

Dear Region Director:

This report is designed to provide a comparative summary of treatment patterns and patient outcomes for End Stage Renal Disease (ESRD) patients in this region, as compared to other regions. This profile has been prepared for this region by the University of Michigan Kidney Epidemiology and Cost Center (UM-KECC) with funding from the Centers for Medicare & Medicaid Services (CMS). The statistics reported here are based on the dialysis patients treated during 2005-2008 in the chronic dialysis facilities in this region (see the facility list).

For comparison purposes, statistics are also reported for all patients in the United States. Selected statistics from this profile are summarized here. See the *Charts and Tables of Key Statistics* section for region-to-region comparisons of key statistics.

What's New This Year: As part of a continuing effort to improve the quality and relevance of this report for your region, the percent of cardiac related deaths has been added to Table 1. First year mortality statistics for new dialysis patients who started dialysis between January 1, 2005 and December 31, 2007 are calculated and reported in the second half of Table 1. Comorbidity data on Medicare dialysis patients treated each year from 2005-2007 have been added (see Table 9). Please refer to the section entitled "What's New" in Section I of the *Guide to the 2009 Region Profiles for Dialysis Patients and Facilities* for greater detail on these changes.

Mortality: There were 7,396 deaths among the patients treated in this region during 2008, while 7,601 would be expected based on their age, race, ethnicity, sex, diabetes status, duration of ESRD, nursing home status, BMI at incidence, comorbidities at incidence, as well as state population death rates. The Standardized Mortality Ratio (SMR) of observed to expected deaths is 0.97, which is 3% below the 4-year (2005-2008) national reference value of 1.0. Of the deaths in this region in 2008, 23% were preceded by withdrawal from dialysis, compared to the national average of 25%. See Table 1 of this profile for more detailed mortality statistics.

First Year Mortality: There were 2,777 deaths among the patients treated in this region during 2007, while 2,704 would be expected based on their age, race, ethnicity, sex, diabetes status, nursing home status, BMI at incidence, comorbidities at incidence, as well as state population death rates. The Standardized Mortality Ratio (SMR) of observed to expected deaths is 1.03, which is 3% above the 3-year (2005-2007) national reference value of 1.0. Of the deaths in this region in 2007, 23% were preceded by withdrawal from dialysis, compared to the national average of 26%. See Table 1 of this profile for more detailed first year mortality statistics.

Hospitalization: The Standardized Hospitalization Ratio (SHR) compares the observed hospitalization to what would be expected based on national hospitalization rates for patients with the characteristics of the patients in this region. Two SHR values are calculated --- one for days in the hospital and another for hospital admissions. Both measures are adjusted for patient age, race, ethnicity, sex, diabetes, duration of ESRD, nursing home status, and BMI. The SHR for days for patients in this region during 2007 is 1.02, indicating that these patients had 2% more days in the hospital than expected. The SHR for admissions for patients in this region during 2007 is 1.07, indicating that these patients had 7% more hospital admissions than expected. See Table 2 of this profile for additional hospitalization statistics.

Transplantation: Based on analogous methods, 1,200 patients under age 70 in this region during 2008 received their first transplant, while 1,137 would be expected based on the age of these patients. The Standardized Transplantation Ratio (STR) of observed to expected number of patients transplanted for this region is 1.06, which is 6% higher than expected. See Table 3 of this profile for additional transplantation statistics.

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Kidney Transplant Waitlist: On December 31, 2008, 23% of the dialysis patients under age 70 being treated in this region were on the kidney transplant waitlist compared to 21% nationally. This difference is statistically significant ($p < 0.05$) and is unlikely to be due to random chance. See Table 4 of this profile for more information about patients on the kidney transplant waitlist in this region.

Practice Patterns: During 2008, 71% of the dialysis patients in this region treated with erythropoiesis stimulating agents (ESA) had a hemoglobin between 10-12 g/dL, compared to 71% nationally. Of the hemodialysis patients in this region, 95% had a Urea Reduction Ratio (URR) that met KDOQI guidelines (URR $\geq 65\%$), compared to 96% nationally.

In 2008, 56% of the prevalent and 30% of the incident hemodialysis patients in this region had an arteriovenous (AV) fistula in place. Nationally, 58% of the prevalent patients and 31% of the incident patients had a fistula in place. Of the prevalent patients receiving hemodialysis treatment in this region, 13% had a catheter which had been in place for more than 90 days as their only vascular access, compared to 11% nationally. See Tables 5 and 6 of this profile for more information about practice patterns in this region.

Patient Characteristics: Form CMS-2728 collected data from 10,612 incident patients in this region for the year 2008. Table 7 describes certain important characteristics of these patients at the time of their first outpatient dialysis session, including patients' demographics, medical coverage, primary cause of ESRD, modality, pre-treatment nephrological care, transplant options, and vascular access type. In 2008, 71% of incident patients in this region were informed of their transplant options, compared to 72% nationally. Also in 2008, 30% of incident patients in this region were not under the care of a nephrologist prior to ESRD therapy, compared to 31% nationally.

Patients' age, race, sex, and cause of ESRD are key factors that influence the outcome of treatment. The standardized mortality and hospitalization outcomes listed above already account appropriately for these factors. The standardized transplantation outcome is adjusted only for age. The average age of patients in this region was 62 years, compared to the national average of 61 years. 15% of patients in this region on December 31, 2008 were treated in a nursing home during the year, compared to 13% nationally. See Table 8 for detailed summaries of all patients treated during 2005-2008 in this region.

Medicare claims report comorbidity data on Medicare dialysis patients treated each year. There were 23,536 Medicare dialysis patients on December 31, 2007 in this region. The average number of comorbidities reported for patients in 2007 is 4.4, which is higher than the average of 4.1 reported nationally in 2007. See Table 9 for detailed information on all comorbidities reported during 2005-2007 for this region.

Clinical Performance Measures: The Clinical Performance Measures (CPM) project collected data from a sample of 991 hemodialysis (HD) patients and 148 peritoneal dialysis (PD) patients in this region for the year 2007. For the HD patients in the sample, the average duration of dialysis in this region was 3.7 hours, compared to the national average of 3.6 hours. The average serum albumin for these patients was 3.8 g/dL, compared to the national average of 3.8 g/dL. For the PD patients in the sample, the average serum albumin was 3.6 g/dl, compared to the national average of 3.6 g/dl. The percent of PD patients with average weekly Kt/V greater than 2.0 was 65% compared to the national average of 69%. The average weekly creatinine clearance for these PD patients was 77 L/week/1.73m², compared to the national average of 79 L/week/1.73m². See Tables 10 and 11 of this profile for detailed summaries of CPM data for patients in this region.

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Sources of Patient Data: This profile is based primarily on Medicare claims and data collected for CMS. Patients were assigned to this region based on the Standard Information Management System (SIMS) database, Medicare claims, and the Medical Evidence Form (Form CMS-2728). These are just a few highlights of the statistics you will find in this profile based on the data for this region. For comparison, the tables also report data for all patients or facilities in the United States. We hope that this profile is of interest to you and is helpful in your quality improvement efforts. We would appreciate your feedback on ways to improve future profiles. If you have questions or comments please contact us at keccdf@umich.edu or (734)998-9823.

