

Dear State Surveyor:

This report is designed to provide a comparative summary of treatment patterns and patient outcomes for End Stage Renal Disease (ESRD) patients in this state, as compared to all patients in the United States. The statistics reported here include dialysis patients treated during 2017-2020 in the chronic dialysis facilities in this state and are based primarily on Medicare claims and data collected for CMS. Selected statistics from this profile are summarized below and state-to-state comparisons of key statistics are provided in the *Maps and Tables of Key Statistics by State*.

ESRD CORE Pre-Survey Data Tool

For each facility with CCN xxxxxx in your state, key data elements from the DFR reviewed in the Core Survey Pre-survey Preparation task are reported in the QDFR_FY22_SEP_UPDATE_xxxxxx.pdf available on the secure Dialysis Reports website (www.DialysisData.org).

Selected highlights for this State are provided on the first few pages. For a complete description of the methods and data reported here please see the *Guide to the State Profiles for FY 2022*. The Guide is available on the Dialysis Data website at www.DialysisData.org. We hope this profile is of interest to you and is helpful in your survey efforts. We welcome your feedback on ways to improve future profiles.

What's New This Year

As part of a continuing effort to improve the quality and relevance of this report for your state, the following changes have been incorporated into the State Profile for FY 2022:

- COVID-19 patient counts, deaths, and hospitalizations among Medicare dialysis patients are reported in the new Table C1, and among Medicare nursing home (NH) dialysis patients in the new Table C2. These summaries are presented for each quarter of 2020, with national averages presented for Quarter 4 (October 2020 – December 2020).
- COVID adjustments are included in the models for Standardized Mortality Ratio (Table 3), Standardized Hospitalization Ratio - Admissions (Table 4), and Standardized Readmission Ratio (Table 4).
- Influenza Vaccinations reported in CROWNWeb are now included in Table 6.
- Medicare Advantage patients are now included in Standardized Hospitalization Ratio (Admissions and Days) in Table 4 and Prevalent Comorbidities in Table 11. As a result, prevalent comorbidity summaries are restricted to inpatient claims.

Data Limitations in FY 2022 Profiles

Due to incomplete CROWNWeb data for 2020 and the COVID Extraordinary Circumstances Exception (ECE) data policy from CMS, the measures reported in the FY 2022 Profiles based on calendar year 2020 have been modified to optimize the available information. Here we provide a brief overview of the impact of data incompleteness and exclusions on the FY 2022 Profiles.

The CMS ECE policy restricts the use and availability of claims data from March-June 2020 and CROWNWeb clinical data from January-June 2020. In addition, CROWNWeb data incompleteness for the end of 2020 results in:

- Unavailable clinical data for the last four months of the calendar year;
- Unavailable incident dialysis patient data during the last three months of the calendar year;
- An inability to place patients in dialysis facilities for the last two months of the calendar year.

Although this affects all measures, several measures in the Profiles do not need incident patients or patient assignment through the end of 2020 because of the 90-day new patient rule and 60-day transfer rules. (Please see Guide to the Profiles for FY 2022, in the section entitled “General Inclusion Criteria for Dialysis Patients” for details on the 90-day and 60-day rules.) Information on hospitalizations, transplants, wait listing, nursing home, and deaths are available through the end of 2020. CROWNWeb clinical data are only available for July and August 2020 (due to both ECE and data incompleteness). A summary of data available for 2020 measures reported in the FY 2022 Profiles is provided in the table below. Table footnotes provide additional information for specific measures impacted by the data limitations.

Incorporating COVID-19 Data Exclusions

Data from January 2020 – June 2020 CROWNWeb clinical data will be excluded from all calculations. This affects summaries for both adult and pediatric measures as applicable: Influenza Vaccination (Table 6); Anemia Management - Hemoglobin (Table 7); Dialysis Adequacy (Table 8); Mineral Metabolism (Table 9); and Vascular Access (Table 10). PD Kt/V, long-term catheter rates, and influenza vaccination rates for all dialysis patients in 2020 are not available due to insufficient data. Outcomes during the period March 2020 – June 2020 for remaining measures will not be reported. This includes summaries for both adult and pediatric measures as applicable: Mortality (Table 3); Hospitalization including Emergency Department and Readmission statistics (Table 4); Transplantation (Table 5); Waitlist (Table 5); Influenza Vaccination (Table 6); Anemia Management - STRR (Table 7); and Vascular Access – PD Infection (Table 10).

Table: Data Availability for 2020 Summaries in FY 2022 Profiles

Profile Table	2020 Data Availability
Table C1: COVID-19 in Medicare Dialysis Patients, 2020 Table C2: COVID-19 in Medicare Dialysis Patients Treated in Nursing Home Facilities, 2020 Table 1: Summaries for All Dialysis Patients Treated as of December 31 Table 11: Comorbidities Reported on Inpatient Medicare Claims for Medicare Dialysis Patients	January-December (12 months)
Table 2: Characteristics of New Dialysis Patients (Form CMS-2728)	January-September (9 months)
Table 3: Mortality Summaries: All Dialysis Patients (SMR) and New Patients (2019 FY SMR) Table 4: Hospitalization Summary: Standardized Hospitalization Ratios (SHRs) Table 5: Transplantation Summary for Dialysis Patients (STR) Table 5: Summary for New Dialysis Patients (2019 SWR) Table 7: Anemia Management: Transfusion (STrR)	January-February, July-December (8 months)
Table 4: Readmission Summaries (SRR)	January 1-30, July-October (5 months)
Table 3: Categories of Death (3e-3i; 3p-3s) Table 5: Waitlist Summary for All Dialysis Patients (Patients Waitlisted) Table 10: Access-Related Infection Summaries for All Medicare Patients	January-February, July-October (6 months)
Table 6: Influenza Vaccination Summary for Medicare Dialysis Patients for August 2019-March 2020 flu season	January-February (2 out of 3 months)
Table 7: Anemia Management: Hemoglobin Table 8: Dialysis Adequacy Summaries: HD Kt/V, UFR, and Albumin (HD and PD) Table 9: Mineral Metabolism Summaries: Calcium, Phosphorous, Hypercalcemia Table 10: Vascular Access Information for All Dialysis Patients and at Incidence (VA types and SFR)	July-August (2 months)

State Highlights

Patient Characteristics: On December 31st, 2020, 11.4% of patients in this state were treated in a nursing home during the year, compared to 12.0% nationally. See **Table 1** for detailed summaries of all patients treated during 2017-2020 in this state.

Form CMS-2728 collected data from 1,415 incident patients in this state in 2020. **Table 2** 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 2020, the average age of patients in this state at incidence was 63 years, compared to the national average of 64 years. Asian patients made up 10% of the patients in this state compared to 6% nationally. Among the incident patients in this state in 2020, 80.8% were informed of their transplant options, compared to 83.5% nationally. Also in 2020, 17.8% of incident patients in this state were not under the care of a nephrologist prior to ESRD therapy, compared to 15.9% nationally.

Mortality: There were 1,167 deaths among the patients treated in this state during 2020, while 1,171 would be expected based on their age, race, ethnicity, sex, diabetes status, duration of ESRD, nursing home status, BMI and 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% lower than expected. Of the deaths in this state in 2020, 19% were preceded by withdrawal from dialysis, compared to the national average of 17%. See **Table 3** of this profile for more detailed mortality statistics during 2017-2020 in this state.

First Year Mortality: There were 308 deaths among the incident patients treated in this state during 2019, while 304 would be expected based on their age, race, ethnicity, sex, diabetes status, nursing home status, BMI and comorbidities at incidence, as well as state population death rates. The First Year Standardized Mortality Ratio (SMR) of observed to expected deaths is 1.01, which is 1% higher than expected. Of the deaths among incident patients in this state in 2019, 33% were preceded by withdrawal from dialysis, compared to the national average of 29%. See **Table 3** of this profile for more detailed first year mortality statistics during 2017-2019 in this state.

