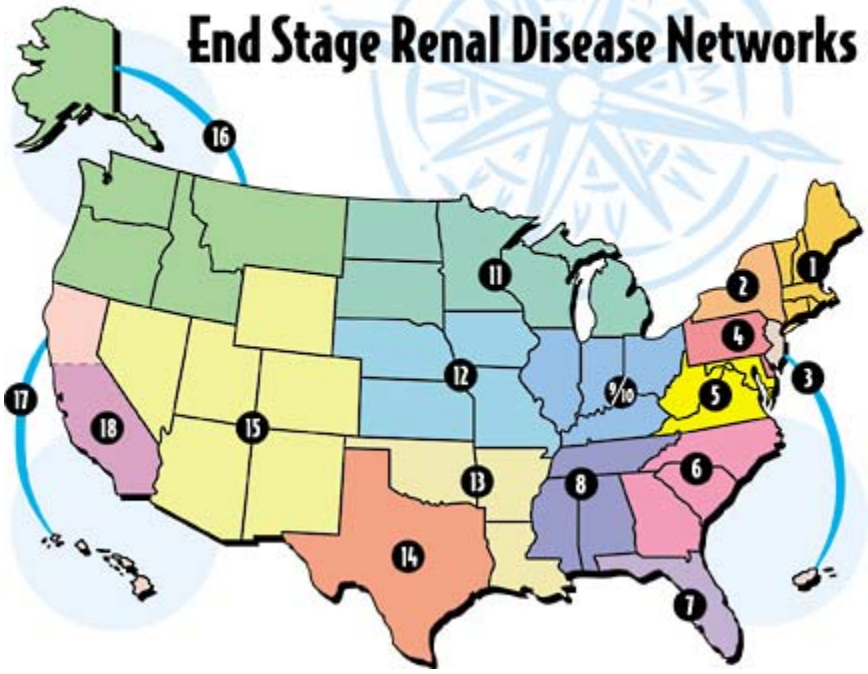
SUMMARY REPORT of the End Stage Renal Disease (ESRD) Networks' Annual Reports 2000



Prepared by the Forum of ESRD Networks Clearinghouse Office
Under Contract to CMS 500-00-NW14

ESRD Networks are required by contract with the Centers for Medicare and Medicaid Services (CMS) to submit an Annual Report covering their activities during each calendar year. This Report summarizes those Annual Reports and is submitted to CMS as a contract deliverable by the Forum Clearinghouse of ESRD Networks. This document covers the time period of January 1, 2000, through December 31, 2000.

ESRD NETWORKS AND EXECUTIVE DIRECTORS

Network 1
(CT, ME, MA, NH, RI, VT)
Jenny Kitsen
ESRD Network of New England, Inc.
30 Hazel Terrace
Woodbridge, CT 06525
Phone: (203) 387-9332
Fax: (203) 389-9902
Email: jkitsen@nw1.esrd.net

Network 2
(NY)
Geraldine Rasmussen
ESRD Network of New York, Inc.
1249 Fifth Avenue, A-419
New York, NY 10029
Phone: (212) 289-4524
Fax: (212) 289-4732
Email: grasmussen@nw2.esrd.net

Network 3
(NJ, PR, VI)
Joan C. Solanchick
TransAtlantic Renal Council
Cranbury Gates Office Park
109 S. Main Street – Suite 21
Cranbury, NJ 08512-9595
Phone: (609) 490-0310
Fax: (609) 490-0835
Email: jsolanchick@nw3.esrd.net

Network 4
(DE, PA)
Bonnie Freed, RN, MBA
ESRD Network Organization #4
200 Lothrop Street
Pittsburgh, PA 15213-2582
Phone: (412) 647-3428
Fax: (412) 683-6814
Email: bfreed@nw4.esrd.net

Network 5
(DC, MD, VA, WV)
Nancy C. Armistead, MPA
Mid-Atlantic Renal Coalition
1527 Huguenot Road
Midlothian, VA 23113
Phone: (804) 794-3757
Fax: (804) 794-3793
Email: narmistead@nw5.esrd.net

Network 6
(GA, NC, SC)
Jenna Krisher
Southeastern Kidney Council, Inc.
1000 St. Albans Drive, Suite 270
Raleigh, NC 27609
Phone: (919) 855-0882
Fax: (919) 855-0753
Email: jkrisher@nw6.esrd.net

Network 7
(FL)
Rosa Rivera-Mizzoni, MSW
ESRD Network of Florida, Inc.
One Davis Boulevard, Suite 304
Tampa, FL 33606
Phone: (813) 251-8686
Fax: (813) 251-3744
Email: rrivera-mizzoni@nw7.esrd.net

Network 8
(AL, MS, TN)
Jerry W. Fuller
Network 8, Inc.
PO Box 55868
Jackson, MS 39296-5868
Phone: (601) 936-9260
Fax: (601) 932-4446
Email: jfuller@nw8.esrd.net

Network 9/10
(IL, IN, KY, OH)
Susan A. Stark
The Renal Network, Inc.
911 East 86th Street, Suite 202
Indianapolis, IN 46240
Phone: (317) 257-8265
Fax: (317) 257-8291
Email: sstark@nw9.esrd.net

Network 11
(MI, MN, ND, SD)
Diane Carlson
Renal Network of the Upper Midwest, Inc.
970 Raymond Avenue # 205
St. Paul, MN 55114
Phone: (651) 644-9877
Fax: (651) 644-9853
Email: dcarlson@nw11.esrd.net

Network 12
(IA, KS, MO, NE)
Lisa Taylor, RN, BSN
ESRD Network #12
7505 NW Tiffany Springs Pkwy
Suite 230
Kansas City, MO 64153
Phone: (816) 880-9990
Fax: (816) 880-9088
Email: ltaylor@nw12.esrd.net

Network 13
(AR, LA, OK)
Patricia Philliber
ESRD Network Organization #13
6600 N Meridian Ave., Suite 155
Oklahoma City, OK 73116-1411
Phone: (405) 843-8688
Fax: (405) 842-4097
Email: pphilliber@nw13.esrd.net

Network 14
(TX)
Glenda Harbert, RN, CNN, CPHQ
ESRD Network of Texas, Inc.
14114 Dallas Pkwy, Suite 660
Dallas, TX 75240-4349
Phone: (972) 503-3215
Fax: (972) 503-3219
Email: gharbert@nw14.esrd.net

Network 15
(AZ, CO, NV, NM, UT, WY)
Sharon K. Stiles
Intermountain ESRD Network, Inc.
1301 Pennsylvania St., Suite 750
Denver, CO 80203-5012
Phone: (303) 831-8818
Fax: (303) 860-8392
Email: sstiles@nw15.esrd.net

Network 16
(AK, ID, MT, OR, WA)
Lorabeth Lawson, MPP
Northwest Renal Network
4702 42nd Avenue, SW
Seattle, WA 98116
Phone: (206) 923-0714
Fax: (206) 923-0716
Email: llawson@nw16.esrd.net

Network 17
(AS, Guam, HI, Mariana Islands, N. CA)
Arlene Sukolsky
TransPacific Renal Network
25 Mitchell Boulevard, Suite 7
San Rafael, CA 94903
Phone: (415) 472-8590
Fax: (415) 472-8594
Email: asukolsky@nw17.esrd.net

Network 18
(Southern California)
Douglas Marsh
Southern California Renal Disease Council, Inc.
6255 Sunset Boulevard, Suite 2211
Los Angeles, CA 90028
Phone: (323) 962-2020
Fax: (323) 962-2891
Email: dmarsh@nw18.esrd.net

Forum Clearinghouse Office
Janet Crow, Administrator
Bonnie Freshly, Project Coordinator
1527 Huguenot Road
Midlothian, VA 23113
Phone: (804) 794-2586
Fax: (804) 794-7351
Email: jcrow@forum.esrd.net
bfreshly@forum.esrd.net

SUMMARY REPORT
of the
End Stage Renal Disease (ESRD)
Networks' Annual Reports

2000

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EXECUTIVE SUMMARY

The Medicare end-stage renal disease (ESRD) program, a national health insurance program for people with end-stage renal disease, was established in 1972 with the passage of Section 299I of Public Law 92-603. Congress gave much attention to this program and in 1977, modifications to the ESRD program were passed in legislation 95-292. H.R. 8423 was designed to encourage self-care dialysis and kidney transplantation and clarify reimbursement procedures in order to achieve more effective control of the costs of the renal disease program. This legislation also authorized the establishment of ESRD Network areas and Network organizations, consistent with criteria determined by the Secretary of the Department of Health, Education, and Welfare. The legislation mandated 32 geographic areas and organizations, but in 1987 Congress reduced the number to the existing 18 Networks (see inside front cover). This report summarizes the annual reports submitted by these 18 Network organizations for calendar year 2000.

The Centers for Medicare and Medicaid Services (CMS) contracts with the 18 ESRD Network Organizations to provide federally established services under the Medicare program. The Networks are not-for-profit organizations, led by volunteer boards and committees comprised of nephrology patients and professionals. CMS outlines the broad expectations for Networks and specifies projects and tasks in the ESRD Statement of Work (SOW). The ESRD Networks manage a computerized patient registry system, assure quality of care through continuous quality improvement methodology and data analysis, provide community education, and process patient beneficiary complaints.

All ESRD Networks are members of the Forum of ESRD Networks which is a not-for-profit organization that advocates on behalf of its membership and coordinates projects and activities of mutual interest to ESRD Networks. The Forum facilitates the flow of information and advances a national quality agenda with CMS and other renal organizations. This report is prepared in the Forum Clearinghouse Office under CMS contract 500-00-NW14 and summarizes the annual reports submitted by these 18 Network organizations for calendar year 2000.

The ESRD Statement of Work outlines four goals to provide direction to the national ESRD Network program. These goals outline the basic functions of the ESRD Networks and are used to direct the Networks' daily activities. Each Network tailors its activities to meet and exceed CMS' expectations.

GOAL ONE: IMPROVING THE QUALITY OF HEALTH CARE SERVICES AND QUALITY OF LIFE FOR ESRD BENEFICIARIES

The Networks serve as a liaison between CMS and ESRD providers, and also between providers and the ESRD patients under their care. CMS, providers, and patients all have a vested interest in achieving optimal treatment, and the Networks serve as a vital link in the quality chain. Network organizations accomplish their quality mission by:

1. Collecting and validating patient-specific data;
2. Distributing data feedback reports for facilities to use in improving care;
3. Conducting quality improvement projects and activities focused on specific areas of care;
4. Providing professional educational materials and workshops for facility staff;
5. Providing patient educational materials and workshops to facilities and directly to patients; and,
6. Offering technical assistance to dialysis and transplant facilities.

Selected findings from the National ESRD Clinical Performance Measures Quality Improvement Project are highlighted below. Important improvements in adequate therapy and anemia management have been realized since the onset of this project:

- Adequacy of Dialysis: Hemodialysis - Mean URRs have increased each year that the CPM project has been conducted, from 62.7% in 1993 to 69.9% in 1999.
- Adequacy of Dialysis: Peritoneal Dialysis - Adequacy of dialysis was assessed during the study period (October 1999-March 2000) for an estimated 85% of patients sampled, which is an increase from 66% in 1995. 68% of CAPD patients had both a mean weekly Kt/V V ≥ 2.0 and creatinine clearance ≥ 60 L/wk/1.73m2.
- Anemia Management: Hemodialysis - In 1999, the proportion of patients with a hemoglobin ≥ 11 was 68%, compared to 59% in 1998.
- Anemia management: Peritoneal Dialysis - 69% of patients had a mean hemoglobin of ≥ 11 gm/dL, compared to 61% in the 1998-1999 study period.

Quality Improvement Projects

The ESRD Network contracts with CMS require implementation of at least two Quality Improvement Projects (QIP) during the three year contract. This is an in-depth project for which CMS prescribes the format. The project must address an area of care for which clinical performance measures and indicators have been developed, and the proposal must be submitted for CMS approval prior to implementation. Each Network defines the opportunity for improvement, employs both outcome and process indicators, includes a project design and methodology that supports statistical analysis, proposes intervention activities, and includes an evaluation mechanism. For 2000, CMS requested all Networks conduct a QIP on Hemodialysis Adequacy. A brief overview and status of the projects addressing hemodialysis adequacy is described in this summary.

GOAL TWO: IMPROVING DATA REPORTING, RELIABILITY, AND VALIDITY BETWEEN ESRD FACILITIES/PROVIDERS, NETWORKS, AND CMS

To accomplish the second goal, Networks utilize both internal and external databases to track various data. Data reporting is an essential function of the Networks. Accurate data collection has a two-fold purpose:

1. Aids the Networks by providing a look at issues facing the regional ESRD population and a check-system to measure facility accuracy and timeliness;
2. Provides the national ESRD data system with accurate data to support quality improvement initiatives, CMS policy decisions, and the USRDS research activities.

The need to standardize each ESRD Network's data system was recognized by both CMS and the Networks. The Southeastern Kidney Council (Network 6) was awarded in 1997 a contract to design, develop, and install Standard Information Management System (SIMS). It provides communication and data exchange links among the Networks, CMS, and other segments of the renal community to support quality improvement activities that relate to the treatment of ESRD. SIMS allows each Network to support and maintain its own database to store patient specific information and information on ESRD-related events. On a broad level, these databases maintain demographic data as well as track patient transactions such as changes in modality, facility, transplant status, and/or death. In this manner, Networks are able to maintain accurate counts of patients within their area. The information tracked within Network databases is collected from the ESRD provider through the Medical Evidence Report Form (HCFA 2728), the Death Notification Form (HCFA 2746), and patient event tracking forms and

facility rosters. In 2000, the Networks processed 99,347 HCFA Form 2728s and 65,264 HCFA Form 2746s for a total of 164,611 data forms processed.

GOAL THREE: ESTABLISHING AND IMPROVING PARTNERSHIPS AND COOPERATIVE ACTIVITIES AMONG AND BETWEEN ESRD NETWORKS, PEER REVIEW ORGANIZATIONS, STATE SURVEY AGENCIES, AND ESRD PROVIDERS/FACILITIES

Networks are actively involved with both quality-related and renal-related organizations to facilitate cooperation and joint ventures. Each Network creates unique partnerships with organizations to help provide better care for the ESRD patient population, including renal groups, professional organizations, dialysis corporations, and pharmaceutical companies. The 2000 Annual Meeting between CMS and the ESRD Network drew representatives from CMS, Networks (data, quality, patient services, and executive staff), as well as many Network Medical Review Board Chairs to discuss issues impacting the ESRD Networks. Other new activities in 2000 included the development of a patient safety initiative in the ESRD Program, the examination of Network activities in the area of referral for transplantation, and the facilitation of a post-contract award meeting. In Spring 2000, a committee, with representatives from the renal community (AAKP, ANNA, Life Options, NRAA, RPA, UNOS), the Networks, CMS, and the ESRD Forum reviewed existing ESRD educational materials and recommended the educational materials that would be most helpful to new patients with ESRD. Beginning in October 2000, each new patient in the 18 Networks received a package of ESRD orientation materials.

GOAL FOUR: EVALUATING AND RESOLVING PATIENT GRIEVANCES

Networks are responsible for evaluating and resolving patient grievances. Each Network has a formal grievance resolution protocol, approved by CMS. A formal beneficiary grievance is a complaint alleging that ESRD services did not meet professional levels of care. The formal grievance process requires the Network to conduct a complete review of the information and an evaluation of the grievance, which may require the involvement of a Grievance Committee and/or the Medical Review Board. During 2000, Networks processed 79 formal beneficiary grievances in comparison to 86 in 1999.

During the year 2000, Networks studied the issue of the "challenging situations" defined by a number of Networks as situations when a patient may present to a clinic and act out in a violent manner or is verbally abusive or threatening. Although this is not a new issue, the sense among the Networks is this is a growing problem that involves many dynamics. Many Networks continue to provide workshops and written material focusing on this issue and spend a great deal of staff time providing consultation to the clinics in an effort to deal with this issue. An effort is underway within the Networks to gain a greater understanding of this issue and to quantify its prevalence.

This report summarizes highlights of ESRD Network's 2000 activities. Internet addresses are provided for additional information about the ESRD Networks and the ESRD program. All Network web sites can be accessed through the home page of the Forum Clearinghouse Office, www.esrdnetworks.org.

SUMMARY REPORT

INTRODUCTION

The Medicare end-stage renal disease (ESRD) program, a national health insurance program for people with end-stage renal disease, was established in 1972 with the passage of Section 299I of Public Law 92-603. Congress gave much attention to this program and in 1977, modifications to the ESRD program were passed in legislation 95-292. H.R. 8423 was designed to encourage self-care dialysis and kidney transplantation and clarify reimbursement procedures in order to achieve more effective control of the costs of the renal disease program. This legislation also authorized the establishment of ESRD Network areas and Network organizations, consistent with criteria determined by the Secretary of the Department of Health, Education, and Welfare. The legislation mandated 32 geographic areas and organizations, but in 1987 Congress reduced the number to the existing 18 Networks (see inside front cover). This report summarizes the annual reports submitted by these 18 Network organizations for calendar year 2000.

ESRD POPULATION & CHARACTERISTICS

Although the ESRD population is less than 1% of the entire U.S. population it continues to increase at a rate of 5% per year impacting all races, age groups, and socioeconomic standings. Because the ESRD Network organizations cover all 50 states plus Puerto Rico, Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands, much variation is seen in both the overall population and the ESRD population. While California (Networks 17 & 18) has the largest state population, the state of Georgia has the largest population on dialysis. At the end of 2000 there were 276,106 patients being dialyzed and 94,024 new ESRD patients, (Appendix A**)**.

Table 1
ESRD INCIDENCE RATES BY NETWORK
Calendar Year 2000

Network	Initiated ESRD Therapy	General Population	Incidence Rate Per Million Population
1	3,787	13,922,517	272
2	6,563	18,976,457	346
3	4,173	12,410,000	336
4	4,899	13,064,654	375
5	5,749	14,700,000	391
6	7,703	19,420,000	397
7	5,791	15,982,378	362
8	4,864	12,981,041	375
9	7,386	21,475,394	344
10	4,268	12,419,293	344
11	6,231	21,618,000	288
12	3,783	12,920,000	293
13	3,900	10,593,030	368
14	7,018	20,900,000	336
15	3,983	13,226,000	301

16	2,572	12,138,600	212
17/18 *	11,354	35,570,227	319
Total	**94,024**	**282,317,591**	**333**

Source: Networks 1-18 Annual Reports, 2000

*Networks 17 and 18 have been combined to incorporate the state of California. Hawaii and American territories are included.

AGE

In 2000 a majority of the ESRD patients were between the ages of 60 and 79 and the pediatric population remained relatively small with less than one percent of the ESRD population under 20 years old (Table 2). This same age distribution can be seen in the incident population (Appendix B). These distributions have remained the same over the past three years.

Table 2
PREVALENCE OF DIALYSIS POPULATION
BY AGE AND NETWORK WHERE TREATED
December 31, 2000

Network	0-19	20-29	30-39	40-49	50-59	60-69	70-79	≥ 80	Unknown	Total
1	58	236	638	1,200	1,634	2,229	2,762	1,342	23	10,122
2	141	604	1,584	2,897	4,146	4,703	4,492	2,164	0	20,731
3	68	351	812	1,594	2,454	3,028	2,708	1,188	2	12,205
4	102	321	905	1,696	2,368	3,014	3,487	1,483	8	13,384
5	129	459	1,329	2,553	3,373	3,774	3,678	1,418	19	16,732
6	158	909	2,175	4,079	5,565	5,974	4,679	1,611	0	25,150
7	118	449	1,144	2,028	2,928	3,493	3,829	1,824	0	15,813
8	118	573	1,357	2,535	3,406	3,745	3,152	1,096	0	15,982
9	175	595	1,481	2,638	3,615	4,464	4,743	1,846	12	19,569
10	105	366	848	1,658	2,315	2,678	2,826	1,329	7	12,132
11	120	508	1,249	2,248	3,097	3,434	4,263	1,872	0	16,791
12	94	331	726	1,391	1,858	2,314	2,632	1,188	0	10,534
13	74	449	964	1,851	2,507	2,773	2,313	852	0	11,783
14	192	783	1,886	3,438	4,928	5,322	4,415	1,479	4	22,447
15	110	368	878	1,522	2,456	2,798	2,566	937	0	11,635
16	64	256	567	961	1,324	1,480	1,567	649	35	6,903
17	86	418	1,032	1,979	2,815	3,167	3,032	1,300	0	13,829
18	236	759	1,554	2,851	3,995	4,638	4,457	1,874	0	20,364
Total	**2,148**	**8,735**	**21,129**	**39,119**	**54,784**	**63,028**	**61,601**	**25,452**	**110**	**276,106**
%Total	**0.8%**	**3.2%**	**7.7%**	**14.2%**	**19.8%**	**22.8%**	**22.3%**	**9.2%**	**0.0%**	**100.0%**

Source: Networks 1-18 Annual Reports, 2000

RACE

While the vast majority of ESRD patients are White, the number of Blacks and Native Americans with ESRD is disproportionately high compared to the U.S. population. While Black Americans comprise 13% of the population they make up 37% of the total ESRD population. Network 6 has a large population of Blacks and Network 15 is home to a large number of Native Americans. Network 1 has a

higher population of Whites, 76% compared to the average of 52%. Appendices C and D present tables comparing the dialysis prevalence and ESRD incident populations by race and network.

DIAGNOSIS

The leading cause of renal failure in the United States is diabetes. Table 3 and Figure 1 categorize prevalent dialysis patients by primary diagnosis. A list of primary causes for ESRD can be found in Appendix E.

