facility medical directors and administrators. This report included standardized mortality ratios (SMR), standardized hospitalization ratios (SHR), and standardized transplant ratio (STR) for Medicare-only patients for 1998-2001.

2.b. Network 9/10 cooperated with the Centers for Disease Control and Prevention (CDC) to collect the national surveillance of dialysis associated diseases. A total of 435 forms were collected from facilities in Network 9/10 (294 Network 9 and 141 Network 10) for a response rate of 97%.

2.c. Network 9/10 cooperated with the USRDS to distribute and collect the Cardiovascular Study forms. A total of 341 forms were distributed to 161 facilities (216 forms to 100 facilities in Network 9 and 125 forms to 61 facilities in Network 10). By the end of 2002, a total of 163 forms were collected from 83 facilities in Network 9/10 (126 forms from 62 facilities in Network 9 and 37 forms from 21 facilities in Network 10) for a response rate of 50%.

GOAL 2: Establishing and improving partnerships and cooperative activities among and between the ESRD Networks, QIOs, state survey agencies, and ESRD facilities/providers, ESRD facility owners, professional groups, and patient organizations.

During 2002, the Network maintained ongoing cooperative relationships with a wide variety of organizations within the renal and Medicare communities.

A. Professional Affiliations.

The Network maintains an ongoing relationship with Health Care Excel, the agency which administers the quality improvement organization (QIO) for both Kentucky and Ohio. The Network is represented on cooperative committees organized by Health Care Excel.

The Network acts as a resource to the departments of health in the Illinois, Indiana, Kentucky, and Ohio. Interactions between the Network and the state health agencies are ongoing. The Network continuously serves as an expert adviser for the technical aspects of dialysis, a resource for complaints and grievances, and provides Network developed resources when requested.

The Network also provides resources and contacts with other dialysis agencies, such as the National Kidney Foundation and its affiliates, The University of Michigan Kidney Epidemiology and Cost Center, the United States Renal Data Service, and the United Network for Organ Sharing. The relationship between state health agencies and Network 9/10 continues to develop in a collaborative manner.

B. Patient Interaction in Network Activities.

To promote patient input and participation in the Network, the following activities were conducted during 2002.

- ◆ New patients were informed about the Network through a New Patient Packet that the Forum distributes to new patients.
- ◆ Patients participated on Network Committees.
- ◆ New social worker folders were updated to provide a listing of resources and information to share with patients as well as material to encourage patients to become active on the Patient Leadership Committee or the Patient Advisory Counsel.
- ◆ Throughout the year, information about the PAC, PLC, and Patient-to-Patient Program and patient resources were sent to patients and staff who expressed an interest in becoming involved with any of the programs.

- ◆ The board game, *Adventure Park - ESRD Special Edition*, was distributed per request. Information about the game was put on the Web site of ikidney.com, along with the Network Web sites.

C. Community Outreach Activities.

The Renal Network acts as a clearinghouse to provide information concerning ESRD technology and treatment advances to ESRD professionals, patients, and other interested persons and organizations. Information received or generated by the Network was disseminated to the appropriate individuals at the discretion of the Executive Director or other appropriate staff persons. During 2002 information was distributed Network-wide in the following manner:

1. Patient Newsletter, *Renal Outreach*.

The Renal Network publishes a newsletter for patients in the four-state area. While ESRD patients are the primary audience, ESRD professionals and members of the renal community receive the newsletter, as well. In total, about 10,000 copies are distributed with each mailing.

Renal Outreach provides a continuing means of communication to all patients within Network 9/10. It contains information on new therapies, rehabilitation, medications, nutrition, exercise, and general topics of interest, as well as news of Network 9/10 and Patient Leadership Committee activities. Patients are encouraged to submit their ideas for articles and to write articles for the newsletter. Each newsletter contains at least one article written by a patient or family member.

2. Network 9/10 Handbook - Policies and Procedures.

The Network 9 /10 Handbook was developed to ensure all member facilities are continuously apprised of Network 9/10 policies and procedures as approved by Network 9/10 Coordinating Council. The Handbook is updated periodically as policies are developed or are amended; materials are posted to the Network Web site at www.therenalnetwork.org, in the policies and guidelines section.