Hospitalization: The Standardized Hospitalization Ratio (SHR) of observed to expected hospital admissions for patients in this state during 2020 is 0.92, indicating that these patients had 8% fewer admissions than expected based on characteristics of patients treated in this state. The Standardized Readmission Ratio (SRR) of observed to expected hospital readmissions in this state during 2020 is 1.09, indicating that these patients had 9% more readmissions than expected. See **Table 4** of this profile for additional hospitalization statistics during 2017-2020 in this state.

Transplantation: 200 patients under age 75 in this state during 2020 received their first transplant, while 196 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 state is 0.97, which is 3% lower than expected. See **Table 5** of this profile for additional transplantation statistics during 2017-2020 in this state.

Kidney Transplant Waitlist for Prevalent Patients: The 2020 age-adjusted percent waitlisted in this state is 15.4%, which is 2.0% lower than the national adjusted percentage. See **Table 5** of this profile for additional transplant waitlist statistics during 2017-2020 in this state.

Kidney Transplant Waitlist for Incident Patients: The 2019 Standardized Waitlist Ratio (SWR) in this state is 0.93, which is 7% fewer patients waitlisted or living donor transplants than expected in this state. See **Table 5** of this profile for additional transplant waitlist statistics during 2017-2019 in this state.

Influenza Vaccination: On December 31, 2020, 79% of the Medicare dialysis patients treated in this state were vaccinated against influenza between August 1 and December 31, 2020, compared to 81% nationally. This difference is statistically significant ($p < 0.05$) and is unlikely to be due to random chance. See **Table 6** of this profile for more information about vaccinated patients during 2017-2020 in this state.

Anemia Management: In 2020, 20.1% of eligible hemodialysis patient-months in this state had a hemoglobin value below 10 g/dL, compared to 20.2% nationally. Also in 2020, 21.4% of eligible peritoneal dialysis patient-months had a hemoglobin value below 10 g/dL, compared to 23.1% nationally. See **Table 7** of this profile for additional anemia management statistics in this state during 2017-2020.

Dialysis Adequacy: Of the eligible hemodialysis patient-months in this state in 2020, 97% had a $Kt/V \geq 1.2$, compared to 97% nationally. The percentage of eligible peritoneal dialysis (PD) patients in this state with $Kt/V \geq 1.7$ in 2020 was not calculated due to data limitations. See **Table 8** of this profile for more information on dialysis during 2017-2020 in this state.

Mineral Metabolism: In 2020, 15% of eligible patient-months in this state had a serum phosphorus value > 7.0 mg/dL, compared to 16% nationally. Also in 2020, 1.2% of eligible patient-months in this state had a calcium uncorrected value > 10.2 mg/dL, compared to 1.0% nationally. See **Table 9** of this profile for more mineral metabolism summaries in this state during 2017-2020.

Vascular Access: In 2020, 11% of the incident hemodialysis patients in this state had an arteriovenous (AV) fistula in use, compared to 9% in the nation. This state's 2020 Standardized Fistula Rate (SFR) for prevalent patients is 62%, which is 1% higher than the national SFR. The long-term catheter rate among prevalent patients receiving hemodialysis treatment in this state in 2020 was not calculated due to data limitations. See **Table 10** of this profile for additional information about vascular access in this state during 2017-2020.

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State Profile for FY 2022 for Dialysis Patients and Facilities
STATE SAMPLE

The tables below provide quarterly updates of COVID-19 patient counts, deaths, and hospitalizations among Medicare dialysis patients (Table C1) and Medicare nursing home (NH) dialysis patients (Table C2) in 2020 Q1-Q4.

TABLE C1. COVID in Medicare Dialysis Patients, 2020 *1

Measure Name	This State				United States
	Q1: Jan-Mar	Q2: Apr-Jun	Q3: Jul-Sep	Q4: Oct-Dec	Q4: Oct-Dec
1 Medicare dialysis patients treated during the quarter (n)	8,151	7,981	7,859	7,393	410,942
2 Patients ever identified with COVID [prior to or during current quarter] (n)	45	348	503	890	49,568
Patients ever identified with COVID (% of 1)	0.6	4.4	6.4	12.0	12.1
3 Patients first identified with COVID in current quarter (n)	45	307	241	472	26,356
Patients first identified with COVID in current quarter (% of 1)	0.6	3.8	3.1	6.4	6.4
Deaths among Medicare patients					
4 Deaths (n)	388	399	379	434	24,316
5 Deaths among patients ever identified with COVID (n)	6	81	72	120	6,743
Deaths among patients ever identified with COVID (% of 4)	1.5	20.3	19.0	27.6	27.7
Hospitalizations *2 among Medicare patients					
6 Hospitalizations (n)	2,462	2,079	2,170	2,022	112,741
7 Hospitalizations among patients ever identified with COVID (n)	42	272	299	524	29,275
Hospitalizations among patients ever identified with COVID (% of 6)	1.7	13.1	13.8	25.9	26.0

[*1] Includes patients with Medicare as primary insurer or with a Medicare Advantage plan. See Guide, Section XVII.

[*2] Hospitalization is defined as having at least one day in a hospital from Medicare inpatient claims during the reporting period.

TABLE C2. COVID in Medicare Dialysis Patients Treated in Nursing Home (NH) Facilities, 2020 *1

Measure Name	This State				United States
	Q1: Jan-Mar	Q2: Apr-Jun	Q3: Jul-Sep	Q4: Oct-Dec	Q4: Oct-Dec
1 Medicare NH dialysis patients treated during the quarter (n)	945	773	725	660	36,821
2 Patients ever identified with COVID [prior to or during current quarter] (n)	12	154	174	260	14,489
Patients ever identified with COVID (% of 1)	1.3	19.9	24.0	39.4	39.3
3 Patients first identified with COVID in current quarter (n)	12	142	74	132	7,378
Patients first identified with COVID in current quarter (% of 1)	1.3	18.4	10.2	20.0	20.0
Deaths among Medicare NH patients					
4 Deaths (n)	123	120	97	113	6,314
5 Deaths among patients ever identified with COVID (n)	2	38	27	44	2,448
Deaths among patients ever identified with COVID (% of 4)	1.6	31.7	27.8	38.9	38.8
Hospitalizations *2 among Medicare NH patients					
6 Hospitalizations (n)	604	447	433	396	22,116
7 Hospitalizations among patients ever identified with COVID (n)	11	118	106	164	9,185
Hospitalizations among patients ever identified with COVID (% of 6)	1.8	26.4	24.5	41.4	41.5

[*1] Includes patients treated in a nursing home at least one day during the quarter and have Medicare as primary insurer or with a Medicare Advantage plan. See Guide, Section XVII.

[*2] Hospitalization is defined as having at least one day in a hospital from Medicare inpatient claims during the reporting period.

State Profile for FY 2022 for Dialysis Patients and Facilities
STATE SAMPLE

TABLE 1: Summaries for All Dialysis Patients Treated as of December 31st of each Year^{*1}, 2017-2020