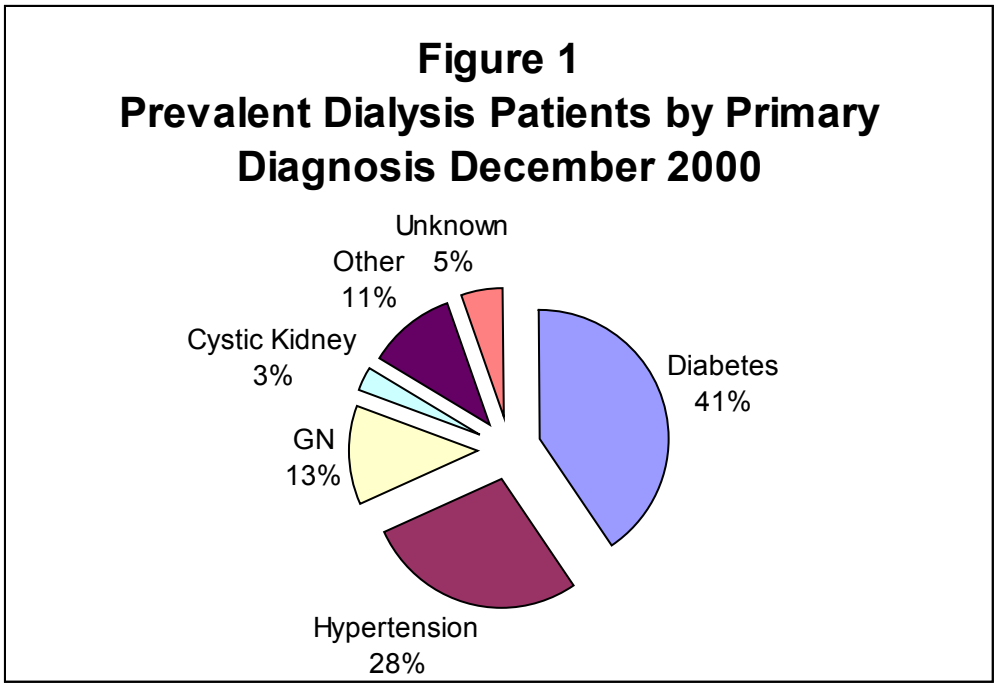
Table 3
PREVALENCE OF DIALYSIS POPULATION
BY PRIMARY DIAGNOSIS AND NETWORK WHERE TREATED
December 31, 2000

Network	Diabetes	Hypertension	GN	Cystic Kidney	Other [1]	Unknown	Missing	Total
1	3,742	2,406	1,407	392	1,584	591	0	10,122
2	7,819	4,750	2,902	527	3,099	1,634	0	20,731
3	5,095	3,053	1,881	507	1,325	344	0	12,205
4	5,125	3,579	1,807	472	1,800	552	49	13,384
5	6,245	5,547	1,968	455	1,895	534	88	16,732
6	9,466	7,966	3,077	528	2,559	849	705	25,150
7	5,780	5,155	1,891	540	1,969	462	16	15,813
8	6,088	5,467	1,804	446	1,556	518	103	15,982
9	8,100	5,100	2,341	605	2,430	847	146	19,569
10	4,451	4,020	1,340	284	1,336	654	47	12,132
11	6,743	4,625	2,179	526	2,164	554	0	16,791
12	4,249	2,807	1,380	347	1,341	410	0	10,534
13	4,779	3,976	1,177	355	1,151	345	0	11,783
14	10,797	5,577	2,268	524	2,131	871	279	22,447
15	5,953	1,962	1,522	388	1,381	429	0	11,635
16	2,656	1,120	1,049	272	1,070	352	384	6,903
17	6,060	3,168	2,161	453	1,489	488	10	13,829
18	8,910	5,700	2,448	578	1,977	751	0	20,364
Total	**112,058**	**75,978**	**34,602**	**8,199**	**32,257**	**11,185**	**1,827**	**276,106**
%	**40.6%**	**27.5%**	**12.5%**	**3.0%**	**11.7%**	**4.1%**	**0.7%**	**100.0%**

Source: Networks 1-18 Annual Reports, 2000

[1] Other includes data listed as "Other" and "Other Urologic" on Network Annual Reports

Given the diverse patient populations seen within each geographic region it is surprising that there is little variation between the Network populations with respect to the diagnosis of their prevalent populations. All Networks reported diabetes as the primary cause of renal failure in 2000 but Network 15, at 51%, had the highest percentage of patients with this primary diagnosis. Network 6 had a higher percentage of patients with hypertension, 32%.



Source: Networks 1-18 Annual Reports, 2000

As shown by Figure 1, diabetes represented 41% of the prevalent dialysis patient population in 2000. Hypertension followed with 28%, glomerulnephritis with 13% and other causes accounted for 11% of the dialysis population with 5.3% of patients having an unknown primary cause. Cystic kidney accounted for 3% of the dialysis population. The percentage of patients with a primary diagnosis of diabetes has increased from 39% in 1999 to 41% in 2000. Appendix F illustrates the incidence by primary diagnosis by Network. While diabetes is the most common cause of ESRD it is prominently the cause of ESRD in women while hypertension is the most common cause of ESRD in men.

GENDER

In 2000, males represented over half of the ESRD incident and dialysis prevalent population, 53%. With the exception of Networks 1 and 6, all Networks reported a higher ratio of males to females (Appendices G and H).

TREATMENT MODALITY

Today, ESRD patients have a variety of choices for outpatient renal replacement therapy. They have the option of dialyzing at home, in a hospital-based facility, or an independent facility offering treatment. Some transplant centers, in addition to providing kidney transplants, offer dialysis services. Appendices I and J display the number of dialysis patients in each Network by modality.

While in-center hemodialysis is the predominate modality choice, changes are occurring in peritoneal dialysis (Appendix K). The number of patients undergoing continuous cycling peritoneal dialysis in a self-care setting rose 5% between 1999 and 2000 (Appendix L), however the number of continuous ambulatory peritoneal dialysis patients has decreased by 6%.

Table 4
ESRD PROVIDERS BY TYPE OF SERVICE AND NETWORK
December 2000

Network	Total	Transplant	Dialysis	Hospital [1]	Independent [1]	Inpatient Care	Stations
Total	**4,153**	**242**	**4,018**	**761**	**3,257**	42	**62,613**
1	147	15	143	43	100	0	2,231
2	222	15	221	115	106	0	3,550
3	127	5	126	48	78	1	2,153
4	244	15	224	39	185	18	3,549
5	286	14	281	50	231	1	4,094
6	373	11	368	28	340	3	6,342
7	265	10	260	16	244	4	4,305
8	279	11	272	9	263	0	4,474
9	291	16	285	51	234	2	3,976
10	136	8	135	35	100	0	1,971
11	310	21	299	119	180	2	3,878
12	222	17	210	45	165	5	2,780
13	254	16	245	27	218	2	3,718
14	301	23	283	22	261	3	5,343
15	202	15	192	33	159	0	2,620
16	110	5	107	32	75	0	1,448
17	152	9	145	32	113	1	2,206
18	232	16	222	17	205	0	3,975

Source: National Listing of Medicare Providers Furnishing Kidney Dialysis and Transplant Services

[1] Hospital and Independent counts are included in the total dialysis count.

Note: Detail does not add to total because most transplant centers also provide dialysis services and are counted again as dialysis providers.

Table 4 lists Medicare ESRD providers by type of service offered by Network. There were 242 transplant centers within the United States in 2000. Network 14 has the largest number of transplant facilities, with 23, followed by Network 11, with 21. Networks 3 and 16 have the fewest transplant facilities, with 5 each. As expected based on patient populations, Network 6 has the largest number of dialysis providers (368) and Network 16 has the smallest number of providers (107).

Appendix M lists the number of renal transplant recipients by donor source and by Network. According to the annual facility surveys conducted by the Networks, 14,143 transplants were performed within the United States during 2000. Of these transplants, 8,883 were from cadaveric donors while 3,984 were from living related donors and 1,276 from living non-related donors. Cadaveric donors represent 63% of transplants performed. Due to decreases in the availability of cadaveric donors, the percent of living and living unrelated donor transplants have increased in recent years and in 2000 represented 37% of all transplants performed. A large number of patients are on waiting lists for kidney transplants. As some patients may be placed on more than one waiting list, there is no number available for the total number of patients awaiting transplant.

The transplant centers in Network 11 performed the largest number of transplants in 2000, 1,482 and had the largest number of transplants by living related donor, 510. Network 3 had the fewest number of transplants with 447 occurring. Network 13 had the least number of transplants by living related donor, 106.

NETWORK DESCRIPTION

The ESRD Network program began in 1977 when the Department of Health, Education and Welfare (HEW) published the final regulations establishing 32 Network Coordinating Councils to administer the newly funded program. With only 40,000 dialysis patients receiving care in 600 facilities, the Networks' responsibilities focused on organizational activities, health planning tasks, and medical review activities.

By December 31, 1987, the ESRD program encompassed 98,432 patients and 1,701 facilities administering renal replacement therapy. At this time, Congress consolidated the 32 Networks into 18, redistributing and increasing their geographical areas as well as their program responsibilities. Funding mechanisms changed when Congress mandated that $ 0.50 from the composite rate payment from each dialysis treatment be withheld, and allocated to fund the ESRD Network program. In 1988 CMS moved from agreements and began contracting with the ESRD Networks to meet their legislative responsibilities. These contracts placed greater emphasis on quality improvement activities and standardizing approaches to quality assessment. Networks still collected and analyzed data for quality improvement, but health-planning functions were reduced.

The Networks operate on a three-year Statement of Work (SOW) cycle. The 1997-2000 SOW was replaced in July, 2000, with a new three-year SOW. At the time of the contract renewal, CMS provided an updated ESRD Network Organization Manual that articulated background and responsibilities of the Networks as well as modifications to some requirements of the ESRD Network program. This tool enables the Networks to better understand contract responsibilities.

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

1. Quality Improvement
2. Community Information and Resource
3. Administration
4. Information Management

CMS contracts require each Network to have an Executive Director, a Director of Quality Improvement, and a Director of Data Management as well as other necessary staff to fulfill the contract obligations. The role of the Executive Director is to coordinate the activities of the Network. The Quality Improvement Director coordinates quality-related requirements and creates and implements quality improvement projects. The Data Manager's role is the accurate recording and transmission of data between the facilities, the Network, and CMS.

In addition to these staff, Networks employ other individuals to accomplish contract responsibilities. Though these positions vary from Network to Network, additional staff in the areas of quality improvement, data, and patient services are essential for the coordination of the many Network activities. Table 5 shows the type, number and percent of staff employed by each Network.

Table 5

NETWORK STAFF BY TYPE, NUMBER, AND PERCENT
December 31, 2000

Network	ESRD Providers*	Administrative #	Administrative %	Quality #	Quality %	Data #	Data %	Patient Services #	Patient Services %	Total Staff
1	**147**	3	30%	2	20%	4	40%	1	10%	**10**
2	**222**	3	27%	2	18%	4	36%	2	18%	**11**
3	**127**	1.3	14%	3	32%	4.2	44%	1	11%	**9.5**
4	**244**	3	30%	2	20%	4	40%	1	10%	**10**
5	**286**	4	36%	4	36%	2	18%	1	9%	**11**
6	**373**	3	27%	2	18%	5	45%	1	9%	**11**
7	**265**	1	13%	2	25%	3	38%	2	25%	**8**
8	**279**	2	22%	2	22%	4	44%	1	11%	**9**
9/10	**427**	4	24%	4	24%	6	35%	3	18%	**17**
11	**310**	2	18%	3	27%	5	45%	1	9%	**11**
12	**222**	1.75	22%	2.25	28%	3	38%	1	13%	**8**
13	**254**	2	18%	3.5	32%	4	36%	1.5	14%	**11**
14	**301**	2	18%	4	36%	3.5	32%	1.5	14%	**11**
15	**202**	2	20%	2.8	29%	4	41%	1	10%	**9.8**
16	**110**	2	26%	1.9	25%	3.15	42%	0.5	7%	**7.55**
17	**152**	2	25%	2.5	31%	3	38%	0.5	6%	**8**
18	**232**	2	20%	3	30%	4	40%	1	10%	**10**
TOTAL	**4,153**	**40.05**	**23%**	**45.95**	**27%**	**65.85**	**38%**	**21**	**12%**	**172.85**

Source: Networks 1-18 Annual Reports, 2000

*Source: National Listing of Medicare Providers Furnishing Kidney Dialysis and Transplant Services

As seen in Table 5, Networks operate with a relatively small number of employees for the size of the ESRD patient population served. The staffing pattern is similar across the Networks, with respect to the number of staff assigned to functional categories but still reflect regional variations. The staff classification areas above are for calculation purposes only and often do not indicate the true nature of staff work duties. For example, an administrative assistant may be responsible for supporting the quality improvement staff a portion of the time and the data staff the rest of the time.

Network staff are supported by a variety of committees with volunteer members from within the Network area. Each Network is required by contract to specify appropriate roles and functions for these committees and each is required to have the following:

- **Network Council:** A body composed of renal providers in the Network area that is representative of the geography and the types of providers/facilities in the entire Network area as well as at least one patient representative. The Network Council serves as a liaison between the provider membership and the Network.

- **Board of Directors (BOD):** A body composed of representatives from the Network area including at least one patient representative. The BOD (or executive committee) supervises the performance of the Network's administrative staff in meeting contract deliverables and requirements and maintains the financial viability of the Network.

- **Medical Review Board (MRB):** A body composed of at least one patient representative and representatives of each of the professional disciplines (physician, registered nurse, social worker, and

dietitian) that is engaged in treatment related to ESRD and qualified to evaluate the quality and appropriateness of care delivered to ESRD patients.

- **Any other committees** necessary to satisfy requirements of the SOW. These committees are designated by the Network and/or BOD and may include, but are not limited to patient advisory, grievance, organ procurement, transplant, finance, and rehabilitation.

CMS NATIONAL GOALS AND NETWORK ACTIVITIES

The current Statement of Work outlines four goals to provide direction to the national ESRD Network program. These goals outline the basic functions of the ESRD Networks and are used to direct the Network daily activities. Each Network tailors its activities to meet and exceed CMS expectations.

The four goals are:

1. Improving the quality of health care services and quality of life for ESRD beneficiaries;
2. Improving data reporting, reliability and validity between ESRD facilities/providers, Networks and CMS;
3. Establishing and improving partnerships and cooperative activities among and between the ESRD Networks, Peer Review Organizations, State Survey Agencies and ESRD facilities and providers; and,
4. Evaluating and resolving grievances.

These goals and how the Networks accomplished them are discussed below.

GOAL ONE: IMPROVING THE QUALITY OF HEALTH CARE SERVICES AND QUALITY OF LIFE FOR ESRD BENEFICIARIES

The Centers for Medicare and Medicaid Services (CMS) contract with the eighteen ESRD Networks to design and administer quality improvement/assessment programs. The structure and composition of the Networks place them in a unique position to accomplish this purpose. The Networks are not-for-profit organizations, led by volunteer boards and committees comprised of nephrology patients and professionals. CMS outlines the broad expectations for Networks and specifies projects and tasks in the ESRD Network Statement of Work (SOW). The geographic distribution of the eighteen Networks allows each to design projects most appropriate for the population served. The Networks can adapt projects for the different cultural and clinical needs of the area and take advantage of local resources to advance the project. With limited resources, Networks must determine which projects can have the broadest impact on improving quality of care. Networks share these project ideas with one another so successful projects can be duplicated.

The Networks serve as a liaison between CMS and ESRD providers, and also between providers and the ESRD patients under their care. CMS, providers, and patients all have a vested interest in achieving optimal treatment, and the Networks serve as a vital link in the quality chain. Network organizations accomplish their quality mission by:

1. Collecting and validating data;
2. Distributing data feedback reports for facilities to use in improving care;
3. Conducting quality improvement projects and activities focused on specific areas of care;
4. Providing professional educational materials and workshops for facility staff;
5. Providing patient educational materials and workshops to facilities and directly to patients; and,

6. Offering technical assistance to dialysis and transplant facilities.

COLLECT AND VALIDATE DATA

ESRD Networks routinely collect, validate, and report patient-specific and facility-specific data for many uses. Data collected by the Networks are used to provide CMS and other agencies with data for operational activities and policy decisions. Networks also supply data and/or support to the USRDS and to other research organizations. Data collected by the Networks are used to report on renal trends to the renal community and beyond. Examples of data collected by the Networks are listed in Table 6 below.

Table 6
DATA COLLECTED
BY NETWORKS AS REQUIRED BY CONTRACT

Standard CMS Forms	HCFA-2728: Medical Evidence HCFA-2746: Death Notification HCFA-2744: Annual Facility Survey	Demographics and pre-ESRD clinical data for all new ESRD patients Date and cause of death Reconciliation of patient activity
Minimum Data Set (No Standard Forms)	Non-clinical Patient Events Facility Characteristics and Staff	Allows Networks to place patient on any given day by treatment center and type of modality Size, ownership, staffing
Standard CMS Clinical Performance Measures	HCFA-820: Hemodialysis CPM Form HCFA-821: Peritoneal Dialysis CPM Form No number: Facility CPM Form	Clinical indicator forms collected once per year on a sample of patients in each Network
Infectious Disease	National Surveillance of Dialysis Associated Diseases	Facility-specific outcomes and practices

ESRD Networks also use data in their individual quality improvement projects. Data collected for quality improvement projects are protected from release to the public.

National Clinical Performance Measures (CPM) Project

Formerly known as the National ESRD Core Indicators Project, the collection and reporting of these data provides the foundation for many of the Network quality improvement activities. It provides important feedback on outcome measures at both the national and Network levels. The four areas of care that CMS identified for the focus of this project are listed below:

- Adequacy of dialysis measured by
  - URR and Kt/V (hemodialysis)
  - Weekly Kt/V and Creatinine Clearance (peritoneal dialysis)
- Nutritional status measured by
  - Albumin
- Anemia management measured by
  - Hemoglobin
- Vascular access
  - Hemodialysis only

Each year, CMS (or its contractor) draws a 4% sample of adult hemodialysis patients and a 5% sample of adult peritoneal dialysis patients. Networks prepare and distribute the collection forms. Facility personnel collect data from the fourth quarter of the previous calendar year for the hemodialysis cohort. Data for the peritoneal cohort is from the fourth quarter of the previous calendar year and the first quarter of the current year. In 2000, data from all hemodialysis patients between the ages of 12 and 18 were also included in the CPM sample. In 2000, Networks processed CPM forms on 8,154 hemodialysis patients and 1,603 peritoneal dialysis patients.

When completed forms are submitted, Networks review the forms, input the data using standard software supplied by CMS, and transmit the data to the CMS contractor. CMS and/or its contractor then randomly selects 5% of the original patient sample (hemodialysis and peritoneal dialysis) for validation. Networks re-abstract data for cases in the validation sample (either on-site or via mailed medical record copies), computerize the information, and transmit it to the CMS contractor.

This project provides national and Network-specific rates based on the clinical performance measures employed in the four areas of care. CMS uses these data to assess the quality of care being delivered to Medicare beneficiaries and to evaluate the effectiveness of the Network programs in improving care. Networks use the report, in combination with other feedback reports, to select areas for quality improvement/assessment projects and activities. Since the sample size is insufficient to provide facility-specific reporting, many Networks collect data on a broader sample in order to produce facility-specific rates on outcome measures. Methods used for this include:

- 100% of patients from 100% of facilities;
- Sample of patients from 100% of facilities; and,
- Aggregate facility data from 100% of facilities.

Selected findings from the 2000 ESRD Clinical Performance Measures Project are highlighted below. Important improvements in adequate therapy and anemia management have been realized since the onset of this project. It is important to note that although the project year is 2000, the data are from 1999. When years are noted in the information below, it refers to the year the data came from, not the project year.

Adequacy of Dialysis: Hemodialysis

- Mean URRs have increased each year that the project has been conducted, from 62.7% in 1993 to 69.9% in 1999.
- The proportion of patients with mean URRs ≥ 65 has also increased steadily from 43% in 1993 to 80% in 1999.
- 84% of patients had a mean delivered Kt/V ≥ 1.2 in 1999, representing a 13.5% increase from 74% in 1996 when Kt/V was introduced in the project.
- In 1999, the percent of patients with Kt/V ≥ 1.2 continued to vary by Network, ranging from 78% to 93%. However, the range is narrowing as variation decreases. In 1996 when Kt/V was first reported in this project, the range among Networks was 61% to 85%.

Adequacy of Dialysis: Peritoneal Dialysis

- Adequacy of dialysis was assessed during the study period (October 1999-March 2000) for an estimated 85% of patients. This is a dramatic increase from 66% in 1995 when a peritoneal dialysis cohort was first added to the project.

- 68% of CAPD patients had both a mean weekly Kt/V ≥ 2.0 and creatinine clearance ≥ 60 L/wk/1.73m^2.
- 66% of cycler patients (no daytime dwell) had a mean Kt/V ≥ 2.2 and a mean weekly creatinine clearance of ≥ 66 L/wk/1.73m^2.
- 65% of cycler patients (with daytime dwell) had a mean Kt/V ≥ 2.1 and a mean weekly creatinine clearance of ≥ 63 L/wk/1.73m^2.
- The proportion of CAPD patients meeting K-DOQI recommended levels for adequacy increased from 27% in 1995-96 to 65% in 1999-00. Similarly, the proportion of cycler patients with adequate therapy increased from 28% in 1995-96 to 60% in 1999-00.

Anemia Management: Hemodialysis

- In 1999, the proportion of patients with a hemoglobin ≥ 11 was 68%, compared to 59% in 1998.
- The mean hemoglobin increased from 11.1 gm/dL in 1998 to 11.4 gm/dL in 1999.
- The percent of patients with mean hemoglobin ≥ 11 gm/dL varied by Network and ranged from 57% to 74% with a national average of 68%.

Anemia Management: Peritoneal Dialysis

- The mean hemoglobin in 1999-2000 was 11.6 gm/dL.
- 69% of patients had a mean hemoglobin of ≥ 11 gm/dL, compared to 61% in the 1998-1999 study period.

Serum Albumin: Hemodialysis

- The percent of patients with *adequate* mean serum albumin values ≥ 3.2 (BCP) or 3.5 (BCG) in 1999 was 80%, compared to 77% in 1993.
- The percent of patients with *optimal* mean serum albumin values ≥ 3.7 (BCP) or 4.0 (BCG) in 1999 was 32%, comopared to 27% in 1993.
- Mean serum albumin value in 1999 with bromcresol green (BCG) laboratory method was 3.8 gm/dL, unchanged from 1997 and 1998.
- Mean serum albumin value in 1999 with bromcresol purple (BCP) laboratory method was 3.5 gm/dL, compared to 3.6 gm/dL in 1997 and 1998.

Serum Albumin: Peritoneal Dialysis

- The mean serum albumin value for 1999 was 3.5 gm/dL (BCG) and 3.3 gm/dL (BCP), unchanged from 1997 and 1998.
- The percent of patients with *adequate* mean serum albumin ≥ 3.2 (BCP) and 3.5 (BCG) was 56%.

DISTRIBUTE DATA FEEDBACK REPORTS FOR FACILITY USE IN IMPROVING CARE

Feedback reports and facility-specific data have become a major aspect of Network quality activities. During 2000, all Networks distributed the data feedback reports, listed below, to their constituent dialysis and transplant facilities. In addition to these "standard or routine" reports, most Networks generate and distribute other reports (many are facility-specific) as a product of their quality assessment and improvement activities. These additional reports are referenced in the section describing Quality Improvement Activities.

- Annual report of Network activities and accomplishments

- Annual Report of the ESRD Clinical Performance Measures Project, and all subsequent Supplemental Reports
- Unit specific reports of standardized mortality, morbidity, and other rates, produced by the University of Michigan Kidney Epidemiology and Cost Center
- Summary of the Center for Disease Control and Prevention National Surveillance of Dialysis Associated Diseases
- Forms compliance reports

CONDUCT QUALITY IMPROVEMENT PROJECTS (QIPs) AND ACTIVITIES FOCUSED ON SPECIFIC AREAS OF CARE

Quality Improvement Projects

The ESRD Network contract with CMS requires implementation of two Quality Improvement Projects (QIP's) per contract cycle. This is an in-depth project for which CMS prescribes the format. The project must address an area of care for which clinical performance measures and indicators have been developed, and the proposal must be submitted for CMS approval prior to implementation.

The QIP format requires that each Network clearly define the opportunity for improvement, employ both outcome and process indicators, include a project design and methodology that supports statistical analysis, propose intervention activities, and include an evaluation mechanism. For 2000, CMS requested all Networks conduct a QIP on Hemodialysis Adequacy. A brief overview and status of the projects addressing hemodialysis adequacy is displayed in the table below.