For a complete description of the methods and data reported here please see the *Guide to the 2009 Region Profiles for Dialysis Patients and Facilities*, included in this notebook. The *Guide* is also available on the UM-KECC web site at www.sph.umich.edu/kecc.

Prepared by
The University of Michigan Kidney Epidemiology and Cost Center (UM-KECC)
under contract to the Centers for Medicare & Medicaid Services

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TABLE 1: Mortality Summary for All Dialysis Patients (2005-2008) & New Dialysis Patients (2005-2007)¹

| Measure Name | This Region | | | | United States |
|--|-------------|--------|--------|--------|---------------|
| | 2005 | 2006 | 2007 | 2008 | 2008 |
| All Dialysis Patients | | | | | |
| 1a Patients (n=number) | 45,674 | 47,237 | 48,425 | 48,902 | n/a |
| 1b Patient years (PY) at risk (n) | 31,437 | 32,447 | 33,496 | 34,471 | n/a |
| 1c Deaths (n) | 7,388 | 7,539 | 7,498 | 7,396 | n/a |
| 1d Expected deaths (n) | 6,774 | 7,007 | 7,388 | 7,601 | n/a |
| 1e Withdrawal from dialysis prior to death (% of 1c) | 20.4 | 23.4 | 21.9 | 23.1 | 24.8 |
| 1f Deaths due to infections (% of 1c) | 18.5 | 17.1 | 16.6 | 14.6 | 16.1 |
| 1g Deaths due to cardiac causes (% of 1c) | 28.1 | 27.1 | 26.6 | 24.1 | 25.4 |
| 1h Dialysis unrelated deaths ² (n; excluded from SMR) | 51 | 67 | 67 | 61 | n/a |
| 1i Standardized Mortality Ratio (SMR; 1c /1d) | 1.09 | 1.08 | 1.01 | 0.97 | 0.94 |
| 1j P-value ³ | <.01 | <.01 | 0.2 | 0.02 | n/a |
| New Dialysis Patients | | | | | |
| 1k Patients (n=number) | 11,087 | 11,625 | 11,180 | | n/a |
| 1l Patient years (PY) at risk (n) | 9,176 | 9,762 | 9,364 | | n/a |
| 1m Deaths (n) | 2,954 | 2,867 | 2,777 | | n/a |
| 1n Expected deaths (n) | 2,720 | 2,820 | 2,704 | | n/a |
| 1o Withdrawal from dialysis prior to death (% of 1m) | 23.7 | 24.5 | 22.8 | | 25.8 |
| 1p Deaths due to infections (% of 1m) | 14.9 | 14.6 | 13.0 | | 14.8 |
| 1q Deaths due to cardiac causes (% of 1m) | 25.0 | 24.5 | 22.6 | | 24.2 |
| 1r Standardized Mortality Ratio (SMR; 1m /1n) | 1.09 | 1.02 | 1.03 | | 0.99 |
| 1s P-value ³ | <.01 | 0.38 | 0.16 | | n/a |

TABLE 2: Hospitalization Summary for Medicare Dialysis Patients¹, 2005-2007

| Measure Name | This Region | | | United States |
|--|-------------|--------|--------|---------------|
| | 2005 | 2006 | 2007 | 2007 |
| 2a Medicare dialysis patients (n) | 33,738 | 34,011 | 34,141 | n/a |
| 2b Patient years (PY) at risk (n) | 22,985 | 23,032 | 23,281 | n/a |
| 2c Days hospitalized rate per PY | | 16.1 | 16.1 | 15.0 |
| 2d Expected days hospitalized rate per PY | | 15.6 | 15.5 | 14.6 |
| 2e Standardized Hospitalization Ratio for Days (2c/2d) | | 1.03 | 1.04 | 1.02 |
| 2f Admission rate per PY | | 2.1 | 2.1 | 2.0 |
| 2g Expected admission rate per PY | | 2.0 | 2.0 | 1.9 |
| 2h Standardized Hospitalization Ratio for Admissions (2f/2g) | | 1.07 | 1.08 | 1.07 |
| 2i Patients with septicemia (% of 2a) | | 14.4 | 14.9 | 14.3 |
| 2j One day admissions (%) | | 14.0 | 13.4 | 13.7 |
| 2k Average length of stay (days per admission) | | 7.6 | 7.6 | 7.4 |

n/a = not applicable.

[1] See *Guide*.

[2] Defined as deaths due to street drugs and accidents unrelated to treatment.

[3] A p-value less than or equal to 0.05 indicates that the difference between the actual and expected mortality is probably real and not due to random chance alone, while a p-value greater than 0.05 indicates that the difference could plausibly be due to random chance.

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TABLE 3: Transplantation Summary for Dialysis Patients under Age 70, 2005-2008

| Measure Name | This Region | | | | United States |
|---|-------------|--------|--------|--------|---------------|
| | 2005 | 2006 | 2007 | 2008 | 2008 |
| 3a Eligible patients ¹ (n) | 30,026 | 31,164 | 32,014 | 32,647 | n/a |
| 3b Transplants (n) | 1,512 | 1,611 | 1,433 | 1,383 | n/a |
| Patients who have not Previously Received a Transplant | | | | | |
| 3c Eligible patients ¹ (n) | 27,006 | 27,954 | 28,686 | 29,164 | n/a |
| 3d Patient years (PY) at risk (n) | 18,871 | 19,513 | 20,175 | 20,847 | n/a |
| 3e Actual 1st transplants ² (n) | 1,316 | 1,395 | 1,257 | 1,200 | n/a |
| 3f Expected 1st transplants (n) | 1,050 | 1,079 | 1,107 | 1,137 | n/a |
| 3g Standardized Transplantation Ratio (STR; 3e/3f) | 1.25 | 1.29 | 1.14 | 1.06 | 0.93 |
| 3h P-value ³ | <.01 | <.01 | <.01 | 0.07 | n/a |
| 3i 95% confidence interval for STR ⁴ | | | | | |
| Upper limit | 1.32 | 1.36 | 1.20 | 1.12 | n/a |
| Lower limit | 1.19 | 1.23 | 1.07 | 1.00 | n/a |

