ESRD NETWORK 6
2007 ANNUAL REPORT

The Southeastern Kidney Council is under contract
HHSM 500-2006-NW006C with the Centers for Medicare & Medicaid Services
in Baltimore, Maryland.

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PREFACE

On behalf of the Southeastern Kidney Council (ESRD Network 6) Board of Directors, supporting Committees and staff, it is my privilege to submit and endorse the 2007 Annual Report.

The Southeastern Kidney Council staff and Committees have actively demonstrated the mission of the Network, "To improve the lives of people with or at risk for End Stage Renal Disease by promoting and advancing quality of care."

This report summarizes the activities, projects and data of the Southeastern Kidney Council from January 1, 2007 – December 31, 2007. I encourage you to read this report in its entirety, which illustrates the Network's Core Values:

- *Patient and Family Centeredness*
- *Commitment to Excellence*
- *Knowledge*
- *Respect*
- *Continuous Improvement*

The Southeastern Kidney Council is committed to achieving the CMS National Goals by collecting patient and facility specific data, thus improving quality of care. Network 6 collaborates with facility staff to ensure achievement of the goals by providing education and technical assistance.

For additional information, visit www.esrdnetwork6.org or contact the Network office at (919) 855-0882.

Leland E. Garrett, Jr., MD, FACP, FASN
Chairperson, Board of Directors

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INTRODUCTION

This report is submitted as an annual contract deliverable by the Southeastern Kidney Council, Inc., the Centers for Medicare & Medicaid (CMS) contract for End Stage Renal Disease (ESRD) Network 6, covering Georgia, North Carolina, and South Carolina. The report covers the contract period January 1, 2007 – December 31, 2007. Network 6 encourages facilities to utilize this information in your quality improvement activities. The annual report contains data for 2007, which should be utilized by facilities for comparing their facility with facilities across the Network and United States.

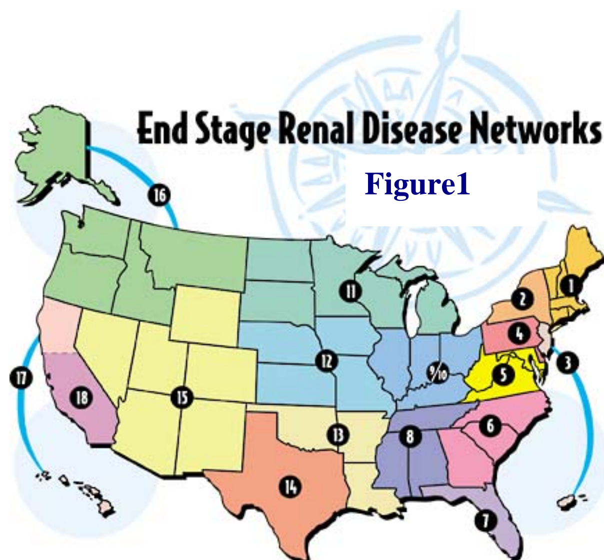


Figure1

Network Description

The ESRD Networks were established in 1976, four years after United States Congress extended Medicare coverage to individuals with ESRD. Currently, the United States is divided into 18 ESRD Networks as shown in Figure 1. Network 6 covers Georgia, North Carolina, and South Carolina.

General Population

The general population in the Network 6 area has grown over the past years. According to the United States Census as of July 1, 2007, the total population of the Network 6 area is 23,013,491, representing 7.6% of the United States population. Georgia's population has increased by 16.6%, North Carolina's has increased by 12.6%, and South Carolina's has increased by 9.9% from April 1, 2000 to July 1, 2007. Projections estimate Network 6 population to increase from 2000-2030 by 42.3%.

Nearly half of the prevalant patients in Network 6 are aged 45-64, known typically as "Baby Boomers." This population born following World War I have an increasing effect on the health care population. Persons over 65 years of age represent approximately 11.6% of the Network 6 area.

The average median income is $40,999 compared to United States median income of $44,334. Persons living below poverty encompass 14.7% of the population, compared to nationally of 12.7%.

Table 1 below details racial and cultural demographics of persons in the Network 6 area. Race estimates are divided in the following six categories: White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, and Two or More Races. Hispanic or Latino origin refers to people of Mexican, Puerto Rican, Cuban, Central or South American, or other Hispanic origin. People of Hispanic origin may be any race. Race and Hispanic origin are separate concepts, the racial categories of White, Black, American Indian and Alaska Native, Asian, and Pacific Islander all contain some people of Hispanic origin.

Table 1: General Population Demographics				
	GA	NC	SC	US
White	65.8%	74.0%	68.5%	80.1%
Black	29.9%	21.7%	29.0%	12.8%
Asian	2.8%	1.9%	1.1%	4.4%
American Indian or Alaska Native	0.3%	1.3%	0.4%	1.0%
Native Hawaiian or other Pacific Islander	0.1%	0.1%	0.1%	0.2%
2 or more races	1.1%	1.1%	0.9%	1.6%
Hispanic or Latino origin	7.5%	6.7%	3.5%	14.8%

Prevalence and Incidence

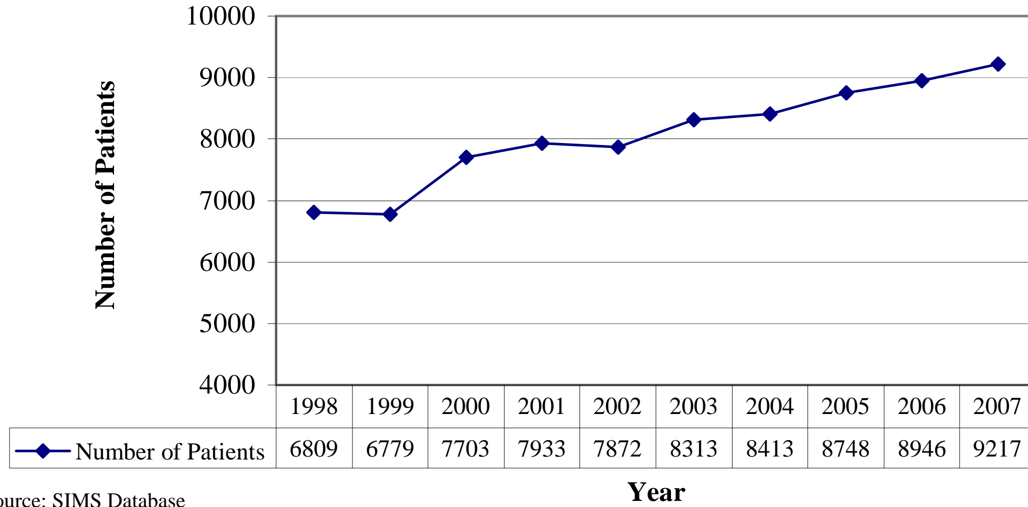
As of December 31, 2007, there were 34,321 dialysis patients served in the Network 6 area, which represents a 4.2% increase since 2006. There were 9,217 new ESRD patients and 6,642 deaths in 2007. As of December 31, 2007, approximately 8,000 patients were living in the Network area with a functioning kidney transplant. Table 2 cannot be compared to the CMS facility survey because the CMS Facility Survey is limited to dialysis patients receiving outpatient services from Medicare approved dialysis facilities. This table includes 26 patients treated in facilities not yet approved by Medicare as of 12/31/2007.

Table 2 shows the change in the Network 6 dialysis population by each state in the Network.

Table 2: Change in Prevalent Dialysis Population by Year						
Dialysis Population by State Served		**2003**	**2004**	**2005**	**2006**	**2007**
Network 6	@ 12/31	28,980	30,096	31,539	32,892	34,321
	% Increase	4.4%	3.8%	4.8%	4.3%	4.2%
Georgia	@ 12/31	11,869	12,208	12,845	13,489	14,243
	% Increase	4.7%	2.9%	5.2%	5.1%	5.6%
North Carolina	@ 12/31	11,009	11,451	12,027	12,496	12,938
	% Increase	3.1%	4.0%	5.0%	3.9%	3.6%
South Carolina	@ 12/31	6,102	6,437	6,667	6,907	7,140
	% Increase	6.3%	5.5%	3.3%	3.6%	3.4%
Source: SIMS Database						

As shown in Figure 2, there has been a steady increase in incidence over time, from 6,809 patients in 1998 to 9,217 patients in 2007.

Figure 2: Incidence Patients over Time



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Number of Patients	6809	6779	7703	7933	7872	8313	8413	8748	8946	9217

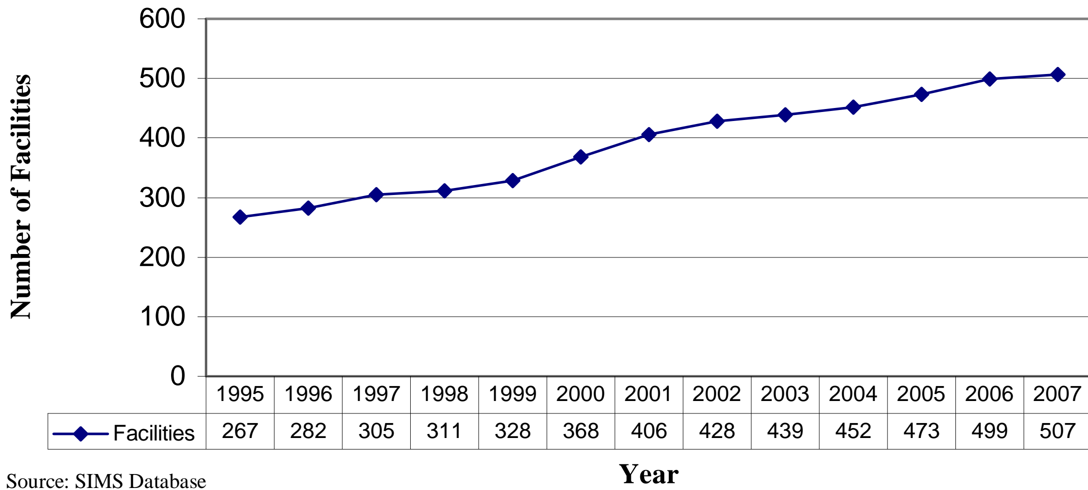
Source: SIMS Database

ESRD Facilities

At the end of 2007, Network 6 had 521 Medicare certified ESRD facilities, including 507 dialysis facilities, 10 transplant facilities and four Veterans Administration facilities. The breakdown of facility type by treatment modality options is below:

Figure 3 shows the growth of dialysis facilities in Network 6 over the years. The number of dialysis facilities has nearly doubled in the past 12 years. Figure 4 shows the distribution of dialysis facility affiliation.

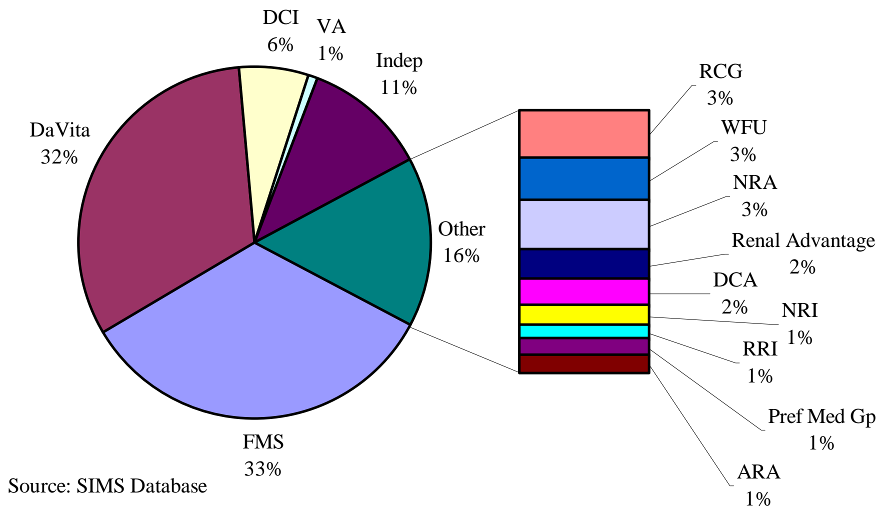
Figure 3: Network 6 Dialysis Facilities Over Time



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Facilities	267	282	305	311	328	368	406	428	439	452	473	499	507

Source: SIMS Database

Figure 4: Network 6 Dialysis Facility Affiliations



Source: SIMS Database

Network Structure

The Southeastern Kidney Council is comprised of Network staff and is governed by the Board of Directors. Guided by the leadership of the Board of Directors, the Administrative Liaison Committee, Medical Review Board, Consumer Committee and Data Committees help support CMS goals and contract requirements.

Staffing

Experienced professionals in Administration, Quality Improvement and Information Management staff the Southeastern Kidney Council to ensure the CMS contract requirements are met.

Jenna Krisher, Executive Director

Ms. Krisher directs the organization's overall performance and initiatives in adherence to all Network contract requirements as directed by CMS. She reports directly to the Board of Directors and acts as a liaison between the Board of Directors and Standing Committees. Ms. Krisher serves as the primary CMS liaison for the Southeastern Kidney Council.

Chris Gevertz PHR, MBA, Director of Operations, Administration Department

Ms. Gevertz oversees the office operations and manages the Administrative Department. She administers the Southeastern Kidney Council's financial accounting and operational functions in support of the CMS contract, budget and corporate requirements. Ms. Gevertz is the company's Plan Administrator for Health Care and Retirement Benefits.

Amy Williams, Administrative Manager, Administration Department

Ms. Williams serves as the primary coordinator for educational workshops and meeting planning. She provides key administrative support to departmental directors. Ms. Williams prepares and edits various contract deliverables to include the Quarterly Progress and Status Report and Annual Report. She also is responsible for the editing and distribution of the Network's newsletters, *Communicator* and *Renal Health News*.

Jane Dickens, Office Assistant, Administration Department

Ms. Dickens provides general office support across departments. She is primarily responsible for collection and distribution of incoming and outgoing mail and faxes. Ms. Dickens maintains office equipment, to include fax machines, copiers, etc. She assists the Director of Operations in overseeing inventory and supply requests.

Margo Clay MIS, Director of Information Management, Information Management Department

Ms. Clay oversees the Information Management Department. She is responsible for administering all Network contract data tracking and reporting elements. Ms. Clay is the Security Point of Contact for the Network. She oversees the accuracy and timely submission requirements of patient data to CMS.

Dee Tyburski, Information Systems Specialist, Information Management Department

Ms. Tyburski functions as the technical support contact for the Network. She is the primary contact for VISION for dialysis facilities. Ms. Tyburski processes patient and provider data

entry. She monitors facility data accuracy and timeliness and conducts necessary reconciliations to ensure accuracy of data.

Wanda Boddie, Information Management Specialist, Information Management Department
Deborah Jackson, Information Management Specialist, Information Management Department
Ms. Boddie and Ms. Jackson process patient and provider data entry. They monitor facility data accuracy and timeliness and conduct necessary reconciliations to ensure accuracy of data. They create and maintain database files to perform data analysis and validation.

Leighann Sauls RN, CDN, Director of Quality Improvement, Quality Improvement Department
Ms. Sauls oversees the Quality Improvement Department, which includes Patient Services. She designs and implements quality improvement projects and activities as required by the Network contract, including assistance to facility staff in implementation of internal quality improvement programs, and development of educational materials and workshops. Ms. Sauls is the primary liaison for the Medical Review Board, which coordinates quality improvement project initiatives and oversees resolution of patient complaints and grievances.

Maura McCann RN, BS, CNN, Quality Improvement Coordinator, Quality Improvement Department
Ms. McCann assists with the development of educational materials, QI projects and patient grievances. She conducts Focused Review and technical assistance with facilities as identified by the MRB. Ms. McCann coordinates data collections for Clinical Performance Measures, lab data collection and other special studies and initiatives.

Sammy Bailey LMSW, CACII, Patient Services Specialist, Quality Improvement Department
Ms. Bailey handles incoming patient complaints and grievances and facility-related concerns. She serves as primary liaison to state agencies for complaint and grievance issues. Ms. Bailey coordinates the Consumer Committee, which develops patient resource materials and initiatives in support of patient education.

Committees

One of the greatest strengths of the ESRD Network program is the expertise and guidance provided by the volunteers serving on Boards and Committees. These dedicated ESRD patients and nephrology professionals identify regional concerns and ideas for projects. The Network staff works closely with these volunteers to design and implement programs most beneficial to the patients in the area. The Network has numerous procedures in place to address any potential conflicts of interest, which include having all volunteers sign confidentiality and conflict of interest statements and having staff blind all materials to ensure unbiased review and discussion.

Network Council

The Network Council is made up of one representative from every dialysis and transplant center in the Network plus the chair of the Consumer Committee. The members serve as liaisons between the Network and the providers, offer input on Network activities, and elect the members of the Board of Directors. The Network invites all members to an annual Council meeting.

Board of Directors

The Board of Directors (BOD) manages and governs the business of the Southeastern Kidney Council. They are responsible for hiring the Executive Director, appointing members of the Medical Review Board and approving the Southeastern Kidney Council's work plans and budgets.

The Network Council elects the Board of Director committee members. The Network By-laws require the committee to have a well-balanced composition of Nephrology Nurses, Social Workers, Nephrologists, Consumers and Administrators. The chairpersons of the Medical Review Board, Consumer Committee and Data Committee are chosen from the Board of Directors. The Board of Directors met face-to-face twice in 2007 with the following accomplishments and activities:

- Elected members to the 2007-2009 Medical Review Board
- Evaluated Executive Director
- Provided financial and program oversight for the Network contract
- Reviewed and approved Medical Review Board and Committee activities and reports
- Reviewed and made changes to the Southeastern Kidney Council Bylaws
- Reviewed current Statement of Work
- Appointed Consumer Committee Chairperson
- Reviewed Emergency Preparedness South Carolina Contract and sent to CMS for approval
- Approved the recipient of the Chuck Brown Memorial Award
- Reviewed Network Internal Quality Improvement plan and outcomes

2007 Board of Directors		
Name	**Location**	**Membership**
Leland E. Garrett, Jr. MD, FACP, FASN	Raleigh, NC	Chairperson
Kaleem Ahmed MD	Commerce, GA	Nephrologist
Neil Caldwell	Raleigh, NC	Consumer
Ralph Caruana MD	Augusta, GA	Past-Chair
Marshia S. Coe RN, BSN	Winston-Salem, NC	NC Vice Chair
Rhonda L. Cox LMSW	Conyers, GA	Social Worker
Joetta Cox MSW	Kinston, NC	Social Worker
Bettye Donaldson RN, BSN, MaHRM	Atlanta, GA	Nurse and Facility Administrator
Barry Freedman MD	Winston-Salem, NC	Data Committee Chairperson

2007 Board of Directors		
Name	**Location**	**Membership**
Veronica Garner	Kinston, NC	Patient Care Technician
Bonita B. Guilford	Cumming, GA	Consumer Committee Co-Chair
Sharon L. Haney RN	Winston-Salem, NC	Nurse and Facility Administrator
Carlos O. Martinez MD	Macon, GA	Nephrologist and Medical Director
Pearl Magovern MSW	Winston-Salem, NC	Transplant Social Worker
Jennette Morgan RD	Goose Creek, SC	Renal Dietitian
Katrina Nelson RN, BSN	Simpsonville, SC	Administrator
Richard Paul MD	Hickory, NC	MRB Chairperson Nephrologist and Medical Director
Catherine Phillips RN, CNN	LaGrange, GA	Nurse and Facility Administrator
Noreen Rogers	Jonesboro, GA	Consumer Family Member Consumer Committee Co-Chair *(Resigned October 2007)*
Gwyneth Taylor RN, CNN	Newnan, GA	GA Vice Chair
Brenda Thrasher FNP-C	Charlotte, NC	Transplant Nurse
Jim Wood MD	Charlotte, NC	Nephrologist
Shirley Yoakum RN, CNN	Port Royal, SC	SC Vice Chair

Administrative Liaison Committee

The Administrative Liaison Committee is responsible for coordinating the administrative management of the Network. The committee is comprised of four members, to include three vice chairs from each state in the Network.