Measure Name	This State				United States
	2017	2018	2019	2020	2020
1a Patients treated on 12/31 of year (n)	8,422	8,581	8,738	8,456	473,549
1b Average age (years)	62.0	62.1	62.4	62.4	62.6
1c Age (% of 1a; sums to 100%)					
< 18	0.2	0.2	0.2	0.2	0.2
18-64	53.4	53.2	52.2	52.1	51.4
65+	46.4	46.6	47.6	47.7	48.4
1d Female (% of 1a)	42.9	42.6	42.4	42.4	42.4
1e Race (% of 1a; sums to 100%) ^{*2}					
African American	27.4	27.5	27.4	27.8	34.6
Asian/Pacific Islander	10.6	10.6	10.6	10.7	6.5
Native American	3.4	3.4	3.4	3.3	1.2
White	58.1	58.1	58.1	57.5	57.3
Other/Unknown/Missing	0.5	0.5	0.5	0.6	0.5
1f Ethnicity (% of 1a; sums to 100%)					
Hispanic	11.7	11.8	11.8	12.0	19.0
Non-Hispanic	88.0	87.9	87.9	87.5	80.6
Unknown	0.3	0.3	0.3	0.5	0.4
1g Cause of ESRD (% of 1a; sums to 100%)					
Diabetes	47.0	47.4	47.8	47.5	46.2
Hypertension	26.0	26.4	26.4	26.3	30.1
Glomerulonephritis	11.7	11.3	10.9	10.9	9.8
Other/Unknown	14.7	14.3	14.3	14.5	13.1
Missing	0.6	0.6	0.6	0.8	0.8
1h Average duration of ESRD (years)	4.9	4.9	4.9	5.0	5.1
1i Years since start of ESRD (% of 1a; sums to 100%)					
<1	16.2	16.0	16.3	14.6	14.1
1-2	17.7	17.5	17.0	17.8	17.3
2-3	14.1	14.2	14.0	13.9	13.9
3-6	25.9	26.4	26.4	26.7	26.8
6+	26.1	26.0	26.3	27.1	27.9
1j Nursing facility patients ^{*3} (% of 1a)	14.3	14.2	14.1	11.4	12.0
1k Modality (% of 1a; sums to 100%) ^{*4}					
In-center hemodialysis	87.6	87.1	86.4	85.6	85.4
Home hemodialysis	1.8	1.9	2.2	2.7	2.6
Continuous ambulatory peritoneal dialysis	1.6	1.5	1.5	1.7	1.5
Continuous cycling peritoneal dialysis	8.6	9.1	9.5	10.1	10.4
Other modality	0.3	0.3	0.3	0.0	0.0

n/a = not applicable.

[*1] See *Guide, Section IV*.

[*2] 'Asian' includes Indian sub-continent. 'Native American' includes Alaskan Native. 'White' includes Middle Eastern and Arab.

[*3] 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.

[*4] In 2020, modality is as of October 31, 2020. 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).

State Profile for FY 2022 for Dialysis Patients and Facilities
STATE SAMPLE

TABLE 2: Characteristics of New Dialysis Patients ^{*1}, 2017-2020 (Form CMS-2728)

Measure Name	This State				United States	
	2017	2018	2019	2020 [^]	2020 [^]	
Patient Characteristics						
2a	Total number of patients with forms (n)	2,122	2,144	2,154	1,415	79,217
2b	Age (average years [0-95]) ^{*2}	62.9	63.2	63.3	62.9	63.5
2c	Female (% of 2a)	41.7	41.1	41.8	41.5	41.6
2d	Race ^{*3} (% of 2a; sums to 100%)					
	African American	21.5	21.3	21.9	23.4	28.6
	Asian/Pacific Islander	10.1	10.1	10.5	10.4	6.1
	Native American	2.7	2.7	2.9	3.0	1.1
	White	65.2	65.5	64.4	62.6	63.8
	Other/Unknown/Missing	0.4	0.4	0.3	0.6	0.4
2e	Hispanic (% of 2a)	9.9	10.0	10.5	10.7	16.4
2f	Primary cause of ESRD (% of 2a; sums to 100%)					
	Diabetes	50.5	50.4	50.5	50.6	48.1
	Hypertension	26.3	26.8	25.8	25.6	29.5
	Glomerulonephritis	8.0	8.0	7.3	7.3	6.5
	Other/Missing	15.2	14.9	16.5	16.5	15.9
2g	Medical Coverage ^{*4} (% of 2a; sums to 100%)					
	Employer group only	12.5	12.6	12.6	13.3	12.7
	Medicare only	31.1	31.9	31.4	31.1	35.0
	Medicaid only	12.9	12.8	14.3	15.7	13.7
	Medicare and Medicaid only	11.4	11.6	11.6	11.4	12.0
	Medicare and Other	19.4	18.9	18.2	16.3	14.5
	Other/Unknown	7.9	7.6	7.7	8.1	7.9
	None	4.8	4.7	4.1	4.2	4.2
2h	Body Mass Index ^{*5} (Median; Weight/Height ²)					
	Male	28.4	28.5	28.4	28.4	28.1
	Female	29.4	29.3	29.2	29.6	29.2
2i	Employment ^{*6}					
	Six months prior to ESRD treatment	35.3	35.8	37.6	38.0	36.8
	At first ESRD treatment	26.2	27.2	27.7	27.5	24.9
2j	Primary Modality (% of 2a; sums to 100%)					
	Hemodialysis	89.4	88.7	88.2	87.1	86.4
	CAPD/CCPD	10.6	11.3	11.8	12.9	13.6
	Other/Unknown/Missing	0.0	0.0	0.0	0.0	0.0
2k	Number of incident hemodialysis patients (n)	1,897	1,898	1,895	1,223	68,469
2l	Access used at first outpatient dialysis (% of 2k; sums to 100%)					
	Arteriovenous fistula	18.4	17.8	16.9	16.4	14.1
	Arteriovenous graft	3.2	2.9	2.8	2.4	2.7
	Catheter	78.3	79.1	79.9	81.0	82.9
	Other/Unknown/Missing	0.1	0.2	0.3	0.3	0.3
2m	Arteriovenous fistulae placed (% of 2k) ^{*7}	33.8	32.3	29.5	27.6	25.2

(continued)

State Profile for FY 2022 for Dialysis Patients and Facilities
STATE SAMPLE

TABLE 2 (continued): Characteristics of New Dialysis Patients ^{*1}, 2017-2020 (Form CMS-2728)

Measure Name	This State				United States
	2017	2018	2019	2020 [^]	2020 [^]
Average Lab Values Prior to Dialysis ^{*2}					
2n Hemoglobin (g/dL [5-20])	9.4	9.4	9.4	9.4	9.3
2o Serum Albumin (g/dL [0.8-6.0])	3.2	3.2	3.3	3.3	3.3
2p Serum Creatinine (mg/dL [0-33])	6.6	6.6	6.5	6.6	6.5
2q GFR (ml/min [0-30])	10.4	10.5	10.5	10.3	10.6
Care Prior to ESRD Therapy					
2r Received ESA prior to ESRD (% of 2a)	15.5	16.4	17.3	17.1	16.3
2s Pre-ESRD nephrologist care (% of 2a; sums to 100%)					
No	21.0	19.7	17.9	17.8	15.9
Yes, <6 months	13.6	13.8	15.2	16.0	17.4
Yes, 6-12 months	20.4	20.4	19.9	19.6	20.0
Yes, >12 months	34.9	35.6	35.6	35.3	32.5
Unknown	10.2	10.6	11.3	11.2	14.3
2t Informed of transplant options (% of 2a)	84.9	84.8	80.6	80.8	83.5
2u Patients not informed of transplant options (n)	247	257	344	233	13,051
2v Reason not informed (% of 2u; may not sum to 100%) ^{*8}					
Medically unfit	34.5	29.0	18.4	16.7	16.2
Unsuitable due to age	25.0	19.7	14.1	14.3	11.9
Psychologically unfit	2.7	2.2	1.2	1.3	1.3
Patient declined information	2.2	1.3	1.1	0.8	0.9
Patient has not been assessed	40.2	48.1	66.9	70.1	72.4
Comorbid Conditions					
2w Pre-existing Comorbidity (% yes of 2a)					
Congestive heart failure	29.4	29.0	29.6	28.8	28.1
Atherosclerotic heart disease ^{*9}	15.2	14.2	13.7	13.1	12.5
Other cardiac disorder ^{*9}	19.6	20.2	21.4	20.3	20.7
CVD, CVA, TIA	8.8	8.5	9.0	8.8	8.8
Peripheral vascular disease	10.8	10.3	10.2	10.0	8.9
History of hypertension	88.0	88.1	87.9	88.4	88.5
Diabetes ^{*9}	64.3	64.9	64.9	65.0	64.5
Diabetes on insulin	43.7	43.4	44.1	43.2	43.3
COPD	9.1	9.4	9.4	9.0	8.9
Current smoker	7.1	7.7	7.8	7.6	6.9
Cancer	7.2	7.4	7.6	7.0	7.2
Alcohol dependence	1.7	1.7	1.9	2.0	1.8
Drug dependence	1.3	1.4	1.7	1.5	1.6
Inability to ambulate	6.9	6.5	6.4	6.0	6.4
Inability to transfer	3.4	3.2	3.0	3.0	3.4
2x Average number of comorbid conditions	3.2	3.2	3.2	3.1	3.1

n/a= not applicable.