TABLE 4: Waitlist Summary for Dialysis Patients under Age 70 Treated as of December 31st of Each Year¹, 2005-2008

| Measure Name | This Region | | | | United States |
|--|-------------|--------|--------|--------|---------------|
| | 2005 | 2006 | 2007 | 2008 | 2008 |
| 4a Eligible patients on 12/31 (n) | 22,851 | 23,676 | 24,385 | 24,806 | n/a |
| 4b Patients on the waitlist (% of 4a) | 24.5 | 25.2 | 25.5 | 22.8 | 21.4 |
| 4c P-value ⁵ (compared to U.S. value) | <.01 | <.01 | <.01 | <.01 | n/a |
| 4d Patients on the waitlist by subgroup (%) | | | | | |
| Age < 40 | 38.6 | 39.8 | 41.3 | 35.6 | 32.0 |
| Age 40-69 | 22.2 | 22.9 | 23.1 | 21.0 | 19.8 |
| Male | 25.7 | 26.2 | 26.2 | 23.4 | 22.0 |
| Female | 22.9 | 23.8 | 24.5 | 22.1 | 20.7 |
| African American | 23.6 | 24.3 | 25.3 | 22.9 | 20.0 |
| Asian/Pacific Islander | 36.5 | 37.0 | 34.5 | 31.3 | 32.6 |
| Native American | 32.7 | 30.4 | 24.0 | 26.9 | 17.2 |
| White, Hispanic | 26.1 | 29.9 | 29.2 | 27.4 | 23.8 |
| White, Non-Hispanic | 24.9 | 25.2 | 24.8 | 21.9 | 20.6 |
| Other/Unknown race | 31.9 | 35.9 | 34.6 | 26.1 | 26.1 |
| Diabetes | 18.6 | 19.7 | 20.1 | 17.9 | 16.3 |
| Non-diabetes | 28.4 | 28.8 | 29.1 | 26.2 | 25.5 |
| Previous kidney transplant | 45.6 | 46.0 | 46.4 | 42.6 | 43.7 |
| No previous kidney transplant | 22.0 | 22.7 | 22.9 | 20.4 | 19.2 |
| <2 years since start of ESRD | 17.1 | 18.4 | 18.6 | 13.5 | 11.1 |
| 2-4 years since start of ESRD | 28.1 | 28.3 | 29.1 | 28.2 | 26.8 |
| 5+ years since start of ESRD | 31.6 | 31.9 | 31.3 | 29.3 | 29.2 |

n/a = not applicable. [1] See *Guide*.

[2] Among first transplants that occurred after the start of dialysis from 2005-2008, 4.2% of transplants in the U.S. were not included because the transplant occurred less than 90 days after the start of ESRD and 0.2% were not included because the patient was not assigned to a facility at time of transplant.

[3] A p-value less than or equal to 0.05 indicates that the difference between the actual and expected transplantations is probably real and not due to random chance alone, while a p-value greater than 0.05 indicates that the difference could plausibly be due to random chance. [4] Confidence interval (C.I.) range represents uncertainty in value of STR due to random variation. [5] Region waitlist percentage is compared to the U.S. value for that year: 22.6% (2005), 23.0% (2006), 23.7% (2007), 21.4% (2008). A p-value > 0.05 indicates that the difference between the percent of patients waitlisted in the region and in the nation is plausibly due to random chance.

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TABLE 5: Facility Modality, Hemoglobin and Urea Reduction Ratio¹, 2005-2008

| Measure Name | This Region | | | | United States |
|--|-------------|--------|--------|--------|---------------|
| | 2005 | 2006 | 2007 | 2008 | 2008 |
| Modality (among all dialysis patients with ESRD for 90+ days and 1+ claim in this region) | | | | | |
| 5a Patients treated during year ¹ (n) | 33,908 | 33,932 | 33,966 | 33,995 | n/a |
| 5b Modality ² (% of 5a; sums to 100%) | | | | | |
| Hemodialysis | 90.9 | 90.9 | 90.7 | 90.6 | 89.5 |
| CAPD/CCPD | 4.9 | 5.2 | 4.9 | 4.8 | 5.6 |
| Other dialysis | 4.3 | 3.9 | 4.4 | 4.6 | 4.8 |
| Hemoglobin (among ESA treated dialysis patients with ESRD for 90+ days and 4+ hemoglobin claims in this region) | | | | | |
| 5c Eligible patients ¹ (n) | 25,403 | 25,636 | 25,760 | 26,123 | n/a |
| 5d Average hemoglobin (g/dL) | 12.0 | 11.9 | 11.9 | 11.6 | 11.6 |
| 5e Hemoglobin categories (% of 5c; sums to 100%) | | | | | |
| < 10 g/dL | 1.8 | 1.8 | 1.8 | 2.4 | 2.3 |
| 10-12 g/dL | 49.1 | 50.2 | 54.2 | 71.0 | 71.3 |
| > 12 g/dL | 49.1 | 48.0 | 44.1 | 26.7 | 26.4 |
| 5f Hemoglobin 10-12 g/dL (% of HD pts) | 48.5 | 49.7 | 53.6 | 70.7 | 71.1 |
| Hemoglobin 10-12 g/dL (% of PD pts) | 57.8 | 55.6 | 61.9 | 70.4 | 68.9 |
| Urea Reduction Ratio (URR; among HD patients with ESRD for 183+ days and 4+ URR claims in this region) | | | | | |
| 5g Eligible patients (n) | 21,620 | 22,745 | 23,773 | 24,027 | n/a |
| 5h URR categories (% of 5g; sums to 100%) | | | | | |
| < 60.0 % | 1.4 | 1.6 | 1.9 | 1.8 | 1.5 |
| 60.0-64.9 % | 3.7 | 3.2 | 3.2 | 2.9 | 2.7 |
| 65.0-69.9 % | 14.0 | 12.2 | 12.2 | 11.8 | 11.0 |
| 70.0-74.9 % | 38.5 | 37.3 | 37.8 | 37.9 | 36.0 |
| 75+ % | 42.4 | 45.7 | 44.9 | 45.6 | 48.8 |
| 5i URR 65+ (% of 5g) [Meets a KDOQI guideline] | 94.9 | 95.2 | 94.9 | 95.3 | 95.8 |

n/a = not applicable.

[1] See *Guide*.

[2] Other dialysis includes patients who switch between HD and PD during the year and patients for whom modality is unknown.

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TABLE 6: Vascular Access Information¹ (CMS Fistula First), 2005-2008

| Measure Name | This Region | | | | United States | |
|---|--|------|------|------|---------------|------|
| | 2005 | 2006 | 2007 | 2008 | 2008 | |
| Vascular Access | | | | | | |
| 6a | Vascular access type in use ² (%; sums to 100%) | | | | | |
| | Arteriovenous fistula | 35.4 | 39.4 | 43.7 | 47.7 | 50.2 |
| | Arteriovenous graft | 34.2 | 29.6 | 26.1 | 23.7 | 22.7 |
| | Catheter | 30.1 | 30.8 | 30.0 | 28.5 | 26.7 |
| | Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Missing | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 |
| 6b | Arteriovenous fistulae placed ³ (%) | | | | | 58.1 |
| 6c | Catheter only > 90 days ⁴ (%) | | | | | 11.5 |
| Vascular Access at First Treatment | | | | | | |
| 6d | Vascular access type in use ² (%; sums to 100%) | | | | | |
| | Arteriovenous fistula | 13.3 | 14.9 | 15.2 | 15.2 | 15.8 |
| | Arteriovenous graft | 7.5 | 5.8 | 4.8 | 7.5 | 6.8 |
| | Catheter | 77.3 | 77.9 | 78.6 | 76.1 | 74.9 |
| | Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| | Missing | 1.8 | 1.4 | 1.4 | 1.2 | 2.4 |
| 6e | Arteriovenous fistulae placed ³ (%) | | | | | 30.8 |

[1] See *Guide*.