2007 Administrative Liaison Committee		
Name	**Location**	**Membership**
Gwyneth Taylor RN, CNN	Newnan, GA	GA Vice Chair
Marshia S. Coe RN, BSN	Winston-Salem, NC	NC Vice Chair
Shirley Yoakum RN, CNN	Port Royal, SC	SC Vice Chair
Katrina Nelson RN, BSN	Simpsonville, SC	Secretary

Consumer Committee

The Consumer Committee is composed of patients, family members and nephrology professionals in the Network region. The Consumer Committee is composed of patients, family members, and facility staff across the Network. The function of this committee is to provide a consumer voice to the Board of Directors and Medical Review Board regarding quality of care, patient grievances, patient rights, and Network role. The Consumer Committee is involved in developing and implementing the Network's grievance procedure and patient educational materials. This committee met face-to-face three times in 2007 with the following accomplishments and activities:

- Proposed changes to the Bylaws and Election Process
- Reviewed and edited the Chuck Brown Memorial Award application
- Selected the 2007 Chuck Brown Memorial Award Recipient
- Elected the Consumer Committee
- Edited and reviewed the Satisfaction Survey process
- Discussed topics for patient workshops and recommended speakers
- Wrote and suggested articles for patient newsletter, *Renal Health News*
- Designed poster to be displayed in facility waiting room on ESRD Education and Treatment Options
- Reviewed Disaster Preparedness conference call agenda and discussed patients role
- Provided orientation to new Consumer Committee members inclusive of:
  - Networks role
  - Complaint and Grievance process
  - State Survey agency role
    - Guest Speaker: Kay Cuaton RN

2007 Consumer Committee		
Name	**Location**	**Membership**
Bonita B. Guilford	Cumming, GA	Consumer Committee Co-Chair
Noreen Rogers	Jonesboro, GA	Consumer Family Member Consumer Committee Co-Chair
Carl Brooks BA	Covington, GA	Consumer
Jennifer Graves	Mebane, NC	Consumer
George Harper M.Ed., Ed.S	Rome, GA	Consumer, *Discontinued August 2007*
John Haynes CPA	Mount Airy, NC	Consumer
Pearl Fu Magovern MSW	Winston Salem, NC	Transplant Social Worker
Dixie Moncus	Olin, NC	Consumer, *Began August 2007*
Mary Claire Montilus	Atlanta, GA	Consumer, *Discontinued August 2007*
Deborah Moyé	Atlanta, GA	Consumer, *Began August 2007*
Missy Parks RN	Pauline, SC	Dialysis Nurse
Omega Powell	Wedgefield, SC	Consumer, *Discontinued August 2007*
John Robinson	Sumter, SC	Consumer

2007 Consumer Committee		
Name	**Location**	**Membership**
Richard Rogers	Jonesboro, GA	Consumer, *Discontinued August 2007*
Elizabeth Simmons	St. Helena Island, SC	Consumer
Thomas Taylor	Smithfield, NC	Consumer, *Discontinued August 2007*
Willoughby Taylor	Hickory, NC	Consumer
Wayne Welborn	Raleigh, NC	Consumer, *Discontinued August 2007*

Medical Review Board

The Medical Review Board is primarily responsible for overseeing Quality Improvement projects and activities by reviewing performance data, selecting intervention facilities, and monitoring the progress of each facility in improving the quality of care provided to its patients. Clinical Performance Measures and other data are used to evaluate the overall quality of care. This committee provides technical assistance, mentoring, educational materials and workshops. The Medical Review Board makes suggestions and provides support on difficult grievance situations. The Medical Review Board and Consumer Committee work together to develop outreach materials for patients, family members and facility staff.

The Medical Review Board is geographically and professionally diverse, including Nephrology Nurses, Physicians, Social Workers, Dietitians and Consumers.

The Medical Review Board met three times in 2007 and accomplished the following:

- Formulated the 2007-08 Quality Improvement Work Plan
- Chose Focused Review Facilities for Catheter, Fistula, Anemia and Adequacy based on CPM, Lab Data and Fistula First Data
- Developed MRB subgroups to review Focused Review data and provide necessary technical assistance
- Developed adequacy, anemia, catheter reduction and fistula algorithms to assist facilities in collecting data and identifying root causes for low performance
- Developed “Best Practices” template for Focused Review facilities to collect “working interventions” and “spread” this information to other providers
- Discussed data collection issues with the Safe & Timely Immunizations Coalition (STIC) project and resolution
- Chose intervention facilities based on immunization data
- Supervised the data collection from STIC intervention facilities
- Analyzed Involuntary Discharge data to assess for trends
- Reviewed all complaints and grievances and provided technical assistance where necessary
- Reviewed the facility-specific Vocational Rehabilitation reports
- Set the following quality goals:

- Adequacy Goal: 90% of facilities will reach the CMS goal of 80% of patients with URR ≥65%
- Anemia Goal: 95% of facilities will reach the CMS goal of 75% of patients with HgB ≥11
- Stenosis Monitoring Goal: 100% of patients with an AVG will have stenosis monitoring (same as CMS goal)
- Catheter Goal: <10% prevalent patients have a catheter (same as CMS goal)
- Immunization (inclusive of Hepatitis B, Pneumococcal, and Influenza): 90% of patients will be immunized

2007 Medical Review Board		
Name	**Location**	**Membership**
Richard V. Paul MD	Hickory, NC	Chairperson
Vidalia Addy BA, MA, M.Div, Ph.D	Rex, GA	Consumer
Cynthia Allison	Lithonia, GA	Consumer
Janet Barnett PA-C	Augusta, GA	Transplant Coordinator
Milos Budisavljevic MD	Charleston, SC	Nephrologist
Linda Clapper LMSW	Lawrenceville, GA	Social Worker
Celine Codd RN, BSN, CNN	Fairview, NC	Administrator
Marshia S. Coe RN, BSN	Winston-Salem, NC	Administrator
John Haynes CPA	Hickory, NC	Consumer
Maurice Kaiser RN	Bamberg, SC	Dialysis Nurse
Janice Lea MD	Atlanta, GA	Nephrologist
William McClellan MD	Atlanta, GA	Non-Voting Ad Hoc Member
Sherry Medford RD, MS, LD	Florence, SC	Dietitian
John Ross MD	Bamberg, SC	Vascular Surgeon
Joseph Russell MD	Wilson, NC	Nephrologist
Robert Shay MD	Martinez, GA	Nephrologist

CMS NATIONAL GOALS AND NETWORK ACTIVITIES

Summary

During 2007, Network 6 continued efforts to meet the CMS national goals detailed below. CMS specifies five primary goals for each Network contract. The goals effective July 1, 2006 – June 30, 2009 for all ESRD Networks are:

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

2. Improve the independence, quality of life, and rehabilitation (to the extent possible) of individuals with ESRD through support for transplantation, use of self-care modalities (e.g., peritoneal dialysis, home hemodialysis), and in-center self-care, as medically appropriate, through the end of life.

3. Improve patient perception of care and experience of care, and resolve patients' complaints and grievances.

4. Improve collaboration with providers and facilities to ensure achievement of goals 1 through 3 through the most efficient and effective means possible, with recognition of the differences among providers (independent, hospital-based, member of a group, affiliate of an organization, etc.) and the associated possibilities/capabilities.

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

CMS Goal #1: Improve the quality and safety of dialysis-related services provided for individuals with ESRD

The CMS contract requires Networks to conduct the following Quality Improvement (QI) projects and activities:

1. Increase the use of arteriovenous fistulas in prevalent hemodialysis patients through the Fistula First Program

2. Facilitate Quality Improvement among dialysis providers to improve care in one or more of the following areas:
    - Adequacy of dialysis
    - Anemia management
    - Decreased catheter usage
    - Stenosis monitoring

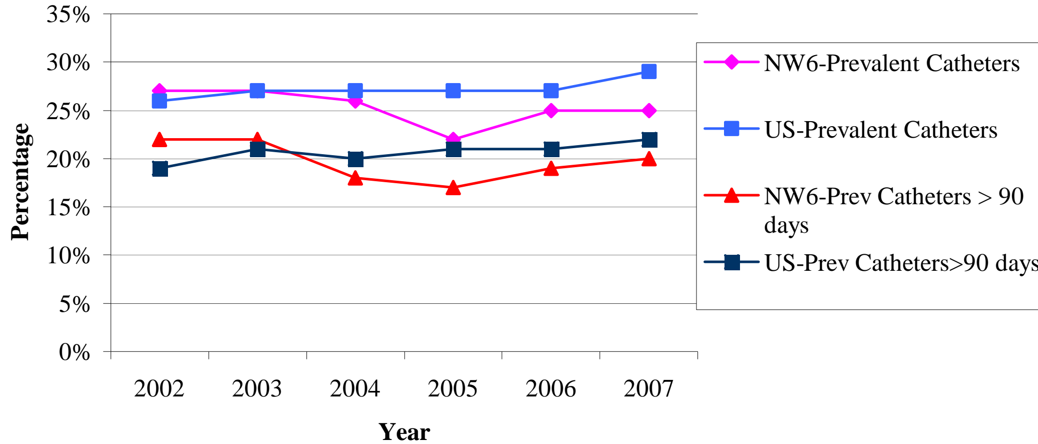
3. Develop one or more specific QI Projects that advance the purpose and strategic goals of the ESRD Network Program and are directly aligned with the areas of most need and potential impact for quality improvement within the Network area. Networks may select one or more topics from the pre-approved list below or request CMS approval for another topic area:
    - Adequacy of Hemodialysis
    - Adequacy of Peritoneal Dialysis
    - Anemia Management
    - Vascular Access CPMs
    - Nutritional status
    - Hemodialysis reuse
    - Complaints/grievances
    - Infection control
    - Immunizations
    - Patient safety, e.g., medical injuries and/or medical errors
    - Bone disease
    - Transplantation
    - Patient experience of care
    - End-of-life care planning
    - Mental health services/counseling
    - Self-care (e.g., home therapies and/or in-center self-care)
    - Vocational rehabilitation, volunteerism, and/or employment

4. Assist ESRD providers/facilities (either individually or in groups) in the development and implementation of Quality Assessment and Improvement Projects (QAIPs) to improve their patient care processes and outcomes, targeting facilities with poor performance.

Improving vascular access has been a primary Network 6 activity since 2002 when the Medical Review Board (MRB) identified catheter reduction as the QI focus that would most improve patient care and outcomes. Catheter use is associated with a significantly increased risk of death in hemodialysis patients. Figure 5 shows that we were able to

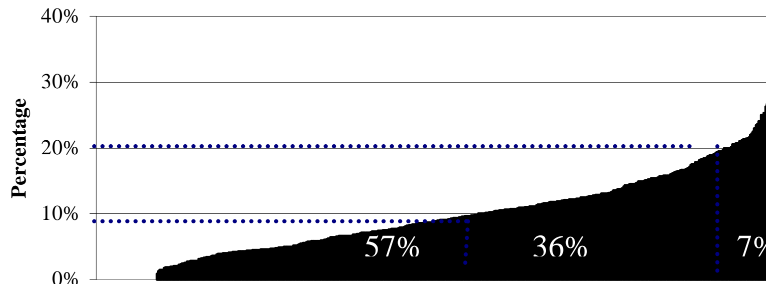
reduce our catheter rates and maintain a rate below the national average. The catheter rate has risen slightly and the MRB will focus on this in the next QI work plan.

Figure 5: Catheter Use in Network and US



In 2007, we continued catheter reduction through Focused Review. Data for December 2007 shows that the majority (57%) of Network 6 providers met the KDOQI goal of fewer than 10% long-term catheters. Of those, 44 facilities (9%) had no long-term catheters in place in December. Network 6 has 7% of facilities with catheter rates greater than 20% and facilities are selected from this group for Network Focused Review Intervention, which includes providing technical assistance, education and MRB review and feedback.

Figure 6: Prevelant Catheters > 90 Days by Network 6 Facilities December 2007



Source: Fistula First Dashboard

Network 6 Facilities

AV Fistulas are the preferred vascular access and Network 6 spent significant resources in 2007 to work with facilities to improve their rates. We increased prevalent fistula use by 6.7% from January 2007 to December 2007 with the average facility fistula rate

improving from 41.8% to 45.2%. The incident fistula placement rate rose 3.7% in 2007. Interventions included technical assistance, Network-wide educational programs, Focused Review and fostering QI at the local level. Despite these efforts, Network 6 remains in the lowest quartile for AVF rates.

Recognizing the need for an aggressive approach to improve outcomes, Network 6 selected 323 (68%) facilities for intervention and provided education and technical assistance to help them identify and improve their root causes (see Appendix A). Through this project, the Network identified the primary reason for low AV Fistula rates to be a high rate of functioning grafts. The Fistula First dashboard shows 30% of Network 6 patients dialyzing via graft. Network 6 is working with facilities to convert their grafts to fistulas as the grafts fail. This is a slow progression of improvement since grafts can function for many years. Network 6 is also working with the Georgia Medical Care Foundation to increase incident fistula placement with selected facilities in Georgia. Network 6 will continue to address reduced graft placement to increase fistula placement in the next QI work plan.

Figure 7

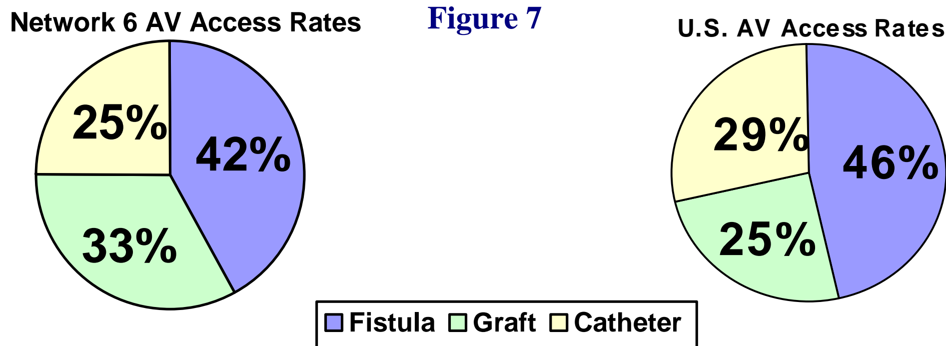
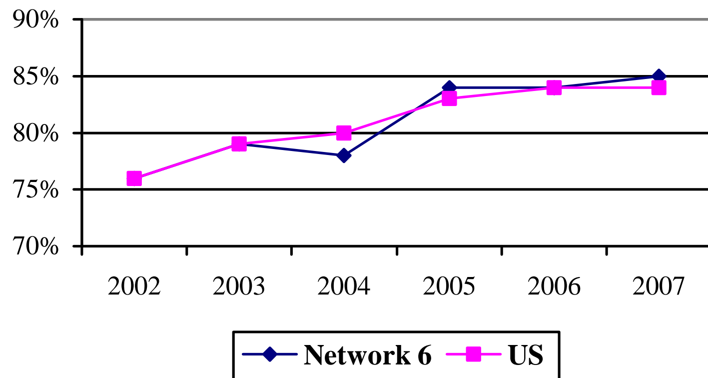


Figure 8: Patients with Hgb > 11% gm/dL

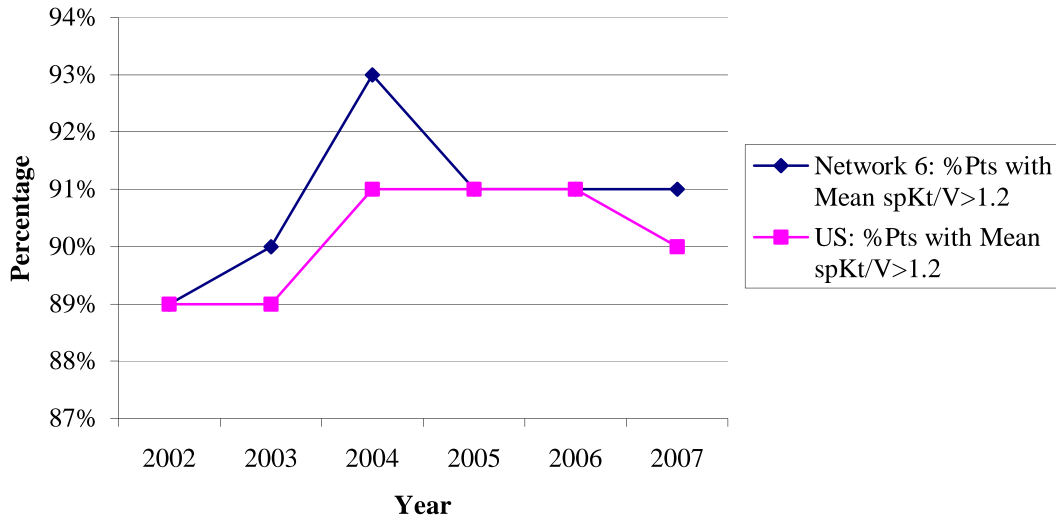


The other QI areas that Network 6 chose for the 2007 work plan were hemodialysis adequacy, anemia management and immunization. Network 6 has remained at or above the national average for anemia management since 2002. We continue to address this area of care through all-facility education and through Focused Review, targeting facilities most in need of improvement. Network 6 has identified valuable resources and tools and posted this information to our web site for facilities to utilize in improving care locally.

Network 6 also has remained at or above the national average for hemodialysis adequacy. We approach adequacy with a similar approach as the one used for anemia management; we provide education, data feedback and tools to all Network 6 facilities and we select

facilities with the greatest opportunity for improvement for Focused Review. These facilities receive individualized technical assistance until they reach a point where the MRB believes they will be able to continue and sustain improvement in outcomes.