3. Web Sites

The main Network Web site is found at the url www.therenalnetwork.org. This Web site is intended to provide information about Network 9/10 activities and links to other resources in the renal community. The front page is updated monthly with news. Policies, procedures, and selected data items are added as they become available.

A second Web site is devoted to issues of interest to patients and family members. This site, www.kidneypatientnews.org, contains articles and information with a patient focus. There are links to other sites as well as the ability to download and/or order Network materials. It is updated on a regular basis.

4. Patient Handbook, *Living With Kidney Disease: A Patient Manual*.

During 2002, The Renal Network revised and updated its patient manual and made it available to patients and facility staff on its Web sites. Hard copies are sent out as requested.

5. New and Updated Resources: During 2002, resources were added and/or updated, including the following:

- ◆ Workin'Life's Puzzles, Kidney Disease: Talkin' 'Bout it and Puttin' It Together
- ◆ PAC ActionGram on Staying Healthy
- ◆ Network Web site brochure
- ◆ Early Renal Insufficiency Handout
- ◆ Compliance/Adherence Packet
- ◆ 2003 Dialysis Calendar
- ◆ Living With Kidney Disease: A Patient Manual

6. Educational and Cooperative Activities:

- ◆ The Network collaborated with the New Media Department, School of Informatics, at Indiana University-Purdue University at Indianapolis for the development of a CD-ROM game and the patient Web site.
- ◆ A workshop for patients and staff entitled "Living Well With Chronic Kidney Disease" was held in the summer in collaboration with the Indiana State Office of Rural Health. Focus groups were held in a Richmond, Indiana dialysis facility with patients, staff, and families.
- ◆ Materials were provided for two health fairs and two workshops in the Network area.
- ◆ The Network participated in an "Involuntary Discharge Survey" with 10 other networks. A survey was sent to each dialysis facility and a five percent blind sample was completed.
- ◆ The Network provided assistance to NKDEP's Cleveland Coalition in the areas of outreach and information dissemination.
- ◆ A flyer on "Take a Loved One to the Doctor Day" was sent to all facilities to post for their patients in cooperation with the Department of Health and Human Services.
- ◆ Provided the University of Illinois booklets on early renal insufficiency to distribute to police and fire fighters.

7. Nephrology Conference

In combining its roles as an information clearinghouse and a professional renal association, The Renal Network sponsors the Nephrology Conference each year. The 2002 Nephrology Conference was held on May 2, 3 and 4 at the Hyatt on the Riverwalk in downtown Chicago. This annual event is designed to allow members of the Network to come together to conduct Network business while providing educational opportunities and allowing for the exchange of ideas among members of the renal community in Illinois, Indiana, Kentucky and Ohio.

The goal of the Conference is to offer a multi-disciplinary scientific seminar, individual meetings of different professional groups, and to provide awards to those individuals and facilities who have excelled in meeting of Network goals during the year. These activities are planned in conjunction with the meeting of the Network Coordinating Council. The chart below shows attendance rates for 2002 and 2001.

2002 Nephrology Conference – ESRD Network 9/10									
Meeting	Exhibitors	MD	Admin	RN	Tech	SW	RD	Neph Update	TOTAL Registrations
2002	33*	47	130	136	63	53	54	258	741
2001	35*	42	86	132	64	78	81	212	695

* Figure not included in TOTAL column.

The Network recognizes achievement among its members by presenting awards for individuals who have made outstanding contributions to the Network, and also who have gone above and beyond the minimum to meet network reporting requirements, both in data and quality assurance. The chart below illustrates the number of facilities which were recognized for achievement through the Network 9/10 Quality Awards Program.