[2] Patients listed as arteriovenous (AV) graft or catheter may have AV fistulae in place for future use, but they actually received their treatment through a graft or catheter.

[3] Includes all patients with AV fistulae, regardless of whether they received their hemodialysis treatments using their fistulae.

[4] Catheter was used for treatment and has been in place for 90 days or more prior to treatment. Patient does not have an AV fistula or AV graft in place. Catheter is only access. Note: Port access devices are reported as catheters for this project.

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TABLE 7: Characteristics of New Dialysis Patients (Form CMS-2728)¹, 2006-2008

| Measure Name | This Region | | | United States |
|---|-------------|--------|--------|---------------|
| | 2006 | 2007 | 2008 | 2008 |
| Patient Characteristics² | | | | |
| 7a Total number of patients with forms (n) | 11,625 | 11,180 | 10,612 | n/a |
| 7b Age (average years [0-95]) | 63.8 | 64.0 | 64.2 | 63.3 |
| 7c Female (% of 7a) | 44.8 | 44.8 | 43.9 | 44.0 |
| 7d Race ³ (% of 7a; sums to 100%) | | | | |
| African American | 37.2 | 36.7 | 37.0 | 28.4 |
| Asian/Pacific Islander | 1.9 | 2.1 | 2.0 | 4.2 |
| Native American | 0.1 | 0.3 | 0.2 | 1.1 |
| White | 60.5 | 60.6 | 60.6 | 65.8 |
| Other/Unknown/Missing | 0.3 | 0.3 | 0.3 | 0.5 |
| 7e Hispanic (% of 7a) | 2.6 | 2.6 | 2.6 | 13.4 |
| 7f Primary cause of ESRD (% of 7a; sums to 100%) | | | | |
| Diabetes | 42.7 | 42.8 | 43.4 | 45.1 |
| Hypertension | 29.9 | 30.2 | 30.1 | 28.7 |
| Glomerulonephritis | 6.9 | 6.5 | 6.2 | 6.4 |
| Other/Missing | 20.6 | 20.4 | 20.3 | 19.9 |
| 7g Medical Coverage ⁴ (% of 7a; sums to 100%) | | | | |
| Employer group only | 18.4 | 17.9 | 17.7 | 16.1 |
| Medicare only | 23.0 | 26.2 | 25.6 | 20.4 |
| Medicaid only | 10.5 | 10.2 | 10.5 | 11.4 |
| Medicare and Medicaid only | 8.2 | 8.7 | 9.0 | 12.6 |
| Medicare and Other | 26.9 | 23.3 | 23.4 | 23.8 |
| Other/Unknown | 8.4 | 8.9 | 8.9 | 8.6 |
| None | 4.7 | 4.8 | 5.0 | 7.1 |
| 7h Body Mass Index ⁵ (Median; Weight/Height ²) | | | | |
| Male | 26.5 | 26.6 | 26.6 | 26.6 |
| Female | 27.8 | 28.0 | 28.0 | 28.0 |
| 7i Employment ⁶ | | | | |
| Six months prior to ESRD treatment | 37.9 | 37.1 | 35.9 | 36.2 |
| At first ESRD treatment | 25.5 | 24.7 | 24.0 | 22.0 |
| 7j Primary Modality (% of 7a; sums to 100%) | | | | |
| Hemodialysis | 94.4 | 95.0 | 95.2 | 93.9 |
| CAPD/CCPD | 5.6 | 5.0 | 4.8 | 6.1 |
| Other/Unknown/Missing | 0.0 | 0.0 | 0.0 | 0.0 |
| 7k Number of incident hemodialysis patients (n) | 10,954 | 10,614 | 10,096 | n/a |
| 7l Access used at first outpatient dialysis (% of 7k; sums to 100%) | | | | |
| Arteriovenous fistula | 12.3 | 12.9 | 13.6 | 13.6 |
| Arteriovenous graft | 4.7 | 3.7 | 3.5 | 3.3 |
| Catheter | 82.8 | 83.1 | 82.7 | 81.9 |
| Other/Unknown/Missing | 0.2 | 0.2 | 0.2 | 1.2 |
| 7m Arteriovenous fistulae placed ⁷ (% of 7a) | 27.0 | 26.7 | 26.9 | 29.2 |
| Average Lab Values Prior to Dialysis² | | | | |
| 7n Hemoglobin (g/dL [3-18]) | 10.1 | 10.0 | 9.9 | 9.9 |
| 7o Serum Albumin (g/dL [0.8-6.0]) | 3.1 | 3.1 | 3.1 | 3.1 |
| 7p Serum Creatinine (mg/dL [2-33]) | 6.5 | 6.4 | 6.3 | 6.3 |
| 7q GFR (ml/min [0-60]) | 10.7 | 10.9 | 11.1 | 11.0 |

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TABLE 7 (continued): Characteristics of New Dialysis Patients (Form CMS-2728)¹, 2006-2008

| Measure Name | | This Region | | | United States |
|-----------------------------------|--|-------------|-------|-------|---------------|
| | | 2006 | 2007 | 2008 | 2008 |
| Care Prior to ESRD Therapy | | | | | |
| 7r | Received ESA prior to ESRD (% of 7a) | 31.2 | 29.9 | 27.9 | 26.3 |
| 7s | Pre-ESRD nephrologist care (% of 7a; sums to 100%) | | | | |
| | No | 30.7 | 31.1 | 29.7 | 31.0 |
| | Yes, <6 months | 16.3 | 17.2 | 17.3 | 11.6 |
| | Yes, 6-12 months | 20.9 | 19.9 | 19.1 | 20.8 |
| | Yes, >12 months | 20.7 | 20.3 | 21.8 | 24.2 |
| | Unknown | 11.3 | 11.6 | 12.0 | 12.4 |
| 7t | Informed of transplant options (% of 7a) | 69.8 | 69.1 | 71.1 | 72.4 |
| 7u | Patients not informed of transplant options (n) | 3,501 | 3,449 | 3,056 | n/a |
| 7v | Reason not informed (% of 7u; may not sum to 100%) | | | | |
| | Medically unfit | 24.1 | 22.7 | 22.9 | 30.9 |
| | Unsuitable due to age | 18.7 | 18.2 | 15.1 | 23.9 |
| | Psychologically unfit | 2.7 | 2.6 | 2.6 | 2.8 |
| | Patient declined information | 1.7 | 1.3 | 1.3 | 1.3 |
| | Patient has not been assessed | 56.8 | 58.0 | 59.2 | 44.9 |
| Comorbid Conditions | | | | | |
| 7w | Pre-existing Comorbidity (% yes of 7a) | | | | |
| | Congestive heart failure | 32.8 | 32.0 | 31.7 | 32.8 |
| | Atherosclerotic heart disease ⁸ | 22.0 | 20.9 | 19.5 | 21.0 |
| | Other cardiac disorder ⁸ | 16.0 | 17.2 | 17.8 | 17.1 |
| | CVD, CVA, TIA | 10.0 | 9.7 | 8.9 | 9.5 |
| | Peripheral vascular disease | 13.2 | 13.1 | 12.5 | 14.0 |
| | History of hypertension | 80.0 | 81.2 | 81.2 | 84.7 |
| | Diabetes ⁸ | 55.4 | 55.8 | 56.4 | 57.8 |
| | Diabetes on insulin | 32.6 | 34.1 | 34.7 | 36.3 |
| | COPD | 9.0 | 9.3 | 9.4 | 9.3 |
| | Current smoker | 5.9 | 5.9 | 6.0 | 6.2 |
| | Cancer | 7.8 | 7.2 | 7.1 | 7.4 |
| | Alcohol dependence | 1.5 | 1.4 | 1.5 | 1.6 |
| | Drug dependence | 1.5 | 1.3 | 1.5 | 1.3 |
| | Inability to ambulate | 6.5 | 6.0 | 6.1 | 6.9 |
| | Inability to transfer | 2.9 | 3.0 | 3.2 | 3.5 |
| 7x | Average number of comorbid conditions | 3.0 | 3.0 | 3.0 | 3.1 |