Figure 9: Patients with a Mean spKt/V>1.2



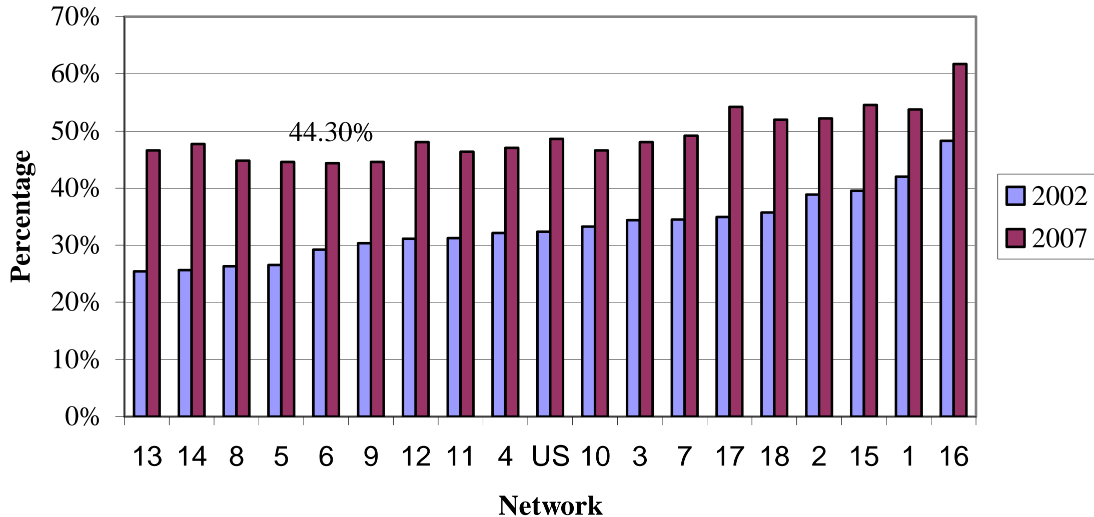
Quality Improvement Projects (QIPs): *Fistula First Breakthrough Initiative*

The Fistula First Breakthrough Initiative is a national quality improvement project that began in 2003 in conjunction with the Institute of Health Improvement (IHI). The purpose of the initiative is for CMS, End Stage Renal Disease (ESRD) Networks, and the entire renal community to work together to increase the likelihood that every eligible patient will receive the optimal form of vascular access for the patient and that vascular access complications will be avoided through appropriate access monitoring and intervention.

The original project goals were to reach or exceed the KDOQI guidelines for AV Fistula rates of 50% in incident patients and 40% in prevalent patients. Following the designation of the project as a CMS "Breakthrough Initiative", and the establishment of a national coalition, the national goal for prevalent patients was reached in August 2005. CMS raised the goal for AVF prevalence to 66% by June 2009 and the 2006 update of the KDOQI guidelines for vascular access followed.

At the onset of the Fistula First Project, Network 6's Prevalent Fistula Rate was at 29.2%. Over the course of the project, the Network 6 Fistula Rate has increased to 44.3% as of December 2007.

Figure 10: Prevalant AV Fistula Rates by Network



Network facilities are encouraged to educate staff by attending Fistula First Cannulation workshops and utilizing the materials mailed to the facilities. Network 6 provided the following technical assistance and educational opportunities to increase the AV Fistula rates:

- All facility Nursing Supervisors, Medical Directors, and Vascular Access Coordinators received a facility-specific Fistula First Comparative Report. This 3-page report shows the facility trending information related to incident patients, prevalent patients, and comparative data for the facility, Network and US. This information is used to stimulate increased AV Fistula growth based on comparative data.

- Network staff reviewed each facility's Fistula First data from January 2007 to July 2007, dividing the facilities into the following categories to raise awareness, stimulate internal CQI and effectuate change among the facility staff.
  - Category A: Facilities with ≥66% AVF as of July 2007
    1. *Category A1:* ≥66% prevalent AVF's with a ≥ 5% increase during above timeframe
       Network Request for Action: Facility to complete and return "Facility Best Practices Worksheet"
    2. *Category A2*: ≥66% prevalent AVF's with a less than 5% increase during the above timeframe
       Network Request for Action: Internal facility review to continue progress
    3. *Category A3*: ≥66% prevalent AVF's with a decrease during the above timeframe.

Network Request for Action: Internal facility review to increase AVF rates.

- Category B: Facilities with 50-65% AVF as of July 2007
  1. *Category B1*: 50-65% prevalent AVF's with a ≥ 5% increase during above timeframe
     Network Request for Action: Facility to complete and return "Facility Best Practices Worksheet"
  2. *Category B2*: 50-65% prevalent AVF's with a less than 5% increase during the above timeframe
     Network Request for Action: Internal facility review to continue progress.
  3. *Category B3*: 50-65% prevalent AVF's with a decrease during the above timeframe
     Network Request for Action: Internal facility review to continue progress.

- Category C: Facilities with 40-49% AVF as of July 2007
  All Facilities in category C were charged with completing an action plan.

  1. *Category C1*: 40-49% prevalent AVF's with a ≥ 5% increase during above timeframe
  2. *Category C2*: 40-49% prevalent AVF's with a less than 5% increase during above timeframe
  3. *Category C3*: 40-49% prevalent AVF's with a decrease during the above timeframe

- Category D: Facilities with <40% AVF as of July 2007
  All Facilities in Category D were charged with completing an action plan.
  1. *Category D1*: <40% prevalent AVF's with a ≥ 5% increase during the above timeframe
  2. *Category D2*: <40% prevalent AVF's with a less than 5% increase during the above timeframe
  3. *Category D3*: <40% prevalent AVF's with a decrease during the above timeframe

- Network 6 facilities completed the Buttonhole Technique Environmental Scan and data was sent to the Network Coordinating Center for analysis. A total of 87 Network 6 facilities utilize this cannulation technique.

- Mailed Fistula First trending information to all Network 6 State Survey Agencies.

- Network 6 hosted the workshop "Improving Arterial Venous Fistula Rates Through an Integrated Vascular Access Program" at the Solution Center in Durham, NC in April 2007. This hands-on workshop educated facility staff on proper cannulation techniques for new and existing AV fistulas. 78 nurses and

technicians attended. The meeting was very successful, with attendees learning hands on techniques to take back to other dialysis facility staff. A sample of the evaluation comments include:

- I really liked this meeting. Good for PCT's and Nurses to attend. I look forward to something in the future.
- I really enjoyed this session. I created my first buttonhole. Very exciting.
- This was an excellent presentation with a lot of information that can be used in the care of the dialysis patient.
- Would love to have this again and send staff who were unable to attend.

- The Network staff manned a Fistula First table at the Georgia Academy of Family Physicians in Atlanta, Georgia with the Georgia Quality Improvement Organization (QIO) on November 8 and 9, 2007. This was an opportunity to introduce the initiative to primary care physicians to increase the referral rates to Nephrologist and increase the incident AVF rates in Network 6.

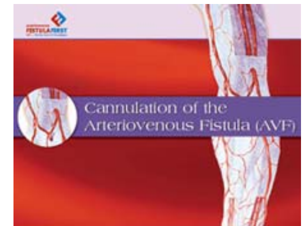
- Network 6 hosted "Improving Arterial Venous Fistula Rates Through an Integrated Vascular Access Program" in Atlanta, Georgia and Columbia, South Carolina on November 13 and 14, 2007 respectively. This hands-on workshop educated facility staff on proper cannulation techniques for new and existing AV fistulas. 102 nurses and technicians attended. 98% of the attendees responded that they would utilize the information received at the workshop to make changes in their current practice. Examples of changes include:

  - I will be consistent advocate for Fistula First and help eliminate catheter and graft % in my clinic.
  - Establish an actual access team to utilize them. Educate team of importance of access assessments.
  - Create a process that will include team formation, staff and patient education, recording trends, early referral for prevention and treatment of complication of accesses.
  - To go back to my facility and educate my fellow team members so that we are all of one accord.

- The Network displayed a Fistula First Network poster at the three Cannulation workshops. The poster contained information on current fistula rates for each state in Network 6, the Network as a whole and National data. Network staff utilized this opportunity to educate facility staff on the Fistula First Initiative and the CMS/Network goals.

- The Network displayed a Fistula First Network poster at the Cardinal Chapter of ANNA's Spring Symposium. Network staff utilized this opportunity to educate dialysis nurses on the Fistula First Initiative, CMS/Network Fistula First goals and facility "best practices". This collaborative opportunity provides a mechanism for

facility staff to learn "best practices" and "spread" this information with other facility staff members.



- Mailed the DVD "Cannulation of the Arteriovenous Fistula" to all Non-LDO facilities in Network 6 (LDOs are responsible for distributing this information per the Fistula First Education Committee). This information was sent with a postcard stating that the information should be used for staff education.

- Provided updates to the Fistula First Project via the facility newsletter, *Communicator.* This information is provided to facility staff as a means of keeping them informed of the Network's progress towards CMS/Network goals for the Fistula First Project.

- Provided educational information to facilities on how to formulate and complete a Quality Improvement Plan for increasing fistulas via the *Communicator.* This QI Plan Development was created to assist facility staff in recognizing opportunities for improvement, formulating goals, writing problem statements, identifying root causes and evaluating their processes.

Network 6 promoted Fistula First to patients throughout 2007:

- Network 6 provided educational materials related to Fistula First and vascular access at each patient workshop. Network staff utilized this opportunity to educate patients and family members on the Fistula First Initiative and explain the advantages of AV Fistulas. Vascular Access Materials included:
    - Fistula First *Renal Health News*
    - Vascular Access for Hemodialysis booklet
    - Choosing Your Vascular Access booklet
    - Dialysis Patients Speak: A Conversation About the Importance of AV Fistulas

- Network 6 hosted the North Carolina Chronic Kidney Disease Patient Workshop on October 11, 2007 at the Hawthorne Inn in Winston-Salem, North Carolina. 110 patients, family members, facility staff and vendors attended the workshop. Robert Schmidt MD, Nephrologist and Medical Director, presented "Access 101". This presentation focused on the AV Fistula as the access of choice from the Nephrologist point of view. Dr. Schmidt's presentation was highly rated by the audience, receiving a score of 3.96 out of a possible 4.0. Comments included:
    - Dr. Schmidt's presentation was EXCELLENT! It was very evident that he was very knowledgeable about the subject matter. Wise decision – asking him to present.
    - Thanks for making it all so clear – wish there were more doctors like you!

- Network 6 provided educational information in issues of the patient newsletter, *Renal Health News*, regarding Fistula First and vascular access. Articles

included: “Vascular Access Options”, which detailed the three types of vascular access options for hemodialysis patients. This article reinforced the AV Fistula as the preferred access. An additional article, “Fistula First”, explained the Fistula First National Initiative and sought patients to ask their facility manager about their Fistula rate.

Quality Improvement Projects (QIPs): ***Fistula First Focused Review***

Fistula rates are calculated for each facility in the Network. A profile is prepared ranking facilities by AVF rate. Facility-specific progress reports are also generated from these rates. The Medical Review Board selects facilities to be included in Fistula Focused Review based on benchmarks set by practice guidelines, CMS and Network goals, and resources available.

The overall goal for all facilities under Fistula First Focused Review is that 45.8% of patients will be dialyzing via a fistula by March 2008.

Fistula First Focused Review facilities are encouraged to educate staff by attending Fistula First cannulation workshops and utilizing the materials mailed to the facilities. In addition, to the Fistula First activities listed above, Network 6 provided the following technical assistance and educational opportunities to Focused Review facilities:

- The Medical Review Board Fistula Working Group reviewed facility-specific data including protocols, patient-specific data, and action plans at each meeting and provided facility-specific feedback based on this data.

- Network 6 hosted a series of conference calls with the Fistula Focused Review facilities. The Network staff utilized this opportunity to brainstorm with the facilities on how to improve fistula rates. Ideas were as follows:
    - Encouraged communication between the Nephrologist and surgeon
    - Prepared a written policy for referral to vascular surgeon
    - Utilized a written policy for referral to vascular surgeon
    - Referred only to “Fistula Friendly” surgeons
    - Performed monthly transonics
    - Employed Access Coordinator

- Hosted a best practices conference call for the facilities on Fistula Focused Review. The Network goals and the release criteria from Focused Review were explained to the group. Each facility discussed their progress and barriers to reaching the goals. The Network staff provided recommendations to overcome the barriers which included: educating staff on cannulation techniques, available educational information for patients and staff, and encouraging staff to attend the Fistula First Workshops.

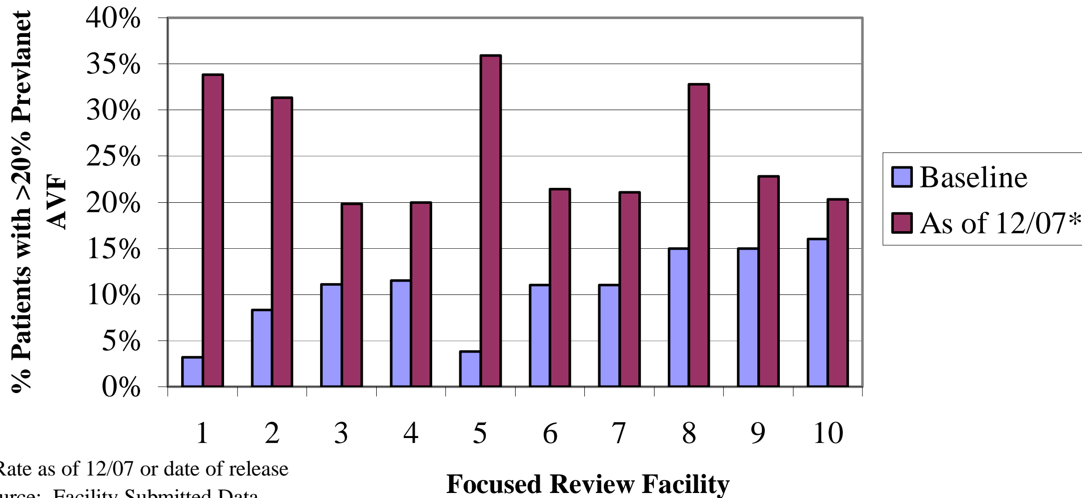
- Network 6 provided copies of “Creating AV Fistula in All Eligible Hemodialysis Patients” to DaVita to share with their surgeon offices.

- Vascular Access Educational CD's were mailed to the facilities on Fistula Focused Review. The CD contained educational materials for the staff and patients. The facility was encouraged to utilize the information to improve clinical outcomes. The CD contained the following information:
  - AV Fistula Cannulation Resources for Staff Listing
  - Using the Buttonhole Technique for your Fistula Brochure
  - Buttonhole Technique for AV Fistula Use
  - Cannulation Training Presentation for Facility Staff by Lynda Ball
  - Clamp Usage Policy and Procedure (sample policy)
  - Constant Site Method of Needle Insertion for Hemodialysis by Dr. Zbylut Twardowski
  - Choosing Your Vascular Access Brochure
  - Self Cannulation Policy
  - Listing of Cannulation Resources
  - Sample Algorithm Tool
  - Process Action Plan Template

In January 2007, 6 facilities remained under Fistula Focused Review from the previous year. During the year, the MRB reviewed data and chose 4 additional facilities for review. As of December 31, 2007, 2 facilities remained under Focused Review for low AVF rates.

The following graph, Figure 11, shows all facilities that were under Fistula First Focused Review as of January 1, 2007 and their progression toward meeting the goal as of December 31, 2007.

Figure 11: Fistula First Focused Review
Release Criteria >20% Prevalent AV Fistula



* Rate as of 12/07 or date of release
Source: Facility Submitted Data

Quality Improvement Projects (QIPs): *Catheter Reduction Focused Review*

Catheter Reduction Focused Review Quality Improvement Project is developed and implemented by the Network Medical Review Board (MRB). It is designed to recognize and intervene with facilities that have failed to meet CMS/Network goals in decreasing catheters thus improving the catheter rates in the targeted facilities and improving quality of care for ESRD beneficiaries.

The 2006 CPM project reports 19% of Network 6 patients dialyze via long-term catheters. The CMS and KDOQI goal is to have fewer than 10% of patients dialyzing via long-term catheters. The Network MRB examines CPM data each year and selects facilities for "Catheter Focused Review" that are not meeting the goal. Rates are calculated for the quality indicator for each facility in the Network and a profile is prepared ranking facilities. The MRB selects facilities to include in Focused Review based on the following benchmarks set by practice guidelines, CMS and Network goals, and resources available. They select the poorest performing facilities and work with them until they can demonstrate adequate sustained improvement.

The goal of this activity is to provide targeted intervention to poorly performing facilities in order to reduce their prevalent long term catheter rates. The facility goal for release from Catheter Focused Review is: Catheter Rate ≤25% of patients dialyzing via a catheter for > 90 days. By reaching this mark, the facility has demonstrated the ability to change. The MRB continues to monitor their progress and if the facility does not continue to improve, they are placed back under Focused Review.

Network 6 provided the following technical assistance and educational opportunities to Focused Review facilities:

- The Medical Review Board Catheter Working Group reviewed facility-specific data including protocols, patient-specific data, and action plans at each meeting and provided facility-specific feedback based on this data.

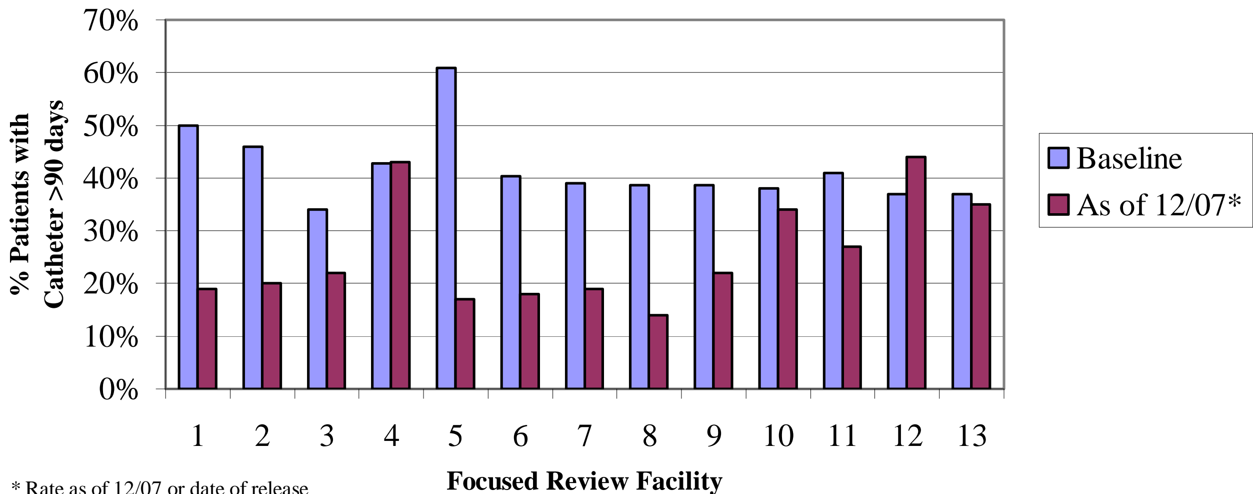
- Vascular Access Educational CD's were mailed to the facilities on Catheter Focused Review. The CD contained educational materials for the staff and patients. The facility was encouraged to utilize the information to improve clinical outcomes.

In January 2007, 4 facilities remained under Catheter Reduction Focused Review from the previous year. During the year the MRB reviewed data and chose 9 additional facilities for review. As of December 31, 2007, 8 facilities remained under Catheter Reduction Focused Review.

The following graph, Figure 12, shows all facilities that were under Catheter Reduction Focused Review as of January 1, 2007 and their progression toward meeting goal as of December 31, 2007. Chosen Focused Review facilities ranged from 37% to 61% catheters.