[^] Includes medical evidence forms submitted between January and September 2020. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*1] See *Guide, Section V*.

[*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 Arab.

[*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 with height, weight, and BMI values in acceptable ranges. Acceptable range for height, weight, and BMI are 122-208cm, 32-318 kg and 10-55 respectively.

[*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] Values may not sum to exactly 100% because of patients for which multiple reasons are selected, or when other or no reason is selected.

[*9] 'Atherosclerotic heart disease' 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.

TABLE 3: Mortality Summary for All Dialysis Patients (2017-2020) ^ & New Dialysis Patients (2017-2019) *1 ^

Measure Name	This State				United States
	2017	2018	2019	2020 ^	
All Dialysis Patients					2020 ^
3a Patients (n=number)	11,560	11,841	12,071	11,807	723,586
3b Patient years (PY) at risk (n)	8,334	8,504	8,660	5,767	337,406
3c Deaths (n)	1,458	1,482	1,493	1,167	68,420
3d Expected deaths (n)	1,462	1,494	1,510	1,171	68,424
3e Withdrawal from dialysis prior to death (% of 3c)	30.0	30.4	31.3	19.3	16.6
3f Deaths due to infections (% of 3c)	12.1	11.4	11.4	8.0	7.2
3g Deaths due to cardiac causes (% of 3c)	46.6	46.0	45.8	31.0	31.0
3h Deaths due to liver disease (% of 3c)	1.6	1.5	1.8	1.2	1.0
3i Dialysis unrelated deaths *2 (n; excluded from SMR)	10	10	10	5	271
3j Standardized Mortality Ratio (SMR; 3c /3d)	0.99	0.99	0.98	0.97	0.99
3k P-value *3	.	.	.	.	n/a
New Dialysis Patients					2019 ^
3l Patients (n=number)	2,122	2,144	2,154		120,644
3m Patient years (PY) at risk (n)	1,883	1,907	1,524		85,320
3n Deaths (n)	385	378	308		17,228
3o Expected deaths (n)	386	378	304		17,052
3p Withdrawal from dialysis prior to death (% of 3n)	32.0	31.8	32.9		29.1
3q Deaths due to infections (% of 3n)	11.7	9.5	9.3		9.2
3r Deaths due to cardiac causes (% of 3n)	44.2	42.1	40.0		41.7
3s Deaths due to liver disease (% of 3n)	2.6	3.2	2.7		2.8
3t Standardized Mortality Ratio (SMR; 3n /3o)	0.98	1.08	1.01		1.01
3u P-value *3	.	0.185	.		n/a

n/a = not applicable.

[^] Data from March through June 2020 are excluded from all calculations due to data exceptions. In 2020, for measures regarding causes of death (3e-3i and 3p-3s), cause of death information is complete through October 2020 due to data availability. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*1] See *Guide, Section VI*.

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

[*3] Ratios within the range 0.95 to 1.05 will not have a p-value. A p-value ≥ 0.05 indicates that the ratio is >1.05 or <0.95 plausibly due to random chance.

TABLE 4: Hospitalization Summary for Medicare Dialysis Patients^{*1}, 2017-2020[^]

Measure Name	This State				United States
	2017	2018	2019	2020 [^]	2020 [^]
Medicare Dialysis Patients					
4a Medicare dialysis patients (n)	9,637	9,837	10,057	9,687	582,377
4b Patient years (PY) at risk (n)	6,768	6,903	7,025	4,668	265,425
Days Hospitalized Statistics					
4c Total days hospitalized (n)	76,516	77,407	77,208	52,509	3,090,826
4d Expected days hospitalized (n)	78,719	79,856	79,922	54,172	3,093,246
4e Standardized Hospitalization Ratio for Days (4c/4d)	0.92	0.90	0.91	0.89	0.99
4f P-value ^{**2}	0.050	0.086	0.071	0.079	n/a
Admission Statistics					
4g Total admissions (n)	10,531	10,695	10,737	6,955	399,752
4h Expected total admissions (n)	10,606	10,776	10,825	7,006	399,908
4i Standardized Hospitalization Ratio for Admissions (4g/4h)	0.94	0.93	0.93	0.92	0.99
4j P-value ^{**2}	0.086	0.140	0.106	0.100	n/a
4k Patients with septicemia (% of 4a)	11.9	11.9	11.8	12.6	13.1
4l One day admissions (% of 4g)	9.8	10.0	9.6	9.2	8.9
4m Average length of stay (days per admission)	7.2	7.3	7.1	7.6	7.7
4n Admissions that originate in the ED (% of 4g)	78.8	79.0	79.6	80.6	84.7
Emergency Department (ED) Statistics					
4o Total ED visits (n)	16,917	16,819	16,768	10,058	581,029
4p Expected total ED visits (n)	17,138	17,077	17,042	10,247	582,381
4q Standardized Hospitalization Ratio for ED (4n/4o)	0.97	0.96	0.96	0.96	0.99
4r P-value ^{**2}	.	.	.	.	n/a
4s Medicare ^{**3} dialysis patients with ED visit (%)	64.8	64.4	64.5	54.3	53.2
4t ED visits that result in hospitalization (% of 4o)	38.6	39.2	39.2	40.7	45.1
Readmission Statistics					
4u Index discharges (n)	9,845	9,821	9,623	3,692	206,758
4v Total readmissions (n)	2,636	2,619	2,582	984	55,127
4w Expected total readmissions (n)	2,543	2,525	2,486	934	51,369
4x Standardized Readmission Ratio (SRR; 4v/4w)	1.01	1.02	1.00	1.10	1.07

n/a = not applicable.

[^] Data from March through June 2020 are excluded from all calculations due to data exceptions. Readmission Statistics are further limited to index discharges between January 1-30, 2020 and July-October 2020. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*1] The ED statistics include patients with Medicare as primary insurer and exclude patients with Medicare Advantage plans. All other summaries include patients with Medicare as primary insurer or with a Medicare Advantage plan; see *Guide, Section VII*.

[*2] Ratios within the range 0.95 to 1.05 will not have a p-value. A p-value ≥ 0.05 indicates that the ratio is >1.05 or <0.95 plausibly due to random chance.

[*3] Medicare Advantage patients are excluded from this summary.

TABLE 5: Transplantation and Waitlist Summary for All Dialysis Patients (2017-2020[^]) & New Dialysis Patients (2017-2019[^]) under Age 75^{*1}

