

# Chapter XI

## Facility Survey of Providers of ESRD Therapy

The Annual Facility Survey conducted by HCFA is the source of all the results presented in this chapter. Note that the data for 1992 are preliminary and may be subject to minor revisions. The facility survey contains summary data on facility characteristics for almost all Medicare approved dialysis and transplant units. Before 1982, Department of Veterans Affairs (DVA) dialysis units did not complete the facility survey. Since 1982, between 13 and 19 Medicare certified DVA units

have completed the facility survey each year. Beginning in 1990, there are survey data for some DVA units that are not certified by Medicare. For these units not certified by Medicare, 39 out of a total of 63 DVA units completed the facility survey in 1990. In 1991 and 1992, 47 out of 60 and 54 out of 59 non certified DVA units completed the facility survey (See Figure XI-1.) Thus, the undercount of patients from DVA facilities in the USRDS database and HCFA databases is reduced substantially

**Number of DVA Facilities Completing Annual Facility Survey, by Medicare Certification Category**

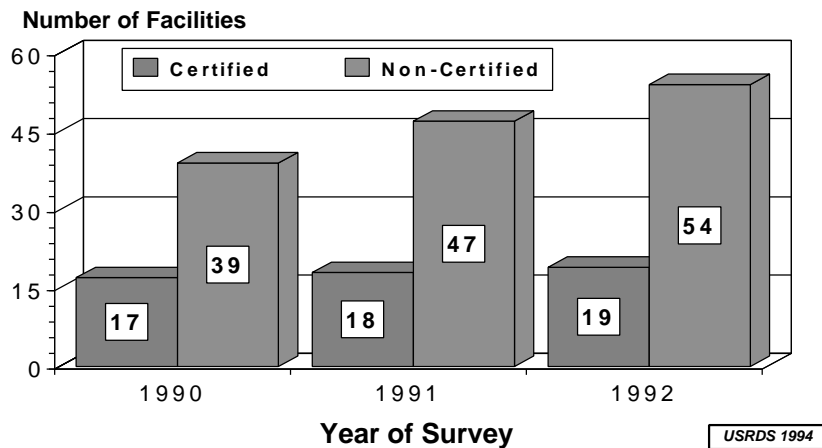


Figure XI-1

Number of Department of Veterans Affairs facilities completing HCFA's Annual Facility Survey, by Medicare certification status. Source: Reference Table I.1.

beginning with 1990. Although reporting methods may differ from unit to unit, the Annual Facility Survey data include most non-Medicare patients while the USRDS patient database does not<sup>1</sup>.

HCFA has defined a number of different types of ESRD units for reporting purposes:

- Hospital facilities are dialysis units attached to or located in a hospital which are approved to furnish outpatient dialysis service(s) directly to ESRD patients.
- Hospital centers are dialysis units attached to or located in hospitals which are approved to furnish the full spectrum of diagnostic, therapeutic, and rehabilitative services required for the care of ESRD dialysis patients (including inpatient and outpatient dialysis furnished directly or under arrangement).
- Freestanding units, sometimes called independent units, provide outpatient and home maintenance dialysis only.
- Transplant centers are hospital units which are approved to furnish transplantation and other medical and surgical specialty services for the care of ESRD transplant patients, including inpatient dialysis furnished directly or under arrangement.
- Dialysis and transplant centers combine the functions of a dialysis center and a transplant center.

In general, for the analyses presented in this chapter, the categories of “transplant center” and “dialysis and

transplant center” are combined and are referred to as “transplant” units. The remaining units are combined and referred to as “dialysis only” units.

---

## ESRD Units: Number and Location

Since Medicare extended coverage to patients with ESRD in 1973, there has been dramatic and sustained growth in the number of institutions providing ESRD services for patients covered by Medicare. For example, Figure XI-2 shows that there were 1,051 dialysis units in 1982. By 1992 the number had grown to 2,116, representing a 7.2 percent annual compound growth. During the same interval, the number of kidney dialysis and transplant centers grew from 156 to 231, a growth of 4.0 percent per year.