2000 - 2002 Quality Awards Recipients Network 9/10			
Network Quality Award	2000 # (% total)	2001 # (% total)	2002 # (% total)
Anemia Management:			
a. Hemodialysis Programs	10 (3%)	44 (11%)	88 (21%)
b. Peritoneal Dialysis Programs	10 (6%)	26 (15%)	32 (20%)
Adequacy of Dialysis:			
a. Hemodialysis Programs	43 (11%)	16 (4%)	49 (11%)
b. Peritoneal Dialysis Programs	1 (1%)	33 (18%)	56 (35%)
Fistula ≥ 40%	23 (6%)	24 (6%)	70 (16%)
Catheter ≤ 10%	10 (3%)	6 (1%)	16 (4%)
Sustaining Member:			
a. Hemodialysis Programs	8	17	25
b. Peritoneal Dialysis Programs	0	0	1

The Conference is organized by the Network Planning Committee to ensure input from the Network members. Additionally, Network-wide professional groups for administrators, social workers, technicians and registered dietitians were formed to facilitate planning individual sessions for these disciplines. The Network works in conjunction with the American Nephrology Nurses Association to plan a full-day session for nurses. All programs are designed to provide continuing education credits for participants, which enhances the value of these offerings to Network members. To further integrate the Conference into the renal community, businesses dealing in renal products are invited to exhibit during the event. This serves the dual purpose of providing useful information to conference participants while underwriting the event through these sponsors.

8. Other Activities.

The Network has developed and maintained email list services for different audiences, including physicians, administrators and social workers. These list services are used as warranted to provide an expedient and inexpensive means to reach a large audience with information, such as news on a variety of topics, including FDA recalls, Network nominations process and election, Network meetings, and quality initiatives.

As events warrant, informational bulletins are sent to the appropriate individuals via regular mail. These releases of information may be sent to committee members, council members, professional disciplines, patients or other related organizations. If necessary, a general release may be sent to all interested parties.

News of general interest is included in the newsletters of Network 9/10 to ensure that the membership is kept informed of activities on a continuing basis. Network 9/10 maintains a mailing list, by category, on computer to facilitate clearinghouse functions. This listing is continuously updated to provide an efficient mailing process.

Additionally, Network 9/10 responds to individual requests for information as these are received. The requests come from a variety of individuals, from dialysis patients and family members, renal professionals, students, researchers, and planning organizations and/or dialysis corporations.

GOAL 3: Evaluating and resolving patient grievances.

The Medical Review Board reviewed its "Policy and Procedure to Evaluate Formal Complaints" which addresses grievances filed with the Network. This policy is in compliance with the CMS national policy for evaluating and resolving patient grievances. In addition, a special subcommittee of the Medical Review Board is designated to review grievances.

The Network 9/10 grievance policy was reviewed and is in the process of being updated. An article explaining the grievance policy was also published in *Renal Outreach*, the patient newsletter of Network 9/10. Additionally, a summary of the grievance process is available on the Network Web site and information about filing a grievance is also available on the patient Web site.

Network staff members routinely handle many requests for assistance directly from patients and their families, as well as facility staff members. These requests involve supplying information from various sources available from the Network, such as location of dialysis centers, help with transient dialysis, location of isolation stations, specific federal regulations, etc. The Network provides assistance to facilities to avoid discharging patients involuntarily, to develop effective behavioral agreements, and works with patients and facilities to resolve issues before they become grievances. In some instances, the Network may act as a go-between, making an initial contact for an individual who is seeking assistance. These contacts are tracked by the SIMS information system.

The complaints are reported through the CMS quarterly report format as investigations or grievances. Investigations are the result of complaints brought to the attention of the Network through a variety of means. Grievances are formal, written complaints filed by patients or their representatives, or by facility staff members.