Figure 12: Catheter Reduction Focused Review

Release Criteria <25% Catheters >90 days



* Rate as of 12/07 or date of release
Source: Facility Submitted Data

Once a facility has reached the Network goal for release, the facility is required to submit a "Best Practices" form. This is a listing of interventions utilized by the facility to achieve the desired goal. This information is then disseminated to other facilities to "spread" best practices. Examples of collected "Best Practices" for Catheter Reduction Focused Review:

- Facility #361

- Established outreach with referring physicians to decrease admission of new patients with catheters.
- Offered educational program on a quarterly basis for the CKD population in the community and encourage all physicians to send patients to this educational opportunity
- On admission, all patients have an access plan
- Provided quarterly in-service to patients and staff regarding access care and management to prevent infection and preserve existing functioning access
- Involved transonic technician in CQI meeting to discuss patient-specific information

Quality Improvement Projects (QIPs): ***Safe & Timely Immunizations Coalition (STIC)***

Immunization has been a Network 6 QI project since 1997 for influenza vaccinations. We added Pneumococcal and Hepatitis B immunization to the project in 2005 with the launch of the Safe & Timely Immunization Coalition (STIC). The purpose of the STIC project is to spread the previously successful Network efforts related to influenza immunization through the use of educational interventions as well as the provision of tools and resources for facilities. The goal of STIC is to increase the rate of Hepatitis B, Influenza and Pnuemococcal immunizations in dialysis patients and staff in Network 6; therefore decreasing morbidity and mortality associated with these diseases.

More details about this project can be found in Goal #4 of this report.

Facility-Specific Quality Assessment and Improvement Projects (QAIPs)

Anemia Focused Review

Anemia Focused Review Facility-Specific Quality Assessment and Improvement Project is developed and implemented by the Network MRB. It is designed to recognize and intervene with facilities that have failed to meet CMS/Network goals in increasing the percent of patients (Hemodialysis and Peritoneal Dialysis) with a HgB >11 g/dL thus improving the hemoglobin rates in the targeted facilities and improving quality of care for ESRD beneficiaries.

The goal of this activity is to provide targeted intervention to poorly performing facilities in order to improve their percentage of patients with adequate iron stores. The facility goal for release from Focused Review is $\geq$ 75% or more of dialysis patients in facility with a Hemoglobin of $\geq$11g/dL. While this criterion is well below the national and Network goal, the facilities selected in this project begin well below this. By reaching this mark, the facility has demonstrated the ability to change. The MRB continues to monitor their progress and if the facility does not continue to improve, they are placed back under Focused Review. As we shift the distribution to better outcomes for all Network 6 facilities, these cut-points are raised.

Network 6 provided the following technical assistance and educational opportunities to Focused Review facilities:

- A CD with educational tools to promote staff and patient education was provided to the facilities on Focused Review for Anemia. The following was included:
    - Anemia Algorithm
    - Dosing Tool
    - Documentation Checklist
    - Action Plan Template
    - Fundamentals of Anemia Management

- The Medical Review Board Anemia Working Group reviewed facility-specific data including protocols, patient-specific data, and action plans at each meeting and provided facility-specific feedback based on this data.

- The Network staff and MRB member(s) performed sites visits to facilities on Focused Review for Anemia during the year.

- The Network staff provided a web-ex training session for the facilities on Focused Review for Anemia. The training session reviewed how to enter the data and submit the information to the Network.

In January 2007, 10 facilities remained under Anemia Focused Review from the previous year. During the year the MRB reviewed data and chose 6 additional hemodialysis facilities and 7 peritoneal facilities for review. As of December 31, 2007, 9 hemodialysis facilities and 7 peritoneal dialysis facilities remained under Anemia Focused Review.

The following graphs, Figures 13 and 14, shows all facilities that were under Anemia Focused Review (Hemodialysis and Peritoneal Dialysis) as of January 1, 2007 and their progression toward meeting goal as of December 31, 2007.

Figure 13: Hemodialysis Anemia Management Focused Review

Release Criteria >75% hemodialysis patients with HgB > 11 gm/dL

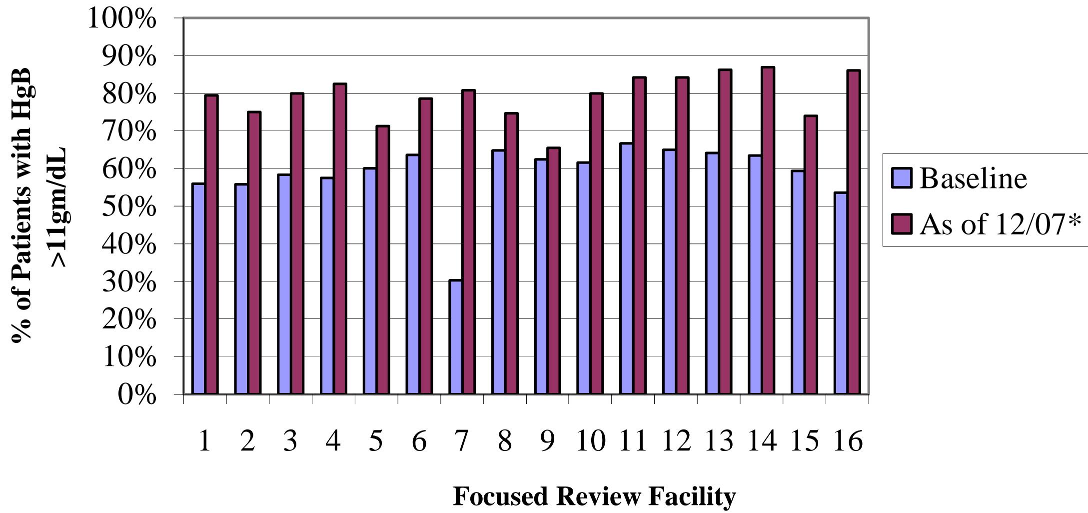
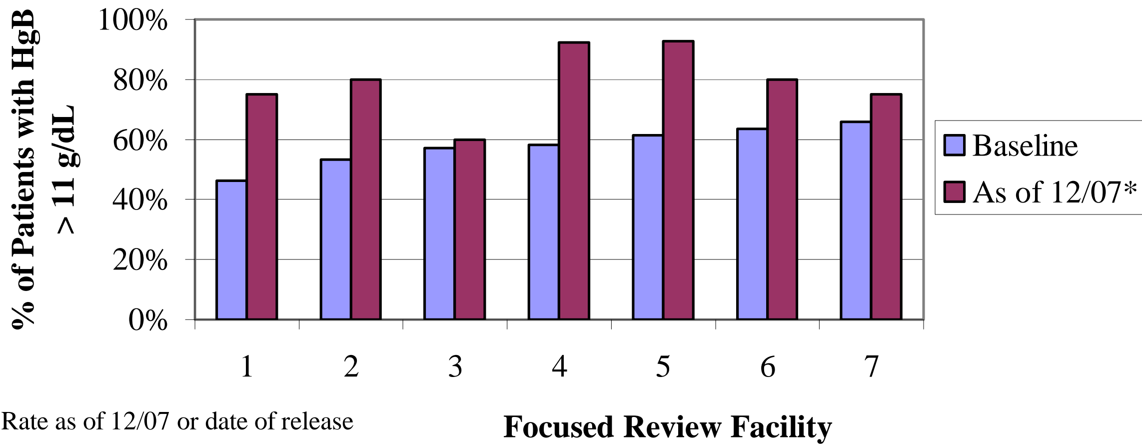


Figure 14: Peritoneal Dialysis Anemia Management Focused Review

Release Criteria >75% peritoneal dialysis patients with HgB > 11 g/dL



* Rate as of 12/07 or date of release

Source: Facility Submitted Data

Once a facility has reached the Network goal for release, the facility is required to submit a "Best Practices" form. This is a listing of interventions utilized by the facility to achieve the desired goal. This information is then disseminated to other facilities to "spread" best practices. Examples of collected "Best Practices" for Anemia Focused Review:

- Facility #386
  - Developed an Anemia Manager position to oversee and communicate issues regarding anemia management to all team members
  - Employed back up Anemia Manager to avoid delays in dosing changes
  - Immediate action taken for out-of-range lab values
  - Anemia Manager assembled an anemia team to consist of MD, Back-up manager, Dietitian, and PCT with weekly rounding

- Facility #318
  - Responded to lab results and implement dosing changes within 7 days
  - Sought physician assistance for dosing outside protocol

- Facility #458
  - Monthly adjustments of Epogen by Anemia Manager using the facility protocol and consulted with MD to go "outside protocol" when necessary
  - Held in-service for all staff to remind them of rinse back procedures and the importance of rinsing lines until clear (place sign on each station reading "Red is Blood – Blood is Iron")

Adequacy Focused Review

Adequacy Focused Review Facility-Specific Quality Assessment and Improvement Projects is developed and implemented by the Network MRB. It is designed to recognize and intervene with facilities that have failed to meet CMS/Network goals in increasing the percent of hemodialysis patients with a URR ≥65% thus improving the adequacy rates in the targeted facilities and improving quality of care for ESRD beneficiaries.

The goal of this activity is to provide targeted intervention to poorly performing facilities in order to increase their percentage of patients that are receiving adequate dialysis. The facility goal for release from Adequacy Focused Review is 80% or more of hemodialysis patients in the facility with a URR ≥ 65% for four consecutive months. By reaching this mark, the facility has demonstrated the ability to change. The facilities selected for this project had URRs ranging from 63.1% to 67.9%. The MRB continues to monitor their progress and if the facility does not continue to improve, they are placed back under Focused Review. As we shift the distribution to better outcomes for all Network 6 facilities, these cut-points are raised.

Network 6 provided the following technical assistance and educational opportunities to Focused Review facilities:

- A CD with educational tools to promote staff and patient education was provided to the facilities on Focused Review for Adequacy. The following was included:

  - Improving Adequacy of Hemodialysis Patients
  - Post test included
  - Adequacy Manager Role Responsibility
  - Adequacy Protocol
  - Sample QI Plan
  - Strategies for Improving Adequacy
  - Patient Missed Treatment Tracking Log
  - Adequacy Root Cause Algorithm
  - Know Your Number

- The Network staff provided a web-ex training session for the facilities on Focused Review for Adequacy. The training session reviewed how to enter the data and submit the information to the Network.

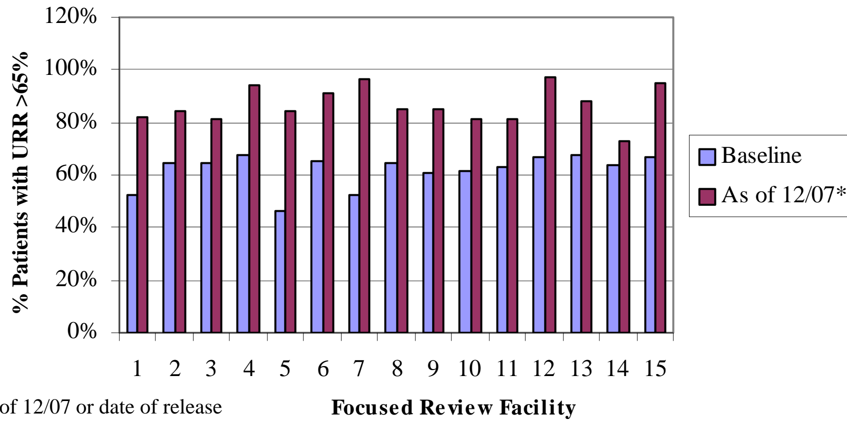
- The Medical Review Board Adequacy Working Group reviewed facility-specific data including protocols, patient-specific data, and action plans at each meeting and provided facility-specific feedback based on this data.

- The Network staff and MRB member(s) performed site visits to facilities on Focused Review for Adequacy during the year.

In January 2007, 10 facilities remained under Adequacy Focused Review from the previous year. During the year. the MRB reviewed data and chose 5 additional facilities for review. As of December 31, 2007, 6 facilities remained under Adequacy Focused Review.

The following graph, Figure 15, shows all facilities that were under Hemodialysis Adequacy Focused Review as of January 1, 2007 and their progression toward meeting the goal as of December 31, 2007.

Figure 15: Hemodialysis Adequacy Focused Review
Release Criteria >80% with URR >65%



Once a facility has reached the Network goal for release, the facility is required to submit a "Best Practices" form. This is a listing of interventions utilized by the facility to achieve the desired goal. This information is then disseminated to other facilities to "spread" best practices. Examples of collected "Best Practices" for Adequacy Focused Review:

- Facility #536
  - Changed all treatment standing orders to 4 hours unless otherwise indicated by admitting MD
  - Collaborated with MD on heparin protocol. Educate staff to reduce dialyzer clotting.
  - Prompted access referral to assure that catheter patients get permanent access timely therefore getting better treatments
  - Non-compliant patients met with social worker and dietitian to discuss ramifications of missed treatments to include inadequate dialysis

- Facility #270
  - Reviewed patient treatment times with physician and increase accordingly
  - Reviewed all heparin doses and adjust accordingly
  - Changed to larger dialyzers
  - Reinforced recirculation of heparin pre and post treatment to minimize dialyzer clotting

Clinical Performance Measures

The ESRD Clinical Performance Measures (CPM) Project, which has been in existence for over 10 years, is a national, collaborative effort between the Centers for Medicare & Medicaid Services (CMS) and the ESRD Networks to assist providers in improving patient care and outcomes. The project involves collecting patient specific data on

measurable treatment outcomes to generate national and Network specific normative data for use in comparing performance. The purposes of the CPM project are to:

- Analyze practice patterns and processes and outcomes of care for the targeted patient population, both at a point in time and over a period time
- Analyze conformance to clinical practice guidelines both at a point in time and over a period of time
- Provide facilities/providers with information to stimulate improvement in patient care, through the provision of data describing practice patterns, processes, and outcomes for the targeted patient population

The Network validated data for a random sample of hemodialysis patients and a 10% sample of peritoneal dialysis patients from the CMS-selected sample. All validated data were transmitted to CMS on September 6, 2007.

Network 6 CPM data is compared to United States in Table 3 below.

Table 3: CPM Report Trends 2005-2007* Network 6 Compared to United States						
Indicators	2005		2006		2007	
	Network 6	U.S.	Network 6	U.S.	Network 6	U.S.
% Patients with URR ≥ 65%	88%	87%	89%	88%	87%	88%
% Patients with Kt/V ≥ 1.2	91%	91%	91%	91%	91%	90%
% Prevalent Patients with AV Fistula	37%	39%	40%	44%	41%	46%
% Incident Patients with AV Fistula	39%	37%	52%	54%	32%	42%
% Prevalent Patients with Graft	41%	34%	33%	26%	30%	23%
% Prevalent Patients with Catheter	22%	27%	25%	27%	26%	29%
% Patients with Graft Stenosis Monitoring	71%	67%	70%	69%	77%	69%
% Patients with HGB ≥ 11 gm/dl	84%	83%	84%	84%	85%	84%
% Patients with TSAT > 20%	83%	79%	83%	78%	82%	80%
% Patients with Ferritin > 100ng/ml	95%	94%	97%	95%	93%	95%
% Patients with Albumin > 3.5/3.2 gm/dl (BCG/BCP)	82%	82%	84%	80%	85%	82%
% Patients with Albumin > 4.0/3.7 gm/dl (BCG/BCP)	40%	36%	33%	36%	37%	37%

* Report reflects data collected for prior year.

Facility-specific Lab Data Collection reports are mailed to each facility on an annual basis. Data finding is listed in Table 4:

Table 4: Network 6 Quality Indicator Report Trends 2005-2007*			
	2005	2006	2007
Quality Indicator – Hemodialysis			
Percent of hemodialysis patients with URR ≥ 65%	88.4%	88.5%	88.6%
Percent of hemodialysis patients with Kt/V ≥ 1.2	nc	92.6%	93.2%
Percent of hemodialysis patients with HGB ≥11g/dl	84.4%	84.3%	83.8%
Percent of hemodialysis patients with Ferritin >100ng/ml & < 1000ng/ml	83.4%	82.4%	83.8%
Percent of hemodialysis patients with transferrin saturation >20%	83.1%	82.7%	80.8%
Percent of hemodialysis patients with albumin > 4.0/3.7mg/dl	nc	34.6%	36.0%
Percent of hemodialysis patients with albumin > 3.5/3.2mg/dl	84.3%	81.8%	83.3%
Percent of hemodialysis patients with phosphorous < 5.5mg/dl	nc	52.6%	54.0%
Percent of hemodialysis patients with calcium < 9.5mg/dl	nc	67.0%	73.1%
Percent of hemodialysis patients with calcium < 10.2mg/dl	nc	93.6%	95.0%
Quality Indicator – Peritoneal Dialysis			
Percent of peritoneal patients with Kt/V > 2.0	71.4%	70.0%	64.6%
Percent of peritoneal dialysis patients with HGB ≥11g/dl	79.7%	78.5%	78.5%
Percent of peritoneal dialysis patients with Ferritin >100ng/ml & < 1000ng/ml	77.4%	78.1%	80.1%
Percent of peritoneal dialysis patients with transferrin saturation >20%	84.1%	85.3%	86.9%
Percent of peritoneal dialysis patients with albumin > 4.0/3.7mg/dl	nc	21.0%	23.3%
Percent of peritoneal dialysis patients with albumin > 3.5/3.2 mg/dl	67.2%	63.5%	65.8%
Percent of peritoneal dialysis patients with phosphorous < 5.5mg/dl	nc	57.9%	67.4%
Percent of peritoneal dialysis patients with calcium < 9.5mg/dl	nc	68.2%	77.4%
Percent of peritoneal dialysis patients with calcium < 10.2mg/dl	nc	92.4%	96.1%
(nc=Not collected) Report reflects data collected in prior year.			

Intervention for Low Performers

For each of the indicators, the Medical Review Board (MRB) performs an analysis of the data and facility averages of the Lab Data Collection and CPM data. Based on this analysis, the MRB determines minimal acceptable facility outcomes and directs specific corrective actions of facilities not meeting the MRB's minimum acceptable outcomes for one and two years. These actions include notification in writing to the facility Medical Director, Clinic Manager and Administrator.

Network 6 provided technical assistant to facilities under Focused Review for Quality Improvement based on data results to target clusters of poor performers for intervention in adequacy, anemia, catheter reduction and fistulas.

- Network staff participated in a conference call with the Chief Medical Officer and Corporate Officers of an LDO in regards to a specific facility under Catheter Focused Review. Information was given to the participants related to goals and expectations. The session included brainstorming ways this facility could decrease catheter rates.

- Network staff hosted conference calls with the low fistula rate Focused Review facilities and utilized the Fistula First Toolkit for the content of the call. The facilities discussed the progress of their action plan.

- Network staff performed several site visits to a facility under Catheter Focused Review. This facility has begun to put processes in place to improve outcomes including:
  - Increased physician rounding
  - Hired a Vascular Access Coordinator
  - Provided vascular access education to all patients
  - Implemented a vascular access tracking log with documentation on each phase of the patients access maturation

- Network staff along with a MRB member visited a facility on Adequacy and Anemia Focused Review. The facility was sent educational information related to anemia and adequacy and this information was discussed in detail at the meeting. The Network staff performed chart reviews and discussed options and ideas related to increasing hemoglobins and URRs. The Network staff assisted the facility in developing a quality improvement project for Anemia and Adequacy.

- Network 6 developed algorithms for Anemia, Adequacy, Catheter Reduction and AVF placement which guide the facility through graphing their outcomes compared to Network and national goals, identifying root causes for low rates and developing an action plan to improve outcomes.

- Network staff provided a Web ex training session on November 15, 2007 for the facilities under Focused Review for Adequacy and Anemia. This training session reviewed how to collect and analyze data and how to utilize the data to improve

processes and complete the anemia and adequacy data collection sheets. These are also on our website for all facilities to use.