n/a= not applicable.

[1] See *Guide*.

[2] For continuous variables, all summaries are computed based only on responses in range indicated in brackets for the variable.

[3] 'Asian' includes Indian sub-continent. 'Native American' includes Alaskan Native. 'White' includes Middle Eastern and Arabian.

[4] 'Medicare and Other' excludes patients with Medicare and Medicaid only. 'Other/Unknown' includes patients with unknown status and patients receiving medical benefits under other health insurance plans or plans that are not covered in the categories above.

[5] The median BMI is computed for adult patients at least 20 years old.

[6] Full-time, part-time, or student (% of 18-60 year olds).

[7] Includes all patients with AV fistulae, regardless of whether they received their hemodialysis treatments using their fistulae.

[8] 'AHD' includes ischemic heart disease (coronary artery disease) and myocardial infarction. 'Other cardiac disorder' includes cardiac arrest, cardiac dysrhythmia, and pericarditis. 'Diabetes' includes patients with diabetes as the primary cause of ESRD.

2009 Region Profile for Dialysis Patients and Facilities
REGION SAMPLE

TABLE 8: Summaries for All Dialysis Patients Treated as of December 31 of each Year¹, 2005-2008

| Measure Name | This Region | | | | United States |
|--|-------------|--------|--------|--------|---------------|
| | 2005 | 2006 | 2007 | 2008 | 2008 |
| 8a Facilities (n) | 525 | 532 | 550 | 558 | 5,183 |
| 8b Patients treated on 12/31 of year (n) | 31,731 | 33,002 | 33,967 | 34,685 | n/a |
| 8c Average age (years) | 61.3 | 61.3 | 61.5 | 61.5 | 60.9 |
| 8d Age (% of 8b; sums to 100%) | | | | | |
| < 20 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 20-64 | 54.4 | 54.5 | 54.6 | 55.0 | 56.2 |
| 65+ | 45.1 | 45.0 | 45.0 | 44.6 | 43.3 |
| 8e Female (% of 8b) | 45.8 | 45.3 | 45.0 | 45.0 | 45.3 |
| 8f Race (% of 8b; sums to 100%) | | | | | |
| African American | 49.8 | 50.1 | 49.8 | 50.1 | 37.4 |
| Asian/Pacific Islander | 2.0 | 2.0 | 2.2 | 2.2 | 4.8 |
| Native American | 0.2 | 0.2 | 0.2 | 0.2 | 1.5 |
| White | 47.1 | 46.7 | 47.0 | 46.8 | 55.1 |
| Other/Unknown/Missing | 1.0 | 0.9 | 0.8 | 0.8 | 1.2 |
| 8g Ethnicity (% of 8b; sums to 100%) | | | | | |
| Hispanic | 2.6 | 2.9 | 3.0 | 3.1 | 15.3 |
| Non-Hispanic | 94.5 | 94.8 | 95.0 | 95.1 | 82.7 |
| Unknown | 2.9 | 2.3 | 2.0 | 1.8 | 1.9 |
| 8h Cause of ESRD (% of 8b; sums to 100%) | | | | | |
| Diabetes | 39.6 | 40.2 | 40.3 | 40.6 | 43.7 |
| Hypertension | 30.5 | 30.5 | 30.8 | 30.8 | 27.7 |
| Glomerulonephritis | 11.2 | 10.9 | 10.7 | 10.5 | 10.2 |
| Other/Unknown | 17.6 | 17.3 | 17.1 | 16.9 | 17.3 |
| Missing | 1.1 | 1.1 | 1.2 | 1.3 | 1.1 |
| 8i Average duration of ESRD (years) | 4.1 | 4.1 | 4.2 | 4.3 | 4.3 |
| 8j Years since start of ESRD (% of 8b; sums to 100%) | | | | | |
| <1 | 19.4 | 20.5 | 19.1 | 18.1 | 18.1 |
| 1-2 | 19.8 | 19.3 | 20.3 | 19.1 | 18.7 |
| 2-3 | 14.8 | 14.6 | 14.3 | 15.4 | 14.9 |
| 3-6 | 25.2 | 24.9 | 25.2 | 25.2 | 25.9 |
| 6+ | 20.7 | 20.8 | 21.2 | 22.1 | 22.4 |
| 8k Nursing facility patients ² (% of 8b) | 12.0 | 15.7 | 15.4 | 15.4 | 13.3 |
| 8l Modality (% of 8b; sums to 100%) | | | | | |
| In-center hemodialysis | 91.4 | 91.4 | 91.4 | 91.4 | 90.6 |
| In-center self hemodialysis | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Home hemodialysis | 0.5 | 0.6 | 0.8 | 1.0 | 1.1 |
| Continuous ambulatory peritoneal dialysis | 2.5 | 2.4 | 2.4 | 2.5 | 2.7 |
| Continuous cycling peritoneal dialysis | 5.1 | 5.0 | 4.7 | 4.3 | 4.9 |
| Other modality ³ | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 |

n/a = not applicable.

[1] See *Guide*.

[2] Includes patients who were treated at a nursing facility at any time during the year. The source of nursing facility history of patients is the Nursing Home Minimum Dataset.

[3] Other modality includes other dialysis, uncertain modality, and patients not on dialysis but still temporarily assigned to the facility (discontinued dialysis, recovered renal function, and lost to follow up).