Table 7
QUALITY IMPROVEMENT PROJECTS

QIP's Addressing Adequacy of Hemodialysis	
Network	**QIP Goal**
1	Have providers below the CMS benchmark (80% of patients with URRs ≥ 65) achieve this level.
2	Improve adequacy of hemodialysis by empowering nurses (through an algorithm) to change prescriptions in a step-wise manner.
3	Increase the percentage of all New Jersey hemodialysis patients who: (a) receive doses of treatment of at least Kt/V 1.2 or URR 65% by at least 2.5%, (b) have treatment prescribed doses of at least Kt/V by at least 5%.
4	Improve adequacy of dialysis (to achieve benchmark) in patients with catheter as primary access by identifying barriers to poor catheter function.
5	Increase proportion of patients receiving adequate dialysis by increasing the proportion of adequately prescribed dose.
6	Increase the proportion of hemodialysis patients who receive adequate dialysis in selected dialysis facilities in Network 6.
7	Increase the number of patients with URR > 65%; meet or exceed 80% of patients with URR > 65%; and Determine which of three strategies works best in improving adequacy of dialysis.
8	Accurately assess hemodialysis prescriptions and increase the URR in the Network 8 population. To assist providers in modifying practice patterns and processes of care.
8	Measure and improve elements of dialysis prescription (blood flow, duration of treatment and dialyzer clearance) as well as vascular access type, in order to realize an improved URR.
9/10	HD Adequacy as defined by URR >= 65% will meet or exceed target of 85% of the adult in-center HD patients. Long term goals: (1) decrease dialysis related morbidity and mortality for in-center HD patients

QIP's Addressing Adequacy of Hemodialysis	
Network	**QIP Goal**
	and (2) assist ESRD providers to modify practice patterns or processes of care in order to improve patient outcomes.
11	Increase the number of patients in Network 11 who are receiving the minimum dose of hemodialysis as stated in HD Adequacy CPM III (URR ≥ 65%).
12	Increase the number and percent of patients whose URR is ≥ 0.65 by providing rapid data feedback, assessing dialysis prescription delivery compliance, and establishing facility-specific improvement goals.
13	Increase the percent of HD patients for whom vascular access is a catheter who receive adequate HD therapy to at least 80% by Dec 2001.
14	Increase the percent of adult in-center HD patients receiving a URR ≥ 65%. Identify percent of patients not attaining a URR ≥ 65% for 3 consecutive months or longer and the causes.
15	Improve hemodialysis adequacy by decreasing the number of catheters utilized for permanent access.
16	Improving the overall adequacy of hemodialysis, verifying the consistency of delivered dose of dialysis.
17	Identify barriers to adequacy of HD to assist facility staff to improve adequacy outcomes.
18	Increase the proportion of patients receiving adequate hemodialysis (defined as URR ≥ 65%) to at least 80%.

Source: Networks 1-18 Annual Reports, 2000

In addition to hemodialysis adequacy, Networks addressed other areas of care through the conduct of Quality Improvement Projects during 2000. The table below provides an overview of approved QIPs by area of care.

Table 8
QIP'S BY AREA OF CARE

Network	Area of Care	Goals	Status at December 2000
Adequacy of Peritoneal Dialysis			
2	Adequacy of Peritoneal Dialysis	Increase the number of patients with regular adequacy measures. Increase the number of patients with adequacy measures consistent with DOQI guidelines.	Re-measure scheduled for January 2001.
5	Adequacy of Peritoneal Dialysis	Increase the proportion of PD patients with adequacy measured (method and frequency) in accordance with DOQI Guidelines. Increase the proportion of patients receiving adequate PD as defined by DOQI Guidelines.	Re-measurement scheduled for mid-2001 to cover January-June 2001.
9/10	Adequacy of Peritoneal Dialysis Prescription	Educate the peritoneal dialysis providers on the current state of adequacy in the Network. Assess the practices of adequacy measurement and physician prescription through data collection activities with dialysis providers. Improve the percentage of peritoneal	Outcome goal met. Delivered dose of dialysis increased. Percentage of peritoneal dialysis patients measured for adequacy improved. This QIP concluded in 2000. Network 9/10 will continue to monitor peritoneal dialysis adequacy and report to facilities through feedback reports generated through CPM data

Network	Area of Care	Goals	Status at December 2000
		dialysis patients receiving adequacy measurements. Improve percentage of peritoneal dialysis patients receiving adequacy measurements that meet recommended practice guidelines established by the Nephrology community.	collections.
15	Peritoneal Dialysis Adequacy	To improve peritoneal dialysis adequacy through routine measurement of PD adequacy.	Project completed and final report accepted by the Project Officer in April 2000. Results included showed improvement in all areas of peritoneal dialysis adequacy.
Vascular Access			
1	Vascular Access	PHASE 1: Increase number of AV fistulae as first access utilization.	Baseline date obtained in 1999 in 6 medical centers. Intervention in 2000. Re-measure planned for 2001. Identified 3 different pathways for new dialysis patients.
1	Vascular Access	PHASE 2: Identify criteria used by surgeons when selecting first access type.	Baseline data obtained in 2000 in 6 medical centers.
3	Vascular Access	To improve the processes that enhance patency and decrease thrombosis in arteriovenous grafts used for hemodialysis.	Outcome goal met. From baseline to post-intervention, DVP monitoring every treatment increased; AVG monitoring of any type increased; number of facilities that measured, tracked and assessed AVG thrombosis increased.
7	Vascular Access	Increase the use of native AV fistula as the primary access in preparation for initiation of hemodialysis (as determined on day 91 of dialysis). Improve the quality of life of hemodialysis patients by reducing morbidity and mortality associated with vascular access failure and decrease the cost of Medicare expenditures for associated morbidity.	Outcome goal not met. The timeline for completion was too energetic. Project identified that: surgeons were unaware of DOQI Guidelines for Vascular Access; due to feedback from nephrologists and nurses stating the AVG are easier to cannulate, surgeons incorrectly surmised that AV grafts were preferred vascular access.
9/10	Hemodialysis Central Venous Catheter	Establish a prevalent rate of central venous catheter use that is adjusted for patient age, sex, race and length of ESRD for facilities, health service regions, states, and Network. Educate hemodialysis providers on the adjusted catheter use rates, Standardized Catheter Ratio (SCR). Educate hemodialysis providers on SCR comparisons to local, health service area, state and Network rates. Lower the percentage of incident hemodialysis patients ≥90 days with central	Decreased catheter rate outcome goal not met. Increased catheter with fistula/graft maturing rate outcome goal met. A standardized ratio methodology to adjust for patient demographics, i.e., age, race, sex, height/weight, cause of ESRD, and number of years on dialysis, was developed and facility access rates were calculated.

Network	Area of Care	Goals	Status at December 2000
		venous catheters as permanent access. Lower the percentage of prevalent hemodialysis patients with central venous catheters as permanent access. Educate hemodialysis providers on policies and procedures that are beneficial to improving central venous catheter outcomes.	
11	Vascular Access	Identify barriers to AV fistulae as first access.	Results published. Reprints, MRB guidelines, and KDOQI guidelines were mailed to vascular access surgeons.
12	Vascular Access Infection	Establish facility, state, and regional vascular access percentages. Educate facilities in collecting, computing, and tracking vascular access infection rates. Assess the implementation of recommended clinical practice guidelines related to access infection prevention and care.	Data collection finalized and statistical analysis begun.
13	Vascular Access	Increase the percent of monitoring for stenosis in HD patients with arteriovenous grafts.	This was a NW13/Lousiana Peer Review Organization collaborative project that was transitioned into an educational project secondary to discussions with CMS Regional Office. Educational/QI materials distributed to facilities that participated in initial project activities.
14	Decreasing hemodialysis catheter use	Decrease the utilization of hemodialysis catheters in the Texas dialysis community.	Outcome goal met. The percent of patients using a hemodialysis catheter dropped and upward trending statewide catheter rate was slowed. Facility practice changes resulted in an increase in statewide fistula use from 16.8% to 22.5%
18	Vascular Access	Increasing the percentage of prevalent patients with an AV fistula to 40%, as per DOQI Guidelines.	The percentage of prevalent patients with an AV Fistula increased from 20.3% to 28.2%. Systemic issues identified that inhibit broad based, short-term progress and require intervention by parties beyond the ESRD Networks.
Preventative Care			
1	Influenza Immunization	Increase # of providers with immunization policies and procedures.	QIP started in 1997. Baseline provider rate was 34% with influenza policies. By 1999 the rate was 98%. In 2000, educational materials on vaccination benefits were mailed to all providers with reminder to order vaccines early.
2	Diabetes	Increase community awareness of ADA recommendations for care of diabetic patients.	Re-measure scheduled for January 2001.
4	Influenza Immunization 1999-2000	Increase the proportion of ESRD patients who were informed about the medical benefits of immunization. Increase the number of ESRD patients who received an immunization.	The final data analysis could not be completed in 2000 due to the time extension of the immunization program. Preliminary data indicated an immunization rate of 79.7% for PA and 80.1% for DE.

Network	Area of Care	Goals	Status at December 2000
4	Early Referral to Nephrology Care 1998-1999	Increase Primary Care Physician awareness of importance of early referral and increase by ten percentage points the placement of vascular access thirty days prior to dialysis.	Data analysis revealed no significant change in referral rate or vascular access placement compared to billing data. The project was deemed successful as measured by the partnering programs that were conducted when the video was viewed and nephrology care discussed with community physicians.
5	Preventive Care: Increasing The Influenza Vaccination Rate	Increase proportion of NW 5 facilities offering flu shots on-site, or referring patients elsewhere for annual vaccination. Increase proportion of NW5 patients receiving flu shots annually.	Project implemented in 1997 and completed in 1998. Promotional materials distributed annually (in partnership with area PROs), and annual follow-up conducted.
6	Influenza Immunization	Increase the number of dialysis patients receiving the influenza vaccine among all facilities in Network 6.	An average of 72% of patients in each facility received the influenza vaccine during the 1999-2000 influenza season, an increase from 67.2% during the 1998-1999 influenza season.
6	Hepatitis B	Increase the number of dialysis patients receiving the Hepatitis B vaccine among all facilities in Network 6.	60.1% of patients received a complete Hepatitis B vaccination series. 8.1% were receiving the vaccination series. 7.8% of patients were not candidates for the vaccine. 7.6% of patients reportedly refused the vaccine, and 16.3% of patients were not vaccinated for reasons unknown to the facility staff.
12	Hepatitis B Vaccination Quality Improvement Project	Post study intervention with the low performers as directed by the Medical Review Board.	Performing data collection and statistical analysis.
Transplantation			
5	Transplantation	Increase number of patients receiving (or referred for) living donor transplant through increased educational efforts.	Final measurement of project indicators completed. Both the intervention and comparison facility groups showed improvement in the percentage of patients wait-listed for cadaveric donor transplant, scheduled for living donor transplant, and/or referred for transplant evaluation, but improvements were not statistically significant.

Source: Networks 1-18 Annual Reports, 2000

Quality Improvement Activities

In addition to formal Quality Improvement Projects, Network Medical Review Boards (MRB) also conduct quality assessment and improvement activities to address areas of concern and opportunities for improvement. These utilize individualized approaches and may be specific to the Network area. In 2000, Networks conducted numerous quality activities employing various approaches that included monitoring facility performance, distributing data feedback reports, disseminating information using electronic transmission, counseling, benchmarking, demonstration and pilot programs.

An overview of these activities is described in the table below, by area of care. A more detailed explanation of the activities by Network is included in Appendix N.

Table 9
OTHER NETWORK QUALITY IMPROVEMENT ACTIVITIES CONDUCTED IN 2000

Area of care	Networks
Adequacy of Dialysis (HD and/or PD)	1, 3, 4, 5, 6, 8, 9/10, 11, 13, 15, 17
Anemia Management	1, 3, 4, 5, 6, 8, 9/10, 11, 13, 15, 16, 18
Vascular Access	1, 6, 8, 9/10, 11, 13
Iron Management	1, 5
Nutrition	1, 3, 5, 6, 8, 9/10, 11, 15
Renal Osteodystrophy	11
Bacteremia and/or Infection Control	1, 8, 13
Vocational Rehabilitation/Employment	2, 3, 4, 6, 14
Exercise	4, 7
Immunizations	3, 13, 17, 18
Transplantation	3, 4, 5, 6, 8, 11, 14
Continuous Quality Improvement	2, 3
Pediatric Dialysis	4
Early Referral/ Early Renal Insufficiency	4, 5, 11
Hepatitis B and/or Hepatitis C	4, 12, 16, 17
Quality Measuring and Reporting, Physician Activity Reports, CPM and Profiling Reports	1, 3, 4, 5, 6, 9/10, 14, 15
Quality Awards	5
Crisis Prevention, Conflict Resolution	5, 12, 14, 16
Electronic transmission of laboratory data	5, 11, 14
Common Practices	6
Hospitalizations	8
Cooperative National Study of Renal Decisions (CONSORD)	5, 8, 11, 18
Preventive Care in diabetics	13
Technical assistance, facility consults	3, 11, 14, 16
Peritonitis	14
Emergency call system	18

Source: Networks 1-18 Annual Reports, 2000

PROVIDE PROFESSIONAL EDUCATIONAL MATERIALS AND WORKSHOPS FOR FACILITY STAFF

The principles of quality improvement compel the healthcare team to identify opportunities for improvement and develop appropriate interventions. ESRD Networks are a vital resource to facilities, providing educational materials and workshops. Under contract to CMS, Networks are to provide, at a minimum, the following materials:

1. CMS ESRD Network goals, the Network activities conducted to meet these goals, and the Network's plan for monitoring facility compliance with goals;
2. The Network's Annual Report;
3. Regional patterns or profiles of care as provided in the Clinical Performance Measures Annual Report;
4. Results of Network Quality Improvement Projects;
5. Other material (such as journal articles or pertinent research information) that providers/facilities can use in their quality improvement programs;
6. The process for handling patient grievances;
7. Treatment options and new ESRD technologies available for patients; and,
8. State/regional vocational rehabilitation programs available in the Network area.

The Networks develop materials, as well as serve as a clearinghouse for materials developed by others. A variety of communication formats and vehicles are used to disseminate these materials including hard copy, Network website postings, electronic mail, and broadcast fax. Some of the workshops and educational sessions offered by Networks are highlighted in Appendix O by general topic: access to care, clinical, continuous quality improvement, communication/crisis management, general, and patient-related issues. A more detailed explanation, by Network, is included in Appendix P.

Estimated from Network logs, Networks distributed over 51,000 pieces of educational material to facility personnel in 2000. Appendix Q is a partial listing of materials, by general topic that were developed and/or distributed by the Networks to facilities in 2000. Topics include: clinical, clinical guidelines/ CQI, general, guidelines/regulatory, and patient-related issues.

In addition to the professional educational sessions offered to facility personnel and the educational materials distributed, several Networks published journal articles, displayed posters, and gave presentations at professional meetings during 2000. A list, by Network, is provided in Appendices R and S.

PROVIDE PATIENT EDUCATIONAL MATERIALS AND WORKSHOPS TO FACILITIES AND DIRECTLY TO PATIENTS

ESRD Networks also develop and serve as a clearinghouse for patient education materials. Some materials are sent directly to patients, while others are distributed to facilities for use in patient education efforts. All Networks have toll-free numbers for patients and respond to numerous requests for patient assistance.

Many Networks utilize Patient Advisory Committees and/or patient representatives at the facility level to gather patient concerns and distribute information. All Networks use a variety of media and dissemination methods to provide patients with information such as: meetings, teleconferences, direct mailings, booklets, posters, brochures, videos, training manuals, and website updates with items of interest to patients. Several Networks publish newsletters for patients (e.g., Kidney Patient Update, Patient REMARCS, TransDial, Renal Health News, Kidney Koncerns, Common Concerns). Network personnel present at conferences and participate in patient programs sponsored by other renal-related organizations (NKF "Road Shows," area transplant and dialysis support groups, civic organizations and church groups, NKF Patient Education Seminars and RISE, Community Awareness Seminars, Patient Services Symposium).

Estimated from logs, Networks distributed over 446,000 pieces of educational material/information directly to patients and/or to facilities for distribution to patients. A partial list of the materials distributed and topics of educational offerings during 2000 is provided below in Table 10.

Table 10

PATIENT EDUCATION MATERIALS/WORKSHOPS PROVIDED BY NETWORKS

Access

- What is Your Access Ability?
- Vascular Access for Hemodialysis (video)
- Access Care - Your Lifeline
- PAC Action Gram on Access Care

Adequacy of Dialysis

- Adequate Dialysis: What Every Patient Should Know & How Patients Can Help
- Education brochure for PD patients to foster compliance with dialysis prescription and adequacy measurement
- What is Adequate Hemodialysis? (video)
- "Dialysis Adequacy - Know Your Number"

Other Clinical Issues

- Dialysis Keeps People with Kidney Failure Alive
- AIDS Information for the Dialysis Health Professional and the Dialysis Patient
- Influenza Immunization Memo "Get Your Shot"
- Living Well on Hemodialysis (video)
- Shortened Dialysis Times, Fluid Management & Transient Dialysis (education materials)
- Notification of water treatment change

Communication & Psychosocial

- Patient-to-Patient Training
- Positive Attitudes
- Got an Attitude - Make it a Good One!
- The Role of the Network in Patient Education and Grievance Resolution
- Patient Support Group List
- RESPOND Volunteer workbook
- Anger Management

Diet & Nutrition

- Que Comer? (What to Eat?)
- "Diet and Disaster" Booklet
- Emergency Meal Plan
- Nutrition, A Resource Guide for ESRD Patients

Disaster/Emergency Preparedness

- Disaster Preparedness for Dialysis/Transplant Patients
- Emergency Preparedness Resource for Pennsylvania and Delaware Dialysis Patients
- "Preparing for Emergencies"

General

- "Your New Life" Booklet
- "Your Health - A Shared Responsibility" (booklet)
- Life Goes On… After Your Kidney Stop Working -Patient Education Book
- Living with Kidney Failure, A Patient Manual

- Meeting the Kidney Challenge (booklet)
- Patient Education Resources Guide
- New Patient Packet containing information on: 1)Renal rehabilitation and employment with ESRD 2)Communicating with the healthcare team 3)Patient Rights and Responsibilities 4)Dialysis adequacy 5)Grievance information
- New Patient Orientation Package
- Facility Listings
- Informational posters and brochures Network services

Grievances & Patient Concerns

- Grievance Procedures for Dialysis Units
- Patient Rights and Responsibilities
- Network Grievance Procedure
- Patient Grievance Posters

Treatment Options/Transplant

- Transplant Games (sponsor)
- Organ Waiting List (workshop)
- Understanding the Transplant Process (published in For Patients Only and Patient Newsletter)
- "Understanding Kidney Failure and Accepting a Treatment Modality"
- "Donate Life" CCOTD Brochure

Vocational Rehabilitation/Employment/Finances/Exercise

- LORAC's New Life New Hope
- Plight of the Renal Spouse
- Dialysis Workout Video
- Patient Information for GED Testing
- Red Book on Employment Support (Social Security Administration)
- SSA Focus on Self-Support
- Adventure Park Special ESRD Edition
- Civil Rights Fact Sheet
- Americans with Disabilities Act of 1990--Your Rights in the Workplace
- Medicare Entitlement Update

Beginning in the fourth quarter of 2000, new ESRD patients were sent a package of orientation materials. This was accomplished through a collaborative effort between the Networks, CMS, and the Forum Clearinghouse. New patients are identified upon entry into the Network data system (via the HCFA 2728 Form). Mailing labels are generated and provided to the mailing service for distribution to patients. The package of orientation materials includes: an introductory letter from CMS, an introductory letter from the specific Network, End Stage Renal Disease Resource List, *Preparing for Emergencies: A Guide for People on Dialysis* (CMS booklet), *Medicare Coverage of Kidney Dialysis and Kidney Transplant Services* (CMS booklet), and, the *AAKP Patient Plan Phase 1* (AAKP booklet). The rate of package return is tracked, and the data shows small variation between Networks, and indicated that the vast majority of packages, 96%, are delivered.

OFFER TECHNICAL ASSISTANCE TO DIALYSIS AND TRANSPLANT FACILITIES

ESRD Networks provide technical assistance to the personnel of dialysis and transplant providers on an ongoing basis as part of their daily operations. In order to respond to the technical needs of the renal community appropriately, Networks employ qualified personnel with expertise in dialysis and transplant nursing, renal social work, patient advocacy, healthcare quality, and data management. Technical assistance is provided using a variety of vehicles and venues, including (but not limited to) telephone

consultation, on-site visits, meetings, distribution of materials, referral to individuals with additional expertise in the area queried, conference calls, and educational workshops (described in a previous section). If multiple queries are received on one topic, an educational offering or other activity may be conducted to address the issue with a broader audience.

The functionality of SIMS and its expanded capability to enter "contacts" pertaining to issues other than patient concerns and grievances has enhanced the Networks' ability to track the nature of technical assistance provided, as well as the time required. An overview of issues referred to Networks for advise and assistance during 2000 is provided below. (This list is only an overview, and in no way represents all of the issues addressed by every network during 2000.)

Advance directives
Anemia management
CQI tools and techniques
Developing facility quality programs
Dialysis and transplant center reviews
Disaster planning
Disclosure of HIV status of patients visiting or transferring to other dialysis facilities
Disruptive and abusive patients
Duties and tasks for patient care technicians
FDA safety alerts
Federal regulations and conditions of coverage
Infection control issues
Isolation for VRE
K-DOQI Guidelines
Latex allergies
Low serum potassium dialysate
Medical records (content and retention)
OSHA pending needlestick regulations for 2001
Reimbursement for EPO and iron supplementation
Roles and responsibilities for Medical Directors
Staffing recommendations
Tracking outcome data to detect trends/changes
Urokinase restrictions
Water testing requirements

GOAL TWO: IMPROVING DATA REPORTING, RELIABILITY, AND VALIDITY BETWEEN ESRD FACILITIES/PROVIDERS, NETWORKS, AND CMS

Information management is a core function of the ESRD Networks. They routinely collect, validate and report patient- and facility-specific data for many uses:

1. Establish a national surveillance system of ESRD patients to record demographic information and to follow each patient's care through changes in modalities and providers;
2. Profile areas of patient care in need of improvement and support these improvement activities;
3. Identify regional trends in quality to be addressed by the local Network;

4. Provide CMS and other agencies with data necessary for operational activities and policy decisions;
5. Supply data and/or support to the USRDS and other research organizations; and
6. Report to the renal community and beyond on the trends in ESRD care.

Networks established their individual registries in the early 1980s with similar components and definitions. In 1997, the Networks began the complex transition to the national Standard Information Management System (SIMS). The Southeastern Kidney Council (Network 6), on behalf of the Forum and under contract with CMS, leads this project. The project was launched December 1999 to ensure all Networks had a Y2K-compliant system.

In the fall of that year, all Networks were asked to convert at least five-years of data from their legacy system, using the new standardized definitions. When possible, Networks converted their entire system. Using each of these converted datasets, SIMS created the central repository of all patients nationally. As data was added to the repository, thorough checks were run to match patient records from one Network to another in cases where patients had been treated in multiple Networks. Although the system was launched at the end of 1999, Networks worked throughout 2000 to reconcile data to the new structure. CMS began requiring all Networks to use SIMS in July 2000.

Data is now replicated nightly to the central repository. If a patient crosses Network boundaries for treatment, his/her pertinent data is automatically replicated back to the receiving Network. This allows Networks to track patients through the continuum of care and keep accurate records of patient and technique survival. Some data is not replicated and remains only on the local Network server. Most notably, patient grievance calls and facility staff information is not stored on the repository and is only accessible to the Network that entered it.