Recognition for High Achievers

Network 6 recognizes facilities that have excelled in the core indicators, Anemia Management, Adequacy, Vascular Access and Immunizations. Facilities were mailed award certificates to display in their unit. Award winners were acknowledged at the 2007 Network Annual Meeting. A listing of the award winners are also on the Network web site.

Outstanding Performance in Anemia Management - Hemodialysis

Criteria: *Facilities with > 95% of hemodialysis patients with hemoglobin ≥ 11gm/dL during the 4th quarter of 2006 and ≥ 20 patients*

- Aiken Dialysis
- Allendale Fairfax
- Americus Dialysis
- BMA New Bern Inc
- BMA of Crystal Coast Inc
- BMA of Lenoir Inc
- Buford Dialysis
- Dare County Dialysis
- DaVita Woodstock Dialysis
- DCA Edgefield
- Dialysis Clinic Inc Kings Mountain
- Dialysis Clinic Inc Landrum
- Dialysis Facility of Alma Inc
- FMC Murray Dialysis
- FMC Tucker
- Gambro Healthcare of Pageland
- Jesup Dialysis
- Laurens County Dialysis
- Loring Heights Dialysis
- Madison Dialysis Center
- Neuse River Dialysis Center
- Renal Care Group Caswell
- Sylva Dialysis Center
- Union County
- Weaverville Dialysis Center

Outstanding Performance in Anemia Management – Peritoneal Dialysis

Criteria: *Facilities with > 90% of peritoneal dialysis patients with hemoglobin > 11 gm/dL during the 4th quarter of 2006 and > 16 patients*

- DCA of Aiken

- Douglasville Dialysis
- Fayetteville Dialysis
- FMC Dalton Inc
- Greensboro Kidney Center
- High Point Kidney Center Inc
- North Orangeburgh Dialysis
- RAI Care Centers Charleston
- Rock Hill Dialysis Center

Outstanding Performance in Hemodialysis Adequacy

Criteria: *Facilities with 100% of hemodialysis patients with URR $\geq$ 65% during the 4th quarter of 2006 and $\geq$ 20 patients*

- ARA Vidalia Clinic LLC
- DaVita Waynesville Dialysis Center
- Fairfield County Dialysis
- FMC Dialysis Services Lake Marion
- FMC Dialysis Services of Newton
- FMC Hilton Head Dialysis Center
- FMC Kingstree Dialysis
- FMC of Fort Valley
- FMC of Robeson County
- FMC of Sandersville Inc
- FMC Snellville Inc
- Fresenius Medical Care of Batesburg Leesville
- Perry Dialysis Center
- Physicians Choice Dialysis of West Georgia II
- Renex Dialysis Clinics Bainbridge
- Smithfield Kidney Center
- Swannanoa Dialysis Center
- Sylvia Dialysis Center

Outstanding Performance in Vascular Access - Hemodialysis

Criteria: *Facilities with > 60% hemodialysis patients using fistulas and < 10% of Hemodialysis patients using central venous catheters in October 2006 and > 20 patients*

- Atlanta South Dialysis
- Buford Dialysis Center
- DaVita Pendleton Dialysis
- DCA of South Georgia
- FMC Dialysis Center Snapfinger
- FMC Pendleton Dialysis
- Gambro Healthcare of Pageland
- Hogansville Dialysis Clinic

- Lake Norman Dialysis Center
- Newton County
- NRA Valdosta Dialysis Clinic
- Paulding Dialysis
- Renal Care Group Henry County
- South Charlotte Dialysis
- Southeastern Dialysis Center - Shallotte
- Southern Pines Dialysis Center
- Spalding County Dialysis
- Valdosta Dialysis
- Woodstock Dialysis
- York County

Outstanding Performance in Influenza Immunization Management - Hemodialysis
Criteria: *Facilities with 100% of patients receiving the influenza vaccination for 2006-2007 season*

- Athens Kidney Center
- BMA of Millen Inc.
- Demorest Dialysis
- FMC Dialysis Services of Houston County
- FMCNA Sandy Springs
- Homerville Dialysis
- Lake Hearn Dialysis
- Loring Heights Dialysis
- North Georgia Dialysis Home
- Santee Dialysis

Summary:
Network 6 activities to improve the quality and safety of dialysis-related services provided for individuals with ESRD have been demonstrated in the above section. In 2007, fistula rates increased from 41.6% in January 2007 to 44.3% in December 2007 and catheters were maintained and met KDOQI Guidelines. While immunization rates dropped in 2007, Network 6 performed preventative interventions with facilities with low immunization rates. In the area of patient safety, Network 6 collaborated with State Survey Agencies to achieve optimal safety for all individuals with ESRD. To achieve these goals, Network 6 performs Internal Quality Improvement projects on Vascular Access, Adequacy, Anemia Management, and Immunizations.

CMS Goal #2: Improve the independence, quality of life, and rehabilitation (to the extent possible) of individuals with ESRD through support for transplantation, use of self-care modalities (e.g., peritoneal dialysis, home hemodialysis), and in-center self-care, as medically appropriate, through the end of life

Network 6 has made a strong commitment to provide educational materials and resources to new ESRD patients. The Network serves as a resouce for educational materials to further help patient's health. Every new patient receives a New ESRD Patient Orientation Package packet with the following information:

- CMS letter
- Network letter
- Dialysis Facility Compare brochure
- National Kidney Foundation Patient and Family Council Booklet
- Vascular Access Handout
- AAKP Resources: "The Voice of All Kidney Patients"
- "Preparing for Emergencies: A Guide for People on Dialysis" booklet
- "Medicare Coverage for Kidney Dialysis and Kidney Transplant Services" booklet
- "You Can Live: Your Guide for Living with Kidney Failure" booklet

Network 6 follows up on all returned NEPOPs that are not deliverable. The below table details the number of NEPOPs processed. As a part of the Network Internal Quality Improvement process monitored, tracked and intervened as appropriate. New patient addresses are proofed daily to ensure the correct address was entered. Network 6 validates CMS 2728 patient addresses with MapPoint® software to reduce the number of packets returned.

Table 5: NEPOPs Processed in 2007

Month	Number Mailed During the Month	Number Mailed in Previous Months and Processed During the Reporting Month	
		Death	Corrected Address
January	703	3	24
February	777	6	47
March	775	4	45
April	865	1	25
May	736	4	51
June	801	9	48
July	785	3	40
August	710	4	48
September	692	4	49
October	706	0	42
November	777	1	41
December	722	1	29
Total	**9,049**	**40**	**489**

Network 6 provided information for patients and providers to educate and encourage patients to achieve their maximum level of rehabilitation and to participate in activities that will improve their quality of life and provide patient education:

- The Georgia Patient Workshop included a presentation titled "Intimacy Issues and CKD" by Diana Mangum, Dialysis Clinic Inc. This presentation was highly rated by the members in attendance.

- Ms. Dixie Moncus, a member of the Southeastern Kidney Council Consumer Committee, spoke at the North Carolina Chronic Kidney Disease Patient Workshop. Her presentation titled "A Patient's Perspective" encouraged patients and family members in the audience to excel to their maximum level of rehabilitation. Ms. Moncus' presentation was very motivational, with audience members rating her presentation a 3.93 out of 4.0. Additional written comments about her presentation included:

    - Dixie Moncus was a huge asset to the day.
    - Dixie – she was wonderful! Inspirational!

- The patient newsletter, *Renal Heath News* contained an article titled "Shortened Treatments=Months or Years off of Your Life". This article quantified the minutes lost of shortened dialysis treatment in a year to the number of hours lost of life.

Vocational Rehabilitation

Network 6 promoted and educated patients and facility staff on Vocational Rehabilitation (VR) in 2007.

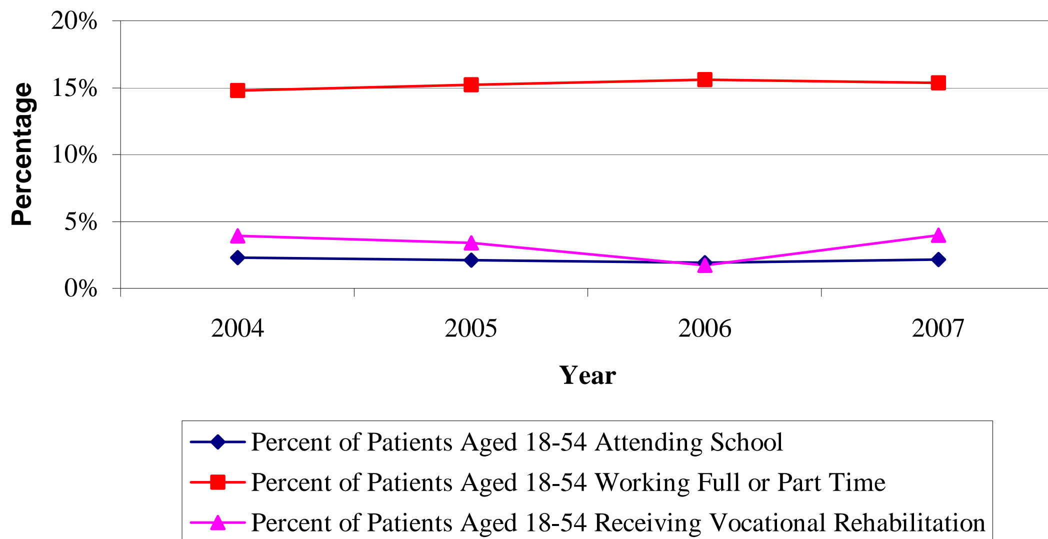
- In September 2007, the 2006 Vocational Rehabilitation and Employment data were sent to each dialysis facility. Also included in the packet was a Best Practices checklist to assist facility staff in encouraging vocational rehabilitation and State Vocational Rehabilitation office contact information.

- The Georgia Patient Workshop included a presentation titled "Overview of GA Rehab" by Yvonne James and Jody Lane of the Georgia Department of Labor/Vocational Rehabilitation,

- The patient newsletter, *Renal Heath News,* contained an article detailing Vocational Rehabilitation (VR) offices throughout Network 6.

VR data is collected from each facility in the Annual Facility Survey. Results of the survey are show below in the following graphs.

Figure 16: Network 6 Vocational Rehabilitation



Advanced Care Planning and End of Life

Network staff has promoted Advanced Care Planning and End of Life Care to facility providers and consumers:

- Dr. Allen Moss, Chairperson of the Kidney End of Life Coalition presented at the 2007 Network Annual Meeting.
- The patient newsletter, *Renal Health News*, included an article about Advanced Care Planning from the Kidney End of Life Coalition. This article defined advanced care planning and questions to consider when making these important decisions.

Treatment Options

Patients who express frustrations and difficulties with their current modality are counseled on alternative modalities, provided education resources and encouraged to discuss changing modalities with their Nephrologist. As shown in Figure 17, the overall dialysis population continues to grow annually, while only 9.0% of patients in Network 6 are on home dialysis. Network 6 encourages home dialysis and alternative treatment options.

- Network staff encourages selection of alternative modalities by providing all newly diagnosed ESRD patients the CMS New Patient Book, "You Can Live" which discusses and describes all renal replacement therapies. The New Patient Book is mailed directly to the patient's home.

- The Network Annual Meeting included a panel presentation moderated by Charlotte Faker RN, BS, Patient Referral/Education Coordinator for Health Systems Management Inc. titled, "Assessing Patients for the Right Dialysis Option: Patient Panel". Panel members discussed their experiences with in-center hemodialysis, home hemodialysis, peritoneal dialysis and transplantation.

- The Network distributed materials regarding treatment options at the patient workshops in Georgia, North Carolina, and South Carolina.

- The patient newsletter, *Renal Health News*, and facility newsletter, *Communicator,* both included articles about nocturnal dialysis.

- *Renal Health News* included articles on treatment options and was mailed to dialysis facility staff along with the DVD "Home Dialysis Central" for facilities' patient libraries.

- Network 6 booklet, "Living with Kidney Failure", describes various home dialysis options.

Figure 17: Home Dialysis Patients

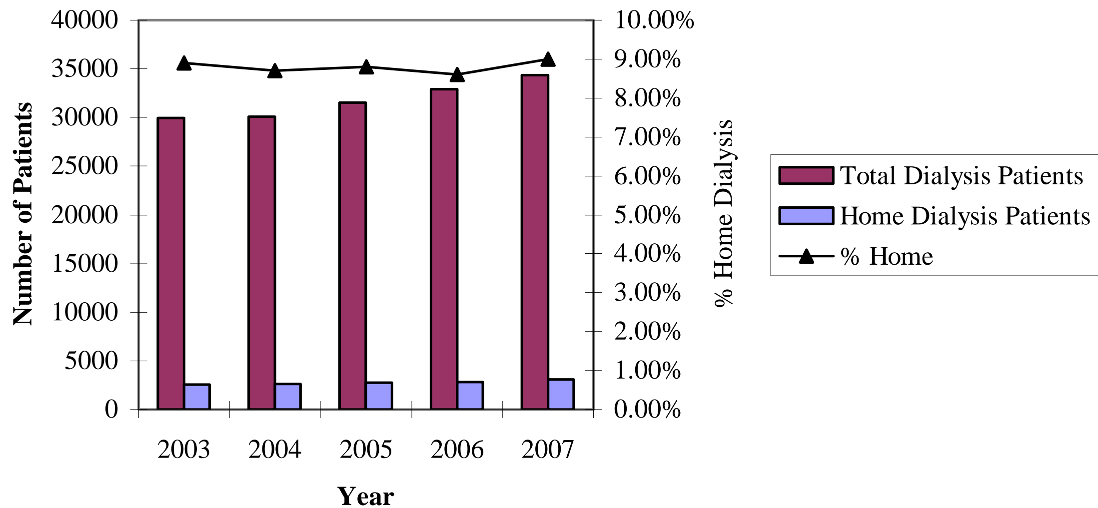


Figure 18: Home Dialysis by Type in Network 6

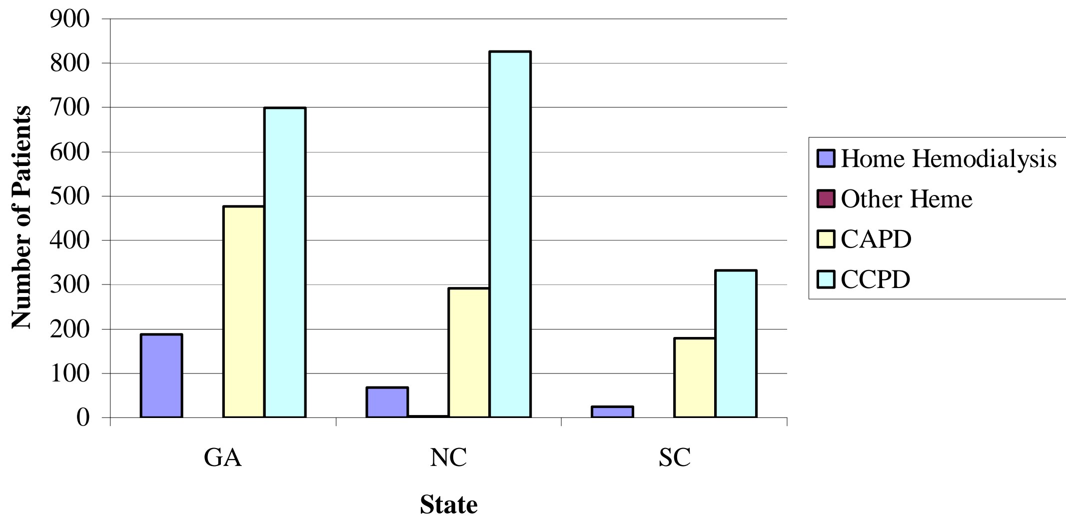
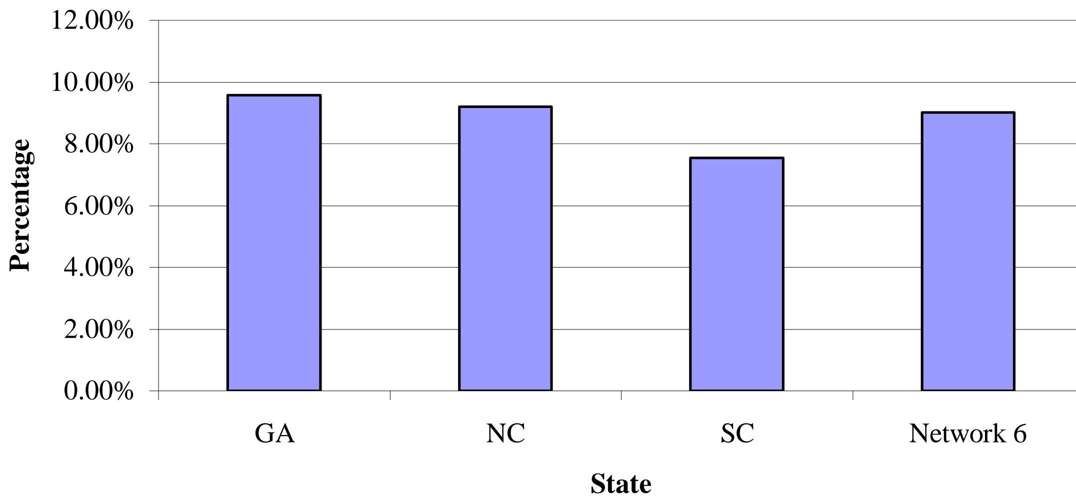


Figure 19: % of Home Dialysis by State

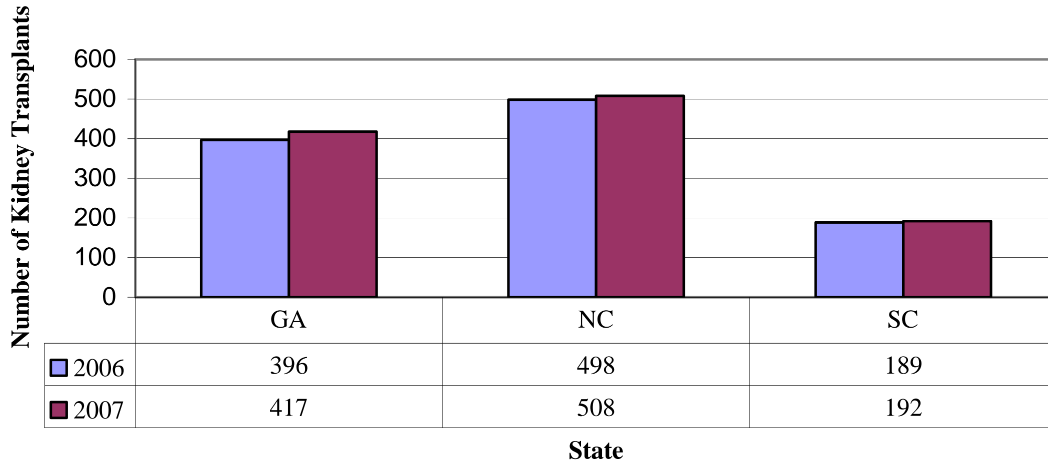


Transplantation

The United Network of Organ Sharing (UNOS), reports 76,313 people on the waiting list for a kidney transplant on June 13, 2008. In Network 6 region, there are 2,103 in Georgia, 2,269 in North Carolina and 669 in South Carolina on the waiting list for a kidney transplant.

Figure 18 shows the number of kidney transplants by state based on SIMS data. The number of transplants increased from 2006-2007 by 3.1%. Of the 1,117 transplants performed in 2007, 75% were cadaver donors.