2009 Region Profile for Dialysis Patients and Facilities
REGION SAMPLE

TABLE 9: Comorbidities Reported on Medicare Claims for Medicare Dialysis Patients Treated as of December 31 of Each Year¹, 2005-2007

| Measure Name | This Region | | | United States |
|---|-------------|--------|--------|---------------|
| | 2005 | 2006 | 2007 | 2007 |
| 9a Medicare dialysis patients on 12/31(n) | 23,233 | 23,430 | 23,536 | n/a |
| 9b Comorbidity (% yes of 9a) | | | | |
| AIDS/HIV Positive | 2.9 | 2.7 | 2.7 | 1.8 |
| Alcohol Dependence | 2.5 | 2.6 | 2.4 | 2.2 |
| Anemia | 7.7 | 8.0 | 6.4 | 7.3 |
| Cancer | 12.2 | 12.3 | 12.4 | 10.7 |
| Cardiac Arrest | 1.4 | 1.6 | 1.4 | 1.5 |
| Cardiac Dysrhythmias | 38.6 | 39.9 | 39.4 | 35.1 |
| Cerebrovascular Disease | 29.5 | 28.9 | 29.8 | 27.3 |
| Chronic Obstructive Pulmonary Disease | 30.3 | 30.6 | 30.1 | 29.6 |
| Congestive Heart Failure | 54.7 | 55.4 | 55.0 | 51.8 |
| Diabetes | 59.5 | 60.5 | 61.4 | 62.3 |
| Drug Dependence | 2.2 | 2.1 | 2.0 | 1.9 |
| Gastro-Intestinal Tract Bleeding | 3.7 | 3.2 | 3.1 | 2.9 |
| Hepatitis B | 1.3 | 1.3 | 1.4 | 1.2 |
| Hepatitis Other | 4.9 | 4.9 | 5.3 | 3.8 |
| Hyperparathyroidism | 7.9 | 9.3 | 9.0 | 8.8 |
| Infection | 56.5 | 55.7 | 55.5 | 51.1 |
| Ischemic Heart Disease | 54.1 | 53.8 | 53.6 | 51.0 |
| Myocardial Infarction | 9.6 | 9.9 | 9.3 | 8.5 |
| Peripheral Vascular Disease ² | 49.8 | 49.1 | 49.7 | 46.5 |
| Pneumonia | 6.1 | 5.9 | 5.7 | 5.3 |
| 9c Average number of comorbid conditions | 4.4 | 4.4 | 4.4 | 4.1 |

n/a = not applicable.

[1] Based on patients with Medicare as primary insurer on 12/31 each year; See *Guide, Section XII*.

[2] Peripheral vascular disease includes both venous and arterial diseases.

2009 Region Profile for Dialysis Patients and Facilities
REGION SAMPLE

TABLE 10: Descriptive and Clinical Data for Adult HD Patients¹, 2005-2007

| Measure Name | This Region | | | United States | |
|--------------------------------------|---|------|------|---------------|-------|
| | 2005 | 2006 | 2007 | 2007 | |
| Patient Characteristics | | | | | |
| 10a | Patients in the sample (n) | 989 | 973 | 991 | 8,916 |
| 10b | Age group (years) (% of 10a; sums to 100%) | | | | |
| | 18-44 | 13.8 | 13.2 | 12.4 | 13.9 |
| | 45-54 | 16.1 | 15.8 | 16.4 | 16.4 |
| | 55-64 | 21.1 | 22.4 | 24.5 | 23.6 |
| | 65-74 | 22.3 | 22.7 | 22.5 | 23.1 |
| | 75+ | 26.7 | 25.9 | 24.1 | 23.0 |
| 10c | Female (% of 10a) | 45.9 | 43.5 | 42.6 | 44.9 |
| 10d | Race (% of 10a; sums to 100%) | | | | |
| | African American | 47.2 | 48.1 | 48.1 | 35.8 |
| | Asian/Pacific Islander | 1.5 | 2.5 | 1.7 | 4.7 |
| | Native American | 0.1 | 0.0 | 0.2 | 1.7 |
| | White | 50.6 | 49.2 | 49.9 | 57.6 |
| | Other/Unknown/Missing | 0.6 | 0.2 | 0.0 | 0.1 |
| 10e | Hispanic (% of 10a) | 2.0 | 3.6 | 3.9 | 14.4 |
| 10f | Cause of ESRD (% of 10a; sums to 100%) | | | | |
| | Diabetes | 39.1 | 42.8 | 40.4 | 44.3 |
| | Hypertension | 32.1 | 29.1 | 30.9 | 27.6 |
| | Glomerulonephritis | 12.7 | 11.4 | 11.9 | 12.0 |
| | Other/Unknown/Missing | 16.1 | 16.8 | 16.9 | 16.0 |
| 10g | Starting treatment during year (% of 10a) | 27.4 | 23.3 | 24.5 | 23.4 |
| 10h | Average years since start of ESRD | 3.6 | 3.8 | 3.8 | 3.9 |
| Anemia Management² | | | | | |
| 10i | Average hemoglobin [5.0-20.0 g/dL] | 12.0 | 12.0 | 11.8 | 11.9 |
| | Hemoglobin categories ³ (sums to 100%) | | | | |
| | <10.0 g/dL | 4.8 | 5.5 | 5.8 | 5.6 |
| | 10.0-10.9 g/dL | 11.6 | 12.6 | 13.8 | 12.8 |
| | 11.0-11.9 g/dL | 31.5 | 30.5 | 37.2 | 35.8 |
| | 12.0-12.9 g/dL | 37.2 | 34.4 | 30.0 | 32.0 |
| | 13+ g/dL | 14.8 | 16.9 | 13.1 | 13.8 |
| 10j | ESA prescription (% of 10a) | 93.5 | 94.5 | 92.1 | 90.6 |
| 10k | Average serum ferritin [10-4000 ng/mL] | 568 | 582 | 570 | 583 |
| | Serum ferritin 100+ ng/mL ³ (%) | 93.8 | 93.9 | 94.6 | 95.0 |
| | Serum ferritin 200+ ng/mL ³ (%) | 83.5 | 84.6 | 86.0 | 87.4 |
| | Serum ferritin 500+ ng/mL ³ (%) | 51.2 | 53.5 | 53.6 | 54.4 |