Measure Name	This State				United States	
	2017	2018	2019	2020 [^]		
Transplantation: All Transplants					2020[^]	
5a	Eligible patients (n)	9,210	9,393	9,518	9,298	569,968
5b	Transplants (n)	284	301	331	223	12,631
Transplantation: First Transplants						
5c	Eligible patients (n)	8,559	8,739	8,861	8,654	529,715
5d	Patient years (PY) at risk (n)	6,202	6,308	6,389	4,225	246,788
5e	Actual 1st transplants ^{*2} (n)	249	267	294	200	11,275
5f	Expected 1st transplants (n)	240	258	286	196	11,467
5g	Standardized Transplantation Ratio (STR; 5e/5f)	1.09	1.04	1.01	0.97	0.98
5h	P-value ^{*3}	0.093	.	.	.	n/a
Waitlist: All Dialysis Patients						
5i	Eligible patients (n)	9,197	9,365	9,534	8,517	476,969
5j	Patient-months at risk (n) ^{*4}	77,878	79,003	79,984	39,745	2,225,694
5k	Patient-months on the waitlist (% of 5j) ^{*4}	17.8	16.9	16.2	15.6	18.0
5l	Patient-months on the waitlist by subgroup (%) ^{*4 *5}					
	Age < 40	27.3	26.1	25.6	25.0	28.2
	Age 40-74	16.7	15.9	15.1	14.6	16.9
	Male	18.9	18.0	17.1	16.6	19.2
	Female	16.3	15.4	14.8	14.2	16.1
	African American	18.2	17.9	16.4	16.1	16.9
	Asian/Pacific Islander	25.6	24.8	23.6	22.4	26.6
	Native American	17.3	16.6	13.4	13.5	11.1
	White, Hispanic	20.1	17.5	17.1	17.9	19.6
	White, Non-Hispanic	18.0	16.8	16.3	16.1	16.8
	Other/Unknown race	17.6	16.9	16.9	18.2	21.4
	Diabetes	14.0	13.3	12.8	12.5	14.7
	Non-diabetes	21.2	20.2	19.2	18.4	20.8
	Previous kidney transplant	32.2	31.1	28.9	27.7	30.7
	No previous kidney transplant	16.6	15.8	15.2	14.7	17.0
	<2 years since start of ESRD	13.7	13.4	13.2	13.2	13.7
	2-4 years since start of ESRD	22.0	21.0	20.2	19.5	22.4
	5+ years since start of ESRD	18.2	16.7	15.3	14.5	18.2
5m	Age-adjusted percentage of patient-months waitlisted	17.5	16.6	15.8	15.4	17.4
Waitlist: New Dialysis Patients						
		2017	2018	2019[^]		2019[^]
5n	Eligible Patients (n)	1,375	1,378	1,388		77,730
5o	Patient-years (PY) at risk (n)	1,223	1,224	1,237		69,257
5p	First waitlist events (n) ^{*6}	127	135	85		4,732
5q	Expected 1st waitlist events (n) ^{*6}	121	134	91		5,089
5r	Standardized Waitlist Ratio (SWR; 5p/5q) ^{*6}	1.03	0.96	0.93		0.92
5s	P-value ^{*3}	.	.	0.149		n/a

n/a = not applicable.

[^] Data from March through June 2020 are excluded from all calculations due to data exceptions. Summaries for Waitlist: All Dialysis Patients also exclude data between November and December 2020 due to data exceptions. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*1] See *Guide Section VIII (Transplantation) and Section IX (Waitlist)*.

[*2] Among first transplants that occurred after the start of dialysis from 2017-2020, 3.9% of transplants in the U.S. were not included because the transplant occurred less than 91 days after the start of ESRD and 0.9% because the patient was not assigned to a facility at time of transplant.

[*3] Ratios within the range 0.95 to 1.05 will not have a p-value. A p-value greater than or equal to 0.05 indicates that the standardized ratio is greater than 1.05 or less than 0.95 plausibly due to random chance.

[*4] A patient may be counted up to 12 times per year.

[*5] The waitlist percentage for each subgroup is calculated as a rate of waitlisted patient-months to patient-months at risk in each subgroup. A missing value indicates that there were no eligible patients in the subgroup.

[*6] An event is defined as a waitlisting or living-donor transplant.

TABLE 6: Influenza Vaccination Summary for Medicare Dialysis Patients and All Dialysis Patients^{*1}, Flu Seasons August 2017-December 2020

Measure Name	This State				United States	
	2017	2018	2019 [^]	2020		
Medicare Dialysis Patients					2020	
6a	Eligible patients on 12/31 (n)	5,501	5,435	5,441	4,907	274,765
6b	Patients vaccinated between Aug. 1 and Dec. 31 (% of 6a)	75.7	76.1	75.1	78.5	81.4
6c	P-value ^{*2} (for 6b compared to U.S. value) ^{*3}	0.041	0.048	0.035	0.049	n/a
6d	Patients vaccinated between Aug. 1 and Mar. 31 of following year (% of 6a)	76.9	76.8	75.9		2019 [^] 78.2
6e	P-value ^{*2} (for 6d compared to U.S. value) ^{*4}	0.040	0.052	0.036		n/a
6f	Patients vaccinated between Aug. 1 and Dec. 31 by subgroup ^{*5}					2020
	Age < 18	62.5	59.3	58.1	61.7	65.4
	Age 18-39	69.8	69.9	69.8	70.7	72.3
	Age 40-64	73.4	74.3	73.0	76.3	79.1
	Age 65-74	77.5	77.5	76.8	80.1	83.6
	Age 75+	79.5	79.7	79.1	82.4	86.2
	Male	75.2	75.7	74.7	78.4	81.1
	Female	76.5	76.7	75.7	78.6	81.8
	African American	76.0	75.0	74.3	78.3	77.5
	Asian/Pacific Islander	80.8	79.3	77.6	84.0	84.6
	Native American	73.2	75.8	72.0	77.1	82.2
	White	75.6	78.2	79.4	80.5	83.4
	Other/unknown race	68.3	75.7	73.5	74.3	78.6
	Hispanic	76.9	78.8	75.8	81.7	83.5
	< 1 year since start of ESRD	67.6	66.3	62.9	73.1	75.6
	1-2 years since start of ESRD	74.6	75.5	73.8	77.1	79.6
	3+ years since start of ESRD	78.5	78.8	78.6	79.9	83.0
All Dialysis Patients: Half Flu Season (Aug. 1-Dec. 31)						2020 ^{^^}
6g	Eligible patients (n)	11,020	11,328	11,201		
6h	Patients vaccinated (% of 6g)	56.7	75.0	73.9		
6i	P-value ^{*2} (for 6h compared to U.S. value ^{*6})	0.023	0.026	0.048		
6j	Patients that declined vaccination (% of 6g)	6.5	6.3	3.6		
6k	Patients excluded due to medical contraindication (n)	0.8	0.8	0.7		
All Dialysis Patients: Full Flu Season (Aug. 1-Mar. 31 of the following year)						2019 ^{^^}
6l	Eligible patients (n)	11,796	11,972			
6m	Patients vaccinated (% of 6l)	58.5	74.8			
6n	P-value ^{*2} (for 6m compared to U.S. value ^{*7})	0.019	0.051			
6o	Patients that declined vaccination (% of 6l)	6.0	6.0			
6p	Patients excluded due to medical contraindication (n)	0.9	0.9			

n/a = not applicable

[^] Data from March 2020 are excluded from all calculations for Medicare patients (rows 6d-6e) due to data exceptions. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[^^] Measures in rows 6g-6k are not calculated since data from September through December 2020 are unavailable. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[^*] Measures in rows 6l-7p are not calculated since data from January 2020 through March 2020 are excluded from all calculations due to data exceptions. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*1] Medicare Dialysis Patients are those treated on December 31 with Medicare as primary insurer. All Dialysis Patients are those treated for at least one full reporting month during the flu season; see Guide, Section VIII.

[*2] A p-value greater than or equal to 0.05 indicates that the difference between percent of patients vaccinated at the state and national percentage is plausibly due to random chance.

[*3] Compared to the U.S. value for that year and time period (08/01-12/31): 78% (2017), 78% (2018), 78% (2019), 81% (2020).

[*4] Compared to the U.S. value for that year and time period (08/01-03/31): 79% (2017), 79% (2018), 78% (2019).

[*5] A missing value indicates that there were no eligible patients in the subgroup.

[*6] Compared to the U.S. value for that year and time period (8/1-12/31): 53% (2017), 77% (2018), 75% (2019).

[*7] Compared to the U.S. value for that year and time period (8/1-3/31): 53% (2017), 77% (2018).