Five Major Components of SIMS

<u>Patient Data</u>

- 2728 Medical Evidence form – enters patient in registry and establishes patients benefits for Medicare
- 2746 Death Form – filled out when a patient dies (terminates benefits)
- Patient Events – modality shift, transfer in or out of a provider, transplant, discontinue, recover function, etc. that a patient has during their course of treatment
- 2744 Facility Survey – reconciliation of the patient events that is performed once a year for all facilities
- CPM forms

<u>Provider and Personnel</u>

- Facility files housing data on providers including address information, name, affiliation, certification dates, services offered, shift information, etc.
- Personnel files contain data on the majority of personnel at the facility level. Also tracks Network board members and other entities that need to be on mailing lists

Contacts

- Any complaint, inquiry, grievance, or concern coming in from any patient, provider, family member, or member of the renal community

Reports (all exportable for customization of the data presentation)

- Annual reports (incidence, prevalence, transplants, etc)
- Quarterly reports (form counts and some portions of the contacts reporting)
- Listing of providers, their staff, and services
- Miscellaneous reports

Utilities

- Data Cleanup utilities to verify and validate data
- Export files for REBUS for monthly 2728 and 2746 transmission
- CPM patient population files
- CMS output files including a Termination Candidate file, patient census files and current patient status file
- Administrative utilities (mailing label export, internal reports)

Network 6 continues to support SIMS, including system enhancements, hardware and software acquisitions, training, and user support through a help desk. Each month SIMS hosts a two-hour conference call with Networks and CMS to discuss pertinent issues and changes. Networks may recommend additional elements or functionality be added to the system via a Position Paper. Each Network is allowed to comment on the position and if it receives sufficient support, the item will be added to SIMS.

Currently, in SIMS there are over 1 million unique patients and over 3 million patient events for those patients. Some of this information is collected via CMS forms, the 2728, Medical Evidence Form and the 2746, Death Notification. Patient events and other information are collected via Network-defined forms. Each month, the CMS forms are copied to CMS for inclusion in the Renal Beneficiary Utilization System (REBUS). Table 11 shows the number of forms transmitted to CMS in 2000.

Table 11

DATA FORMS PROCESSED

Calendar Year 2000

Network	Medical Evidence (CMS 2728)	Death Notification (CMS 2746)	Total
1	3,782	2,664	**6,446**
2	7,535	5,705	**13,240**
3	4,425	3,404	**7,829**
4	4,142	2,344	**6,486**
5	5,693	3,722	**9,415**
6	7,831	5,825	**13,656**
7	5,942	4,304	**10,246**
8	5,089	3,401	**8,490**

9	7,611	4,755	**12,366**
10	4,630	2,386	**7,016**
11	6,095	4,335	**10,430**
12	4,333	2,993	**7,326**
13	3,928	3,043	**6,971**
14	8,305	4,748	**13,053**
15	4,317	2,488	**6,805**
16	3,302	2,046	**5,348**
17	4,621	2,797	**7,418**
18	7,766	4,304	**12,070**
Total	**99,347**	**65,264**	**164,611**

Source: Networks 1-18 Annual Reports, 2000

In building this information infrastructure, the Networks hope to better pursue initiatives to measure and improve the quality of healthcare delivered to the ESRD patient population. The ultimate goal of SIMS is to improve the quality of care delivered by making ESRD data more accessible to dialysis facilities, Networks and the renal community.

GOAL THREE: ESTABLISHING AND IMPROVING PARTNERSHIPS AND COOPERATIVE ACTIVITIES AMONG AND BETWEEN ESRD NETWORKS, PEER REVIEW ORGANIZATIONS, STATE SURVEY AGENCIES, AND ESRD PROVIDERS/FACILITIES

Networks are actively involved with both quality-related and renal-related organizations to facilitate cooperation and joint ventures. Each Network creates unique partnerships with organizations to help provide better care for the ESRD patient population, including renal groups, professional organizations, dialysis corporations, and pharmaceutical companies.

All of the 18 Networks provide support and leadership to the Forum of ESRD Networks. Network MRB Chairs and Board members, Executive Directors, and other staff members assist the Forum by volunteering for positions on the Forum Clearinghouse Board of Directors as well as on various Forum Clearinghouse committees.

With participation from all 18 Networks, the Forum Clearinghouse continues to be instrumental in developing and promoting a number of national initiatives to improve partnerships within the Network program and renal community. These include the SIMS initiative, the semi-annual meetings of MRB Chairpersons, implementation of a strategic plan, quarterly conference calls among the Executive Directors, QI Directors, and distribution of clearinghouse materials to all Networks.

The 2000 Annual Meeting between CMS and the ESRD Network drew representatives from CMS, Networks (data, quality, patient services, and executive staff), as well as many Network Medical Review Board Chairs to discuss issues impacting the ESRD Networks. Other new activities in 2000 included the development of a patient safety initiative in the ESRD Program, the examination of Network activities in the area of referral for transplantation, and the facilitation of a post-contract award meeting.

In Spring 2000, a committee, with representatives from the renal community (AAKP, ANNA, Life Options, NRAA, RPA, UNOS), the Networks, CMS, and the ESRD Forum reviewed existing ESRD educational materials and recommended the educational materials that would be most helpful to new patients with ESRD. Beginning in October 2000, each new patient in the 18 Networks received a package of ESRD orientation materials. Contents of this package were outlined in the previous section.

Networks continue to develop relationships and partner with Peer Review Organizations (PROs) to improve the care received by ESRD beneficiaries. The table below provides a summary of collaborative activities that Networks conducted in conjunction with their area PROs during 2000.

Table 12
NETWORK-PRO COLLABORATIVE ACTIVITIES IN 2000

Network	PRO	Topic or Project Name	How This Improves Care
1	CT PRO (Qualidigm)	CT Diabetes QIP	Educational efforts for better coordinated diabetic management.
3	Puerto Rico Foundation for Medical Care Evaluation	Problem referrals	Problem resolution.
4	Keystone Peer Review Organization (KePRO)	Early Referral to Nephrology Care QIP for 1998-1999	The goal of this project was to quantify the impact of early referral on morbidity, mortality, and cost.
4	Keystone Peer Review Organization (KePRO)	Influenza Immunization Quality Improvement Project (QIP) for 1999-2000	Goals: increase the proportion of ESRD patients receiving an influenza immunization; increase the proportion of dialysis facilities that offer a preventive immunization program in the unit.
5	Delmarva Foundation, West Virginia Medical Institute, Virginia Health Quality Center	Annual Flu Shot Campaign	Encourages patients to receive preventive care (flu shot).
5	Delmarva Foundation	Supplied speakers and assisted in coordinating educational presentations and a workshop on statistics.	Supports facility internal quality review efforts by helping staff gain a better understanding of CQI statistical techniques.
5	Virginia Health Quality Center	Contracts to provide project design and statistical services for the 2nd QIP on hemodialysis adequacy.	Creates a stronger project to detect what interventions actually result in increased adequacy values.
5	West Virginia Medical Institute	Coordinated with NW 5 to assist in examining WV mortality and provided assistance to one WV facility in data analysis and	Strengthened the facility's internal quality program.

Network	PRO	Topic or Project Name	How This Improves Care
		examination.	
5	Virginia Health Quality Center	Contracted to provide an extensive literature review on hemodialysis adequacy.	Used in the development of the 2nd hemodialysis adequacy QIP and shared with other Networks.
7	Florida Medical Quality Assurance Inc.	Combating Depression in ESRD	This was a collaborative project developed with FMQAI. This included exercise to combat depression in ESRD patients. The proposal was not accepted.
7	Florida Medical Quality Assurance Inc.	Florida Flu Fighters Coalition	Increase patient and professional knowledge of the value of influenza vaccines for "at risk" persons, such as dialysis patients.
8	Mid-South Foundation for Medical Care (Tennessee)	LEAP -Lower Extremity Amputation Project	This project will educate ESRD facility personnel and ESRD diabetic patients on the importance of routine foot care and ongoing monitoring.
8	Alabama Quality Assurance Foundation (AQAF)	Depression in ESRD Patients	The goal was to identify early stages of depression in ESRD patients and encourage follow-up care. The concept paper was not approved.
8	Information and Quality Healthcare (IQH) Mississippi PRO	Beneficiary Liaison Committee and Annual Flu and Pneumonia Immunization Program	The Network QI staff serves on this committee with the PRO staff. The committee purpose is to identify and address the needs of Mississippi Medicare beneficiaries. Annual mailing of immunization and mammography information to dialysis providers.
9	KePRO, Inc.	The Ohio Alternate Setting Project	Studied cardiac risk factors in dialysis units in Northeast Ohio. The project was developed to: examine the monitoring of cardiovascular diseases among patients on hemodialysis; improve control of cardiovascular risk factors among patients on hemodialysis; improve the management of the ESRD patient diagnosed with cardiovascular diseases; and, explore current procedures in each participating facility and develop appropriate interventions.
11	North Dakota Health Care Review	Managing the Pre-ESRD Patient	Early referral for pre-ESRD care has been shown to improve outcomes for patients once renal replacement therapy has begun.
13	Louisiana	Monitoring AVG's for Stenosis	Focuses attention on lengthening the use-life of AVG's for HD patients.
13	Louisiana	Immunizations	Focuses attention on the importance of immunizations in the ESRD patient and professional population.

Network	PRO	Topic or Project Name	How This Improves Care
13	Oklahoma	Diabetic Foot Care	Increase the performance of routine foot exams in the diabetic ESRD patient population to prevent long-term complications (e.g., amputation).
14	Texas Medical Foundation	Immunization	Decreases flu/pneumonia incidence.
15	Mountain Pacific Quality Health Foundation (MPQHF)	Immunization	The goal of this project is to improve the immunization status of ESRD patients dialyzing in in-center hemodialysis facilities in Wyoming.
15	Colorado Foundation for Medical Care (CFMC)	Peritoneal Dialysis Adequacy QIP	The participants sharing their knowledge through practice improve care. Partnering with CFMC added resources and support to this effort.
16	PROs based in Louisiana, Idaho, Oklahoma, Wyoming & Ohio	Conference calls with Networks in same service area to share information on projects underway of common interest.	Information sharing intended to improve effectiveness of PRO outreach in to ESRD community.
16	PRO-West/Idaho	Reducing the Rate of Vascular Access Infections	Provided validation of findings, insight into approaches and effective intervention in reducing infection, cultivated relationship for future.
16	PRO-West, Washington	Follow-up on individual beneficiary concern	Worked with regional PRO to respond to inquiry from spouse of deceased patient.
16	Colorado Foundation for Medical Care	State Survey Pilot Test	Will provide facility-specific data to State Survey Teams to augment current selection/review processes.

Source: Networks 1-18 Annual Reports, 2000

Networks communicate with State Survey Agencies (SSAs) through the exchange of newsletters, annual reports, and other appropriate quality reports. This communication helps to facilitate the exchange of ideas on issues of quality improvement and patient grievances. Networks also work with their constituent State Survey Agencies in resolving patient grievances and assisting facilities in resolving performance issues.

Networks actively seek partnerships and conduct activities with renal-related organizations and quality associations, and have also have forged relationships with advocacy and research organizations. Several of the organizations that Networks worked with during 2000 are listed below.

Renal Community

- American Association of Kidney Patients
- American Kidney Fund
- American Nephrology Nurses Association
- American Society of Nephrology
- Life Options Rehabilitation Advisory Council
- National Kidney Foundation
- National Renal Administrators Association
- Nephrology Pharmacy Associates
- Renal Physicians Association
- Polycystic Kidney Foundation
- United Network for Organ Sharing
- United States Renal Data System

Non-Renal Related

- American Society of Quality
- American Healthcare Quality Association
- Association for Advancement of Medical Instrumentation
- Centers for Disease Control and Prevention
- Food and Drug Administration
- Harvard School of Public Health
- National Association for Healthcare Quality
- National Quality Forum

Many of the ESRD Network personnel are actively involved on renal community Boards of Directors and committees. The following are some of the organizations in the renal community with whom Networks serve on boards and committees: National Kidney Foundation (NKF), the American Association of Kidney Patients (AAKP), and the American Nephrology Nurses Association (ANNA).

GOAL FOUR: EVALUATING AND RESOLVING PATIENT GRIEVANCES

Networks are responsible for evaluating and resolving patient grievances. Each Network has a formal grievance resolution protocol, approved by CMS. The Network's ESRD Manual outlines several examples of the Network's role in resolving patient grievances. These include:

- **Expert Investigator:** This involves evaluating the quality of care provided to a patient where the investigation focus is the complaint. For example, if a patient complains about the procedures used by the dialysis nurse to initiate dialysis, the Network may investigate by reviewing the techniques used by the facility to initiate dialysis. At the conclusion of the investigation, findings are shared with the involved parties and when appropriate, recommendations may be made about the care provided.

- **Facilitator:** When communication between the patient and the provider/facility is difficult, the Network may be asked to facilitate communication and resolve the differences. For example, a patient may contact the Network to complain that the facility hours do not accommodate his/her work schedule. The Network may assist the patient by helping to discuss the situation with facility or assist the patient in moving to another facility that can accommodate his/her needs.

- **Referral Agent:** Issues that are not specifically ESRD network issues such as fire safety, handicap access to dialysis, civil rights, infectious disease and criminal activity are more appropriately handled by either the State Survey Agency or other Federal Agencies. The Network may refer the beneficiary to the appropriate agency.

- **Coordinator:** Where both quality of care and survey and certification issues are involved (e.g. water quality or dialyzer reuse), the Network will coordinate the investigation with the appropriate State Survey Agency. The appropriate Regional Office is advised of the situation.

- **Educator:** When patients, families, or facility staff has questions regarding ESRD the Network may provide the information. If the Network isn't readily able to provide the education, the Network is able to refer the question to the appropriate source.

A formal beneficiary grievance is a complaint alleging that ESRD services did not meet professional levels of care. The formal grievance requires the Network to conduct a complete review of the information and an evaluation of the grievance, which may require the involvement of a Grievance Committee and/or the Medical Review Board. During 2000, Networks processed 79 formal beneficiary grievances.

Grievances come to the Network in many forms and from many sources including telephone calls and letters from patients, families, facilities and concerned individuals or agencies. Though many of these complaints never reach the formal grievance stage, Networks dedicate large amounts of staff time responding to these complaints. It is estimated that ESRD Networks process over 3500 such patient concerns annually. The relatively small proportion (about 2%) of formal beneficiary grievances is an indication of effective Network response to the complaint before the complaint escalates into a formal grievance.

During the year 2000, Networks spent time discussing and focusing on the "challenging situations." A number of Networks define the challenging patient as one who may present to a clinic and act out in a violent manner or who is verbally abusive or threatening. Each network has a social worker/patient services coordinator to conduct proactive work in this area. Many Networks continue to provide workshops and written material focusing on this issue and spend a great deal of staff time providing consultation to the clinics in an effort to support a safe environment for patients and facility staff. An effort is underway within the Networks to gain a greater understanding of this issue and to quantify its prevalence.

Table 13 displays the number of Formal Grievances processed in the year 2000. The Networks realize the importance of standardizing the language and understanding of the types of grievances. A work group is working to refine definitions and reports to be used in SIMS (Standard Information Management System).

Table 13
FORMAL GRIEVANCES PROCESSED
Calendar Year 2000

Network	# of Grievances
1	3
2	0
3	0
4	0
5	7
6	11
7	13
8	0
9	7
10	6
11	1
12	8

13	2
14	16
15	1
16	0
17	0
18	4
Total	**79**

Source: Networks 1-18 Annual Reports, 2000

Table 14 details the Types of Grievances handled with an example for further clarification of the Grievance.

Table 14
TYPES OF GRIEVANCES

Type of Grievance	Example/Resolution
Treatment Related/Quality of Care -Any concern relating to the medical treatment a patient receives at the unit.	A patient contacted the Network regarding the quality of care at the initiation of dialysis. The patient was accustomed to receiving a local anesthetic prior to cannulation and on this particular date was not given the medication. Network interventions included follow up with the charge RN and MD for explanation and intervention. Subsequent follow up with the patient demonstrated that this was an isolated incident.
Physical Environment -Any concern relating to the physical atmosphere. These may include temperature, cleanliness, hazards, etc.	A patient contacted the Network to object to the fact that his dialysis chair had been moved directly under a cooling vent. The presence of the cool air caused the patient discomfort during the course of the dialysis treatment. Network intervention included contacting the unit. The unit was receptive to the patient's concern and a change was made in seat location.
Staff/Provider Related -Any concern including difficulties with provider policies or staff professionalism and competency.	A patient contacted the Network inquiring about improving the relationship between staff and the patient. The Network was able to arrange a meeting between the patient and the unit administrator and charge RN to discuss the concerns.
Information -Any concern that relates to the knowledge base associated with ESRD issues.	A patient called the Network with questions regarding Medicare coverage as it relates to ESRD. The Network was able to educate the patient about the issues. Additionally, the Network worked in conjunction with the unit social worker to develop a patient presentation about Medicare.
Patient Transfer or Discharge -Any concern that relates to the inter-facility patient transfer process.	A facility contacted the Network to indicate it was discharging a patient due to history of documented violent and abusive behavior. The Network was able to place the patient in a different facility after arranging for an intake interview between the patient and the new facility.
Disruptive/Abusive Patient -These concerns, lodged by the facility, focus on how to handle a patient and/or family that is disruptive or abusive.	A facility contacted the Network in an effort to respond to a disruptive patient without discharging the patient. The Network worked with the facility to discuss methods of dealing with disruptive patients by staff, the use of a behavior contract and recommended the involvement of a mental health professional.

Table 15 provides examples of the grievances handled by the Networks. The table cannot completely engender the difficult and complex nature of the cases presented to the Networks on a daily basis, nor can it detail the extensive follow up that is often required to resolve the grievance. The examples are offered to illustrate the types of issues faced throughout the entire country in both rural and urban settings.

Table 15
EXAMPLES OF GRIEVANCES

Contact Type	Description of Contact	Action/Resolution
Physical Environment	Patient called regarding the cleanliness of the dialysis clinic.	Discussed with the patient general standards for unit cleanliness and the matter was referred to the state survey agency for follow up.
Staff Related	Patient called with concerns about interactions between himself and unit staff.	Worked with the patient and the unit staff to sit down and discuss problems and concerns.
Treatment Related/Quality of Care	Patient's daughter called regarding the care her father is receiving at the unit.	Discussed the daughter's concerns. Educated about patient expectations and encourage the daughter to speak directly with the MD and RN manager.
Information	A patient saw an article in the newspaper describing release of quality of care information and he wanted to know "how my dialysis unit is doing?" The patient didn't have any specific concerns about the unit, just looking for information.	Educated the patient about the Network role in collecting data and assisting dialysis units to improve. Suggested questions the patient could ask of the administrator, head nurse and medical director of his unit to assist him to understand the quality of his dialysis.
Disruptive or Abusive Patient	Facility called with question about how to deal with an "acting out" patient.	Discussed methods of intervention and made suggestions for staff in-services.
Patient Transfer or Discharge	Patient being discharged from unit due to a documented history of violent and abusive behavior.	The patient contacted the Network and the patient was successfully placed in another facility.
Professional Ethics	Facility called with questions about the fact that they felt their clinic was being used for the "dumping" of difficult patients.	Discussed methods to discuss with other clinics the concern and suggested MD to MD contact.

SANCTION RECOMMENDATIONS

Networks are authorized to propose (to CMS) sanction recommendations against facilities who are out of compliance and to make recommendations for additional facilities in the service area, as they are necessary for each particular Network.

During 2000, no sanction recommendations were made to CMS. There were several incidents noted that required Network scrutiny:

- In one Network, twenty-one (21) facilities, 7% of the provider community, were placed on an *improvement track* during 2000. One of the 21 units had problems with both Hemodialysis adequacy and anemia management, and another facility had problems in Hemodialysis adequacy and mortality. Eighteen (18) of the facilities were to be released from monitoring pending data from the fourth quarter of 2000 (to be available in early 2001). Site visits were conducted to three (3) of the 21 facilities.

- Another Network participated with a state survey agency on two visits in which patient safety was identified as a concern. The result of the investigation was CMS' termination of both provider numbers. Under CMS direction, the Network provided the patients with the names of alternative facilities in the immediate area and provided telephone support to patients and families as they transferred to other ESRD facilities.

- In 2000, a Network Medical Review Board again recommended closure of a facility that had been surveyed in 1999 and was recommended for facility closure and Medicare decertification. The

Network apprised CMS of the unheeded recommendation and alerted CMS regarding the serious quality of care issues citing the absence of Medicare survey performance and reporting to CMS by the State Agency. Through the courts, the state appointed a temporary manager to ensure the safety of the patients, either through transfer or change in the delivery of care. At last report, meaningful improvements in care had occurred that involved the replacement of the medical director and staff, the director of nurses and other key staff.

RECOMMENDATIONS FOR OTHER FACILITIES

Several Networks made recommendations in their Annual Reports. These included:

- The availability of additional stations has been slower than the increased volume of new ESRD patients. Several facilities have opened in recent years but a shortage of trained dialysis staff continues to prevent outpatient dialysis stations from being fully utilized. In Year 2000, the "special purpose unit" status was granted to relieve the problem of new ESRD patients remaining in the hospital for unnecessary extended periods of time. This was a helpful but short-term solution which needs to be reviewed for an appropriate long-term solution.

- Medicare assessment of the costs to operate dialysis centers should include regional adjustments for staff wages and local and state regulations, which affect operational costs. The increased number of challenging patients requires unique staff communications and interpersonal skills. Consideration of special dialysis units with additional reimbursement, to help accommodate these patients, might reduce the number of patients being discharged from dialysis units.

- There is an increase in the number of medically stable patients that require a course of short-term dialysis (non-chronic) in out-patient programs, usually requiring less that 3 months of dialysis. It is recommended that CMS develop billing codes for this patient population and consideration be given to future policy issues that will evolve as these non-chronic patients increase in number.

- There is a need in the ESRD system to address the treatment of patients who have not been accepted by an outpatient treatment facility. The practice of discharging patients that pose a behavioral risk in the outpatient dialysis care setting is steadily increasing. At present, the ESRD system is not prepared to handle patients with mental illness or the dangerous situation that the patients create. It is recommended that CMS study the issues to identify a solution that will provide quality, alternative care for the patient that is not appropriate for the outpatient setting. This review should include representative from the ESRD and mental health communities. Solutions may include changes to Medicare billing policies for hospitals; designation of and increased compensation for units staffed to handle challenging patients; and other creative responses to this complex situation.

- Dialysis companies continue to place new facilities in previously under-served areas. The greatest need is a payment exception policy for displaced patients who require treatment at acute care hospitals. Such a policy would guarantee reimbursement for regular treatments, ending the current policy of conditioning services on proof of immediate severity.

- The overall availability of dialysis and transplant services is satisfactory but inquiries continue to be received concerning:
  - Provision of dialysis services in Skilled Nursing/Long-Term Care and other non-ESRD certified health care facilities

- Alternative treatment settings and /or reimbursement formula for abusive/violent patients whose access to care is constrained under the current system
- Access to care/services for undocumented immigrants whose Medi-Cal eligibility is limited to "emergency services."

FOR MORE INFORMATION

This report summarizes highlights of ESRD Networks' 2000 activities. The following Internet addresses provide additional information about the ESRD Networks and the ESRD program. All Network web sites can be accessed through the home page of the Forum Clearinghouse Office: www.esrdnetworks.org.