Figure 20: Tranplants by State 2006-2007



	GA	NC	SC
2006	396	498	189
2007	417	508	192

To promote transplantation, Network 6 provided educational materials and presentations to patients and facility staff.

- Each new facility packet contains the poster "Is a Kidney Transplant Right for You" that is displayed in each facility.
- The 2007 Georgia Patient Workshop included a presentation titled "Transplant Issues 2007" by Janet Barnett PA-C.
- The 2007 North Carolina Chronic Kidney Disease Patient Workshop included a presentation, titled "Transplant: What's It All About" by Amy Woodard, RN, BSN, CNN.
- The Communicator included an article titled, "Transplantation Processes and Obstacles." This article explained the transplantation process and included information on finances, lifestyle issues, and transportation. Also included were the transplant centers in the Network 6 area.
- Amy Woodard RN, BSN, CNN with UNC Hospitals submitted an article for the Communicator, "Transplant Referrals."
- The *Renal Health News* contained an article titled "Transplantation is a Treatment – Not a Cure."

Summary:
Network 6 strived to improve the independence, quality of life, and rehabilitation of individuals with ESRD through support for transplantation, use of self-care modalities, and in-center self-care, as medically appropriate, through the end of life by heightening awareness through education utilizing Clinical Performance Measures and Lab facility specific data.

CMS Goal #3: Improve patient perception of care and experience of care, and resolve patients' complaints and grievances

In 2007, Network 6 provided educational resources to achieve the Network's mission and goals. By educating the ESRD community, Network 6 is able to improve the ESRD patient perception of care. Network 6 provided various workshops, newsletters, educational pamphlets and tools to improve patient perception and experience of care. Network 6 actively worked to resolve patients' complaints and grievances. The below activities, projects, tools and workshops detail the Network's active role in patient care.

Web Site

Network 6 maintains a web site, www.esrdnetwork6.org for the ESRD community. The web site receives over 225,000 hits monthly. The most viewed and downloaded sites in 2007 include:

- Resource Directory
- Data Files
- Zip Code Report
- STIC Resource Guide
- Data Manual
- Annual Reports

The Network 6 began work on a newly designed web site in the fall of 2007. The new web site was launched in February 2008 and is 508 complaint, based on the Federal law requiring that Federal agencies' electronic and information technology be accessible to people with disabilities.

Network 6 web site includes a Patient Resources section, which provides patient-friendly education on ESRD, complaint and grievance protocol, vascular access information and more.

The web site contains the following information:

- Network 6 goals and mission statement
- How to contact Network 6 including the 800 number for patients and family members
- Network 6 newsletters, *Renal Health News* and *Communicator*
- How to contact the Network regarding a complaint or grievance
- Annual Reports
- Data Forms and Requests
- A link to the Dialysis Facility Compare Web www.medicare.gov/dialysis
- Member Log-In for Board and Committee Members and Facility Staff
- Emergency Preparedness Information
- Vascular Access Information
- Immunization Information
- Rehabilitation Information

Newsletters

Network 6 produces both a facility and patient/family focus newsletter. *Renal Health News* is targeted towards all patients and family members in the Network 6 area by mailing directly to patients' homes. The newsletter is produced twice annually. *Renal Health News* is also posted on the Network web site. The 2007 issues of the newsletter included articles on:

- Southeastern Kidney Council role
- Complaint and Grievance Process including State Survey Agencies role
- Fistula First Update
- Transplantation
- Medicare Part D program
- Dialysis Facility Compare
- Vocational Rehabilitation and Volunteerism
- Vascular Access Options
- Emergency Preparedness
- Immunization Information and Flu Prevention
- Treatment Options to include Nocturnal Dialysis
- Advanced Care Planning
- Network 6 resources including: Living with Kidney Failure booklet
- Patient workshop information
- Community and ESRD organizations information
- Role of the Consumer Committee and Consumer Committee Elections
- Chuck Brown Memorial Award
- Patient stories, artwork and poetry

Communicator is a facility newsletter that provides educational information to Network 6 facility staff. The newsletter was produced three times in 2007 and is also posted on the Network web site. The three issues of the newsletter included articles on:

- Southeastern Kidney Council role
- Network Meetings and Workshops
- Developing Patient Education
- Network 6 resources including: Southeastern Kidney Council Resource Directory
- Dialysis Facility Compare
- Vocational Rehabilitation
- Transplantation
- Preparing an Improvement Plan for Quality Improvement Activities
- Fistula First Update
- Kidney Community Emergency Response (KCER)
- Challenging Patient Situations
- Safe & Timely Immunization Coalition
- CMS Forms Compliance
- National Provider Identifier (NPI)

- Treatment Options Education
- Board and Committee Updates and Elections

Patient Workshops

Network 6 hosted patient workshops in North Carolina and Georgia in 2007 educating ESRD patients in the Network 6 area on the role of the Network and resources available.

- The North Carolina Patient Workshop on October 11, 2007 in Winston-Salem, North Carolina included a flu shot clinic promoting immunizations. Community ESRD Resources and Pharmaceutical vendors passed out educational resources. The following topics were presented:
  - "Addressing Conflict and Communicating for Change", *Mark Meier MSW, LICSW*
  - "Protecting Our Health: The Importance of Vaccinations", *Matthew Arduino MS, Dr.PH.*
  - "A Patient's Perspective", *Dixie Moncus*
  - "Access 101", *Robert Schmidt MD*
  - "Transplant: What's It All About?" *Amy Woodard RN, BSN, CNN*

- The Georgia Patient Workshop was held on May 17, 2007 in Savannah, Georgia in collaboration with National Kidney Foundation of Georgia. Community Resource and Pharmaceutical vendors passed out educational resources. The following topics were presented:
  - "Expecting the Unexpected: The Importance of Developing a Personal Plan" *Tiffany Washington MSW*
  - "Solving the Vascular Access Puzzle" *Gail Alexander RN*
  - "Intimacy Issues and Chronic Kidney Disease" *Diana Mangum*
  - "Understanding Phosphorous and Calcium" *Alan Little*
  - "Ask Questions, Seek Answers" *Bobby Howard*
  - "Overview of Georgia Vocational Rehabilitation Program" *Yvonne James and Kevin Ionno*
  - "Transplant Issues: 2007" *Janet Barnett PA-C, CCTC*

Emergency Preparedness

Network 6 has taken active steps in 2007 to educate and inform patients and providers about emergency and disaster preparedness.

- Network 6 informs all new patients about Emergency Preparedness in the CMS New Patient Book, "Preparing for Emergencies: A Guide for People on Dialysis." The New Patient Book is mailed directly to the patient's home.

- Disaster Preparedness Administrators Checklist was mailed to all facilities in Network 6 area.

- Network 6 web site contains information on disaster preparedness for patients and facility staff. Resources can be downloaded and accessed from the web site to include:

  - "Preparing for Emergencies: A Guide for People on Dialysis"
  - Emergency Preparedness Tip Cards
  - Disaster Preparedness Patient and Facility Book
  - Dialysis Facility Water System Information
  - Link to http://www.dialysisunits.com/, to find the open/closed status of facilities
  - Link to Kidney Community Emergency Response, www.kcercoalition.com
  - Link to FEMA

- The 2007 Annual Meeting included a presentation by Tom Bradsell, Operations Manager for the Sunsational Division of DaVita in Florida on "Worst Case Scenario: Planning for a Disaster."

- The 2007 Georgia Patient Workshop included a presentation by the Patient Services Coordinator titled, "Expecting the Unexpected: The Importance of Developing a Personal Plan".

- The Patient Services Coordinator presented on Disaster Preparedness at the Cardinal Chapter ANNA Spring Symposium.

- The Patient Services Specialist presented "Adherence During Times of Crisis – Disaster Preparedness" at the Empowering Patients to Overcome Barriers to Adherence conference in Atlanta, Georgia. The conference was sponsored American Kidney Fund.

- The Patient Services Specialist distributed educational materials at the conference, Empowering Patients to Overcome Barriers to Adherence in Atlanta, Georgia. The conference was for professionals and patients. Disaster Preparedness materials were given to all participants.

- Network 6 is involved in the Kidney Community Emergency Response (KCER) Coalition, which provides technical assistance to ESRD Networks, CMS organizations and other groups to ensure timely and efficient emergency preparedness, response and recovery for the kidney community. KCER has eight Response Teams to develop tools and coordinate systems as part of the overall KCER plan. The response teams include Patient Assistance, Communication, Facility/Patient Tracking, Federal Response, Facility Operations, Coordination of Staff/Volunteers, Physician Placement/Assistance and Pandemic Preparedness. The Patient Services Specialist is a member of the Patient Services Response Team. Areas of focus for this group are educational resources for patients in preparation for emergencies/disasters and a central coordination system for

financial aid to patients. The Patient Services Specialist provides input to this group based on her years of ESRD experience in the private sector. The Patient Services Specialist attended the 2007 KCER Summit in Baltimore, Maryland and facilitated table discussion about the Patient Services Response Team activities, brainstorming of new ideas for development, and gaps in the activities.

- The KCER presentation was displayed at the Network Annual Meeting. Facility staff were able to gain knowledge and resources related to disaster preparedness to carry back to their facility and educate additional staff and patients.

- Network 6 has a written Disaster Policy that describes the procedure for ensuring continuity of Network function. This links to the BCCP and includes flowcharts of steps and responsibility. The policy also describes the steps the Network takes to prepare facilities and patients for disasters and steps for Network staff to take during and after an emergency to help facilities and patients to locate services and resources.

- Network 6 established a partner relationship with Network 9/10 to assist in national disasters.

- Network 6 met with the North Carolina Emergency Response Specialist to discuss development of a Multi Hazard Threat Database.

- Network 6 Executive Director and Quality Improvement Director met with the South Carolina Department of Health and the SC State Agency surveyors in Columbia, SC to discuss Disaster Preparedness in the ESRD population.

- Network 6 hosted three Emergency/Disaster Preparedness Conference Calls for North Carolina, South Carolina, and Georgia facilities. These calls were formulated at the request of various facility staff. The following agenda items were discussed:

    - Network's role in disaster preparedness and planning
    - Network resources
    - Regulatory and State requirements
    - Kidney Community Emergency Response Coalition
    - Developing relationships with Emergency Operation Centers

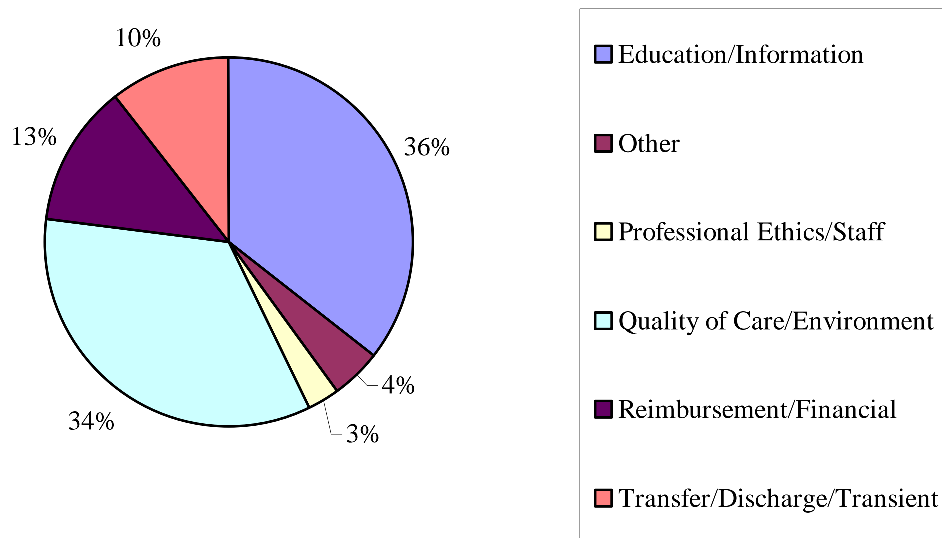
- Network 6 Quality Improvement Director participated in a series of calls with the Georgia Department of Health and North Carolina Department of Health to discuss faxing a information sheet to dialysis facilities on water crisis in the regions. The group formulated a set of guidelines that were sent to all providers.

Resolving Patients’ Complaints and Grievances

The Patient Services Specialist handles complaints and grievances. Contacts to the Network, either written or verbal, can come from anyone that has an issue of dissatisfaction with an ESRD facility or transplant program.

The 605 beneficiary inquiry calls are predominately related to requests for Educational and Information related to ESRD and Quality of Care as shown in the graph below.

Figure 21: 2007 Beneficiary Inquiries by Category



Network 6 actively promoted the Network’s role and how to file a complaint and grievance to patients through newsletters and workshops:

- The 2007 North Carolina Chronic Kidney Disease Patient Workshop included an overview of the ESRD Network and the Network’s process for receiving, reporting, resolving and tracking complaints and grievances, the Network’s toll-free number and interventions to reduce grievances.

- Mark Meier MSW, LICSW presented “Addressing Conflict and Communicating Change”. This presentation was well received by patients, rating a 3.89 out of 4.0. Patients were encouraged to communicate with their facility staff and physician regarding any concerns or questions, stressing that by identifying and solving problems it leads to a better clinic environment for both the patient, fellow patients, and facility staff.

- The *Renal Health News* included an article related to the role of the Network. This article titled, “Southeastern Kidney Council – ESRD Network 6 – We Are Here for You!” The Network’s toll free number, web site, goals and mission were provided for patients and family members to be more informed of the Network.

- The *Renal Health News* contained an article titled, "The Compliant and Grievance Process". This article explained the Network's role in mediating complaints and grievance related to patient care in the dialysis facility. The Network along with the individual State Survey Agencies contact information was also included.

Decreasing Dialysis Patient-Provider Conflict

The Patient Services Specialist continued to utilize the Decreasing Dialysis Patient-Provider Conflict (DPC) program in 2007.

- The Network provides facility staff training for units where difficult patient issues have occurred. The Patient Services Specialist also encourages and describes DPC when handling complaints and grievance calls. The DPC program is posted on the Network web site.

- The Patient Services Coordinator presented on DPC and Conflict Resolution at the DaVita TOPCATS statewide Social Work meeting. Social Workers from North Carolina were educated on the DPC Project.

- The Patient Services Coordinator presented on DPC and Conflict Resolution to National Renal Alliance facility staff.

Satisfaction Surveys

The Network developed and implemented the Satisfaction Survey process beginning July 1, 2006 giving the opportunity to beneficiaries and facility participants to rate and comment on their experience with the Network Complaint and Grievance process. Quarterly trending of results assists in improving Network customer services and targeting educational opportunities.

After each complaint or grievance in which the Network was involved in resolution, each beneficiary and facility participant are offered the opportunity to respond by mail and a self-addressed, stamped envelope is enclosed with the Satisfaction survey to make it easier to return. The results reflected in the graphs below indicate a decrease in the percentage of Beneficiary and Facility Satisfaction Survey Returns from Calendar Year Quarter 1 through Quarter 4. In Quarter 2, the Network process improved to offer beneficiaries an opportunity to respond by telephone for their convenience in an effort to address this decrease. When the beneficiary elects the survey to be given by telephone, the Patient Services Coordinator transfers the call to another Network Staff Member. This staff member reads the survey as it is written without added language and writes the response as the beneficiary verbalizes, without editing. This helps to ensure validity of the date and confidentiality. It has been found that many beneficiaries request a mailed survey opposed to a telephone survey.

Written comments from the surveys include:

- The Network staff was available to answer my questions.
- I was given the opportunity to fully explain the concerns.

- The complaint and grievance process was explained so I could understand it.
- I had enough time to compile and submit documentation.
- I am aware of available Network resource relating to conflict resolution and grievance mediation.

The surveys average ranking is 4.52 out of total of 5.00 total satisfaction. The Network indicator goal states that 75% of beneficiary and facility satisfaction surveys have an overall satisfaction score of >=3.5. The results reflect that the goal was met. The Network strives toward continuous improvement by changing this process as needed in response to the comments.

Formal Grievances

During 2007, the Network received a total of five formal grievances requiring formal investigations. Network 6 documented all significant appropriateness of care and quality of care contacts with the beneficiaries and the facilities as part of routine Network operations. Contacts are documented into the SIMS system. Reports are produced from the data system for review and profiling. Usually, the Network representative is able to meet the needs or concerns of callers and avoid the necessity for formal grievance activity.

1. Case#: 600650399: The Network received a written grievance from the beneficiary about the facility. The beneficiary stated he went to the facility for routine lab work and the Peritoneal Dialysis Nurse drew the blood from his fistula, despite him telling her that she should not draw blood from that site. The beneficiary stated that two weeks later his arm became swollen and red and when he went to the hospital and was informed that the fistula could no longer be used. The beneficiary requested the facility's Standard Operation Procedures and has not received them. The beneficiary left numerous messages at the facility requesting the information and did not speak to anyone until a month later.

Resolution: The Network representative contacted the beneficiary and explained the Network role and the complaint and grievance process. The beneficiary requested the issue be handled as a formal grievance and provided consent to release his name to the facility to resolve the situation. The Network conducted an investigation into this formal grievance, which was found valid. The facility completed an improvement plan to address the situation that contained the following actions:

- In-serviced facility staff on strategies for assessing and preserving vascular access
- In-service facility staff on patients rights and responsibilities inclusive of the patients right to refuse a procedure
- Reviewed patients rights and responsibilities with each facility patient
- Instituted a facility policy regarding obtaining blood samples from the patient's vascular access
- In-serviced nursing staff on effective medical record documentation

A resolution was reached with the beneficiary's acceptance and of the facilities' interventions.

2. Case#: 600665555: The beneficiary stated his treatment time was reduced because of his tardiness and only three Patient Care Technicians enforce the policy at his facility. The beneficiary stated that a few weeks ago a Patient Care Technician told him that he would be docked when he arrived late for treatment as this was the policy at another facility and would be done at this facility also. The beneficiary stated that last week he was late and when the Patient Care Technician wanted to take him off, he refused until he could talk with the facility Charge Nurse. The Patient Care Technician refused to get the facility Charge Nurse. The beneficiary noticed that the implementation of this policy is inconsistent and he considers this as discrimination. The beneficiary requested this be handled as a formal grievance.
Resolution: The Network representative explained the role of the Network respective to complaints and grievances. The Network conducted an investigation into this formal grievance and found inconsistency in enforcement of the Against Medical Advice policy and lack of staff professionalism. Per the Network recommendations, the facility Administration discussed the Against Medical Advice policy, the necessity for consistency and professionalism with the facility beneficiaries and staff members. Resolution was reached through the beneficiary's acceptance of the implementation of the recommendations.

3. Case#: 600681175: The beneficiary stated that he was involuntarily discharged from his doctor's care and facility without transfer of care. The beneficiary provided consent to release his name to the facility to resolve this issue.
Resolution: The Network conducted an investigation into the involuntary discharge and the records reflect the beneficiary's doctor terminated the doctor-patient relationship because of threatening behavior and severe noncompliance. Records further indicate that several meetings were scheduled and the beneficiary did not appear. Records reflect the beneficiary was provided a list of dialysis facilities and offered assistance for transfer. During the investigation the beneficiary stated that he had placed a grievance with the facility and believed the discharge was retaliation. The Patient Services Specialist inquired about the details of the grievance and explained the need to obtain further information from him and provided the State Agency and state Medical Review Board contact numbers. The beneficiary refused to give details about his grievance with the facility. The beneficiary received treatments at the hospital. This case began as a complaint and was escalated to a formal grievance on September 20, 2007. This case was also referred to the State Agency on this date. The State Agency surveyor informed the Network representative that the allegations of involuntary discharge without assistance to transfer were unsubstantiated. The beneficiary was notified of the findings and the case was closed. This beneficiary is dialyzing at a local hospital.