TABLE 7: Anemia Management Summaries for Adult Dialysis Patients ^{*1}, 2017-2020

Measure Name	This State				United States	
	2017	2018	2019	2020 ^^	2020 ^^	
Hemoglobin and ESA for Adult Hemodialysis (HD) Patients						
7a	Eligible HD patients (n)	9,222	9,366	9,512	7,615	426,424
7b	Eligible HD patient-months (n) ^{*2}	86,552	88,030	89,057	14,706	823,521
7c	Average hemoglobin ^{*3} (g/dL) (average of 7b)	10.8	10.8	10.8	10.8	10.8
7d	Hemoglobin categories (% of 7b; sums to 100%)					
	<10 g/dL	20.9	21.9	22.1	20.1	20.2
	10-<11 g/dL	34.2	34.4	34.3	33.6	34.0
	11-12 g/dL	29.7	28.9	28.2	29.4	30.5
	>12 g/dL	13.3	12.7	12.4	13.7	13.4
	Missing/Out of range	1.9	2.1	3.0	3.1	1.9
7e	ESA prescribed (% of 7b)	74.3	74.0	73.4	72.6	74.7
Hemoglobin and ESA for Adult Peritoneal Dialysis (PD) Patients						
7f	Eligible PD patients (n)	1,159	1,223	1,316	991	55,477
7g	Eligible PD patient-months (n) ^{*2}	9,564	9,989	10,638	1,891	105,873
7h	Average hemoglobin ^{*3} (g/dL) (average of 7g)	11.0	10.9	10.9	11.0	10.9
7i	Hemoglobin categories (% of 7g; sums to 100%)					
	<10 g/dL	22.3	22.8	22.1	21.4	23.1
	10-<11 g/dL	28.9	28.6	28.6	28.1	28.9
	11-12 g/dL	26.0	25.5	25.6	26.2	26.2
	>12 g/dL	19.5	19.2	18.6	19.2	18.8
	Missing/Out of range	3.3	3.9	5.1	5.2	3.0
7j	ESA prescribed (% of 7g)	55.7	55.5	54.8	54.5	56.9
Standardized Transfusion Ratio (STrR)						
		2017	2018	2019	2020 ^	2020 ^
7k	Adult Medicare patients (n)	6,521	6,504	6,497	5,998	358,569
7l	Patient years (PY) at risk (n)	4,172	4,152	4,108	2,646	149,947
7m	Total transfusions (n)	1,371	1,344	1,273	885	51,759
7n	Expected total transfusions (n)	1,408	1,380	1,311	909	51,604
7o	Standardized Transfusion Ratio ^{*4}	0.95	0.93	0.94	0.91	1.00
7p	P-value ^{*5}	.	0.126	0.130	0.133	n/a

n/a = not applicable.

[^] Data from March through June 2020 are excluded from all calculations due to data exceptions. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[^^] Includes data reported in July and August 2020 only due to data limitations. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*1] See *Guide, Section XI*. Transfusion summaries include adult Medicare Dialysis Patients only.

[*2] Patients may be counted up to 12 times per year.

[*3] Based on in-range values; see *Guide* for range values.

[*4] Calculated as a ratio of observed transfusions to expected transfusions (7m to 7n); not shown if there are fewer than 10 patient-years at risk for transfusions.

[*5] Ratios within the range 0.95 to 1.05 will not have a p-value. A p-value greater than or equal to 0.05 indicates that the standardized ratio is greater than 1.05 or less than 0.95 plausibly due to random chance.

TABLE 8: Dialysis Adequacy Summaries for All Dialysis Patients ^{*1}, 2017-2020 ^{^^}

Measure Name	This State				United States
	2017	2018	2019	2020 ^{^^}	2020 ^{^^}
Adult Hemodialysis (HD) Adequacy					
8a Eligible HD patients (n)	9,222	9,366	9,512	7,615	426,424
8b Eligible HD patient-months (n) ^{*2}	86,552	88,030	89,057	14,706	823,521
8c Average serum albumin (g/dL) (average of 8b)	3.8	3.8	4.1	3.8	3.9
8d Serum albumin categories (% of 8b; sums to 100%)					
< 3.0 g/dL	3.6	3.3	2.6	2.5	2.5
3.0-<3.5 g/dL	14.5	12.7	10.7	10.6	10.0
3.5-<4.0 g/dL	48.0	46.1	43.2	43.7	42.2
>=4.0 g/dL	31.4	35.0	40.8	40.6	42.6
Missing	2.5	2.9	2.8	2.6	2.8
8e Ultrafiltration rate average ^{*3} (ml/kg/hr) (average of 8b)	7.8	7.7	7.6	7.6	7.6
8f Ultrafiltration rate categories (% of 8b; sums to 100%)					
<=13 (ml/kg/hr)	83.2	84.0	84.7	85.2	85.3
>13 (ml/kg/hr)	9.4	8.5	7.8	7.4	7.5
Missing/Out of range	7.4	7.5	7.5	7.4	7.2
8g Eligible HD Kt/V patients (n) ^{*4}	8,795	8,977	9,173	7,148	400,279
8h Eligible HD Kt/V patient-months (n) ^{*2 *4}	82,013	83,914	85,005	13,771	771,170
8i Average Kt/V (average of 8h) ^{*3 *4}	1.6	1.6	1.6	1.6	1.6
8j Kt/V categories (% of 8h; sums to 100%) ^{*4}					
<1.2	2.3	2.1	1.7	1.8	1.5
1.2-<1.8	72.1	71.8	71.0	71.2	71.3
>=1.8	24.1	24.8	26.0	26.0	26.2
Missing/Out of range	1.5	1.4	1.3	1.0	1.1
Adult Peritoneal Dialysis (PD) Adequacy					
8k Eligible PD patients (n)	1,159	1,223	1,316	991	55,477
8l Eligible PD patient-months (n) ^{*2}	9,564	9,989	10,638	1,891	105,873
8m Average Weekly Kt/V (average of 8l) ^{*3 *4}	2.2	2.3	2.2		
8n Weekly Kt/V categories (% of 8l; sums to 100%) ^{*4}					
<1.7	5.7	4.5	5.2		
1.7-<2.5	66.2	66.9	68.1		
>=2.5	23.8	24.7	23.2		
Missing/Out of range	4.3	4.0	3.5		
8o Average serum albumin (g/dL) (average of 8l)	3.5	3.5	3.6	3.6	3.6
8p Serum Albumin Categories (% of 8l; sums to 100%)					
< 3.0 g/dL	11.3	10.2	7.7	7.6	7.7
3.0-<3.5 g/dL	30.8	28.8	25.2	25.8	24.9
3.5-<4.0 g/dL	40.5	41.4	42.7	42.5	42.9
>=4.0 g/dL	13.9	15.5	20.9	20.5	21.3
Missing	3.4	4.1	3.4	3.6	3.2

(continued)

TABLE 8 (continued): Dialysis Adequacy Summaries for All Dialysis Patients ^{*1}, 2017-2020 ^{^^}

Measure Name	This State				United States
	2017	2018	2019	2020 ^{^^}	2020 ^{^^}
Pediatric Kt/V ^{*4}					
8q Eligible Pediatric HD patients (n)	15	16	16	11	436
8r Eligible Pediatric HD patient-months (n) ^{*2}	104	112	109	20	804
8s Average Kt/V (average of 8r) ^{*3}	1.7	1.7	1.7	1.7	1.7
8t Kt/V categories (% of 8r; sums to 100%)					
<1.2	2.6	2.4	2.6	2.5	3.2
1.2-<1.8	56.7	57.1	58.7	62.1	58.6
>= 1.8	34.2	35.2	34.4	31.2	31.7
Missing/Out of Range	6.4	5.4	4.3	4.2	6.5
8u Eligible Pediatric PD Patients (n)	20	19	19	12	572
8v Eligible Pediatric PD patient-months (n) ^{*2}	144	136	142	24	1,083
8w Average Weekly Kt/V (average of 8v) ^{*3}	2.5	2.5	2.3		
8x Weekly Kt/V categories (% of 8v; sums to 100%)					
<1.7	15.8	12.3	13.2		
1.7-<2.5	38.5	38.4	44.2		
>=2.5	31.4	29.3	25.7		
Missing/Out of Range	14.3	20.0	16.9		

n/a = not applicable.

[^^] Includes data reported in July and August 2020 only due to data limitations. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*1] See *Guide, Section XII*. Unless otherwise noted, all summaries are based on data reported in CROWNWeb and the patient must be on HD (or PD) for the entire reporting month to be included in patient counts and summaries.

[*2] Patients may be counted up to 12 times per year.

[*3] Based on in-range values; see *Guide* for range values.