Table 16
NETWORK WEB ADDRESSES

Network	Web Address
1	http://www.networkofnewengland.com/
2	http://www.esrdny.org
3	http://www.tarcweb.org/tarcweb/
4	http://www.esrdnetworks.org/networks/net4/net4.htm
5	http://www.esrdnet5.org/
6	http://www.esrdnetwork6.org/
7	http://www.esrdnetworks.org/networks/net7/net7.htm
8	http://www.esrdnetworks.org/networks/net8/net8.htm
9/10	http://www.therenalnetwork.org/
11	http://www.esrdnetworks.org/networks/net11/net11.htm
12	http://www.esrdnetworks.org/networks/net12/net12.htm
13	http://www.network13.org/
14	http://www.nephron.com/net14.html
15	http://www.esrdnetworks.org/networks/net15/net15.htm
16	http://www.nwrenalnetwork.org/
17	http://www.network17.org/
18	http://www.esrdnetworks.org/networks/net18/net18.htm
SIMS	http://www.simsproject.com/

Table 17
ORGANIZATION WEB ADDRESSES

Organization	Web Address
American Health Quality Association (AHQA)	http://www.ahqa.org/
American Association of Kidney Patients (AAKP)	http://www.aakp.org/
American Nephrology Nurses' Association (ANNA)	http://anna.inurse.com/
Centers for Disease Control and Prevention (CDC)	http://www.cdc.gov/

Centers for Medicare and Medicaid Services (CMS)	http://www.hcfa.gov/
Medicare	http://www.medicare.gov/
National Association for Healthcare Quality (NAHQ)	http://www.nahq.org/
National Kidney Foundation (NKF)	http://www.kidney.org/
United Network for Organ Sharing (UNOS)	http://www.unos.org/
United States Renal Data System (USRDS)	http://www.usrds.org/

A copy of a specific Network Annual Report can be obtained from the individual Network office. Network addresses and telephone numbers are listed on the inside front cover of this report.

APPENDIX A

2000 ESRD INCIDENCE AND DIALYSIS PREVALENCE BY NETWORK

NETWORK	NEW ESRD PATIENTS in 2000	PATIENTS DIALYZING 12/31/00
1	3,787	10,122
2	6,563	20,731
3	4,173	12,205
4	4,899	13,384
5	5,749	16,732
6	7,703	25,150
7	5,791	15,813
8	4,864	15,982
9	7,386	19,569
10	4,268	12,132
11	6,231	16,791
12	3,783	10,534
13	3,900	11,783
14	7,018	22,447
15	3,983	11,635
16	2,572	6,903
17	4,523	13,829
18	6,831	20,364
TOTAL	**94,024**	**276,106**

Source: Networks 1-18 Annual Reports, 2000

APPENDIX B

INCIDENCE OF DIALYSIS POPULATION BY AGE AND NETWORK

December 31, 2000

Network	0-19	20-29	30-39	40-49	50-59	60-69	70-79	≥ 80	Unknown	Total
1	41	75	194	357	527	853	1,121	593	26	**3,787**
2	66	158	390	717	1,083	1,390	1,714	1,045	0	**6,563**
3	34	111	223	415	681	1,033	1,075	601	0	**4,173**
4	49	99	245	483	764	1,060	1,429	764	6	**4,899**
5	67	155	387	723	1,045	1,256	1,355	689	72	**5,749**
6	96	241	519	1,022	1,509	1,843	1,698	775	0	**7,703**
7	58	149	312	586	848	1,235	1,642	961	0	**5,791**
8	66	160	349	645	936	1,108	1,091	499	10	**4,864**
9	79	168	384	761	1,220	1,735	2,087	950	2	**7,386**
10	57	137	251	479	727	927	1,080	603	7	**4,268**
11	90	168	378	709	1,067	1,357	1,675	787	0	**6,231**
12	56	110	219	358	596	842	1,091	511	0	**3,783**
13	43	118	232	470	740	899	939	459	0	**3,900**
14	96	221	488	958	1,437	1,632	1,555	630	1	**7,018**
15	66	115	252	434	771	920	991	434	0	**3,983**
16	34	68	144	296	457	551	693	320	9	**2,572**
17	58	111	269	519	857	1,028	1,130	551	0	**4,523**
18	106	185	384	755	1,226	1,522	1,668	985	0	**6,831**
Total	**1,162**	**2,549**	**5,620**	**10,687**	**16,491**	**21,191**	**24,034**	**12,157**	**133**	**94,024**
% Total	**1.2%**	**2.7%**	**6.0%**	**11.4%**	**17.5%**	**22.5%**	**25.6%**	**12.9%**	**0.1%**	**100%**

Source: Networks 1-18 Annual Reports, 2000

Note: Prevalence data is provided in Table 2.

APPENDIX C

2000 ESRD PREVALENCE OF DIALYSIS PATIENTS BY RACE IN NETWORK RECEIVING TREATMENT

Network	Black	White	Asian/ Pacific Islander	Native American	Other [1]	Unknown [2]	Total
1	1,945	7,594	177	24	239	143	**10,122**
2	8,151	10,083	672	132	1,023	670	**20,731**
3	3,849	5,455	246	25	2,630	0	**12,205**
4	4,618	8,343	78	22	270	53	**13,384**
5	10,090	5,980	258	47	336	21	**16,732**
6	17,014	7,433	136	158	375	34	**25,150**
7	6,175	9,135	172	30	294	7	**15,813**
8	9,965	5,823	57	60	46	31	**15,982**
9	6,750	12,378	77	46	209	109	**19,569**
10	5,097	6,317	259	31	348	80	**12,132**
11	5,512	10,323	263	530	163	0	**16,791**
12	3,040	7,178	114	105	97	0	**10,534**
13	6,364	4,707	79	484	149	0	**11,783**
14	6,866	13,616	498	170	920	377	**22,447**
15	1,103	8,051	320	1,761	396	4	**11,635**
16	653	5,349	503	301	61	36	**6,903**
17	2,435	6,419	4,139	147	583	106	**13,829**
18	3,766	13,127	2,429	133	909	0	**20,364**
Total	**103,393**	**147,311**	**10,477**	**4,206**	**9,048**	**1,671**	**276,106**
% Total	**37.4%**	**53.4%**	**3.8%**	**1.5%**	**3.3%**	**0.6%**	**100%**

Source: Networks 1-18 Annual Reports, 2000. Patient numbers are derived from those patients receiving treatment

[1] "Other" includes: Indian subcontinent, Mid-East Arabian, and Other/Multiracial data from Network Annual Reports

[2] "Unknown" includes both "missing" and "unknown" data from Network Annual Reports

APPENDIX D

2000 ESRD INCIDENCE OF PATIENTS BY RACE AND NETWORK

Network	Black	White	Asian/ Pacific Islander	Native American	Other [1]	Unknown [2]	Total
1	485	3,042	63	9	85	103	**3,787**
2	2,069	3,702	179	33	411	169	**6,563**
3	978	2,110	67	7	1,011	0	**4,173**
4	1,144	3,597	34	5	88	31	**4,899**
5	2,648	2,753	95	11	104	138	**5,749**
6	4,235	3,272	46	47	95	8	**7,703**
7	1,662	3,979	43	9	91	7	**5,791**
8	2,302	2,425	13	18	18	88	**4,864**
9	1,815	5,393	26	4	68	80	**7,386**
10	1,344	2,678	87	10	106	43	**4,268**
11	1,386	4,488	87	172	98	0	**6,231**
12	720	2,998	28	28	9	0	**3,783**
13	1,612	2,033	22	168	65	0	**3,900**
14	1,668	4,729	98	15	375	133	**7,018**
15	293	3,008	100	409	169	4	**3,983**
16	173	2,136	148	87	18	10	**2,572**
17	637	2,469	1,128	39	216	34	**4,523**
18	1,044	4,600	717	43	427	0	**6,831**
Total	**36,215**	**59,412**	**2,981**	**1,114**	**3,454**	**848**	**94,024**
%	**27.0%**	**63.2%**	**3.2%**	**1.2%**	**3.7%**	**0.9%**	**100%**

Source: Networks 1-18 Annual Reports, 2000. Patient Numbers Are Derived From Those Patients Receiving Treatment.

[1] "Other" includes: Indian subcontinent, Mid-East Arabian, and Other/Multiracial data from Network Annual Reports

[2] "Unknown" includes both "missing" and "unknown" data from Network Annual Reports

APPENDIX E
LIST OF PRIMARY CAUSES OF END STAGE RENAL DISEASE

Diabetes
- Type II, adult-onset
- Type I, juvenile type

Glomerulonephritis
- Glomerulonephritis (GN)
- Focal glomerulonephritis
- Membranous nephropathy
- Membranoproliferative GN
- Dense deposit disease
- IgA nephropathy, Berger's disease
- IgM nephropathy
- Rapidly progressive GN
- Goodpasture's Syndrome
- Post infectious GN
- Other proliferative GN

Hypertension/Large Vessel Disease
- Renal disease due to hypertension
- Renal artery stenosis
- Renal artery occlusion
- Cholesterol emboli, renal emboli

Cystic/Hereditary/Congenital Diseases
- Polycystic kidneys, adult type
- Polycystic, infantile
- Medullary cystic disease
- Tuberous sclerosis
- Hereditary nephritis, Alport's syndrome
- Cystinosis
- Primary oxalosis
- Fabry's disease
- Congenital nephritic syndrome
- Drash syndrome
- Congenital obstructive upopathy
- Renal hypoplasia, dysplasia,
- Oligonephronia
- Prune belly syndrome
- Hereditary/familial nephropathy

Secondary GN/Vasculitis
- Lupus erythematosus
- Henoch-Schonlein syndrome
- Sclerodema
- Hemolytic uremic syndrome
- Polyarteritis
- Wegener's granulomatosis
- Nephropathy due to heroin abuse and related drugs
- Vasculitis and its derivatives
- Secondary GN, other

Interstitial Nephritis/Pyelonehpritis
- Analgesic abuse
- Ratiation nephritis
- Lead nephropathy
- Gouty nephropathy
- Nephrolithiasis
- Acquired obstructive uropathy
- Chronic pyelonephritis
- Chronic interstitial nephritis
- Acute interstitial nephritis
- Urolithiasis
- Nephrocalcinsois

Neoplasms/Tumors
- Renal tumor (malignant, benign, or unspecified)
- Urinary tract tumor (malignant, benign, or unspecified)
- Lymphoma of kidneys
- Multiple myeloma
- Light chain nephropathy
- Amyloidosis
- Complication post bone marrow or other transplant

Miscellaneous Conditions
- Sickle cell disease/anemia
- Sickle cell trait and other sickle cell
- Post partum renal failure
- AIDS nephropathy
- Traumatic or surgical loss of kidneys
- Hepatorenal syndrome
- Tubular necrosis
- Other renal disorders
- Etiology uncertain

APPENDIX F

2000 ESRD INCIDENCE BY PRIMARY DIAGNOSIS

Network	Diabetes	Hypertension	GN	Cystic Kidney Disease	Other Causes [1]	Unknown	Missing	Total
1	1,502	908	405	106	581	285	0	**3,787**
2	2,702	1,545	659	157	1,048	452	0	**6,563**
3	2,012	953	417	115	557	119	0	**4,173**
4	2,115	1,245	467	135	697	219	21	**4,899**
5	2,350	1,705	460	109	760	197	168	**5,749**
6	3,343	2,241	616	123	939	312	129	**7,703**
7	2,347	1,826	448	134	836	187	13	**5,791**
8	2,097	1,463	326	116	551	187	124	**4,864**
9	3,341	1,909	600	158	980	334	64	**7,386**
10	1,694	1,369	339	73	537	219	37	**4,268**
11	2,644	1,694	596	184	867	246	0	**6,231**
12	1,673	976	339	104	532	159	0	**3,783**
13	1,748	1,205	254	91	450	152	0	**3,900**
14	3,685	1,615	509	130	782	206	91	**7,018**
15	2,104	723	397	116	504	139	0	**3,983**
16	1,094	476	333	111	379	158	21	**2,572**
17	2,201	1,035	479	103	540	158	7	**4,523**
18	3,401	1,904	525	126	633	242	0	**6,831**
Total	**42,053**	**24,792**	**8,169**	**2,191**	**12,173**	**3,971**	**675**	**94,024**
% of Total	**44.7%**	**26.4%**	**8.7%**	**2.3%**	**12.9%**	**4.2%**	**0.7%**	**100%**

Source: Networks 1-18 Annual Reports, 2000

[1] Other Causes includes: "Other" and "Other Urologic" data from Network Annual Reports

Note: Prevalence data is provided in Table 3.

APPENDIX G

2000 INCIDENCE OF DIALYSIS PATIENTS BY GENDER BY NETWORK PROVIDING TREATMENT

Network	Male	Female	Unknown	Total
1	2,121	1,633	33	**3,787**
2	3,594	2,969	0	**6,563**
3	2,339	1,834	0	**4,173**
4	2,671	2,228	0	**4,899**
5	3,012	2,722	15	**5,749**
6	3,760	3,943	0	**7,703**
7	3,259	2,532	0	**5,791**
8	2,467	2,394	3	**4,864**
9	3,838	3,548	0	**7,386**
10	2,274	1,985	9	**4,268**
11	3,365	2,866	0	**6,231**
12	2,008	1,775	0	**3,783**
13	1,989	1,911	0	**3,900**
14	3,646	3,369	3	**7,018**
15	2,235	1,748	0	**3,983**
16	1,436	1,128	8	**2,572**
17	2,448	2,075	0	**4,523**
18	3,710	3,121	0	**6,831**
Total	**50,172**	**43,781**	**71**	**94,024**
% Total	**53.4%**	**46.6%**	**0.1%**	**100%**

Source: Networks 1-18 Annual Reports, 2000

APPENDIX H

2000 PREVALENCE OF DIALYSIS PATIENTS BY GENDER BY NETWORK PROVIDING TREATMENT

Network	Male	Female	Unknown	Total
1	4,564	5,522	36	**10,122**
2	11,386	9,345	0	**20,731**
3	6,906	5,299	0	**12,205**
4	7,170	6,214	0	**13,384**
5	8,862	7,869	1	**16,732**
6	12,491	12,659	0	**25,150**
7	8,700	7,113	0	**15,813**
8	8,032	7,950	0	**15,982**
9	10,336	9,211	22	**19,569**
10	6,443	5,678	11	**12,132**
11	9,066	7,725	0	**16,791**
12	5,498	5,036	0	**10,534**
13	6,004	5,779	0	**11,783**
14	11,410	10,941	96	**22,447**
15	6,226	5,409	0	**11,635**
16	3,778	3,114	11	**6,903**
17	7,260	6,569	0	**13,829**
18	10,758	9,606	0	**20,364**
Total	**144,890**	**131,039**	**177**	**276,106**
% Total	**52.5%**	**47.5%**	**0.1%**	**99%**

Source: Networks 1-18 Annual Reports, 2000

APPENDIX I

IN-CENTER DIALYSIS PATIENTS BY NETWORK AND MODALITY

December 31, 2000

Network	Hemodialysis	Peritoneal Dialysis	Total
1	8,881	12	**8,893**
2	18,664	24	**18,688**
3	10,968	10	**10,978**
4	12,152	38	**12,190**
5	15,011	3	**15,014**
6	22,518	6	**22,524**
7	14,347	1	**14,348**
8	14,159	3	**14,162**
9	17,527	56	**17,583**
10	10,567	17	**10,584**
11	14,912	0	**14,912**
12	8,977	18	**8,995**
13	10,706	2	**10,708**
14	20,201	4	**20,205**
15	10,455	12	**10,467**
16	5,857	5	**5,862**
17	12,248	4	**12,252**
18	18,575	2	**18,577**
Total	**246,725**	**217**	**246,942**

Source: Networks 1-18 Annual Reports, 2000
Note: In-Center Peritoneal Dialysis includes patients in training for home modalities.
Data for this table is limited to facilities submitting a Facility Survey Form (2744).
Not all VA facilities submitted a form in 2000.

APPENDIX J

HOME DIALYSIS PATIENTS BY NETWORK

December 31, 2000

Network	Hemodialysis	CAPD	CCPD	Other PD	Total
1	42	560	636	0	**1,238**
2	82	829	776	5	**1,692**
3	30	378	819	0	**1,227**
4	34	390	636	2	**1,062**
5	81	832	796	0	**1,709**
6	154	1,070	1,315	0	**2,539**
7	176	510	797	0	**1,483**
8	103	741	829	3	**1,676**
9	75	1,225	1,105	1	**2,406**
10	205	426	612	0	**1,243**
11	62	1,072	745	0	**1,879**
12	125	705	692	0	**1,522**
13	25	584	465	1	**1,075**
14	64	727	1,056	1	**1,848**
15	63	524	584	1	**1,172**
16	156	463	419	3	**1,041**
17	24	638	906	0	**1,568**
18	18	922	933	0	**1,873**
Total	**1,519**	**12,596**	**14,121**	**17**	**28,253**

Source: Networks 1-18 Annual Reports, 2000

APPENDIX K

1999 AND 2000 DIALYSIS MODALITY: IN-CENTER

	HEMO			PD		
Network	**1999**	**2000**	**% Change**	**1999**	**2000**	**% Change**
1	8,515	8,881	4%	35	12	-66%
2	17,072	18,664	9%	16	24	50%
3	10,443	10,968	5%	7	10	43%
4	11,570	12,152	5%	4	38	850%
5	14,600	15,011	3%	2	3	50%
6	21,058	22,518	7%	1	6	500%
7	13,515	14,347	6%	6	1	-83%
8	13,529	14,159	5%	9	3	-67%
9	15,595	17,527	12%	34	56	65%
10	9,904	10,567	7%	6	17	183%
11	14,088	14,912	6%	0	0	0%
12	8,053	8,977	11%	19	18	-5%
13	10,318	10,706	4%	11	2	-82%
14	18,858	20,201	7%	7	4	-43%
15	9,668	10,455	8%	13	12	-8%
16	5,493	5,857	7%	7	5	-29%
17	11,273	12,248	9%	4	4	0%
18	17,264	18,575	8%	12	2	-83%
Total	**230,816**	**246,725**	**7%**	**193**	**217**	**12%**

Source: Networks 1-18 Annual Reports, 2000
Note: In-Center Peritoneal Dialysis includes patients in training for home modalities.
Data for this table is limited to facilities submitting a Facility Survey Form (2744).
Not all VA facilities submitted a form in 2000.

APPENDIX L

1999 AND 2000 DIALYSIS MODALITY: SELF-CARE SETTING - HOME

	HEMO			CAPD			CCPD			OTHER PD		
Network	**1999**	**2000**	**% Change**	**1999**	**2000**	**% Change**	**1999**	**2000**	**% Change**	**1999**	**2000**	**% Change**
1	50	42	-16%	520	560	8%	688	636	-8%	0	0	0%
2	87	82	-6%	861	829	-4%	758	776	2%	6	5	-17%
3	46	30	-35%	533	378	-29%	850	819	-4%	0	0	0%
4	33	34	3%	411	390	-5%	658	636	-3%	3	2	-33%
5	127	81	-36%	895	832	-7%	731	796	9%	4	0	-100%
6	184	154	-16%	1,282	1,070	-17%	1,183	1,315	11%	15	0	-100%
7	191	176	-8%	521	510	-2%	734	797	9%	0	0	0%
8	115	103	-10%	682	741	9%	740	829	12%	6	3	-50%
9	71	75	6%	1,323	1,225	-7%	1,010	1,105	9%	6	1	-83%
10	71	205	189%	462	426	-8%	540	612	13%	0	0	0%
11	70	62	-11%	1,223	1,072	-12%	742	745	0%	1	0	-100%
12	124	125	1%	763	705	-8%	611	692	13%	0	0	0%
13	34	25	-26%	546	584	7%	448	465	4%	0	1	100%
14	66	64	-3%	687	727	6%	990	1,056	7%	4	1	-75%
15	70	63	-10%	525	524	0%	586	584	0%	0	1	100%
16	199	156	-22%	513	463	-10%	359	419	17%	3	3	0%
17	24	24	0%	632	638	1%	844	906	7%	0	0	0%
18	22	18	-18%	967	922	-5%	941	933	-1%	0	0	0%
Total	**1,584**	**1,519**	**-4%**	**13,346**	**12,596**	**-6%**	**13,413**	**14,121**	**5%**	**48**	**17**	**-65%**

Source: Networks 1-18 Annual Reports, 2000

APPENDIX M

RENAL TRANSPLANT RECIPIENTS BY DONOR SOURCE
CALENDAR YEAR 2000

Network	Cadaver	Living Related	Living Unrelated	Total
1	309	240	92	**641**
2	509	280	67	**856**
3	269	131	47	**447**
4	438	126	28	**592**
5	647	436	97	**1,180**
6	625	193	53	**871**
7	560	112	29	**701**
8	497	164	51	**712**
9	631	292	64	**987**
10	396	157	15	**568**
11	773	510	199	**1,482**
12	446	128	114	**688**
13	325	106	26	**457**
14	689	247	75	**1,011**
15	370	204	89	**663**
16	349	190	66	**605 ***
17	388	157	70	**615**
18	662	311	94	**1,067**
Total	**8,883**	**3,984**	**1,276**	**14,143**

Source: Networks 1-18 Annual Reports, 2000, Table 6

* Reflects the total number of Network 16 patients who received transplants, including transplants received outside the Network