2009 Region Profile for Dialysis Patients and Facilities
REGION SAMPLE

TABLE 10 (continued): Descriptive and Clinical Data for Adult HD Patients¹, 2005-2007

| Measure Name | This Region | | | United States |
|--|-------------|------|------|---------------|
| | 2005 | 2006 | 2007 | 2007 |
| Anemia Management² | | | | |
| 10l Average transferrin saturation (TSAT) [3-120%] | 28.1 | 28.2 | 28.2 | 28.5 |
| TSAT 20+ ³ (%) | 79.5 | 80.1 | 79.7 | 79.7 |
| 10m Iron prescription (% of 10a) | 72.6 | 68.4 | 71.9 | 71.4 |
| Hemodialysis Adequacy² | | | | |
| 10n Average dose of dialysis (Kt/V) [0.5-2.5] | 1.6 | 1.6 | 1.6 | 1.6 |
| Average dose of dialysis ³ (URR %) | 72.3 | 72.3 | 72.5 | 72.8 |
| URR categories ³ (sums to 100%) | | | | |
| <60.0% | 4.2 | 4.5 | 3.7 | 4.2 |
| 60.0-64.9% | 6.8 | 7.6 | 7.8 | 6.3 |
| 65.0-69.9% | 18.5 | 16.0 | 17.9 | 16.9 |
| 70.0-74.9% | 34.0 | 34.2 | 33.9 | 33.0 |
| 75.0-79.9% | 28.0 | 27.9 | 25.7 | 27.8 |
| 80+% | 8.5 | 9.7 | 10.9 | 11.8 |
| URR 65+ ³ (%) | 89.0 | 87.8 | 88.5 | 89.5 |
| 10o Average length of dialysis session (hours) | 3.7 | 3.6 | 3.7 | 3.6 |
| Serum Albumin² | | | | |
| 10p Average Serum Albumin (BCG or BCP +0.3) [1.0-5.5 g/dL] | 3.8 | 3.8 | 3.8 | 3.8 |
| Serum Albumin BCG 3.5+ g/dL or BCP 3.2+ g/dL ³ (%) | 77.6 | 79.7 | 78.4 | 80.7 |
| Vascular Access | | | | |
| 10q Vascular access type ⁴ (% of 10a; sums to 100%) | | | | |
| Graft | 30.6 | 28.1 | 23.1 | 22.3 |
| AV fistula | 38.2 | 40.7 | 44.4 | 48.4 |
| Catheter short term (0-89 days) | 7.9 | 6.2 | 6.6 | 6.4 |
| Catheter long term (90+ days) | 21.5 | 24.7 | 24.2 | 21.1 |
| Other/Unknown/Missing | 1.7 | 0.4 | 1.7 | 1.9 |
| 10r Patients with catheter present ⁴ (n) | 291 | 300 | 305 | 2,449 |
| Reason for catheter placement ⁵ (%) | | | | |
| No fistula or graft surgically planned | 29.9 | 29.0 | 35.4 | 28.2 |
| Fistula or graft maturing, not ready to cannulate | 32.3 | 29.3 | 23.9 | 27.7 |
| Interruption of fistula/graft due to clot/revisions | 8.6 | 13.0 | 8.5 | 9.9 |
| No fistula or graft surgically created at this time | 33.3 | 34.3 | 39.7 | 36.9 |
| All fistula or graft sites have been exhausted | 14.4 | 13.7 | 18.7 | 18.9 |
| Other reason for catheter placement | 9.3 | 14.0 | 11.5 | 9.8 |

2009 Region Profile for Dialysis Patients and Facilities
REGION SAMPLE

TABLE 10 (continued): Descriptive and Clinical Data for Adult HD Patients¹, 2005-2007

| Measure Name | This Region | | | United States |
|--|-------------|------|------|---------------|
| | 2005 | 2006 | 2007 | 2007 |
| Vascular Access | | | | |
| 10s Patients with AV fistula or graft present (n) | 681 | 669 | 669 | 6,297 |
| Surveillance for presence of stenosis if AV fistula or graft (%) | 40.1 | 46.6 | 46.5 | 50.5 |
| Type of Surveillance ⁵ (%) | | | | |
| Color flow doppler | 1.3 | 0.9 | 0.5 | 1.5 |
| Static venous pressure | 8.9 | 7.2 | 6.0 | 3.8 |
| Dynamic venous pressure | 31.3 | 30.8 | 37.3 | 37.9 |
| Dilution techniques | 4.3 | 2.6 | 3.7 | 6.3 |
| Other techniques | 8.0 | 12.3 | 11.5 | 15.1 |
| Mineral Metabolism² | | | | |
| 10t Mean serum calcium [0.1-20.0 mg/dL] | 9.2 | 9.1 | 9.1 | 9.1 |
| Serum calcium between 8.4 and 10.2 ³ (%) | 80.3 | 81.4 | 84.3 | 83.1 |
| 10u Mean serum phosphorus [0.1-20.0 mg/dL] | 5.3 | 5.3 | 5.3 | 5.4 |
| Serum phosphorus between 3.5 and 5.5 ³ (%) | 50.5 | 54.4 | 53.1 | 52.3 |
| Clinical Performance Measures^{3,6} | | | | |
| 10v Adequacy | | | | |
| Monthly measurement of delivered dose (%) | 82.6 | 85.7 | 85.7 | 86.1 |
| Method of measurement was UKM or Daugirdas (%) | 79.6 | 81.1 | 80.5 | 75.8 |
| Mean delivered dose Kt/V 1.2+ (%) | 89.3 | 91.0 | 89.5 | 90.8 |
| 10w Anemia Management | | | | |
| Mean hemoglobin 11-12 g/dl | 31.4 | 30.7 | 36.4 | 34.8 |
| At least one TSAT and one serum ferritin value (%) | 95.4 | 97.0 | 96.4 | 96.3 |
| Iron stores maintained at KDOQI thresholds (%) | 83.6 | 86.3 | 84.9 | 83.1 |
| Administration of IV iron to anemic patients (%) | 77.5 | 75.0 | 76.5 | 76.2 |
| 10x Vascular Access | | | | |
| Incident patients with an AV fistula (%) | 45.9 | 35.9 | 33.5 | 41.2 |
| Prevalent patients with an AV fistula (%) | 38.2 | 40.7 | 44.6 | 48.5 |
| Dialyzed with chronic catheter (%) | 21.5 | 24.7 | 24.2 | 21.1 |
| AV fistula or graft was monitored for stenosis (%) | 67.9 | 79.0 | 77.8 | 78.7 |

[1] These data were collected for the time period Oct-Dec, 2005-2007 in order to calculate selected CPMs and other indicators of quality of care. See *Guide*.

[2] For continuous variables, all summaries are computed based only on responses in range indicated in brackets for the variable.

[3] Calculated as the percent of patients with non-missing values.

[4] Port access devices are reported as catheters for this project.

[5] Items are not mutually exclusive and may not add to 100%.

[6] Clinical Performance Measures reported are based upon the ESRD CPM Project, Phase II.