[*4] Kt/V summaries are supplemented with Medicare claims if missing in CROWNWeb. HD Kt/V summaries are restricted to patients who dialyze thrice weekly. See section of *Guide* titled *Determination of Thrice Weekly Dialysis* for more information. The most recent value over a 4-month period is selected for PD Kt/V. PD Kt/V values for 2020 are not calculated due to data exceptions; see *Data Limitations in FY 2022 Profiles* on pages 1-2 more information.

SAMPLE

TABLE 9: Mineral Metabolism Summaries for All Adult Dialysis Patients ^{*1}, 2017-2020 ^{^^}

Measure Name	This State				United States
	2017	2018	2019	2020 ^{^^}	2020 ^{^^}
9a Eligible adult patients (n) ^{*2}	10,164	10,357	10,571	8,609	482,104
9b Eligible adult patient-months (n) ^{*2 *3}	96,301	98,213	99,916	16,637	931,644
9c Average Phosphorous ^{*4} (mg/dL) (average ^{*5})	5.3	5.4	5.4	5.5	5.5
9d Phosphorous categories (% of 9b ^{*5} ; sums to 100%)					
<3.5 mg/dL	8.4	8.0	7.5	7.0	7.3
3.5-4.5 mg/dL	24.6	24.0	23.1	22.3	22.6
4.6-5.5 mg/dL	29.3	29.2	29.1	28.8	29.9
5.6-7.0 mg/dL	22.0	22.3	22.3	22.7	22.2
>7.0 mg/dL	13.1	13.7	14.3	15.4	15.5
Missing/Out of range	2.7	2.8	3.8	3.8	2.5
9e Average Calcium Uncorrected ^{*4} (mg/dL) (average of 9b)	8.9	8.9	8.9	8.9	8.9
9f Calcium Uncorrected categories (% of 9b; sums to 100%)					
<8.4 mg/dL	17.1	17.2	19.1	20.3	20.1
8.4-10.2 mg/dL	78.7	78.2	76.8	75.7	76.6
>10.2 mg/dL	1.5	1.5	1.3	1.2	1.0
Missing/Out of range	2.7	3.1	2.7	2.8	2.3
9g Average uncorrected calcium > 10.2 mg/dL (average of 9b ^{*4 *6})	2.1	2.2	2.1	3.4	2.7

n/a = not applicable.

[^^] Includes data reported in July and August 2020 only due to data limitations. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*1] See *Guide, Section XIII*. Summaries are based on data reported in CROWNWeb and the patient must be assigned to the facility the entire month to be included.

[*2] Includes patients on ESRD more than 90 days who switch between HD and PD during the month and patients for whom modality is unknown.

[*3] Patients may be counted up to 12 times per year.

[*4] The acceptable range for calcium is 0.1 – 20 mg/dL. Values outside of this range are considered missing, which are counted towards the numerator.

[*5] Eligible patients included in the phosphours summaries differ slightly from what is reported in 9b since it includes patient-months within the first 90 days of ESRD.

[*6] Hypercalcemia is averaged from uncorrected serum or plasma calcium values over a rolling 3-month period. Eligible patients included in the hypercalcemia summary differs slightly from what is reported in 9b since patients must be 18 as of the first day of the 3-month period.

TABLE 10: Vascular Access Information for all Adult Dialysis Patients and Access-Related Infection Summaries for all Medicare Patients^{*1}, 2017-2020

Measure Name	This State				United States	
	2017	2018	2019	2020 ^{^^}	2020 ^{^^}	
Vascular Access						
10a	Prevalent adult hemodialysis (HD) patients ^{*2}	9,731	9,884	10,023	7,908	442,812
10b	Prevalent adult hemodialysis patient months ^{*2 *3}	91,903	93,450	94,568	15,223	852,494
10c	Vascular access type in use (% of 10b; sums to 100%)					
	Arteriovenous fistula	64.5	64.6	64.0	62.4	61.9
	Arteriovenous graft	16.8	16.5	16.3	15.9	17.4
	Catheter	16.9	17.1	17.7	19.3	19.1
	Other/Missing	1.8	1.8	2.0	2.3	1.7
10d	Standardized Fistula Rate (SFR) ^{*4}	64.6	64.7	63.5	62.3	61.8
10e	Long-Term Catheter Rate ^{*5}	12.3	12.3	13.1		
Vascular Access at First Treatment						
10f	Incident adult hemodialysis patients (n)	1,914	1,914	1,860	421	23,571
10g	Vascular access type in use (% of 10f; sums to 100%)					
	Arteriovenous fistula	17.4	17.2	16.6	10.9	9.2
	Arteriovenous graft	3.9	3.3	3.2	1.7	2.1
	Catheter	77.0	76.9	77.7	54.2	55.5
	Other/Missing	1.7	2.6	2.5	33.1	33.3
10h	Arteriovenous fistulae in placed ^{*6} (% of 10f)	19.0	18.8	17.6	11.3	9.6
Infection: Peritoneal dialysis (PD)						
		2017	2018	2019	2020[^]	2020[^]
10i	Eligible PD patients (n)	857	874	927	828	46,362
10j	Eligible PD patient-months ^{*3}	6,407	6,516	6,752	3,462	193,844
10k	PD catheter infection rate per 100 PD patient-months ^{*7}	2.6	2.6	2.5	2.6	2.6
10l	P-value ^{*8} of 10k (compared to U.S. value ^{*9})	0.116	0.131	0.131	0.150	n/a

n/a = not applicable

[^] Infection summaries include data between January-February and July-October 2020 due to data exceptions. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[^^] Vascular access summaries include data reported in July and August 2020 only due to data limitations. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*2] Patient months with a catheter that have limited life expectancy, including under hospice care in the current reporting month, or with metastatic cancer, end stage liver disease, coma or anoxic brain injury in the past 12 months, were excluded.

[*3] Patients may be counted up to 12 times per year.

[*4] Includes patients with an autogenous arteriovenous (AV) fistula as the sole means of vascular access. SFR is calculated as an adjusted rate of AV fistula in use reported in 10c.

[*5] Includes patients using a catheter continuously for three months or longer. Patients with other or missing access types (10c) are also counted as catheter in use in the numerator. Long-term catheter rate (10e) values in 2020 were not calculated due to data limitations. See *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*6] Includes all patients with fistulae, regardless of whether or not they received their hemodialysis treatments using their fistulae.

[*7] The ICD-9 PD catheter infection code for PD patients is 996.68 which is effective thru 9/30/2015 and the ICD-10 PD catheter infection code for PD patients is T8571XA which is effective beginning 10/1/2015.

[*8] A p-value greater than or equal to 0.05 indicates the differences between the percent of patients with infection at the facility and national percentage is plausibly due to random change.

[*9] Compared to U.S. value for that year: 2.56 (2017), 2.48 (2018), 2.47 (2019), and 2.60 (2020).

TABLE 11: Comorbidities Reported on Inpatient Medicare Claims for Medicare Dialysis Patients Treated as of December 31st of Each Year ^{*1}, 2017-2020

Measure Name	This State				United States
	2017	2018	2019	2020	2020
11a Medicare dialysis patients on 12/31(n)	6,963	7,080	7,245	6,857	389,712
11b Comorbidity (% yes of 11a)					
Infections					
AIDS/HIV positive	0.9	0.7	0.6	0.6	0.8
Intravascular/implanted device-related ^{*2}	5.1	4.9	4.6	4.4	4.7
Hepatitis B	0.5	0.5	0.4	0.4	0.5
Hepatitis other	2.3	2.1	1.9	1.7	2.0
Metastatic	1.4	1.5	1.4	1.3	1.4
Pneumonia	3.6	3.9	4.8	3.2	3.5
Tuberculosis	0.1	0.1	0.1	0.2	0.2
Other	19.3	19.0	18.8	18.0	18.8
Cardiovascular					
Cardiac arrest	0.8	0.8	0.8	0.9	1.0
Cardiac dysrhythmia	18.1	18.1	18.0	17.8	18.7
Cerebrovascular disease	6.9	6.6	6.5	6.4	7.3
Congestive heart failure	29.1	29.1	28.8	28.4	30.1
Ischemic heart disease	26.6	26.0	25.6	24.7	26.3
Myocardial infarction	6.0	6.3	6.7	7.0	6.9
Peripheral vascular disease ^{*3}	15.4	15.6	15.4	15.4	17.0
Other					
Alcohol dependence	1.4	1.6	1.3	1.4	1.4
Anemia	2.0	2.1	2.3	2.4	2.7
Cancer	3.1	3.3	3.3	3.0	3.2
Chronic obstructive pulmonary disease	16.0	15.5	15.2	14.0	14.6
Diabetes	36.9	36.2	35.5	34.6	36.6
Drug dependence	1.4	1.3	1.3	1.3	1.2
Gastrointestinal tract bleeding	2.4	2.4	2.5	2.6	2.9
Hyperparathyroidism	18.7	19.3	19.1	18.9	19.7
11c Average number of comorbid conditions	2.2	2.2	2.2	2.1	2.2

n/a = not applicable.