APPENDIX N
OTHER QUALITY ACTIVITIES IN 2000

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
1	Adequacy, Anemia, Vascular Access, Iron Management and Nutrition	100% patient sample twice a year from > 95% of all providers (7000 HD and PD patients). Individualized provider trend feedback reports are generated for each enrolled provider. Coded provider comparative reports distributed to Maine providers using Network 100% enrolled patients data.	Observed improvement in all domains of care at Network and state level. Positive remarks from providers and requests for technical assistance.
1	Catheter Bacteremia Collaborative Project	Two year project with hospital-based providers using standardized tools to report types of bacteremia by vascular access. Quarterly feedback reports to each provider and educational sessions for enrolled providers.	Reduction in bacteremia rates and changes in procedures for catheter care and drawing blood cultures.
2	Job Retention of ESRD Patients	Pre-ESRD vocational counseling for patients.	Increased job retention.
2	Vocational Rehabilitation Services to Patients in Dialysis Units Collaborative activity with International Center for the Disabled	On-site (dialysis unit) vocational counseling for patients.	Number of patients employed/in school improved.
2	Rehabilitation	Rehabilitation specialist initiated a program of educational/technical assistance for social workers and patients.	The number of patients referred to VESID increased. Individual patients contacted specialist for information re: job training, resume writing, etc.
2	ANNA Long Island Chapter AKF Regional Meeting	Network Exhibit and Patient Advisory Committee.	Increasing awareness of Network activities, resources available, and distribution of data reports. Exchange of information for engaging patients in their care.
3	LORAC Unit Self Assessment Tool (USAT) for Renal Rehabilitation	To monitor and provide feedback on unit activities and efforts in the five "E's" of rehabilitation, (encouragement, education, exercise, employment, and evaluation).	Improvement in patient outcomes, including increased survival rates, wellness, and increased capacity for productive activity and increased ability for independent living.
3	Influenza Vaccination Information Campaign	Distributed materials in English and Spanish to promote the administration of the influenza vaccine.	Encourages providers to educate consumers about the value of vaccinations to prevent illness.
3	Transplantation	Monitors transplant designees in each facility to insure referral of medically suitable candidates.	Promotes awareness of transplantation as a therapy of choice.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
3	Quality systems review	TARC staff reviews individual facility's internal systems and provides recommendations for improvement.	Efficient internal systems reduce duplicative work and enable staff to stress quality of care delivery.
3	Hemodialysis Improvement Project (HIP)	TARC conducts the HIP to encourage facilities to track and analyze their outcomes in anemia management, adequacy of hemodialysis and nutritional status.	Insures that facilities are reviewing outcome data on a regular basis and making adjustments to foster improved delivery of care as indicated by these outcomes.
4	Adequacy of Dialysis and Anemia Management	Monitor the appropriate clinical performance measures and provide feedback with facility-Network comparisons on a quarterly basis.	Provide each facility with comparative performance data based on national evidence-based benchmarks.
4	Pediatric Dialysis	Monitor adequacy of dialysis through appropriate growth and development and biochemical markers on a biannual basis.	Provides each pediatric center with comparative performance data based on patient care benchmarks adopted by the Pediatric Subcommittee of Network 4.
4	Early Referral and Access Form	A survey form to be completed in conjunction with a new patient's 2728, was developed to evaluate the type of angioaccess used or in place at the time of the patient's first chronic dialysis treatment.	Allow the Network to identify, understand and eliminate barriers to early patient referral to a nephrologist and the placement of a permanent access as well as other factors that directly correlate to appropriate patient care.
4	Honoring Employers	The Network recognizes employers who hire ESRD patients. Ideas included certificates or plaques for the employer, issuing press releases, and/or holding recognition lunches or dinners with the patient and employer in attendance. The Employer Recognition Subcommittee planned to meet in 2001 to further develop the program.	Employed ESRD patients believe that employment provides them with a sense of well-being and independence. The Rehabilitation Committee believed that by "recognizing" employers who have hired ESRD patients, that the Network might be better able to educate all employers that ESRD patients can be productive and valuable employees.
4	Pilot Exercise Program	In 2000, the Rehabilitation Committee reviewed the final results from a 10-week Pilot Exercise Program conducted in 4 dialysis facilities in late 1999. The programs were conducted differently and results could not be compared.	It was believed that exercise during dialysis would help increase the patients' strength and endurance. Although the data showed no sign of improvement in patients' performance or quality of life, positive comments were received from the patients who participated.
4	Hepatitis C Study	The Organ Procurement/Transplantation Committee continued to be interested in the outcome of Hepatitis C kidney recipient patients. This study continues to be refined in regard to data collection.	The purpose of this study is to observe mortality and morbidity due to liver disease in patients with chronic renal failure treated by dialysis and transplantation.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
4	Transplant Referral Rates	A draft letter was reviewed by the OP/TC based on transplant referral rates within Network 4 for distribution in 2001.	Continue to assist dialysis facilities to understand the importance of and compliance with patient referral for kidney transplantation.
5	1999-2000 Goals & Objectives	Numeric goals were established in the areas of dialysis adequacy (80% URRs ≥ 65, 85% of Kt/V ≥ 1.2), anemia management (65% hcts ≥ 33), transplantation, and preventive care (80% of patients receive flu shots, 100% staff vaccinated against HBV).	Provides dialysis facilities with Network 5/MARC performance expectations so that internal goals and comparisons can be made.
5	Quality Measurement & Reporting	Clinical lab data was collected on 100% of HD and PD patients. Facility specific reports were distributed showing performance in HD adequacy (URR), PD adequacy (Kt/V and CrCl), anemia management (hemoglobin, TSAT and ferritin), and nutritional status (albumin). Information on types of vascular access was obtained from the CDC Survey.	These reports support internal quality improvement activities at the facility level by providing dialysis facilities with facility-specific, state and Network data (including facility ranking within their state and the Network) for comparisons and use in internal quality activities.
5	Focused Review in Adequacy & Anemia Management	During 2000, monitored 36 facilities for low performance in the area of HD adequacy, and 26 facilities for low performance in the area of anemia management. Monitoring involved routine data submission and MRB recommendations. During 2000, 40 facilities were released from monitoring while the remaining 22 were placed on improvement tracks, involving, at a minimum, monthly data submission, and additional corrective measures as directed by the MRB. On-site visits were conducted to two of the facilities.	This quality oversight function of the MRB forces the facility to examine practices/ processes, track data, and make sustained improvement in performance.
5	Transplant Status Survey	Every other year, dialysis facilities classify patients according to one of five transplant categories.	Facility-specific reports are generated and returned to units. Facilities are encouraged to review their data to identify methods for delivering transplant information to all patients.
5	2000 Quality Awards	Quality awards for the year 2000 were presented to 22 facilities at the 2001 annual Council meeting. Awards were based on clinical performance during 2000 and specific criteria in the areas of: HD adequacy, PD adequacy, anemia management and nutritional status.	Acknowledging outstanding clinical performance provides positive feedback and incentive for individual facility quality efforts.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
5	National Healthcare Quality Week (October 15-21, 2000)	Each year, Network 5 develops a small poster to announce and support National Healthcare Quality Week. Posters are distributed to all Network 5 providers for display in their facility.	This promotional effort is intended to help providers focus on the importance of improving the quality of care delivered to Network 5 patients.
5	2000 Facility Profile Report	The 2nd version of Network 5's facility-specific Profile Report was generated and distributed. The report encompasses data from several sources and includes administrative and clinical indicators as follows: patient to staff ratio, HBV and flu vaccination rates, compliance rates for HCFA forms submission, performance level on HD and PD adequacy, anemia management, nutritional status, access type and mortality. Facility rank within the Network 5 community is included.	These Profile Reports are distributed to support facility's internal quality improvement efforts.
5	Task Force on West Virginia Mortality	In 1999, the MRB reviewed standardized mortality ratios, produced by KECC, and identified a concern regarding the unexpectedly high SMRs in West Virginia. A Task Force was formed to examine reasons and two facilities were identified for focused review. The two facilities were required to conduct an in-depth mortality review for deaths occurring 1995-1998 and submit findings to the Network. After review, the MRB issued recommendations and required written improvement plans.	This is a quality oversight activity that compels providers to examine processes of care and conduct improvement activities.
5	Crisis Prevention Training	Two Network 5 staff members are certified in crisis intervention, and during 2000, four one-day training sessions were conducted in Network 5.	These workshops help dialysis staff learn to deal with the increased number of disruptive and abusive patients.
5	Knowledge Management Program	The Knowledge Management Program (KMP) is a collaborative initiative with Network, 1 that utilizes computer technology to distribute the summary of a peer reviewed journal article each month. Over 500 nephrologists in the two Networks were included. A project evaluation showed that 9 out of 10 respondents found the service useful and wanted to continue subscribing. Network 1 also participates in this project.	KMP is intended to provide nephrologists with "digested" information in a user-friendly format that they can use to learn more about quality measurement and management to evaluate their own outcomes, direct internal quality efforts and stimulate improved outcomes.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
5	Management of Early Renal Insufficiency	This is an educational program for primary care physicians (PCPs), emphasizing education, consensus building and case study discussion. Continuing medical education credits are offered. Programs in three metropolitan areas were conducted in 2000.	This initiative uses a community-based, referral patterns to educate primary care physicians and other internists in recognizing and managing early renal insufficiency (ERI). The purpose of this project is to improve outcomes and decrease mortality/morbidity among new dialysis patients by improving their care management during the ERI/pre-ESRD phase.
5	Partnerships with Corporate Chains	Three (3) corporate dialysis chains provide treatment to almost 70% of Network 5 patients. Therefore, a strategic effort was launched to meet with representatives from the corporate chains on an on-going basis. The first meeting was held in October 2000 and the agenda focused on: how to improve outcomes, how to facilitate feedback from facility leadership regarding network reports and activities, and Medical Director responsibilities.	The purpose of partnering with the dialysis corporations is to better utilize resources of both dialysis chains and Networks by jointly addressing issues of mutual concern, such as improved patient outcomes and engaging physicians.
5	E-lab Project	Network 5 was one of three Networks to participate in Year 2 of a demonstration project to generate facility-specific profiles from laboratory data that was electronically transmitted (Elab) by the lab to the Network. For 2000, the project encompassed 720 dialysis facilities and 44,000 patients from Networks 5, 11 and 14. Project purposes include: to generate facility-specific reports for QI using electronic data exchange between laboratory and Network; supply comparative data to facilities in a more timely manner; and, to automate and improve the data collection portion of the QI process.	Electronic transmission of data can revolutionize the QI process by relieving the facility burden of manual data collection and shortening the turn-around time from collection to feedback report. This project to improve the process of data exchange has the potential to provide facilities with "real time" data that would be invaluable for internal QI activities.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
6	Dialysis Outcomes Data Collection	Data is collected annually on a random sample of 30 hemodialysis and 30 peritoneal dialysis patients per facility or all patients if the facility has less than 30 patients. Data are collected related to adequacy of dialysis, anemia, vascular access, nutrition, rehabilitation, and transplantation.	These data are used by the MRB to develop and evaluate Quality Improvement Projects and activities. These data are also used to generate facility progress reports that provide each facility with a comparison of their patient outcomes to other facilities in the Network and, when available, National outcomes and the DOQI recommendations. Facilities are encouraged to use this feedback to assess the care they deliver as well as to identify areas for improvement.
6	Common Practice Survey	This survey is included as part of the annual Dialysis Outcomes Data Collection. The Facility Information section allows the Network to update the facility directory. The Common Practice section collects information about various clinical practices in the Network.	This information is frequently matched with patient demographic and outcomes data by the MRB in developing and implementing Quality Improvement Projects and activities.
6	Adequacy of Hemodialysis	The MRB selected 17 facilities for focused review in 2000, based on data collected as part of the 1999 Dialysis Outcomes Data Collection. Facilities were selected that had a mean URR < 65% or less than 60% of the patients in the facility sample with a URR $\geq$ 65%. At the end of 2000, 9 facilities remained under focused review.	When facilities are selected for focused review, the Network staff and MRB work with each of the facilities to develop action plans that address specific areas of improvement. The MRB reviews ongoing data on a quarterly basis from the facilities until certain criteria are met. In cases where facilities do not demonstrate improvement, members of the MRB and staff may conduct a site visit.
6	Adequacy of Peritoneal Dialysis	The MRB selected 11 facilities for focused review in 2000. All of these facilities were identified in the 1999 Dialysis Outcomes Data Collection as having none of their patients meeting the NKF- DOQI Clinical Practice Guidelines for Peritoneal Dialysis Adequacy. By the end of the year, 4 of the facilities had been released from monitoring. The MRB continued to work with the other 7 facilities.	When facilities are selected for focused review, the Network staff and MRB work with each of the facilities to develop action plans that address specific areas of improvement. The MRB reviews ongoing data on a quarterly basis from the facilities until certain criteria are met. In cases where facilities do not demonstrate improvement, members of the MRB and Network staff may conduct a site visit.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
6	Anemia	The MRB selected 2 facilities for focused review. The MRB continued to monitor their progress through the end of the year. These facilities were selected based on a mean hematocrit less than 30% in the 1999 Dialysis Outcomes Data Collection.	When facilities are selected for focused review, the Network staff and MRB work with each of the facilities to develop action plans that address specific areas of improvement. The MRB reviews ongoing data on a quarterly basis from the facilities until certain criteria are met. In cases where facilities do not demonstrate improvement, members of the MRB and Network staff may conduct a site visit.
7	Exercise Demonstration Project	Initiate a demonstration project to assess the problems and benefits involved with ESRD facilities implementing in-center patient exercise programs. This included the ability to sustain the project without direct intervention from the Network once training was complete and patients were assessed by professional physical therapists working with the Network.	Exercise can help reduce the risk of cardiovascular disease, improve endurance, and increase bone mass, joint flexibility, and muscle strength. Additionally, it can reduce anxiety and depression, increase feelings of well being, and may be useful in preventing or lessening the effects of diabetes mellitus and hypertension. By encouraging exercise during dialysis, the patients are active and maintain more stable blood pressure and weight control. Anecdotal reports from the facilities with active exercise programs included greater patient cooperation and fewer complaints.
8	Facility Specific Data Profiles	Data collection performed on 100% of the facilities on a statistically significant sample of patients. The data includes URR, hemoglobin, hematocrit, albumin, pre-post BUN, pre-post weight, access type, height and EPO dosage.	Collection of this data allows the Network to assess several quality indicators that reflect patient care being delivered and to determine how best to focus our resources. Data analysis serves as a baseline for our Quality Improvement Projects and other QI activities that improve patient care.
8	Facility Specific Data Pilot Program	This pilot program by HCFA involved the Network and the state of Alabama facility survey agency. The Network QI staff and the Alabama surveyors attended a training session in Baltimore.	Facility specific data will assist surveyors in planning site visits to ESRD facilities. It will also assist them in complaint investigations and provide background data on adequacy and mortality data. This will improve care by assuring that facilities are meeting HCFA guidelines.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
8	Access to Transplantation	The QI Coordinator assisted the state surveyors and the regional project officer in a site visit to assess regional transplant referral practices.	Several areas were addressed with the facilities regarding access to transplant. Clarification of the OPO and HCFA guidelines were also addressed which should give patients more wait list options.
8	Hospitalizations, infection control and adequacy of dialysis	The Network QI nurse, the Network executive director along with two nurses and two physicians from the Network Medical Review Board, assisted the Tennessee state surveyors with several complaint investigations. The regional project officer also participated in these investigations.	These investigations resulted in the voluntary closure of one facility and the involuntary closure of another. Numerous conditions were noted that posed a serious and immediate threat to patient health and quality of care. Patients from the closed facilities were referred to alternate locations in the area with Network assistance.
8	Cooperative National Study of Renal Decisions	The Special Studies Coordinator and Executive Director represented Network 8's involvement in this study which involved 4 Networks and included chart abstraction by the Networks and patient and physician interviews by Harvard contractors. Two manuscripts have thus far resulted from the study.	The first manuscript which was published in the NEJM in November 1999 stated that a breakdown in communication may help explain why whites are nearly twice as likely as blacks to be referred for transplant and it suggested that greater efforts to improve physician-patient communication are indicated. The article has prompted CMS to announce that it will strengthen enforcement of Medicare rules by requiring all kidney patients be evaluated for transplant and be informed of their options. It also prompted CMS to initiate projects to determine the extent of Network involvement in transplant.
8	HCFA Transplant Assessment Activities Project	A Network-wide survey tool was used to determine any past and present Network transplant activities, especially those related to referral patterns. This project is the first CMS project to be developed as a result of CONSORD and was designed to help address disparities in access to transplant.	Network 11 compiled a resource report summarizing recommendations for interventions.
9-10	CPMs for Hemodialysis and Peritoneal Dialysis Programs: Adequacy, Treatment of Anemia, Nutritional Status, and HD Vascular Access	This Network activity is patterned after the national CPM project. This project is designed to (1) increase the knowledge of the CPM project to Networks 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.	In the Network–wide CPM project, facilities electronically submitted data collected on 100% of patients to the Network for analysis. The data were analyzed and feedback reports were distributed after each collection. The Medical Review Board monitors the data on a routine basis. Trends, areas of improvement, and interventions are analyzed from this activity.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
9-10	Physician Activity Reports	This project is designed to (1) increase the knowledge of the CPM project to Networks 9/10 ESRD physicians, and (2) provide feedback and comparison data on their patients.	These reports are generated from the CPM dataset. Individual physicians receive their specific patient data that have comparisons to other physicians in the Network. This activity began in 1998 and more than 600 individual physicians receive reports in each time period.
9-10	Intervention Profiling System	This is an annual facility profiling process that integrates several quality domains. Each domain has indicators: (1) Clinical Performance Measures (CPM) 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.	This is a focused quality assurance activity identifying outlier facilities and requiring implementation of action plans to improve care. These action plans are reviewed and monitored by the Medical Review Board.
11	Anemia, HD Adequacy, and Nutrition	Data for these core indicator areas were collected as part of the E-lab project that collected data directly from national and local labs. Nearly 100% of facilities and 100% of HD patients are included. Bio-statisticians analyzed the data and comparative data were distributed to dialysis units in the form of feedback reports. Those reports included state and Network comparisons and percentile ranking.	Comparative feedback reports help to improve care by providing a mechanism to benchmark against similar facilities. In Network 11, hemodialysis adequacy improved from 78% in 1999 to 83% in 2000 and anemia management improved from 65% in 1999 to 73% in 2000.
11	Renal Osteodystrophy- lab data	Network 11 continued its comprehensive renal osteodystrophy project in 2000. This included distributing feedback reports from the 1999 data collection, and collecting 4th quarter 2000 data as part of the E-lab project.	Calcium ≥ 8.5 improved from 79% in 1999 to 91% in 2000. The most difficult indicator, intact PTH 2 - 4 times the upper limit of normal improved from 19% in 1999 to 28% in 2000.
11	Renal Osteodystrophy- protocol analysis	Dialysis facilities submitted renal osteodystrophy protocols for analysis. Protocols were compared to a model protocol developed by Network 11 and Nephrology Pharmacy Associates. Protocols were ranked using an 8-point scale and distributed with facility-specific feedback reports on their protocols.	45% of Network 11 dialysis facilities had protocols with 6 points or more. Facilities that did not submit protocols and facilities with incomplete protocols were encouraged to write/update protocols using the model protocol as a guideline.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
11	Renal Osteodystrophy- prescription survey	Prescription survey data was collected from a random sample of 749 dialysis patients to assess and improve medication use for bone disease.	Prescription survey results showed an opportunity to improve management of hyperphosphatemia, elevated iPTH, and use of Vitamin D analogs.
11	E-lab Demonstration Project	This Demonstration Project involving Networks 5,11, and 14 collected 4th quarter 2000 lab data from national and local labs for about 41,000 patients dialyzing in 751 facilities in 3 Networks.	Overall 3-Network results were 77% of patients had hgb ≥ 11; 87% had URR ≥ 65%; 80% had albumins ≥ the lower limit of normal.
11	K/DOQI Guideline survey	Networks 1 and 11 surveyed dialysis units about prioritizing and implementing the K/DOQI guidelines.	The results will be used to select QI projects within dialysis facilities and within the Networks.
11	Vascular Access	Monitor, report, and increase the use of AV fistulae.	Published Network 11 Vascular Access Project results in the 10/00 issue of ARRT. Reprints were distributed to vascular access surgeons and Network 11 facilities, and study will be repeated in 2001.
11	Cooperative National Study of Renal Decisions (CONSORD)	Assess and report on access to renal transplantation in Networks 5, 8, 11, and 18.	Reviewed and commented on two manuscripts published in the NEJM in 2000.
11	Renal transplant assessment activities	Survey and report Network activity on kidney transplant assessment along with other Networks.	Produced report including an overview of the issues, projects by type, project lists by Network, project descriptions, resources, and recommendations from the Forum of ESRD Networks.
12	Hepatitis B Vaccination Project	Post-study intervention with the low performers as directed by the Medical Review Board.	Establishes the Network-wide goal of 60% vaccination of at-risk patients against hepatitis B, a disease with significant health risks.
12	Conflict Resolution Initiative	A four-part initiative which includes: (1) a day-long seminar; (2) distribution of a guideline on preventing violence and harassment in the dialysis unit; (3) a discount book offer; and (4) assembling and training non-violent conflict resolution instructors for facility instruction.	Provides the structure and information needed to implement conflict resolution techniques to decrease the number of incidents between patients or facility staff, reduce the risk of harm to all patients and staff members, and increase patient satisfaction.
13	Quality Performance Measures (adequacy, anemia management, vascular access, immunizations, and infection control)	This Network-specific activity encompasses the areas of adequacy, anemia management, vascular access, and immunizations/infection control. 100% facility participation occurred. This activity provides the Network with opportunity to monitor and provide feedback specific to areas mentioned.	Focuses facilities on their strengths, weaknesses and fosters interaction between Network and facilities.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
13	Self-care, transplantation, vocational rehabilitation	Annual Network standard review.	Focuses facilities on their strengths, weaknesses specific to NETWORK standards of self-care, transplantation, and vocational rehabilitation.
13	Immunizations: 2000	Provide current information regarding immunizations (hepatitis, pneumococcal, influenza).	Encourages facilities to incorporate current scientific resources into their current immunization policies and procedures.
13	Prevention and treatment specific to diabetes, hypertension, and kidney disease in Native Americans	Participated in planning of National conference.	Decrease the incidence of ESRD in Native Americans by educating caregivers, as well as the Native American patient population.
14	Peritonitis Registry	State wide annual data collection and report on facility specific peritonitis rates in Texas.	Assist physicians and nurses recognize QI opportunities to prevent peritonitis.
14	Network #14 Run Charts	Annual set of run charts that includes state and national core indicator comparison data.	Allows facility to chart outcomes and compare to state and national averages.
14	Quality of Care Interventions	Required implementation of QM standards into facility quality improvement program.	Assist facility staff with implementing QM processes.
14	Texas Transplant Activity Report	Facility specific comparative data.	Assists facilities recognize QI opportunities with their transplant educational and referral practices.
14	Texas Vocational Rehabilitation Activity Report	Facility specific comparative data.	Assists facilities recognize QI opportunities with their VR educational and referral practices.
14	Texas Rehabilitation Outcomes Project	In collaboration with LORAC, the ESRD Network implemented a study with the Texas dialysis community to identify if correlations exists between a facilities rehabilitation efforts and patient outcomes.	May assist facilities with focusing additional resources on the health benefits of rehabilitation activities.
15	Key Indicators Collection	This data collection was begun as an Intervention Project 1996/1997 and became the annual Key Indicator Data Project continued in 2000. Network-wide, facility-specific information ("Key Indicators") on URR, albumin, hematocrit, number of hours of dialysis prescribed, was collected from all in-center hemodialysis facilities providing care to patients ≥ 18 years of age during 1st quarter of 2000. Each facility was sent a report comparing the facility's outcomes to those of the state in which that facility provides service, to the Network, and to the national outcomes from the CPM Project.	Since 1997, Network #15 has seen consistent improvement in the areas of dialysis adequacy and anemia management. Facilities have also reported an increase in the hours of prescribed dialysis. Many facilities reported that they use these reports to support their internal quality improvement.

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
15	Nevada Outcomes Project	The goal of this project is to improve the quality of care for dialysis patients in Nevada by improving the processes of care. Interventions included on-site technical assistance, MRB review and educational sessions.	The evaluations for each educational session indicated that the participants valued the presentations and felt the sessions met their needs. Re-measurement of these outcome data in 2000 indicates that the aggregate data for Nevada is now similar to the outcome data for the remainder of the states in Network #15.
16	Standardized Mortality Ratios Report	Fifth in series of three-year overviews of mortality among our dialysis patient population. Individual facilities also received facility-specific data for internal QI. Period covered=1997-1999.	Provides facilities with national and Network comparative data on their experience re: patient mortality. Identifies sub-populations at risk.
16	Hepatitis B Immunization/Screening Practices	Data compiled from 1999 CDC Survey, graphed and reported to Network facilities with space to enter facility-specific data.	Provides information on current regional and national practice, comparative data to be used for internal QI.
16	Anemia Management	Educational mailing to Network facilities based on EPO billing data from HCFA, plus findings of outreach to individual facilities regarding anemia management programs.	Provides tips on anemia management programs, comparative data, and resources for additional information for units seeking to augment current approach to monitoring patient outcomes.
17	Adequacy of Hemodialysis in the State of Hawaii	Monitor and provide feedback on 1996 and 2000 data collection projects.	Gives providers in isolated territory standing for comparison to Network and U.S. for individual facility QIPs.
17	Flu Vaccination Campaign	Reinforce annual need to vaccinate at risk patient population.	Decrease Medicare costs for hospitalizations.
17	HBV Vaccination Review	Monitor and provide feedback on CDC data which shows facilities reporting vaccination rates below Network targets.	Increases preventative healthcare measures for at risk population.
17	Organizational Standards of Quality Care for ESRD Facilities	Provides tool for Medical Review Board to review quality of care and reinforces survey readiness.	Provides uniform standard of performance.
18	Hepatitis B Vaccination	Monitor and provide feedback on hemodialysis facility vaccination practices, including variance from established Network standards and obvious data reporting inconsistencies.	Hepatitis B represents a potentially serious, but largely avoidable, infection control issue in dialysis facilities and Network monitoring/intervention is an important component of sustaining improvement in this area.
18	Anemia Management	Monitor and provide feedback on facility anemia management practices, including variance from accepted practice/outcome standards.	Facilities with anemia outcomes below Network thresholds participate in a focused project that reviews facility anemia management practices and protocols to support improvement in patient outcomes.
18	Emergency Call System	The absence of federal or state requirements for	Heightened awareness of patient safety in general, and

NETWORK	AREA OF CARE	OVERVIEW	HOW THIS IMPROVES CARE
		visual/audible alarm systems for dialysis patients to request assistance represents a potential patient safety issue.	emergency response in particular, is an important adjunct to quality care in the face of larger clinics and fewer professional staff.