2009 Region Profile for Dialysis Patients and Facilities
REGION SAMPLE

TABLE 11: Descriptive and Clinical Data for Adult PD Patients¹, 2005-2007

| Measure Name | This Region | | | United States | |
|--------------------------------------|---|------|------|---------------|-------|
| | 2005 | 2006 | 2007 | 2007 | |
| Patient Characteristics | | | | | |
| 11a | Patients in the sample (n) | 152 | 149 | 148 | 1,494 |
| 11b | Age group (years) (% of 11a; sums to 100%) | | | | |
| | 18-44 | 23.0 | 18.1 | 23.6 | 25.2 |
| | 45-54 | 21.7 | 28.2 | 22.3 | 20.4 |
| | 55-64 | 27.0 | 30.2 | 19.6 | 24.6 |
| | 65-74 | 19.1 | 13.4 | 20.3 | 18.5 |
| | 75+ | 9.2 | 10.1 | 14.2 | 11.3 |
| 11c | Female (% of 11a) | 50.0 | 45.6 | 50.0 | 48.9 |
| 11d | Race (% of 11a; sums to 100%) | | | | |
| | African American | 35.5 | 36.9 | 41.2 | 25.7 |
| | Asian/Pacific Islander | 4.6 | 2.0 | 5.4 | 6.4 |
| | Native American | 0.0 | 0.0 | 0.0 | 0.9 |
| | White | 59.2 | 61.1 | 52.7 | 67.0 |
| | Other/Unknown/Missing | 0.7 | 0.0 | 0.7 | 0.1 |
| 11e | Hispanic (% of 11a) | 1.3 | 3.4 | 1.4 | 13.1 |
| 11f | Cause of ESRD (% of 11a; sums to 100%) | | | | |
| | Diabetes | 36.8 | 31.5 | 31.1 | 34.3 |
| | Hypertension | 24.3 | 28.2 | 29.1 | 23.6 |
| | Glomerulonephritis | 21.7 | 20.1 | 18.9 | 19.0 |
| | Other/Unknown/Missing | 17.1 | 20.1 | 20.9 | 23.2 |
| 11g | Starting treatment during year (% of 11a) | 30.3 | 26.8 | 27.0 | 27.0 |
| 11h | Average years since start of ESRD | 2.8 | 2.9 | 3.0 | 3.3 |
| 11i | Peritoneal dialysis modality (% of 11a; sums to 100%) | | | | |
| | CAPD | 27.0 | 21.5 | 23.0 | 25.5 |
| | Cycler | 56.6 | 71.1 | 59.5 | 61.6 |
| | Both CAPD and Cycler | 4.6 | 3.4 | 4.1 | 3.4 |
| | Unknown | 11.8 | 4.0 | 13.5 | 9.4 |
| Anemia Management² | | | | | |
| 11j | Average hemoglobin [5.0-20.0 g/dL] | 12.1 | 12.0 | 11.7 | 11.8 |
| | Hemoglobin categories ³ (sums to 100%) | | | | |
| | <10.0 g/dL | 6.0 | 4.0 | 9.0 | 5.5 |
| | 10.0-10.9 g/dL | 8.6 | 12.8 | 15.9 | 15.6 |
| | 11.0-11.9 g/dL | 29.1 | 36.2 | 37.2 | 35.4 |
| | 12.0-12.9 g/dL | 38.4 | 30.2 | 24.8 | 29.5 |
| | 13+ g/dL | 17.9 | 16.8 | 13.1 | 14.0 |
| 11k | ESA prescription (% of 11a) | 88.8 | 90.6 | 87.2 | 85.8 |

2009 Region Profile for Dialysis Patients and Facilities
REGION SAMPLE

TABLE 11 (continued): Descriptive and Clinical Data for Adult PD Patients¹, 2005-2007

| Measure Name | This Region | | | United States |
|--|-------------|------|------|---------------|
| | 2005 | 2006 | 2007 | 2007 |
| Anemia Management² | | | | |
| 11l Average serum ferritin [10-4000 ng/mL] | 497 | 527 | 488 | 460 |
| Serum ferritin 100+ ng/mL ³ (%) | 87.9 | 86.0 | 89.6 | 90.4 |
| Serum ferritin 200+ ng/mL ³ (%) | 73.8 | 75.5 | 73.6 | 74.8 |
| Serum ferritin 500+ ng/mL ³ (%) | 34.9 | 42.0 | 41.7 | 36.3 |
| 11m Average transferrin saturation (TSAT) [3-120%] | 29.4 | 30.3 | 31.8 | 31.0 |
| TSAT 20+ ³ (%) | 86.1 | 87.1 | 87.6 | 87.3 |
| 11n Iron prescription (% of 11a) | 59.2 | 57.0 | 51.4 | 51.9 |
| Peritoneal Dialysis Adequacy² | | | | |
| 11o Average weekly Kt/V [0.5-5.0] | 2.4 | 2.3 | 2.3 | 2.3 |
| Average weekly Kt/V 2.0+ ³ (%) | 76.0 | 68.8 | 65.0 | 68.6 |
| 11p Average weekly creatinine clearance [10-200 L/wk] | 86.8 | 73.6 | 76.7 | 78.8 |
| Average weekly creatinine clearance 60+ L/week/1.73m ² (%) ³ | 72.8 | 56.5 | 62.9 | 62.6 |
| Serum Albumin² | | | | |
| 11q Average serum albumin (BCG or BCP +0.3) [1.0-5.5 g/dL] | 3.6 | 3.6 | 3.6 | 3.6 |
| Serum albumin BCG 3.5+ g/dL or BCP 3.2+ g/dL ³ (%) | 64.9 | 63.1 | 60.7 | 60.0 |
| Mineral Metabolism² | | | | |
| 11r Mean serum calcium [0.1-20.0 mg/dL] | 9.2 | 9.1 | 9.1 | 9.1 |
| Serum calcium between 8.4 and 10.2 ³ (%) | 79.5 | 77.9 | 80.0 | 79.0 |
| 11s Mean serum phosphorus [0.1-20.0 mg/dL] | 5.3 | 5.3 | 5.4 | 5.3 |
| Serum phosphorus between 3.5 and 5.5 ³ (%) | 60.0 | 56.4 | 53.8 | 56.5 |
| Clinical Performance Measures^{3,4} | | | | |
| 11t Adequacy | | | | |
| At least one measured total solute clearance for urea and creatinine (%) | 59.3 | 85.9 | 67.9 | 77.1 |
| Total solute clearance for urea and creatinine calculated in standard way (%) | 32.9 | 48.3 | 41.9 | 46.2 |
| CAPD delivered dose meets KDOQI thresholds (%) | 66.7 | 63.0 | 77.8 | 66.7 |
| Cycler delivered dose meets KDOQI thresholds (%) | 60.9 | 62.2 | 50.0 | 57.3 |
| 11u Anemia management | | | | |
| Mean hemoglobin 11-12 g/dL (%) | 27.6 | 35.6 | 34.5 | 33.7 |
| At least two TSAT and two serum ferritin values | 73.5 | 71.8 | 82.1 | 83.9 |
| Iron stores maintained at KDOQI thresholds (%) | 84.8 | 87.2 | 86.2 | 86.1 |
| Administration of IV iron to anemic patients (%) | 31.9 | 29.7 | 41.1 | 33.0 |

[1] These data were collected for the time period Oct-Mar, 2005-2007 in order to calculate selected CPMs and other indicators of quality of care. See *Guide*.

[2] For continuous variables, all summaries are computed based only on responses in range indicated in brackets for the variable.

[3] Calculated as the percent of patients with non-missing values.

[4] Clinical Performance Measures reported are based upon the ESRD CPM Project, Phase II.