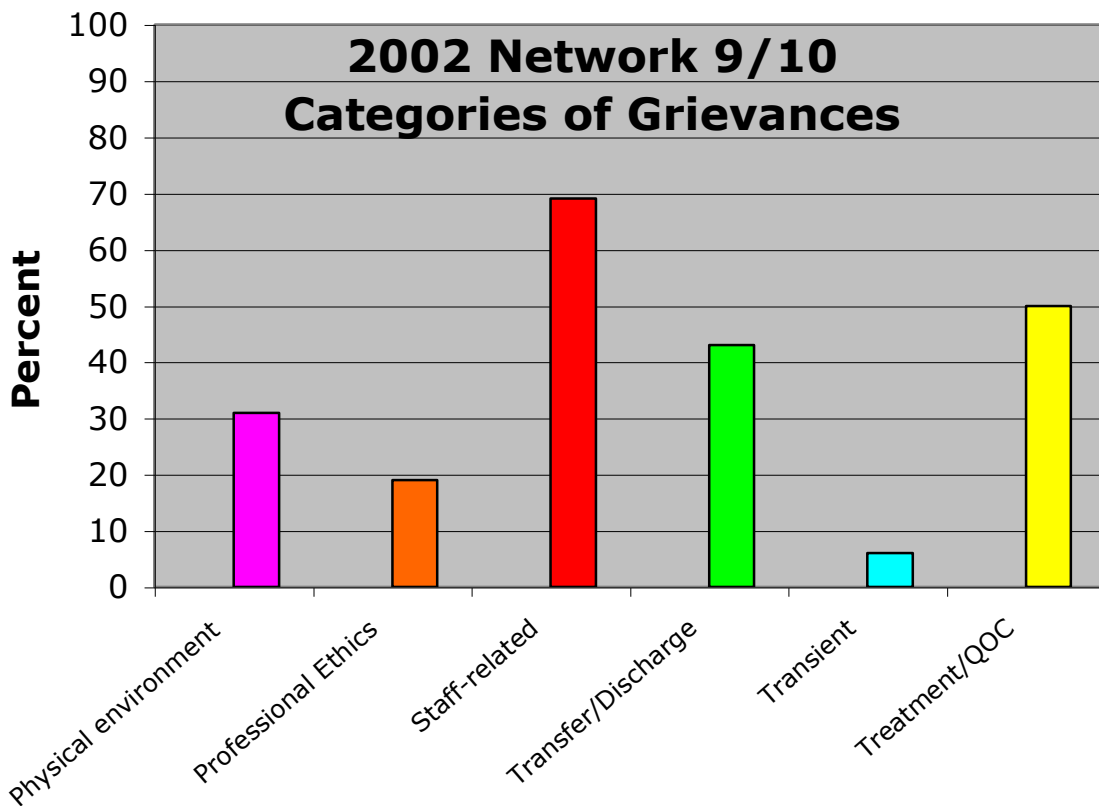
A. 2002 Investigations. No special investigations were conducted during 2002.

B. 2002 Formal Grievances

During 2002, the Network investigated a total of 19 complaints. Four were complaints which were originated during 2001 and carried into 2002; 15 complaints were initiated during 2002. Of these 15 grievances begun in 2002, nine were resolved and six were continued into 2003.

C. Grievance by Category of Complaint.

This information represents the 15 grievances filed in 2002. In many instances, one grievance will include several of the complaint categories listed below.



GOAL 4: Improving data reliability, validity, and reporting between ESRD facilities/providers, Networks, and CMS and other related agencies.

A. Facility Compliance

At the beginning of 2002 all dialysis and transplant facilities within the Network were participating as required by CMS and The Renal Network. At year-end 2002, all dialysis facilities within the Network 9/10 area were participating as required by CMS and The Renal Network.

The Renal Network has designed a patient medical information system to enable the continual assessment of the ESRD patient population. A computer system has been designed to integrate data, generate internal reports, and contribute to the national database.

During 1999, The Renal Networks converted to the Standardized Information Management System (SIMS) developed by the ESRD Networks and CMS; in 2002 work continued to update this system as needed.

B. System Description.

The data processing system is based on the generation of CMS mandated forms and a Network tracking report by ESRD facilities. These forms provide the necessary information and updates that assure the accuracy of the data system.

CMS Medical Information System (MIS) Forms that are processed through the Network office include:

- ◆ CMS 2728 - Chronic Renal Medical Evidence Report
- ◆ CMS 2744 - ESRD Facility Survey
- ◆ CMS 2746 - ESRD Death Notification

As these forms are received in the Network office, they are input on the patient database, a CMS logging program, and a compliance program, and forwarded to CMS.