APPENDIX O

PROFESSIONAL EDUCATION WORKSHOPS AND PROGRAMS OFFERED BY NETWORKS IN 2000 BY CATEGORY

CATEGORY	TOPICS
Access to Care	• Understanding Racial Differences in Access to Renal Transplantation • Transplantation Referral
Clinical	• Adequacy of Peritoneal Dialysis • The Heart in ESRD • Nightly Home Hemodialysis (NHHD) • Home Hemodialysis • Recognition & Management of Early Renal Insufficiency for Primary Care Physicians • Medical Nutrition Therapy for the Patient with Diabetes and Kidney Disease • Positive Thinking & Stress Management • Normalizing Depression • Aspects of the Treatment of Chronic Illness • Improving Hemodialysis Adequacy • Hemodialysis Vascular Access Multidisciplinary Collaboration • Anemia, Adequacy, and Lab Values • Anemia Management in ESRD • Ensuring Safe Water for Hemodialysis • Meeting the Challenges of the Pre-ESRD patient
CQI	• Improving the Delivery of Adequate Dialysis: Project-in-a-Box • Improving the Adequacy of Peritoneal Dialysis • Mentoring Workshop Series • Solving the Catheter Conundrum • Orientation Classes • Working as a Team in Providing Renal Care • Making Sense of Statistics • Quality Management Concepts • CQI Review Classes
Communication/Crisis Management	• Crisis Prevention Workshop: Dealing with Disruptive Patients • Communication/Crisis Management • Care-giving With Compassion • Dealing with Difficult Patients • Crisis Management Workshops

CATEGORY	TOPICS
	• Dealing with Challenging Dialysis Patient Situations
General	• Maintaining Your ESRD Certification • Advanced ESRD Surveyor Training Course • Dialysis Patient Care Technician Legislation • Data Workshop of the Millennium • Data Compliance Workshop • Navigating Your Way to a Perfect Program • Federal Forms and Data Review Meeting • Just A Tech • Network 101: From Data Collection to Patient Grievances • The Role of the Network in Improving ESRD Care • Quality Improvement I Workshop • Developing Collaborative Relationships with the Pennsylvania and Delaware State Survey Agencies
Patient-Related Issues	• What is an ESRD Patient? • Issues of Sexuality • Getting Ship Shape: A Guide to Exercise • Employment and Rehabilitation • Attitude in the Workplace • Win-Win Communication • Preventing Problems from Becoming Grievances • The Needs of Dialysis Patients During a Disaster • Patient Sensitivity and Communication • Considerations in Evaluating ESRD Clients • Employment and Rehabilitation • The Vocational Rehabilitation Referral Process

APPENDIX P

PROFESSIONAL EDUCATION WORKSHOPS CONDUCTED IN 2000 BY PROGRAM TITLE

NETWORK	NAME OF PROGRAM	BRIEF DESCRIPTION	AUDIENCE
1	Working as a Team in Providing Renal Care	Annual Network Educational Meeting, plus poster (19) session.	521 participants: 60 Nurses, remaining 40% were all other disciplines % patients. CE credits were given
1	Ensuring Safe Water for Hemodialysis - Co-Host with Zyzatech Osmonics	Covered AAMI standards, reverse osmosis components, bacterial treatment.	Dialysis Technicians, Nurse Managers - 90 attendees, 95% Technicians CE credits were given
1	Annual Maine Nephrology Meeting	Network prepares coded comparative provider data on clinical indicators. Meeting lead by MRB member to discuss trend and share clinical practice.	Maine Nephrology Society, open meeting for Nephrologists and Nurse Managers
2	Issues of Sexuality		Professionals and patients
2	Discussion of Cases Involving Challenging Patients	Interactive session with social workers related to actual or hypothetical cases involving challenging patients.	NYC Council of Nephrology Social Workers
2	Crisis, Chaos and Conflict Resolution in the Dialysis Unit		Professionals
2	Data Compliance Workshop	Review of importance of data reported on HCFA forms, need for timely submission, general Q&A re: forms.	Data contacts
2	PD Adequacy Workshops (2 presented)		PD nursing/physician staff
2	The Heart in ESRD	Annual meeting educational presentation with five speakers.	ESRD facility physicians and staff
3	Federal Forms and Data Review Meeting	Two training sessions were held for provider staff responsible for completion and submission of MER's and DN's and patient event updates.	Administrators, nurses, social workers, secretarial and data staff from provider facilities
3	Council Annual Meeting and Education Program	Review of network goals and trends in care delivery, workplace violence, conflict resolution and crisis intervention.	Physicians, nurses, dietitians, social workers and patients
4	Nightly Home Hemodialysis (NHHD) 29 Months Experience in Lynchburg, Virginia	Presented history of NHHD; treatment parameters; medical results; blood pressure; catheter use; quality of life; reduced hospitalization rates; advantages of NHHD; and costs.	Network 4 Coordinating Council Members (physicians, nurses, social workers, dietitians, administrators, transplant surgeons, transplant coordinators, patients, family members)

NETWORK	NAME OF PROGRAM	BRIEF DESCRIPTION	AUDIENCE
4	The Vocational Rehabilitation Referral Process	Presentations made: "Five-Year Overview of NW 4's Rehabilitation Activities"; "The Nephrologist's Role in Rehabilitation"; "OVR's Role in Rehabilitation"; and "The Social Worker's Role in Rehabilitation."	Network 4 Coordinating Council Members (physicians, nurses, social workers, dietitians, administrators, transplant surgeons, transplant coordinators), patients, family members
4	Adequacy of Peritoneal Dialysis: Has the Pendulum Stopped Swinging?	Presented history of PD; the National Cooperative Dialysis Study (NCDS); Kt/V; results & problems of the CANUSA Study; etc.	Network 4 Coordinating Council Members (physicians, nurses, social workers, dietitians, administrators, transplant surgeons, transplant coordinators), patients, family members
4	Developing Collaborative Relationships with the Pennsylvania and Delaware State Survey Agencies (SAs)	The GAO & OIG Reports were reviewed and highlights of the Senate Hearing tapes were shown. Patient Safety in ESRD was discussed. The SA representatives reviewed survey procedures and requirements; process followed when deficiencies are cited; investigation of patient complaints; etc.	Working session with Executive Council and Medical Review Board (physicians, administrators, nurses, social workers, dietitians, transplant surgeons, and patient representatives) and representatives from the PA & DE SSAs
4	Home Hemodialysis	Presentation included: History of home hemodialysis, patient selection, training program, home dialysis setup, pros and cons, and patient outcomes.	Nurses, social workers, and physicians
4	Data Workshop of the Millennium	Provided education and support to the dialysis facilities in PA and Delaware via data workshops and development of a new data manual. Presentation material used during the meetings, included information from Network disciplines, such as Data Management, Data Entry, Information Management, Executive Administration and CQI.	Social Workers, Nurses Administrators, and Facility Data Clerks
4	What is an ESRD Patient?	Goal was to educate the OVR personnel about the ESRD patient and various treatment modalities and identify the barriers to referral for these patients.	Managers and counselors from the regional OVR offices in Western Pennsylvania
5	Non-Violent Crisis Intervention Training		Nurses, patient care technicians, social workers, dietitians, physicians
5	Making Sense of Statistics	Explanation of basic statistical calculations and terminology using a Network generated facility specific report (e.g., Quality Measurement Report on HD Adequacy).	Nurses, patient care technicians, social workers, dietitians, physicians

NETWORK	NAME OF PROGRAM	BRIEF DESCRIPTION	AUDIENCE
5	Crisis Prevention Workshop: Dealing with Disruptive Patients	This session repeated 4 times in various locations.	Nurses, patient care technicians, social workers, dietitians, physicians
5	Improving the Delivery of Adequate Dialysis: Project-in-a-Box		Nurses, patient care technicians, social workers, dietitians, physicians
5	Recognition & Management of Early Renal Insufficiency for Primary Care Physicians	This session repeated 3 times in different locations.	Physicians
5	Improving the Adequacy of Peritoneal Dialysis	This session repeated 3 times in different locations.	Nurses, patient care technicians, social workers, dietitians, physicians
5	Understanding Racial Differences in Access to Renal Transplantation		Nurses, patient care technicians, social workers, dietitians, physicians
5	Medical Nutrition Therapy for the Patient with Diabetes and Kidney Disease		Dietitians
5	Dialysis Patient Care Technician Legislation: How does Virginia House Bill 1477 Affect You?		Nurses & Administrators
5	Positive Thinking & Stress Management		Physicians
5	Normalizing Depression		Social Workers
5	Just A Tech		Patient Care Technicians
6	Network 6 Annual Meeting		Facility staff and Network Board/Committee members (Physicians, Nurses, Administrators, Social Workers, Dieticians, Technicians, Patients)
6	Know Your Network: The Role of the Network in Improving ESRD Care	Presented at the American Nephrology Nurses' Association Cardinal Chapter Meeting.	Nephrology Nurses
6	Network 101: From Data Collection to Patient Grievances	Presented at the Network 6 Annual Meeting.	Facility staff and Network Board/Committee members (Physicians, Nurses, Administrators, Social Workers, Dieticians, Technicians, Patients)
6	Preventing Problems from Becoming Grievances	Presented at the American Kidney Fund Regional Meeting.	Facility staff (Physicians, Nurses, Administrators, Social Workers, Dieticians, Technicians) and Patients

NETWORK	NAME OF PROGRAM	BRIEF DESCRIPTION	AUDIENCE
6	The Role of the Network in Improving ESRD Care	Presented at the NC Council of Nephrology Social Workers Meeting.	Social Workers
6	The Needs of Dialysis Patients During a Disaster	Presented at the NC Special Operations Response Team Meeting, "Dialysis Preparedness for Special Medical Needs Populations."	Physicians, Nurses, Paramedics, Law Enforcement Officers, Psychologists, Pharmacists, Respiratory Therapists, and EMTs from across the state
6	The Role of the Network in Improving ESRD Care	Presented to the NC Council of Nephrology Social Workers Meeting.	Social Workers
6	The Role of the Network in Improving ESRD Care	Presented to the GA Council of Nephrology Social Workers Meeting.	Social Workers
7	Employment and Rehabilitation	Conference for professionals and patients/significant others regarding employment and rehabilitation.	Social workers, vocational rehabilitation counselors, social security representatives, patients, family members of patients
7	Nephrology Nursing Update 2000	Topics included: Complementary Medicine, Protocols for Phosphorus Control, Iron Management Strategies, Practical Approaches to Conflict, and Renal Transplantation.	Nephrology nurses and technicians
7	Network Seven 21st Annual Meeting	Topics included: Legislative Update, Patient Conflict and Implications for Patient Care, New Directions in Anemia Management, Daily Home Hemodialysis, Managing Hypo-response (in anemia), Transplant Immunology, Iron Management Strategies, Prevention of Cardiac Risk in ESRD: Electron Beam Computed Tomography.	Nephrologists, nephrology nurses, renal dietitians, renal social workers, dialysis technicians, renal administrators, and state surveyors
7	Care-giving With Compassion	Objectives: Identify that patients have several methods of resolving complaints regarding their care in ESRD facilities. Explain that stress is counter-productive to effective communication. Select two consequences of "labeling" patients. Differentiate between behaviors attributed to "difficult" and "dangerous" patients.	All staff working in the dialysis units received the inservice, including nurses, PCTs, secretaries, social worker, dietitian, and administrator
7	Network 7 Update	Provide update of Network activities and new CPM data to renal professionals.	Florida Council on Renal Nutrition
7	Network 7 Update	Provide update of Network activities and new CPM data to renal professionals.	Treasure Coast Conference (RN, LPN, PCT, SW, RD)

NETWORK	NAME OF PROGRAM	BRIEF DESCRIPTION	AUDIENCE
7	Dealing with Difficult Patients	Provide useful information regarding dealing with difficult patients in dialysis units and provide resources for staff to use in such situations.	Suncoast Council of Nephrology Social Workers
7	Getting Ship Shape: A Guide to Exercise	Review of the Network exercise demonstration project and encouragement for patient to exercise to improve quality of life.	AAKP National Convention (Patients, family members, nurses, physicians, social workers)
7	Network Activities Update	Presented at the FRAA Annual Meeting.	Renal Administrators
7	Cooperative Activities with the Peer Review Organization	Presented at the HCFA training meetings.	State Surveyors and HCFA
7	Considerations in Evaluating ESRD Clients	University of South Florida Vocational Rehabilitation Graduate Class.	Guest lecturer for Graduate students pursuing degree in Rehabilitative Counseling
7	Navigating Your Way to a Perfect Program	AAKP Annual Volunteer Training Session held in conjunction with its National Convention.	Patient and professional members of volunteer committees of the organization
7	Patient Sensitivity and Communication	Presented to the staff of dialysis units in Tampa and Miami.	Administrative, consultative and direct patient care personnel (RN, LPN, PCT, RT, sec)
7	Advanced ESRD Surveyor Training Course	Collaborated with HCFA at this training held in Baltimore.	State Surveyors and HCFA
8	Annual Meeting	Annual educational meeting for all Network Council representatives and ESRD professionals in our Network region.	RN, Social Workers, PCT's, Dietitians, Physicians, Administrators and other ancillary personnel
8	Improving HCFA and Network Data Reporting	Understanding uses of data and techniques for improving accuracy and timeliness of requested information	Data contacts and nurse managers
8	Understanding New Network Reporting Procedures	These regional presentations were designed to help prepare facility staff for changes in reporting processes brought about by SIMS.	Facility data contacts
9	Attitude in the Workplace	Tools for communication, motivation, and goal setting.	Ddialysis staff - nurses
9	Attitude in the Workplace	Tools for communication, motivation, and goal setting.	Dialysis staff - technicians
9	Attitude in the Workplace	Tools for communication, motivation, and goal setting.	Dialysis staff - social workers
9 & 10	Win-Win Communication	communication techniques with staff, parents, children.	Pediatric staff

NETWORK	NAME OF PROGRAM	BRIEF DESCRIPTION	AUDIENCE
9 & 10	Quality Improvement I Workshop	• Medical Director's Role in QA/QI • Hemodialysis Adequacy • Vascular Access Management, Interventional Nephrologist and Radiologist • Improving Hemodialysis in Network 9/10	Dialysis medical directors and staff
9 & 10	Nephrology Conference	Two-day event with meetings for physicians, nurses, technicians, social workers, dietitians, administrators.	Multi-disciplinary
11	Network 11 Annual Meeting	Educational sessions presented on pre-ESRD, professionalism, daily home hemodialysis, hemodiafiltration, pre-transplant work-up.	200 attendees, medical directors, nurse managers, administrators, dietitians, and social workers
11	Meeting the Challenges of the Pre-ESRD patient	One-day program to address optimization of pre-ESRD care, identifying the ESRD patient, early initiation of ESRD patients, options for ESRD care, managing the pre-ESRD patient in areas such as anemia, hypertension, and bone disease, and educating the pre-ESRD patient.	75 attendees included primary care physicians (family practice, general practice, and internal medicine), nephrologists, and nephrology nurses
12	Crisis, Chaos, and Conflict Resolution in the Dialysis Unit	One-day workshop demonstrating non-violent conflict resolution techniques, the need for policies to support non-violent environments in the dialysis unit, and the steps necessary before patient dismissal.	Multi-disciplinary with emphasis on Social Workers, Unit Administrators, Head Nurses, Staff Nurses, and Patient Care Technicians.
12	Current Renal Concerns; 12th Annual Business and Educational Meeting	One-day plus meeting focusing on home dialysis and including a poster session with submissions on a variety of subjects.	Multidisciplinary with over 300 renal professionals from the region in attendance
13	ESRD Spring 2000 Mentoring Workshop Series	Professional Educational Workshops.	Dialysis Administrators, Dietitians, Nurses, Social Workers and Technicians
13	ESRD Fall 2000 Mentoring Workshop Series	Professional Educational Workshops.	Dialysis Administrators, Dietitians, Nurses, Social Workers and Technicians
13	University of Central Oklahoma School of Nursing	Aspects of the Treatment of Chronic Illness.	Last year nursing students
14	Solving the Catheter Conundrum	Regional educational workshops designed to assist vascular access surgeons, nephrologists, and nurses implement CQI processes designed to decrease the reliance on hemodialysis catheters.	Vascular access surgeons, Interventional radiologists, nephrologists and nurses
14	Network #14 Annual Meeting	two day multidisciplinary educational meeting .	Multidisciplinary

NETWORK	NAME OF PROGRAM	BRIEF DESCRIPTION	AUDIENCE
14	Network #14 Orientation Classes	In-service on Network operations, forms and resources.	
15	Nevada Nephrology Conference, Quality Care in the New Millennium (in two locations)		Nephrologist, RN, LPN, PCT, MSW, RD, Vascular Surgeons
15	Facility Data Workshops (in multiple locations in Arizona, Nevada and New Mexico)		Data contacts, Administrators, MSW, Nurse Managers
15	Southwestern Nephrology Conference	Co-Sponsor	Nephrologist, RN, LPN, PCT, MSW, RD, Vascular Surgeons
15	First Annual Breckenridge High Country Chapter ANNA Meeting	Co-Sponsor	RN, LPN, PCT, MSW, RD
16	Dealing with Challenging Dialysis Patient Situations October 25, 2001, Seattle, WA; October 27, 2000 - Portland, Oregon; December 3, 2000, Spokane, WA	Three full-day workshops on dealing with challenging dialysis patient situations, were conducted. These were part of plan to assist facility staff in addressing and coping with stressful situations, aimed at increasing provider awareness of the causes of "difficult" behavior and effective approaches to resolving and/or ameliorating situations before they escalate to violent conflict or other undesirable outcomes.	RNs, MDs, MSWs, Dialysis Technicians, RDs, Patients
16	Northwest Chapter - Council of Nephrology Social Workers Spring Workshop 2000, May 18, 2000, Issaquah, WA	Presentation on the scope and responsibilities of the Network and behavioral issues encountered in the delivery of care to dialysis patients that affect patients and staff. Information packets were provided to each participant.	MSWs
16	Amgen Regional Meeting, May 16, 2000, Seattle, WA	Presentation on the HCFA Anemia Profile Reports and anemia management at Network facilities.	RNs and regional Technical Support Staff
16	Northwest Kidney Centers Quality Assessment Committee, June 21, 2000, Seattle, WA	Presented information on the history of the national Core Indicators Studies and CPM Projects, as well as Network Mortality Studies and findings to the multi-disciplinary team responsible for quality of care oversight for NKC and its satellite facilities. Network, national and system-specific data was discussed.	MDs, RNs, Administrators

NETWORK	NAME OF PROGRAM	BRIEF DESCRIPTION	AUDIENCE
16	Western Networks Regional ED/QI Meeting, August 21-23, San Diego, CA	This meeting of Networks 15,16,17, and 18 provided an opportunity to share information on Quality Improvement projects, other QI/QA activities, educational outreach, emerging policy concerns, and approaches to administering the Network contracts. The Executive Directors and QI Managers of each Network attended this session.	Network Staff, RNs, Tech Reps
16	CNSW Northwest Chapter Fall Conference, September 29, 2000, Issaquah, WA	This conference focused on the diagnosis and treatment of depression in ESRD, patient centered nephrology, and personal fulfillment in the renal setting. The featured speaker was Ramiro Valdez, PhD, Patient Services Coordinator of the ESRD Network of Texas.	MSWs
17	Improving Hemodialysis Adequacy		Facility Management and staff
17	Hemodialysis Vascular Access Multidisciplinary Collaboration		Professional Organization
17	Anemia, Adequacy, and Lab Values		CA State DHS ESRD Surveyors
17	Anemia Management in ESRD		Facility Management and staff
17	Quality Management Concepts		Facility Management and staff
17	Maintaining Your ESRD Certification	Compliance with federal, state, and Network expectations.	Facility Management and staff
17	The RESPOND Project (Renal Encouragement and Support for Patients on Dialysis)	Formal Patient Support Network for New Patients.	Facility staff
17	Transplantation Referral	Exclusionary criteria and appropriateness of referral.	Facility Management and staff
17	Requirements, Expectations and Regulations (Annual Meeting)	Preliminary review of Network quality improvement initiatives.	Facility management and staff
17	Hawaii Provider Meeting-same agenda	Preliminary review of Network quality improvement initiatives.	same
17	Crisis Management Workshops (9)	Handling difficult patients.	Facility staff
17	Sexuality in ESRD patients	How to deal with a difficult subject.	Facility staff
17/18	Dealing with Difficult Patients (3)	Non-violent therapeutic interventions for facility staff.	70 head nurses, facility staff and corporate representatives
17/18	CQI Review Classes (4)	Principles and application of quality improvement.	40 head nurses and facility staff
18	Annual Meeting & Education Conference	Day-long educational program covering current ESRD-related issues and Network activities.	300 ESRD facility staff, but primarily administrative and head nurse personnel.