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

[*2] This category includes bloodstream and other infections related to intravascular access and other implanted devices, not limited to dialysis access.

[*3] Peripheral vascular disease includes venous, arterial and nonspecific peripheral vascular diseases.

TABLE 12: Selected Summaries for Nursing Home (NH) Patients^{*1}, 2017-2020[^]

Measure Name	This State				United States	
	2017	2018	2019	2020	2020	
Mortality summary for all NH dialysis patients^{*3}						
12.3a	Patients (n=number)	2,191	2,246	2,271	1,892	105,935
12.3b	Patient years (PY) at risk (n)	1,364.5	1,401.7	1,414.5	775.1	43,403.3
12.3c	Deaths (n)	562	568	564	376	21,068
12.3d	Expected deaths (n)	456.4	478.1	479.1	338.1	18,596.1
12.3c/12.3b	Rate (deaths per 100 PYs at risk)	38.3	40.3	38.3	47.9	48.5
12.3j	SMR (deaths/expected deaths)	1.12	1.18	1.16	1.08	1.13
12.3e	Withdrawal from dialysis prior to death (% of 12.3c)	39.3	38.1	39.2	22.2	20.6
Hospitalization summary for NH Medicare dialysis patients						
12.4a	Medicare dialysis patients (n)	2,025	2,065	2,091	1,728	96,775
12.4b	Patient years (PY) at risk (n)	1,238.5	1,267.3	1,273.2	698.7	39,126.9
12.4g	Total admissions (n)	3,947	4,021	4,005	2,220	124,311
12.4h	Expected total admissions (n)	2,514.6	2,609.7	2,583.1	1,541.1	84,761.2
12.4g/12.4b	Rate (admissions per 100 PYs at risk)	309.6	299.2	300.5	297.5	317.7
12.4i	SHR (admissions/expected admissions)	1.60	1.50	1.53	1.44	1.47
Diagnoses associated with hospitalization (% of 12.4a)						
	Septicemia	23.4	24.9	23.8	25.5	27.7
	Acute myocardial infarction	9.1	10.0	11.2	12.2	12.2
	Congestive heart failure	44.6	47.0	46.9	47.5	50.2
	Cardiac dysrhythmia	33.5	35.0	34.1	35.0	37.1
	Cardiac arrest	3.8	3.6	3.1	4.0	4.8
Comorbidities reported on Medicare claims						
12.11a	Medicare dialysis patients on 12/31 (n)	1,164	1,186	1,198	919	51,482
12.11b	Comorbidity (% yes of 12.11a)					
Infections						
	AIDS/HIV positive	0.7	0.8	0.8	0.8	1.1
	Intravascular/implanted device-related ^{*4}	9.9	9.2	8.7	7.5	8.5
	Hepatitis B	0.8	0.8	0.7	0.7	0.9
	Hepatitis other	3.7	3.7	3.1	3.1	4.1
	Metastatic	4.1	4.0	4.7	5.1	4.0
	Pneumonia	10.5	10.7	11.0	8.7	9.7
	Tuberculosis	0.1	0.1	0.1	0.3	0.3
	Other	44.0	42.0	41.7	41.8	42.3
Cardiovascular						
	Cardiac arrest	2.3	2.3	1.9	2.0	2.5
	Cardiac dysrhythmia	38.0	40.9	36.7	37.3	39.6
	Cerebrovascular disease	20.4	16.8	16.2	16.8	19.3
	Congestive heart failure	53.6	56.6	53.4	53.8	56.6
	Ischemic heart disease	49.2	49.5	47.3	46.2	49.7
	Myocardial infarction	10.7	12.1	13.5	14.2	13.9
	Peripheral vascular disease ^{*4}	36.7	35.2	34.8	35.0	37.5

(continued)

TABLE 12 (continued): Selected Summaries for Nursing Home (NH) Patients^{*1}, 2017-2020[^]

Measure Name	This State				United States
	2017	2018	2019	2020	2020
Anemia^{*5}					
12.7a Eligible adult HD patients (n)	1,790	1,829	1,843	1,119	62,648
12.7b Eligible adult HD patient-months (n) ^{*2}	14,879	15,283	15,367	2,103	117,745
12.7d Hemoglobin (HD) < 10 g/dL (% of 12.7b)	28.8	28.8	29.0	26.8	28.1
12.7e ESA prescribed (% of 12.7b)	78.8	78.3	78.0	78.3	79.4
12.7f Eligible adult PD patients (n)	80	83	88	35	1,973
12.7g Eligible adult PD patient-months (n) ^{*2}	498	504	534	63	3,528
12.7i Hemoglobin (PD) < 10 g/dL (% of 7g)	27.6	28.8	29.8	27.4	30.1
12.7j ESA prescribed (% of 7g)	57.7	56.0	59.3	57.6	58.4
Dialysis Adequacy^{*5 *6}					
12.8a Eligible adult HD Kt/V patients (n)	1,719	1,763	1,792	1,067	59,731
12.8b Eligible adult HD Kt/V patient-months (n) ^{*2}	14,191	14,665	14,839	2,002	112,090
12.8j Kt/V (HD) < 1.2 (% of 12.8b)	2.4	2.6	2.3	2.7	2.3
12.8k Eligible adult PD Kt/V patients (n)	80	83	88	35	1,973
12.8l Eligible adult PD Kt/V patient-months (n) ^{*2}	498	504	534	63	3,528
12.8n Kt/V (PD) < 1.7 (% of 12.8l)	7.5	7.7	8.9		
Vascular Access^{*5 *7}					
12.10a Prevalent adult hemodialysis patients (n)	1,918	1,955	1,961	1,153	64,560
12.10b Prevalent adult hemodialysis patient months (n) ^{*2}	15,594	15,972	16,050	2,158	120,841
12.10c Arteriovenous fistula in use (% of 12.10b)	53.6	55.3	54.0	51.0	50.3
12.10e Long-Term Catheter Rate (LTCCR)	18.7	16.9	18.3		

n/a = not applicable; Kt/V: K = dialyzer clearance of urea; t = dialysis time; V = patient's total body water.

[^] For exclusions due to data exceptions, please refer to corresponding parent table and *Data Limitations in FY 2022 Profiles* on pages 1-2 for more information.

[*1] See Guide, Section XVI corresponding to the parent table in the DFR state profile.

[*2] A patient may be counted up to 12 times per year.

[*3] Deaths due to street drugs and accidents unrelated to treatment are excluded.

[*4] Intravascular/implanted device-related category includes bloodstream and other infections related to intravascular access and other implanted devices, not limited to dialysis access. Peripheral vascular disease includes venous, arterial and nonspecific peripheral vascular diseases.

[*5] Summaries are based on data reported in CROWNWeb and the patient must be on HD (or PD) for the entire reporting month to be included in patient counts and summaries.

[*6] Summaries are supplemented with Medicare claims if missing in CROWNWeb. HD Kt/V summaries are restricted to patients who dialyze thrice weekly. The PD summaries use the most recent value over a 4-month look-back period.

[*7] Patient months with a catheter that have limited life expectancy, including under hospice care in the current reporting month, or with metastatic cancer, end stage liver disease, coma or anoxic brain injury in the past 12 months, were excluded.