4. Case#: 600692819: The beneficiary stated he filed a grievance with the facility on November 2, 2007 about fluid weights and an error with dialysate. The beneficiary also stated the doctor made unprofessional comments to him on the treatment floor. The beneficiary provided consent to release his name to the facility to resolve this issue.
Resolution: The Network representative explained the role of the Network respective to complaints and grievances. The beneficiary stated he forwarded the grievance to the state Medical Review Board for the allegations involving the doctor and called the State

Agency regarding the facility allegations. The Network representative referred the formal grievance to the State Agency because of the regulatory issues and the allegations were substantiated. The beneficiary elected to transfer to another facility and verbalized satisfaction with the outcome of the grievance and the case was closed.

5. Case#: 600697008: The Network representative contacted the beneficiary in response to his written grievance. The beneficiary stated transplant lab work had not arrived at the transplant facilities on several occasions. The beneficiary stated that results of his follow-up with the transplant facilities indicated the lab work was not sent. The beneficiary and the facility Administrator met and discussed a process to prevent reoccurrence of the issue and verified that his status on transplant lists was not negatively affected. The beneficiary was unsure the new process is in place and stated he wanted his complaint to be treated as a formal grievance. The beneficiary provided consent to release his name.
Resolution: The Network representative explained the role of the Network respective to complaints and grievances. The Network representative contacted the facility Administrator and documentation received reflected the facility lab policy which had been revised to address the mailing of transplant labs including the requirement of a recipient signature confirmation. Resolution was reached through the confirmation of the facility procedure and the case was closed.

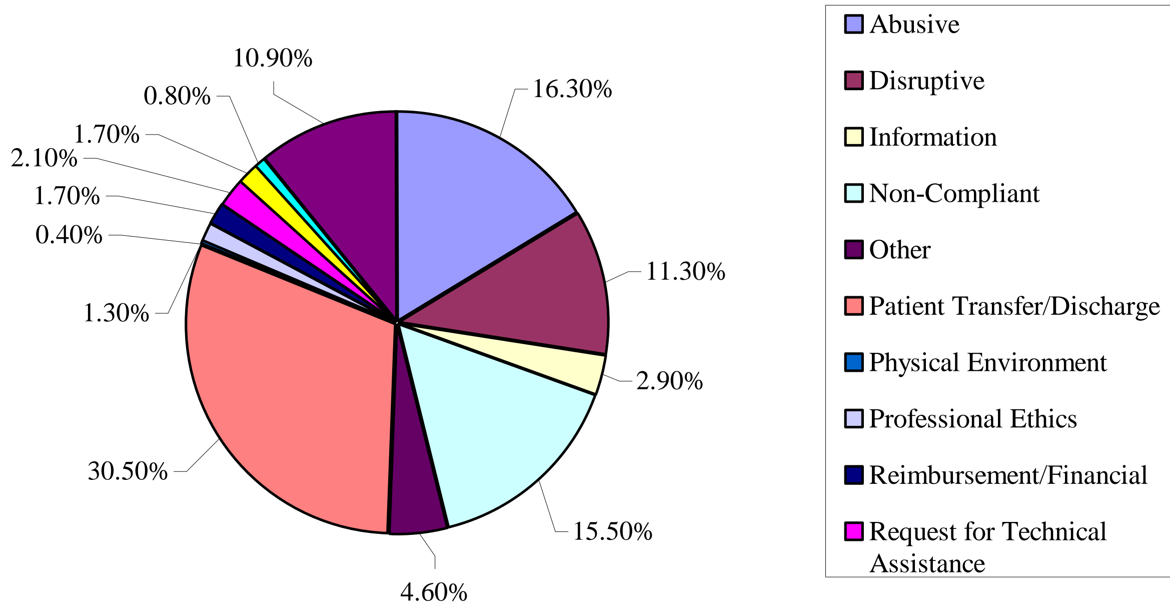
Involuntary Discharges

If a patient is reported as Involuntarily Discharged on the Network Patient Activity Report and the appropriate facility staff has not contacted the Network to give notice of or seek assistance with an Involuntary Discharge incident, the Patient Services Specialist contacts the facility to discuss the case, offering suggestions for prevention and educational assistance for staff and patients.

Facility Concerns

A facility concern is a written, verbal or electronic request from facility staff for guidance, advice, or assistance on how to handle difficult issues that are clinical, behavioral or quality of care related. The Network received 239 Facility Concerns in 2007, a decrease from 2006. Figure 20 shows the number of facility concern calls for 2007. Patient Transfer/Discharge continues to be the majority area of concern of facility concerns.

Figure 22: Facility Concerns By Type



Network staff provided outreach to facility staff for patient complaints, grievances, and involuntary discharges and facility professionalism:

- The *Communicator* article "Preparing an Improvement/Action Plan: Complaints and Grievances", gave facility staff helpful tips for preparing an action plan. Facility staff was requested to send in actions plans to the Network.

- The *Communicator* article, "Solutions for the Top Five Reported Facility Concerns" included proactive solutions to facility staff for the following provider concerns: Disruptive/Abusive Patient, Disruptive Caregiver, Non-Adherent Patient, Patient will only allow certain staff to treat them, and Patient is in need of a sitter during treatment due to incapacity/safety concerns.

- Mark Meier MSW presented at the 2007 Annual Meeting on "Professionalism and Improving Staff Retention in the Dialysis Facility."

State Survey Agencies

The Network consults frequently with the State Survey Agencies on complaints and quality issues. In 2007, the Network referred 30 concerns/complaints to the State Agencies. The majority of the calls were referencing infection control issues.

The State Survey Agency calls the Network immediately prior to conducting a survey and the Network discusses any known quality concerns. The Network is also available for Nephrology technical assistance during a survey. The Network shares the following facility-specific information and discusses possible improvement activities:

- If facility is under Focused Review for Quality Improvement or Data
- Most recent Lab Data Collection Report
- Complaints and grievance trends
- Most recent Dialysis Facility Report

Each quarter, the Network mails the State Survey Agency information about Network 6 providers to assist them in their reviews.

Summary:

Network 6 has achieved the CMS goal of improving patient perception of care and experience of care, and resolving patients' complaints and grievances. Empowering patients and raising awareness to patients and facilities regarding the complaint and grievance process have achieved this goal. Network 6 has provided outreach through various means to include workshops, educational materials, web site, and verbal communication to raise awareness of the Network role and reduce complaints and grievances. To achieve these goals, Network 6 measures various processes through Internal Quality Improvement projects, including Patient and Facility Satisfaction Surveys.

CMS Goal #4: Improve collaboration with providers and facilities to ensure achievement of goals 1 through 3 through the most efficient and effective means possible, with recognition of the differences among providers (independent, hospital-based, member of a group, affiliate of an organization, etc.) and the associated possibilities/capabilities.

A collaborative project is a systematic approach to healthcare quality improvement in which teams of healthcare providers test and measure practice innovations. They share their experiences in an effort to accelerate learning and widespread implementation of best practices. Network 6 performed the following collaborative activities in 2007:

Fistula First Breakthrough Initiative (FFBI)

The AV Fistula First Breakthrough Coalition (FFBI), consisting of the Centers for Medicare & Medicaid Services (CMS), ESRD Networks, and the entire renal community, works together to increase the likelihood that every suitable patient will receive the most optimal form of vascular access - which, in most cases, will be a native arteriovenous fistula, or AV Fistula. The focus of the FFBI is also on reducing catheter use and vascular access complications.

The Quality Improvement Director and Coordinator are members of the Practitioner Education Task Force, whose primary contribution to the Breakthrough Initiative was development of the DVD. Network staff participated in the FFBI Web ex conference calls. The Executive Director participated in the FFBI Core Group and Program Operations Conference Calls.

Georgia Quality Improvement Organization Project

This project is modeled after the Breakthrough Series College sponsored by the Institute for Healthcare Improvement (IHI). This collaborative project will join the hospital and ESRD treatment center staff in a partnership for five months to identify and test system changes aimed at improving the detection and treatment of Stage 4 pre-ESRD care processes. Network 6 will map the AVF rates in Georgia to identify one community in which to conduct this project.

Network 6 began working on a project with Georgia Medical Care Foundation (QIO) to increase the incident AVF rate in intervention facilities in late 2007. AVF rates were mapped in Georgia and a community was chosen based on this mapping. The Executive Director and Quality Improvement Director participated in several conference calls during the quarter to discuss preparation. Network 6 facilities were faxed a Hospital Affiliation sheet to complete that will give the Network information on which hospitals are being utilized for vascular access procedures. Network staff prepared a log and is currently responsible for the data entry. Based on this information, intervention hospitals and ESRD treatment centers will be partnered for five months to identify and test system changes aimed at improving the detection and treatment of Stage 4 pre-ESRD care processes.

Leadership Coalition

Network 6 collaborated with dialysis providers to share ideas and approaches in ensuring patients' quality of care. Network 6 invited corporate leadership from DaVita, Fresenius, Health Systems Management, DCI, DSI, National Renal Alliance, Renal Advantage, and Renal Research Institute and Network Board Chairs Members to attend the meetings in 2007.

Network 6 met twice in 2007 with corporate leadership to better identify ways to collaborate with dialysis providers to achieve optimal patient care.

North Carolina Institute of Medicine Chronic Kidney Disease Task Force (NC IOM)

The NC IOM Chronic Kidney Disease Task Force was developed by the North Carolina Institute of Medicine to study chronic kidney disease in response to the North Carolina General Assembly 2006 Session. The Chief Executive Officer of the National Kidney Foundation of North Carolina and the Chief of NC Division of Public Health's Chronic Disease and Injury Section leads the Task Force. The Network 6 Executive Director along with key personnel from the CKD community make up the Task Force. The goals of the Task Force include:

- Reduce the occurrence of chronic kidney disease by controlling the most common risk factors, diabetes and hypertension, through preventive efforts at the community level and disease management efforts in the primary care setting.
- Educate the public and health care professionals about the advantages and methods of early screening, diagnosis, and treatment of chronic kidney disease and its complications based on KDOQI Guidelines.
- Educate health care professionals about early renal replacement therapy education for patients prior to the onset of ESRD when kidney function is declining.
- Make recommendations on the implantation of a cost effective plan for prevention, early screening, diagnosis, and treatment of chronic kidney disease and its complications for the State's population.
- Identify current barriers to adoption of best practices and potential policy options to address these barriers.

The Task Force met monthly in 2007 with the Executive Director and Quality Improvement Director representing the Southeastern Kidney Council. The coalition prepared recommendations for programs that could be implemented to improve pre-ESRD care, including early placement of AV fistulas.

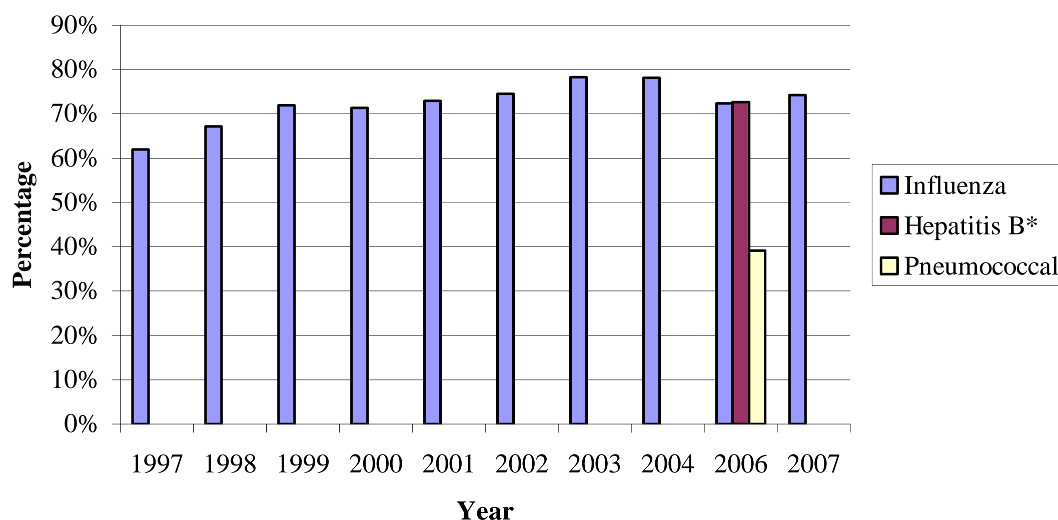
Safe & Timely Immunizations Coalition

The Safe & Timely Immunizations Coalition (STIC) was created July 1, 2005. The coalition's goal is to increase the rate of Hepatitis B, Influenza and Pneumococcal immunizations in dialysis patients and facility staff in ESRD Network 6; therefore, decreasing morbidity and mortality associated with these diseases. The vision of the coalition is that all ESRD Beneficiaries and Dialysis Facility

Staff will have the opportunity to be vaccinated against Pneumococcal, Hepatitis B and Influenza.

Data collected in 2006 showed influenza and hepatitis vaccinations at about 72%. The Pneumococcal vaccination rate was only at 39%; therefore, the MRB conducted an intervention in the second half of 2007 to improve all three vaccination levels. Data from this project will be available in the first half of 2008.

Figure 23: Network 6 Vaccination Rates



The coalition is composed of consumers, minority organizations, independent facilities, large dialysis facilities and other individuals from the renal community with an interest in immunizations. The organizations actively involved in STIC include:

- Abacus Statistical Consultants
- American Association of Kidney Patients (AAKP)
- American Nephrology Nurses Association (ANNA)
- Centers for Disease Control and Prevention (CDC)
- DaVita, Inc.
- Fresenius Medical Care North America (FMCNA)
- Georgia Association of Kidney Patients (GAKP)
- Georgia Medical Care Foundation (GMCF)
- Health Systems Management
- Intermountain End-Stage Renal Disease Network, Inc (Network 15)
- National Association of Nephrology Technicians and Technologists (NANT)
- North Carolina Division of Facility Services
- Renal Network of the Upper Midwest (Network 11)
- Rollins School of Public Health, Emory University
- South Carolina Department of Health & Environmental Control (SC DHEC)

- The Carolinas Center for Medical Excellence

STIC is structured with four working groups:

1. Marketing/Education Work Group
2. Data/Surveillance Work Group
3. Intervention/Evaluation Work Group
4. Steering Committee Call

Marketing/Education Work Group

The goal of the Marketing/Education Group is to produce and compile clear, concise regulatory guidelines to improve vaccination rates for Influenza, Hepatitis B and Pneumococcal disease in Networks 6, 11 and 15 among dialysis patients and staff.

Matthew J. Arduino Dr. Ph, Epidemolgist, Centers for Disease Control and Prevention, leads the Marketing/Education Group. This group was involved in the following activities in 2007:

- Participated in Vaccination Coalition with NC QIO and NC State Health Department
- Presented at Regional and National meetings
- Conducted additional activities as requested by the Medical Review Board, Board of Directors, or Consumer Committee
- Hosted a patient symposium in Winston-Salem, NC with a presentation on immunizations by the Centers for Disease Control and Prevention
- Offered a flu clinic at the Winston-Salem, NC patient symposium
- Published information on immunizations in each issue of the patient newsletter *Renal Health News*
- Developed, distributed, and evaluated educational materials related to Hepatitis B, Influenza, and Pneumococcal immunizations in Networks 6, 11, and 15
- Annually: Provide educational information related to vaccinations in various issues of the facility newsletter *Communicator*
- Marketing STIC and resources developed for STIC to the renal community
- Hosted an educational web-based session in conjunction with the Centers for Disease Control and Prevention focusing on Influenza, Hepatitis B, and Pneumococcal control and prevention
- Hosted an educational web-based session on the principles of writing an Immunization Quality Improvement Plan including a session presented by the Centers for Disease Control and Prevention on best practices in various health system settings

The members of the group participated in calls with the Intervention Work Group to assist with intervention information.

Data/Surveillance Work Group

The goal of the Data/Surveillance Work Group is to collect data to improve vaccination rates for Influenza, Hepatitis B and Pneumococcal disease in Networks 6, 11 and 15 among dialysis patients and staff.

The Data/Surveillance Work Group is led by Jan Deane RN, CNN of Network 11. The Data/Surveillance Work Group developed a facility practices survey patterned after a similar survey conducted among nursing homes. After receiving approval from CMS, the survey was mailed to all dialysis facilities in Network 6, 11, and 15 in May 2006. The group also developed a patient-specific data collection tool that was approved by CMS and was mailed to all dialysis facilities in Network 6, 11, and 15 in June 2006. The patient-specific tool collected the immunization status of all dialysis patients for Influenza, Hepatitis B, and Pneumococcal disease regardless of where the vaccination was received. If the patient was not immunized, the reason why will be collected. This information was analyzed and facility-specific reports were prepared and distributed to all facilities in Networks 6, 11 and 15. Follow-up data collection was conducted in 2007 for the 2006-07 Influenza season only due to data collection issues. For this follow-up collection, each facility in Network 6, 11, and 15 was mailed a patient roster and a facility-specific worksheet for collection of their facility Influenza immunization rate.

Intervention/Evaluation Work Group

The goal of the Intervention/Evaluation Work Group is to design and evaluate interventions to improve vaccination rates for Influenza, Hepatitis B and Pneumococcal disease in Networks 6, 11 and 15 among dialysis patients and staff and maintain the ability to "spread" this information across the country.

The coalition completed the following in 2007:

- The coalition chose the intensive intervention facilities (15 from each ESRD Network) and formulated the following intervention:
  - All facilities in Networks 6, 11 and 15 received the Educational Toolkit, CDC Guidelines on Immunization, and Influenza, Pneumococcal and Hepatitis B facility-specific feedback reports.
  - 15 facilities from each Network are included in an intensive intervention phase. The below three Web ex sessions were moderated by Network staff:
    - *a.* "Promoting Our Health: The Importance of Vaccinations" , by *Matthew J. Arduino Dr.P.H, Lead Microbiologist, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention (CDC)*
    - *b.* "Improving Immunizations: A CQI Approach", by *Jan Deane RN, CNN, Director, Quality Improvement and Consumer Services, ESRD Network 11*
    - *c.* "Overcoming Barriers to Immunizations: Clinical Best Practices" by *Priti Patel MD, MPH, Medical Epidemiologist, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention (CDC)*
  - The 45 facilities were required to create and submit an Action Plan based on the components of the Coalition developed Immunizations Quality Improvement Development Guide and submit monthly intervention tracking sheet throughout the intervention phase (October 2007-March 2008).

- Action Plans for most intervention facilities have been received, reviewed, and accepted.
- Each intervention facility continues to submit Monthly Intervention Tracking information.

Steering Committee
The Steering Committee guides and mentors the STIC working groups to enable accomplishment of their related goals. William McClellan MD guides the committee.

Vascular Access Workgroup
Network staff participated in a series of calls with the Vascular Access Workgroup (Networks 5, 6, 8, 11, and 13). This coalition was formed to share ideas and best practices related to Fistula First. These Networks were selected for the Coalition based on profiles showing they had similar patient populations and also had low fistula rates. The initial focus was to examine whether outcomes varied by race group. This was expanded to examine other factors. Analysis is still underway and the group has been sharing ideas they've implemented.