APPENDIX Q
PROFESSIONAL EDUCATION MATERIALS DEVELOPED AND/OR DISTRIBUTED BY THE NETWORKS IN 2000

CATEGORY	MATERIALS
Clinical	• Survival After Acute Myocardial Infarction in Patients with End-Stage Renal Disease: Results from the Cooperative Cardiovascular Project • A Simple Co-morbidity Scale Predicts Clinical Outcomes and Cost in Dialysis Patients • Assessment of Inflammation and Nutrition in Patients with End-Stage Renal Disease • The Life Readiness Program: A Physical Rehabilitation Program For Patients on Hemodialysis • AST Guidelines for a Transplant Evaluation Model • FDA Safety Alerts about Thrombolytics • Network 4 Guidelines for Care of ESRD Patients • Hemodialysis Access Failure - A C.Q.I. Approach • Model Protocol for Management of Renal Osteodystrophy • Unit-specific reports • Summary of the National Surveillance of Dialysis Associated Diseases in the United States • TransPacific Renal Network Benchmarks • Adequacy of Hemodialysis: A summary of the 1998-2000 Project • Update of Exclusionary Criteria for Transplantation • Potassium Management in Hemodialysis Patients • Facility Information Packet & New Facility Manuals • Influenza immunization brochures • Mammography brochures • Vascular Access for Hemodialysis New Patient Education Video (English and Spanish)
Clinical Guidelines/CQI	• The Network #15 *Guidelines for Care of the ESRD Patient* • Multiple professional newsletters throughout the year • HCFA CPM Project Summary Report • HCFA dialysis adequacy brochures • NKF DOQI Guidelines • ARRT reprint and K-DOQI guidelines on vascular access project • The Vision • HCFA Performance Targets • Checklist of Indications for Continued Hemodialysis Catheter Use • MRB Recommendation for the Management of Hyperkalemia • New Facility QI Manual

CATEGORY	MATERIALS
	• CDC Infection Control Guidelines for Dialysis Facilities • Guide For Improving the Quality of Care For Dialysis Patients • Network-Specific Data from the CDC National Surveillance of Dialysis-Associated Diseases in the US • Anemia Management Update Report • 2000 CPM (Q4 1999) Northwest Renal Network Report • Water quality testing reference materials • Change from hematocrit to hemoglobin as anemia indicator • CDC updates on infectious diseases, prevalence, prevention and treatment • Northwest Renal Network Mortality Report 1997-1999 • Network Goals, 2000-2003 • Dealing with Challenging Dialysis Patient Situations: A Practical Handbook of Expert Guidelines • Information on VRE, HBV, and staffing • Federal Regulations for ESRD • Immunizations: 2000 • TransPacific Renal Network Annual QI Report • Network Seven Criteria and Standards • Clinical Indicator Summary Reports • Lone Star Bulletin Professional Newsletter • QI Update • Flu Immunization Quality Improvement Activity Resource Notebook • Hepatitis B Resource Packet • Facility Quality Improvement Progress Report Package • Network #14 Run Charts • The Guide for Improving the Quality of Care of Dialysis Patients • Vascular Access QIP "Tool Kit" • Vascular Access Tracking Forms • Anemia & Hemodialysis Adequacy Histograms/Run Charts • Facility-Specific QI Profiles • Multiple QI tools for QIP's and QI Activities • Core Indicators and CPM Study Reports and Special Population Reports
General	• Communicator, A Facility Newsletter • 1999 Annual Reports • ASN Shared Decision Making Practice Guidelines • UNOS What Every Patient Needs To Know About Transplant Booklet

CATEGORY	MATERIALS
	• Network Notes • Resource Binders • Southeastern Kidney Council Brochure • Resource Directory of Educational Materials • Treatment Agreement Guide • TransPacific Renal Network Selected Accomplishments • TransPacific Renal Network Selected Demographics • Data Forms Manual • Advance Health Care Directives • 1999 Southern California Renal Disease Council Annual Report • ESRD Consumer Rights and Responsibilities • DHHS Office of Inspector General Proposal for Creating a Safe Harbor to the Civil Monetary Statute to Allow Independent Dialysis Facilities to Pay Medicare Part B and Medigap on Behalf of Financially Needy ESRD Beneficiaries • Technical Journal References • Facility Listings • Network Seven Renal Report (newsletter) • Directory of Available Services for ESRD Patients in Nursing Home Facilities • ESRD Network 4 Emergency Preparedness Resource for Pennsylvania and Delaware Dialysis Facilities • Network Seven 1999 Annual Report • Network 8 Mission Statement & Goals • L.O.R.A.C.: Unit Self Assessment Manual for Renal Rehabilitation • Health planning and patient profile data • Background information on the Dialysis Compare website, and instructions to facilities on how to access, comment on, and correct postings for their facilities • Information on completing HCFA Forms • Data Update • Emergency Patient Wallet I.D. Cards • Preparing for Emergencies: A Guide for People on Dialysis (HCFA Pub. No. 10150) • Network 7 Policies & Procedures for Disaster Preparedness • Quality Improvement Kit (QIK Box)
Guidelines/Regulatory	• Recommendation for the Management of Disruptive and Abusive Patients • Network 4 Data Manual • HCFA Civil Rights Compliance Policy Statement

CATEGORY	MATERIALS
	• Hepatitis B Vaccine Information Statements in multiple languages • Sample Violence Policy • Long Term Care Program Forms and Instructions • Pre-Transplant Requirements of the TPRN Transplant Centers • MRB Recommendation and Final Report on Emergency Call Systems • FDA Alerts
Patient-Related Issues	• Technical corrections to the Congressional Omnibus Act of 1999 ("Safe Harbor" for Needy Patients) • NKF Annual Renal Summer Camp Directories • Working with Non-Compliant and Abusive Patients • Preparing for Emergencies: A Guide for People on Dialysis • Training Manual for Patient-to-Patient Program • Chronic Renal Disease Network Grievance Procedure • Non-Compliant-Abusive Patient Manual • Vocational Rehabilitation Counselor List • Network #14 Grievance Poster • Dealing with Challenging Dialysis Patient Situations • RESPOND Project (Peer Counseling) • Occupational/Vocational Rehabilitation Training Booklet • Patients with Special Needs Manual • Disaster planning and emergency preparedness resource materials • Sample patient/facility contracts

APPENDIX R
ASN POSTER PRESENTATIONS IN 2000 USING NETWORK DATA

NETWORK	TITLE	AUTHORS
1	Clinical Morbidity in Pediatric Dialysis Patients: Data from the ESRD Clinical Indicators Project	Andrew S. Brem, Cynthia Lambert, Connie Hill, Jenny Kitsen, Douglas G. Shemin
1	Vascular Access: Variations in New Dialysis Patients	C. Walworth, A. Friedman, D. Mesler, C. Meehan, H. Wander, D. Shemin, B. DeSoi, C. Hill, C. Lambert, J. Kitsen
5	Small Area Variations in Erythropoietin use Prior to Initiation of Dialysis in Network 5	Jeffrey C. Fink, Steven A. Blahut, Matthew R. Weir
6	The Impact of Family History of ESRD on Dialytic Survival	Barry I. Freedman, J. Michael Soucie, Barbara Kenderes, Jenna Krisher, Leland Garrett, Ralph Caruana, William M. McClellan
6	Percutaneous Venous Catheters Used for Vascular Access Are Associated with Increased Risk of Death	Stephen O. Pastan, William M. McClellan, J. Michael Soucie
6	Assessing the Impact of a Quality Improvement Effort on Dialysis Adequacy by Measuring Changes in Center Effects	Jeffrey C. Fink, Steven A. Blahut, Paul D. Light, William M. McClellan
11	A Comprehensive Analysis of Facility-Specific Renal Osteodystrophy Protocols throughout ESRD Network 11	Curtis Johnson, James McCarthy, Abel Tello, Robert Provenzano, Jan Deane
9/10	Validation of HCFA Hematocrit Data with ESRD Network Data	Michael E. Brier, Medical Review Board of ESRD Networks 9 and10
9/10	Clinical Parameter Measurements during the First 12 Months of Hemodialysis: What is the Landscape?	Emil P. Paganini, Michael E. Brier, The Medical Review Board of The Renal Network, Inc.
9/10	Validation of HCFA URR Data with ESRD Network Data	Michael E. Brier, Medical Review Board of ESRD Networks 9 and 10
All	Monitoring of Synthetic Dialysis Grafts Is Not Associated with Other Measures of Better ESRD Care - Initial Findings from the 1999 Clinical Performance Measures Project (CPM)	Donal Reddan, Preston Klassen, Lynda Szczech, Diane Frankenfield, Michael Rocco,William Owen Nephrology, DUMC, Durham, NC
All	CAPD Adequacy Data in a National Cohort Sample: The 1999 Health Care Financing Administration (HCFA) ESRD Peritoneal Dialysis Clinical Performance Measures (PD-CPM)	Michael Rocco, Michael Flanigan, Diane Frankenfield, Pam Frederick, Barbara Prowant, George Bailie
All	Cycler Adequacy and Prescription Data in a National Cohort Sample: The 1999 Health Care Financing Administration (HCFA) Peritoneal Dialysis Clinical Performance Measures (PD-CPM)	Michael Rocco, Diane Frankenfield, Pamela Frederick, Barbara Prowant, Michael Flanigan, George Bailie
All	Subcutaneous Erythropoietin Results in Lower Dose and Equivalent Hematocrit Levels among Adult Hemodialysis Patients: Results from the 1998 ESRD Core Indicators Project	William M. McClellan, Diane L. Frankenfield, Curtis A. Johnson, Michael V. Rocco, Jay B. Wish, William F. Owen
All	Hematocrit and Erythropoietin Dose Are Associated with Dose of Dialysis Among Adult Hemodialysis Patients: Results from the 1998 ESRD Core Indicators Project	William M. McClellan, Diane L. Frankenfield, Curtis A. Johnson, William F. Owen, Michael V. Rocco, Jay B. Wish
All	Vascular Access and Dose of Hemodialysis (HD): Findings from the 1999 ESRD Clinical Performance Measures (CPM) Project	P.S. Klassen, L. Szczech, D.N. Reddan, D.L. Frankenfield, M.V. Rocco, W.F. Owen

NETWORK	TITLE	AUTHORS
All	Vascular Access for In-Center Hemodialysis (HD) Patients - Initial Findings from the 1999 Clinical Performance Measures Project (CPM)	Donal Reddan, Lynda Szczech, Preston Klassen, Diane Frankenfield, Michael Rocco, William Owen, Jr.
All	Predictors of Death in Anuric Peritoneal Dialysis Patients	Michael Rocco, Diane Frankenfield, Pam Frederick, Michael Flanigan, Barbara Prowant
All	Trends in PD Prescription Practices in CAPD and Cycler Patients in the United States: The 1999 Health Care Financing Administration (HCFA) ESRD Peritoneal Dialysis Clinical Performance Measures (PD-CPM)	Michael Rocco, Diane Frankenfield, Pam Frederick, Michael Flanigan, Barbara Prowant

APPENDIX S
ADDITIONAL PUBLICATIONS AND PRESENTATIONS IN 2000

NETWORK	FORMAT	PUBLICATION OR MEETING	TITLE	AUTHORS
1	Article	AJKD, August 2000, Vol 36, No 2	Outcome Data on Pediatric Dialysis Patients From the End-Stage Renal Disease Clinical Indicator Project	Andrew S. Brem, MD, Cynthia Lambert, RN, BS, Connie Hill, RN, MS, Jenny Kitsen, BS, and Douglas G. Mesler, MD
1	Article	ARRT, October 2000, Vol. 7, No 4, Suppl 1	First Hemodialysis Access Selection Varies with Patient Activity	Amy L. Friedman, MD, Candace Walworth, MD, Cecelia Meehan, RN, CNN, Helen Wander, RN, CNN, Douglad Shemin, MD, William DeSoi, MD, Jenny Kitsen, BS, Connie Hill, RN, MS, Cynthia Lambert, RN, BS, Douglas Mesler, MD
1	Poster	Forum/HCFA Meeting in March 2000 & Annual Meeting Sept 2000	Hemodialysis Bacteremia Surveillance	Brian Cooper, MD, Connie Hill, RN, Cynthia Lambert, RN, and Jenny Kitsen, BA
1	Poster	Forum of ESRD Networks Annual Poster Session - March 2000 & Annual Meeting Sept 2000	Vascular Access: Variations in New Dialysis Patients	Amy Friedman, MD, Candace Walworth, MD, Douglas Mesler, MD, Cecelia Meehan, RN, Helen Wander, RN, Douglas Shemin, MD, William DeSoi, PhD, Connie Hill, RN, and Cynthia Lambert, RN
1	Poster	Forum of ESRD Networks Annual Poster Session - March 2000 & Annual Meeting Sept 2000	Standardized Mortality Ratios (SMR) - Do They Predict Future Mortality?	Jenny Kitsen, Nancy Carlson, Rick Coffin, and Alan Kliger, MD
1	Poster	Forum of ESRD Networks Annual Poster Session - March 2000 & Annual Meeting Sept 2000	Prioritizing and Implementing NKF-DOQI Guidelines in Networks #1 and #11	Alan Kliger, MD, William Haley, MD, Kendra Reynolds, Jan Deane, RN, Connie Hill, RN, Diane Carlson, and Jenny Kitsen
2	Poster	Forum/CMS Meeting	Network/IPRO Collaboration on a Quality Improvement Project	Sandra Waring
2	Poster	Forum/CMS Meeting	Data Compliance - 3 Day Rule	Maxine Opperman
2	Poster	Forum/CMS Meeting	Everything You Wanted to Know about the Network but didn't know who to ask: a Learning Experience for Providers and Network Staff	Deborah Halinski
2	Poster	Forum/CMS Meeting	Development of a Manual and Training Workshop for Patient Advisory Committee Members	Madeleine Crain
4	Poster	2000 HCFA/Forum Annual Meeting	Barriers to the Delivery of Adequate Hemodialysis (Pre)	Paul M. Palevsky, Margaret S. Washington, Judy A. Stevenson, Jeffrey M. Rohay, Nancy J. Dyer, Rhonda Lockett, and Shane B. Perry
4	Poster	2000 HCFA/Forum Annual Meeting	Barriers to the Delivery of Adequate Hemodialysis (Post)	Paul M. Palevsky, Margaret S. Washington, Judy A. Stevenson, Jeffrey M. Rohay, Nancy J. Dyer, Rhonda

NETWORK	FORMAT	PUBLICATION OR MEETING	TITLE	AUTHORS
				Lockett, and Shane B. Perry
4	Poster	2000 HCFA/Forum Annual Meeting	Mortality Rates in Network 4	Paul M. Palevsky, Margaret S. Washington, Judy A. Stevenson, Jeffrey M. Rohay, Nancy J. Dyer, Rhonda Lockett, and Shane B. Perry
4	Article	AART, Vol 7, No 4, Supplement 1 (October 2000)	Barriers to the Delivery of Adequate Hemodialysis in ESRD Network 4	Paul M. Palevsky, Margaret S. Washington, Judy A. Stevenson, Jeffrey M. Rohay, Nancy J. Dyer, Rhonda Lockett, and Shane B. Perry
4	Article	AART, Vol 7, No 4, Supplement 1 (October 2000)	Improving Compliance with the Dialysis Prescription as a Strategy to Increase the Delivered Dose of Hemodialysis: An ESRD Network 4 Quality Improvement Project	Paul M. Palevsky, Margaret S. Washington, Judy A. Stevenson, Jeffrey M. Rohay, Nancy J. Dyer, Rhonda Lockett, and Shane B. Perry
5	Article	New England Journal of Medicine, Nov-23, 2000, Vol. 343, No. 21	Racial Disparities in Access to Renal Transplantation ~ Clinically Appropriate or Due to Overuse or Underuse?	Arnold Epstein, et al
5	Poster	Annual Forum Poster Session, March 2000 & NW 5 Council Meeting May 2000	Facility Profile Reports	Network 5 Staff
5	Poster	Annual Forum Poster Session, March 2000 & NW 5 Council Meeting May 2000	Project-in-a-Box to Improve Adequacy of Hemodialysis	Network 5 Staff
5	Poster	Annual Forum Poster Session, March 2000 & NW 5 Council Meeting May 2000	The Use of Erythropoietin Prior to the Initiation of Dialysis and It's Impact on Mortality in New End Stage Renal Disease Patients	Jeffrey C. Fink, Steven A. Blahut, Matthew R. Weir
5	Poster	Council Meeting May 2000	1999 Mortality	Network 5 Staff
5	Poster	Council Meeting May 2000	1999-2000 Goals & Objectives - Progress	Network 5 Staff
5	Poster	Council Meeting May 2000	2000 Patients' Choice Awards	Network 5 Staff
5	Poster	Council Meeting May 2000	2000 Quality Awards	Network 5 Staff
5	Poster	Council Meeting May 2000	A Multi-Focused Approach to Improve Adequacy of Dialysis in Network 5	Network 5 Staff
5	Poster	Council Meeting May 2000	A Partnership to Improve Adequacy of Hemodialysis	Network 5 Staff
5	Poster	Council Meeting May 2000	Adequacy of Dialysis: Tools for Patient and Staff Education	Network 5 Staff
5	Poster	Council Meeting May 2000	Crisis Intervention Training	Network 5 Staff
5	Poster	Council Meeting May 2000	Data Stars	Network 5 Staff

NETWORK	FORMAT	PUBLICATION OR MEETING	TITLE	AUTHORS
5	Poster	Council Meeting May 2000	ESRD Clinical Performance Measures	Network 5 Staff
5	Poster	Council Meeting May 2000	ESRD in Cyberspace	Network 5 Staff
5	Poster	Council Meeting May 2000	Everything You Wanted to Know About Data But Were Afraid to Ask	Network 5 Staff
5	Poster	Council Meeting May 2000	Findings from 1999 Surveillance of Incidence of Infection, Hospitalization Rates, IV Antimicrobial Use and Vascular Access Type	Network 5 Staff
5	Poster	Council Meeting May 2000	Hemodialysis Clinical Performance Measures, Network 5, 4 Years Experience	Network 5 Staff
5	Poster	Council Meeting May 2000	How to Improve Network Forms Submission	Network 5 Staff
5	Poster	Council Meeting May 2000	Just the Facts	Network 5 Staff
5	Poster	Council Meeting May 2020	Living Donor Transplant: A Quality Improvement Project	Network 5 Staff
5	Poster	Council Meeting May 2013	Quality Improvement Project to Increase Influenza Vaccination	Network 5 Staff
5	Poster	Council Meeting May 2005	SIMS (Standard Information Management System)	Network 5 Staff
5	Poster	Council Meeting May 2019	United States Renal Data System: SMR~SHR~STR	Network 5 Staff
5	Presenta-tion	American Health Quality Association, Annual Technical Sessions, February 2000	A Partnership to Improve the Adequacy of Hemodialysis	Network Staff
8	Article	New England Journal of Medicine, Nov 23, 2000, Vol 343, No. 21	Racial Disparities in Access to Renal Transplantation: Clinically Appropriate or Due to Overuse or Underuse?	Arnold Epstein, John Ayanian, Joseph Keogh, Susan Noonan, Nancy Armistead, Paul Cleary, Joel Weisman, Jo Ann David Kasdan, Diane Carlson, Jerry Fuller, Douglas Marsh
9&11	Article	ikidney.com - August 2000	Communicating As A Couple	Kathi Niccum
9&10	Article	Advances in Renal Replacement Therapy, Vol7, Number 4, supplement, October, 2000	Wheels Within Wheels: Creating a Circle of Knowledge Through Communication	Kathi Niccum, Dolores Perez
9 & 10	Article	ARRT	Managing the Lifeline: Pre-emptive Access Management for Better Outcomes for Hemodialysis Patients and Programs	Jeannette Cain, Marcia Silver, M.D., for MRB of Network 9/10
9 & 10	Article	ARRT	Use of Transplant Status Codes to Monitor Access to Kidney Transplantation	Ash Sehgal, M.D., Rick Coffin & Jeannette Cain
9 & 10	Article	ARRT	Adequacy of Peritoneal Dialysis: A Quality Improvement Project of The Renal Network,	Mike Brier, Ph.D., Karen Erbeck, M.D.

NETWORK	FORMAT	PUBLICATION OR MEETING	TITLE	AUTHORS
			Inc. (Illinois, Indiana, Kentucky and Ohio)	
11	Article	Advances in Renal Replacement Therapy, Vol 7 No. 4	Unraveling the Realities of Vascular Access: The Network 11 Experience	Anatole Besarab, Mark Adams, Sheri Amatucci, Debbie Bowe, Jan Deane, Kelly Ketchen, Kendra Reynolds, Abel Tello
11	Article	New England Journal of Medicine, Nov 23, 2000, Vol 343, No. 21	Racial Disparities in Access to Renal Transplantation: Clinically Appropriate or Due to Overuse or Underuse?	Arnold Epstein, John Ayanian, Joseph Keogh, Susan Noonan, Nancy Armistead, Paul Cleary, Joel Weisman, Jo Ann David Kasdan, Diane Carlson, Jerry Fuller, Douglas Marsh
12	Poster	Forum meeting 2000	Hepatitis B Vaccination QIP	Sarah Yelton, Cathy Long
12	Poster	Annual Meeting, Sept. 2000	Hepatitis B Vaccination QIP	Sarah Yelton, Cathy Long
12	Article	Advances In Renal Replacement Therapy, October 2000	Network 12 Hepatitis B Vaccination Quality Improvement Program: An Educational Program Directed At Physicians, Staff, and Patients	Daniel Coyne, Lisa Taylor, Sarah Yelton, Cathy Long, Steve Preston
13	Poster	Forum 2000	Quality Performance Measures	Linda Duval
13	Poster	Spring 2000 Workshops: Tulsa, Little Rock, Lafayette	Quality Performance Measures	Linda Duval
13	Poster	American Indian Kidney Conference 2000	ESRD Network 13: Who, What, Where, Why and How…	Linda Duval, Patrick Murphy
14	Article	ARRT October 2000	Mission Possible: Vascular Access-Decreasing the Use of Catheters in the Texas Hemodialysis Community	Alex Rosenblum, Glenda Harbert, Bobbie Knotek
14	Poster	NKF 2000	Mission Possible: Vascular Access-Decreasing the Use of Catheters in the Texas Hemodialysis Community	Alex Rosenblum, Glenda Harbert, Bobbie Knotek
15	Article	Advances in Renal Replacement Therapy, Vol 7, No 4, Suppl 1	Influenza Immunization Rates in the Intermountain End-Stage Renal Disease Network (Network 15)	
15	Poster	HCFA/Forum Meeting	1998 Influenza Immunization Rates in Network 15 Pre-Dialysis Care In Wyoming Peritoneal Dialysis Adequacy QIP	
16	Poster	Forum Annual Meeting, March 25, 2000	Increased Dialyzer Efficiency and Reuse with a New Dialysate Containing Citric Acid	Suhail Ahmad, MD; Robin Callan; James J. Cole; Christopher Blagg, MD
16	Poster	Forum Annual Meeting, March 25, 2000	Mortality by Dialysis Facility Profit Status	Jim Buss, MA, CDP
17	Article	AART Vol 7 No 4 Suppl 3	"Improving Adequacy of Hemodialysis in	

NETWORK	FORMAT	PUBLICATION OR MEETING	TITLE	AUTHORS
			Northern California: A Final Project Report	
17	Article	AART Vol 7 No 4 Suppl 3	"Improved Hepatitis B Vaccination Rates in ESRD Patients in California	
17/18	Poster	HCFA/Forum of ESRD Networks, March 2000	"Improving Hepatitis B Vaccination Rates in ESRD Patients in California"	Joann Brown, RN, Vickie Peters, RN
18	Poster	HCFA/Forum of ESRD Networks, March 2000	"Emergency Call Systems: A Quality Indicator?"	Vickie Peters, RN, Cecilia Torres, RN
17/18	Article	AART, October 2000	"Improving Hepatitis B Vaccination Rates in ESRD Patients in California"	Joann Brown, RN, Vickie Peters, RN

APPENDIX T

VOCATIONAL REHABILITATION

PATIENTS AGED 18-55 YEARS AS OF DECEMBER 31, 2000

NETWORK	Number of Patients Age 18-55	Referrals to Vocational Rehabilitation	Patients Employed or Attending School Full or Part-time	Facilities Offering Dialysis Shift after 5 pm
1	2,672	134	1,254	63
2	6,438	543	2,166	118
3	4,190	516	1,555	62
4	4,313	359	1,038	65
5	6,198	930	1,759	52
6	10,030	1,106	2,015	30
7	5,391	464	1,206	54
8	6,757	262	1,050	24
9	5,465	732	1,501	75
10	2,667	210	715	34
11	5,204	487	1,335	59
12	3,754	422	2,058	27
13	4,999	530	1,010	48
14	9,275	2,240	738	21
15	4,247	523	1,159	54
16	2,471	317	846	49
17	5,130	307	1,218	46
18	6,615	1,743	1,077	73
TOTAL	**95,816**	**11,825**	**23,700**	**954**

Source: Networks 1- 18 Annual Reports, 2000

APPENDIX U
LIST OF ACRONYMS

ACRONYM	EXPLANATION
BOD	Board of Directors
CAPD	Continuous Ambulatory Peritoneal Dialysis
CCPD	Continuous Cycling Peritoneal Dialysis
CQI	Continuous Quality Improvement
DMMS	Dialysis mortality and Morbidity Study
DOQI	Dialysis Outcomes Quality Initiative
EDEES	ESRD Data Entry and Editing System
ESRD	End Stage Renal Disease
CMS	Centers for Medicare and Medicaid Services
HCQIP	Health Care Quality Improvement Program
HD	Hemodialysis
MRB	Medical Review Board
PRO	Peer Review Organization
QIP	Quality Improvement Project
SIMS	Standard Information Management System
SOW	Statement of Work
SSA	State Survey Agency
URR	Urea Reduction Ratio
USRDS	United States Renal Data System

This document was prepared by the Forum of ESRD Networks Clearinghouse Office, under contract with the Centers for Medicare and Medicaid Services (CMS Contract #500-00-NW15). The contents presented do not necessarily reflect CMS policy.