The Network 9/10 Data Department routinely completes the following activities:

- ◆ Handling daily receipt of MIS forms and logging forms on the Network computer.
- ◆ Verifying information on MIS forms.
- ◆ Monthly review of facility compliance goals for forms submission.
- ◆ Input of MIS forms and tracking forms on Network patient information system.
- ◆ Processing of HCFA generated facsimile forms.

C. Compliance Reporting.

The SIMS program tracks compliance for forms submission and completion by each facility. The program generates a report showing each facility, which forms were received, and whether or not they

were compliant. It also generates a master report showing compliance rates for all facilities within the Network. Compliance rates are reviewed monthly by Network staff. Quarterly, compliance reports are generated and sent to the facilities. The Medical Review Board routinely reviews compliance rates for those facilities who fall below the CMS goals at their quarterly meetings.

D. Patient Tracking System.

The Network upgraded its computer tracking system to a Windows™ based system and disseminated the new program to all dialysis facilities within its four states. The facilities report monthly to the Network via diskette. The update included the KDQOL™ quality of life survey instrument and scoring program for use by dialysis facilities. Use of this instrument is voluntary for the dialysis facilities and interested facility staff members are referred to RAND for instructions on proper implementation.

The data system has unlimited capability to collect information on ESRD patients. Currently, more than 33,000 active and inactive patient listings are in the system. Information collected on each patient includes:

- ◆ Full Patient Name
- ◆ Social Security Number
- ◆ Medicare Number
- ◆ Demographic Information
- ◆ Patient Address
- ◆ County of Residence
- ◆ Transfer Information and Date
- ◆ Initial and Subsequent Providers
- ◆ Modes of Therapy
- ◆ Primary Diagnosis and Co-morbid Conditions
- ◆ All Types of Changes in Patient Status
- ◆ Transplant Candidate Status
- ◆ Vocational Rehabilitation Status
- ◆ Number of Treatments Performed
- ◆ Date of First Dialysis
- ◆ Current Status
- ◆ Cause of Death
- ◆ Clinical Performance Measures

After the data is computerized, it is then available for statistical manipulation. Various statistics and data profiles are generated through the Network data system as described earlier in this report. The data tables contained in this report were generated through the Network data system as well.

E. Community Outreach Through Data

Network 9/10 uses its database as a constant source of information on the ESRD population for the renal community. During 2002, Network 9/10 filled requests for Statistical Report data, for ZIP Code and county data, for facility demographic profiles, for SMR data, for core indicator data, and compliance data. Data requests are received continuously from a variety of interested parties, including:

- ◆ Requests from facilities for information on their own programs. Often these requests ask for historical information to allow the facility to assess trends. SMR data was also released which displayed a facility's ratio compared to the Network. This allows the facility to make comparison of its ratio with its peers.
- ◆ Requests from organizations attempting to establish new ESRD programs within a given area, or from current providers who are attempting to expand their services. Data often requested includes capacity and utilization figures, and patients by residence, divided by county or ZIP Code. (All patient data released is done within the confines of established CMS confidentiality rules.)
- ◆ Requests from state health planning agencies to assist them in assessing the need for ESRD service when reviewing Certificate of Need (CON) applications.
- ◆ Requests from researchers in a variety of interests, such as patients dialyzing by modality, by diagnoses, demographic information, and transplantation.

4. SANCTION RECOMMENDATIONS.

No requests were made during 2002 to CMS for sanctions of area facilities.

5. RECOMMENDATIONS FOR ADDITIONAL FACILITIES

Each year through the patient tracking system, The Renal Network conducts a review of facility operations. This information is made available to the provider community for many uses, including estimating need for additional services.

From this report the following information is available:

- Services Rendered: describes each facility by area of location within the Network and the modes of therapy offered.
- Current Operations: shows the number of stations currently operating at each dialysis facility within the Network.
- Patient Capacity by Facility: calculates the total number of patients that could dialyze at each facility based on the number of shifts and stations available at that facility.
- Utilization: identifies the actual utilization of each dialysis facility at year-end 1999.
- Pediatric ESRD Facilities: shows the number of stations currently operating at each pediatricdialysis facility within the Network.

6. DATA TABLES