In 2007, Network 6 collaborated with the following organizations:

- American Nephrology Nurses Association
  - The Quality Improvement Director presented on STIC to ANNA Texas Chapter
  - Network 6 hosted a joint Winter Audio Conference meeting with the Cardinal Chapter of ANNA on February 6, 2007. The presentation was "The Heart of the Matter: Cardiovascular Disease and CKD".
  - The Quality Improvement Coordinator was actively involved in the Cardinal Chapter.
  - Network 6 displayed Fistula First exhibit at the Cardinal Chapter of ANNAs spring symposium on June 12, 2007.
  - Patient Services Coordinator presented at a local ANNA meeting on Disaster Preparedness.

- American Kidney Fund
  - Network staff presented on Disaster Preparedness at the American Kidney Fund Annual Meeting.

- Centers for Medicare & Medicaid Services
  - Network 6 had contact with the CMS Dallas Regional office. The Network Executive Director and management staff regularly attended conference calls with the Project Officer.

- Department of Health
  - Network 6 Quality Improvement Director participated in a series of calls with the Georgia Department of Health and North Carolina Department of Health to discuss fax broadcast to dialysis facilities on water crisis in the

regions. The group formulated a set of Guidelines that were sent to all providers.

- ESRD Networks
  - Network 6 collaborated with Networks 11 and 15 regarding the STIC project
  - Network 6 utilized tools from Network 7 Kidney Community Emergency Coalition
  - Network 6 included an article on End of Life Coalition in the *Renal Health News*

- Forum of ESRD Networks
  - Network 6 participated in the Annual CMS/Forum of ESRD Network's Annual Meeting.
  - Dr. Leland E. Garrett, Jr. MD, FACP, FASN, Network 6 BOD Chairperson, is a member of the 2007 Forum Board of Directors.

- KCER Coalition
  - The Patient Services Specialist attended the 2008 KCER Summit in Baltimore, Maryland and facilitated table discussion about the Patient Services Response Team activities, brainstorming of new ideas for development, and gaps in the activities.

- National Kidney Foundation
  - Network 6 collaborated with the National Kidney Foundations of Georgia to sponsor patient workshop.
  - Network 6 worked with the National Kidney Foundation of North Carolina in the NC IOM Chronic Kidney Disease Task Force.
  - Network 6 participated in the National Kidney Foundation of South Carolina Patient Symposium.
  - The Patient Services Coordinator attended the National Kidney Foundation Spring Clinical Meeting.

- North Carolina Council of Nephrology Social Workers
  - The Patient Services Team attended state-wide meetings.
  - Patient Services Coordinator served as President.

- Quality Improvement Organizations
  - Network staff participated in a Collaborative project with the Georgia Quality Improvement Organization regarding increasing fistula rates and referrals in Southwest Georgia facilities and hospitals. Network 6 was involved in this project from the beginning, served on the planning committee and presented at the meeting. Network fistula rates were mapped by zip code to identify the areas with the greatest capacity for improvement. This project partners dialysis facilities' with their hospitals

and surgeons to address the continuum of patient care that leads to improved pre-ESRD care and improved care at initiation of ESRD.
    - The Quality Improvement Director met with the North Carolina QIO staff to review immunization information.
    - The Quality Improvement Director serves as a member of the North Carolina Senior Vaccination Coalition (chaired by NC QIO)
    - The Quality Improvement Director presented at the North Carolina QIO to the Senior Vaccination Coalition on STIC and immunization issues related to ESRD.

- State Survey Agencies
    - The Executive Director and the Quality Improvement Director met with the South Carolina Department of Health and the SC State Agency surveyors in Columbia, South Carolina to discuss Disaster Preparedness in the ESRD population.
    - The Patient Services Team met with the Georgia State Agency to discuss Network projects, Complaint and Grievance procedure and upcoming meetings.
    - The Quality Improvement Director met with the Georgia State Agency to review QI Focused Review selections.
    - The Network staff routinely work with State Survey Agencies on patient complaints and grievances.
    - Network 6 partnered with the North Carolina and South Carolina Quality Improvement Organization's on the Safe & Timely Immunizations Coalition. Network 6 provided materials from STIC and participated in a coalition session to identify priorities.
    - Quarterly, the Network mailed packets to State Survey Agencies in North Carolina, South Carolina and Georgia with the following materials enclosed:
        - Fistula First Update
        - STIC Sample Facility Report
        - State specific Complaint Report
        - Involuntary Discharge Report
        - Meeting Brochures
        - Educational materials developed in the quarter

- Vascular Access Surgeon Association
    - Quality Improvement Coordinator attended and displayed a booth at the Association Meeting in Durham, North Carolina

Summary:
Network 6 improved collaboration with providers and facilities resulting in improved efficiency and effectiveness in data management and quality improvement. Network 6 developed and strengthened relationships with Nephrology and Health Care organizations throughout the region. These collaborations' have impacted both patients and facility staff. The STIC project continues to be a successful collaboration with national results.

CMS Goal #5: Improve the collection, reliability, timeliness, and use of data to measure processes of care and outcomes; to maintain a patient registry; and to support the goals of the ESRD Network Program

Network 6 collects ESRD patient and provider data in Georgia, North Carolina and South Carolina, thus providing crucial support and analysis of quality improvement activities to support the goals of the ESRD Networks. This is detailed in previous sections of this report.

Network 6 enters and validates data through the Standard Information System (SIMS) as defined by CMS. Network 6 maintained accurate, complete, and current information for CMS-designated systems accounts. Network staff performs daily entry and analysis, and monthly validations to the active database.

Data Collection

The Network is responsible for obtaining completed CMS ESRD forms per the ESRD Network Organizations Manual. The below narratives describe how the Network met the goal of collecting data from providers/facilities.

The Network provided copies of the CMS 2728 (Medicare Entitlement) and 2746 (Death Notification) to facilities unable to obtain the forms via other methods. Approximately 77 facilities received copies of the CMS 2728 and 157 facilities received copies of the CMS 2746. Supplies of start-up forms were provided to the 21 facilities certified in 2007. Providers were informed that the CMS 2728 was obtainable from the local Social Security Administration (SSA) office. A link to the local office SSA is in the Network 6 Data Manual on the web site.

The Network completed the CMS 2744, ESRD Facility Survey, according to the CMS guidelines. The Network tracked receipt of the forms in a database and reviewed each form for completeness. Of the 521 surveys received, 25.0% required follow-up with the facilities to ensure completeness and accuracy.

Monthly, the Network collects aggregate vascular access information for each non-LDO facility. All forms are entered in the vascular access utility to ensure inclusion in the appropriate monthly Fistula First Outcomes Dashboard.

The Network Patient Activity Report (NPAR) provides monthly updates to a patients' current status in the CMS-designated ESRD information system. The Network received 97.8 % of Network Patient Activity Reports in 2007. As a result 35,854 patient entries were made in the CMS system. Updates from the NPAR ensure that each patient's status is reported to CMS in a timely manner for appropriate enrollment and termination in the Medicare program for ESRD benefits.

The above forms are sent offsite quarterly to a secure, bonded storage facility. Forms are maintained for two years. After the two-year period the forms are destroyed per the CMS security guidelines.

In 2007, there were 27 *Vital Information System to Improve Outcomes in Nephrology* (VISION) users. These facilities sent data electronically via a CMS approved web site. The Network received 655 CMS 2728 forms and 449 CMS 2746 forms from VISION.

Table 6 details the number of CMS forms entered manually into SIMS in 2007:

Table 6: CMS Forms Entered Manually into SIMS in 2007

Form	Form Description	Number Entered
CMS-820: Hemodialysis Clinical Performance Measures (CPM)	The form is completed annually to capture data related to adequacy, anemia and nutrition for hemodialysis patients.	675
CMS-821: Peritoneal Dialysis Clinical Performance Measures (CPM)	The form is completed annually to capture data related to adequacy, anemia and nutrition for peritoneal patients.	200
CMS 2728 Medical Evidence	The form is completed to determine Medicare entitlement for ESRD.	9,114
CMS 2744 Facility Survey	The form is completed annually to validate all patient event data for the year and capture treatment and staffing.	521
CMS 2746 Death Notification	The form is completed for all expired ESRD patients.	6,234
Lab Data Collection (non-LDO)	The form is collected annually to capture lab values.	109
Network Patient Activity Report (NPAR) (Number of NPARS not events)	The form is completed monthly to report all patient events.	5,955
Vascular Access (non-LDO)	The form is collected monthly to capture vascular access data for each patient.	1,213

Data Reliability and Validity

The Network views data reliability and validity as critically important to ensure all ESRD patients receive quality of care. The Network makes every effort to constantly improve the completeness and reliability by performing "data scrubs". Data scrubs are defined as routine examination of the data sets to ensure data is reliable and validate for quality improvement projects. The below section details the data scrubs performed by the Network in 2007.

Network staff performs daily proofing of CMS 2728 and 2746 forms to ensure data integrity. In 2007, 98.7% of CMS 2728 forms were entered accurately and 99.8% of CMS 2746 forms. Table 7 details the fields reviewed for each form type.

Table 7: Fields Proofed by Form Type

Form Type	Fields
CMS 2728 All	• Name • SSN • Address • Medicare Number • Date of Birth • Gender • Race • Height • Weight • Primary Cause • Serum Creatinine and Date
CMS 2728 Dialysis	• Date Chronic Dialysis Began • Date Patient Started Chronic Dialysis at Current Facility • Remarks
CMS 2728 Transplant	• Date of Transplant • Name of Transplant Hospital • Enter Date • Current Status of Transplant • Date of Return to Regular Dialysis
CMS 2728 Supplemental	• Name of Training Provider • Medicare Provider Number of Training Provider • Date Training Began • Type of Training • Date Training Completed or Expected
CMS 2746	• Name • SSN • Date of Birth • Provider Number • Provider Name • Primary Cause of Death • Secondary Cause of Death

Each CMS 2728 and 2746 form undergoes edit checks for blank or inaccurate data. Network staff contacts providers daily for the missing or inaccurate data. In 2007, 99.1% of all facilities were contacted within 7 days of the Network receiving the data.

The facility database was updated to ensure data for the Dialysis Facility Compare web site was reliable. The Network conducted reviews of the facility data before CMS released data for Dialysis Facility Compare. In 2007, 263 changes were made to facility elements. The Network also updated 1,989 personnel records.

Monthly, the Network processes CMS notifications and accretions. Notifications are data discrepancies between the SIMS system and the CMS Renal Management Information System (REMIS). The elements reviewed for discrepancies are: social security number, Medicare number, surname, first name, sex, date of birth, date of death, most recent transplant date, most recent transplant fail date, and most recent setting date. The Network researches and make the appropriate updates in the SIMS system.

The United Network for Organ Sharing (UNOS) sends the Network a monthly file of kidney transplant updates. The data received from UNOS is validated with the data submitted by transplant facilities in the Network 6 states. Changes are made to the SIMS database as needed.

Clean-up queries assist in validating Network data. The queries assist the Network in identifying and monitoring errors on required core elements. The queries also identify duplicate records, missing elements, and inaccurate data. The Network uses the queries on a monthly basis to validate data.

The Network verifies data received quarterly via the Facility Roster Report. The Roster contains a beginning population, all patient events, and ending patient population. Each facility is asked to verify that all the information is correct and make any necessary corrections. Once a year in the 3rd quarter patient addresses are also verified. This validation ensures that the data is accurate and complete.

CMS requires a formal validation of the CPM forms. Each year, after the forms have been edited, entered and submitted to CMS, the Network conducts a validation study on 5% of the forms. A random sample of forms is selected by CMS and distributed to the Networks to abstract the date from the patients' medical records. This abstraction process may be conducted by asking the facility to mail portions of the medical record to the Network. The data from the medical records are submitted electronically to CMS for comparison to the data submitted from the facility.

The Network conducted a validation of patient and physician signatures on the CMS-2728 forms received electronically through VISION. In 2007, 655 CMS 2728 forms were submitted to the Network via VISION. The 3% random sample of 19 forms was selected. After review, all 100% of the forms passed the patient and physician signature validation.

The Network validation efforts are quantified below:

Table 8: Network 6 Validation	
Validation	**Number Processed**
Accretions	107
Notifications	15,422
Rejects	2,610
Roster	1,531
UNOS	1,010

Technical Assistance

The Information Management staff provides daily technical assistance support to facility staff to assist with forms completion. In 2007, there were 1,847 technical assistance request contacts based on SIMS. Table 9 details the area and number of phone calls received.

Table 9: Technical Assistance Calls by Area of Concern

Area of Concern	Number of Calls
Data Request	309
VISION	25
Request for Forms	45
Request for Technical Assistance	1,401
Information	65
Request for Educational Materials	1
Other	1

Education

The Network provided the following resources to assist facilities with forms completion, submission, and compliance.

- Online resources:
    - PowerPoint presentation on how to complete the CMS 2744 survey
    - CMS 2728 tip sheet
    - CMS 2746 tip sheet
    - CMS forms frequently asked questions
    - Network 6 Data Manual
- *Communicator* articles:
    - Involuntary patient discharges
    - CMS forms compliance
    - National Provider Identifier (NPI): Get It. Share. Use It!
    - We need you to help us achieve our data goals!
    - Technical Assistance Available from the Network

The Network performed three in-person trainings for facility personnel on data submission. Approximately 75 participants attended two trainings on August 29 and 30, 2007, in Raleigh and Rocky Mount, North Carolina respectively. On October 11, 2007, approximately 11 participants received training in Concord, North Carolina. All training included information related to: increasing compliance rates, completing the CMS 2728 and 2746, Network Patient Activity Report, Quarterly Facility Roster, the Missing Forms Report, and the Current Rejects Report.

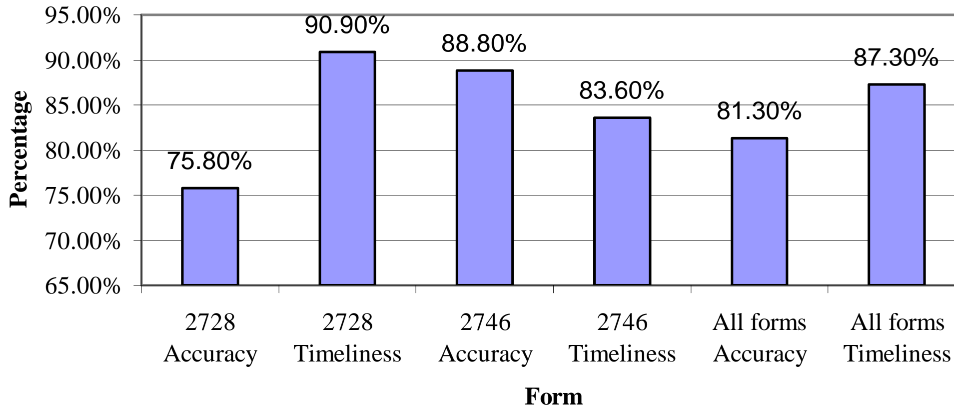
Intervention for Low Performers

The CMS goal for forms compliance is that each provider maintains an average compliance rate of 90.0% or greater for timeliness and accuracy. Semi-annually, the Network mails compliance reports to every provider in the Network. Each year, facilities are mailed their annual compliance report. Providers that did not reach the 90% goal are required to submit a Corrective Action Plan. Providers that submit 20 or more forms a year that did not reach 80.0% compliance were placed on Forms Focused Review for compliance.

Facilities received aggregate reports monthly to assist them with increasing compliance rates. At the end of 2007, 27.1% of facilities reached the CMS goal of 90.0%. These facilities were released from focused review.

In 2007, 42.0% of Network facilities exceeded the 90.0% goal, 1.7% at the goal, and 56.3% did not meet the goal. Of the 56.3% not meeting the goal, 12.3% were placed on Forms Focused Review. Figure 24 details the yearly average compliance rates for CMS forms 2728 and 2746.

Figure 24: 2007 Compliance of CMS Forms



Recognition for High Achievers

The Network awarded dialysis facilities for outstanding performance in CMS forms compliance. Award winners were acknowledged at the 2007 Network Annual Meeting. A listing of the award winners are also on the Network web site. The following facilities had a compliance rate of 100%:

- ARA South Augusta Clinic
- BMA of Atlanta Inc.
- BMA of Macon Inc.
- BMA of Millen Inc.
- BMA of Southwest Greensboro
- Carolina Dialysis-Carrboro

- DaVita Pendleton Dialysis
- DCA of South Georgia
- DCI Atlanta Home Dialysis
- DCI Columbus
- Dialysis Clinic Inc Kings Mountain
- Elkin Dialysis Center
- FMC Cumming
- FMC Dialysis Services of Houston County
- FMC Of Fort Valley
- FMCNA Dialysis Services of Chattahoochee Valley
- FMCNA Swainsboro
- Fresenius Medical Services of Catawba Valley
- Greensboro Dialysis Facility LLC
- Henry County Dialysis
- High Point Kidney Center Inc.
- Independent Nephrology Services Charlotte
- Independent Nephrology Services Iredell County
- INS Statesville
- King Dialysis Center
- Lake Norman Dialysis Center
- Lexington Dialysis Center
- Medlock Bridge Dialysis
- Moultrie Dialysis Center
- Mount Airy Dialysis Center
- North Georgia Dialysis Home
- Northeast Georgia Dialysis
- Northside Dialysis Center
- NRA Palmetto
- Piedmont Dialysis Center
- Renex Dialysis Clinics Of South Georgia
- Rich Square Dialysis Center
- West Iredell Dialysis Center

Summary:

Network 6 activities to improve the collection, reliability, timeliness, and use of data to measure processes of care and outcomes were outlined in the above section. In 2007, the Network performed numerous data scrubs to ensure data reliability and validity. The diligence in the tasks proved productive as only 25.0 % of facilities needed follow-up for the CMS 2744 annual data verification. Technical assistance and resources were provided to facilities to ensure data accuracy and timeliness. An intervention was launched to assist low performer in increasing compliance rates. While the Network did not meet the 90.0% compliance goal, the rate increased by 4.4% to 87.4% overall as a result of the resources and interventions.

SANCTION RECOMMENDATIONS

No recommendations for sanctions were made in 2007.

RECOMMENDATIONS FOR ADDITIONAL FACILITIES

There is a need in the ESRD system to address the treatment of patients who have been denied access to care because they have previously been involuntarily discharged. These patients may be denied access to care because they have been involuntarily discharged from their previous dialysis facility for non-compliance, disruptive or abusive behavior. These patients are often mentally ill, or have an underlying mental health issue that has not been addressed. Once these patients are discharged, they have great difficulty finding a facility or physician willing to care for them. They often overburden local Emergency Departments and are inadequately dialyzed because of the constraints and criteria for dialyzing in an inpatient hospital setting.

It is our recommendation that CMS study the issue to identify a solution that will provide quality, alternative care for the patient that has been previously involuntarily discharged. This solution may include a more specific Medicare Regulation regarding involuntary discharge as well as exploring alternative payment options for patients who have not been accepted into an outpatient dialysis setting for the above reasons. This solution may also include additional mental health services for these patients.

A need has also been identified for outpatient facilities to care for the sub-acute dialysis patients who have special needs such as wound and tracheotomy care. Most chronic dialysis facilities are ill-equipped to care for these needs and do not have staff trained or the level of staffing needed to provide this type of care.