The geographic distribution of kidney dialysis and transplant centers is described in Figure XI-3. In 1982 there were 293 different metropolitan areas<sup>2</sup> having at least one dialysis unit. By 1992, the number of metropolitan areas with at least one dialysis unit had grown to 322. All areas defined as metropolitan in 1982, however, were still defined as metropolitan in 1992. In addition, all areas defined as non-metropolitan in 1982 were also still defined as non-metropolitan in 1992. Hence, the growth in the number of metropolitan areas with dialysis units was not achieved through a change in the definition of the area. Over the same interval, the number of non-metropolitan counties that had at least one dialysis unit had grown from 207 to 488.

### Number of Dialysis Only Units and Transplant Units, 1982-1992

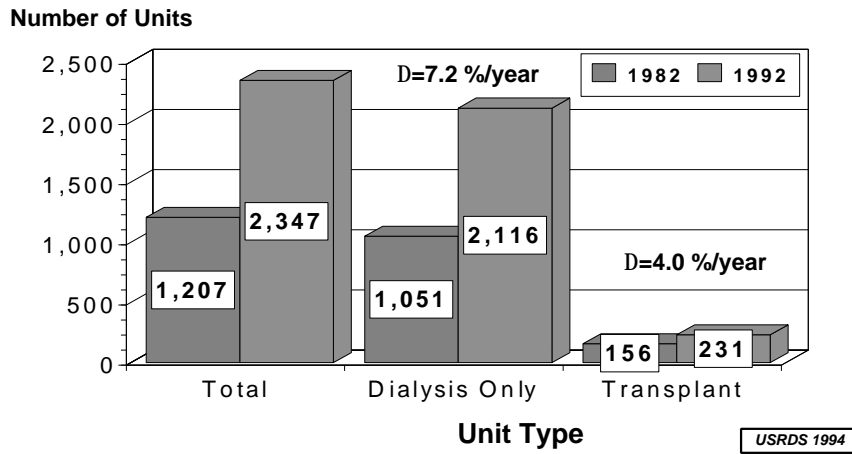


Figure XI-2

Number of "dialysis only" units and transplant units in the U.S. for 1982 and 1992, with annual compound rate of change (delta percent). The "Transplant" category includes both transplant centers and units which provide dialysis services in addition to transplants. Source: Reference Table I.1.

### Geographic Location of "Dialysis Only" and Transplant Units, 1982 and 1992

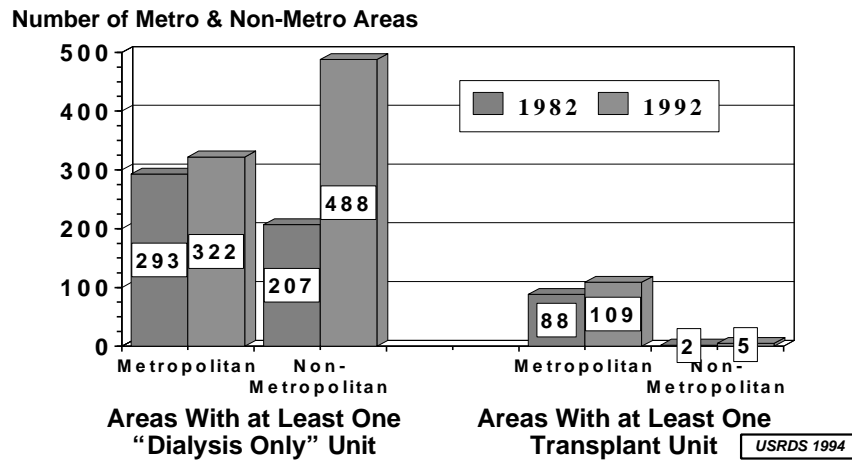


Figure XI-3

Number of metropolitan and non-metropolitan areas with at least one "dialysis only" unit and the number with at least one transplant unit in the U.S. by location type (metropolitan, non-metropolitan) for 1982 and 1992. The "Transplant units" category includes transplant centers and dialysis and transplant units which provide dialysis services in addition to transplants. Source: Reference Table I.3.

The distribution of transplant units is considerably more clustered. There were 88 different metropolitan areas with at least one transplant center in 1982, while by 1992 this number had grown to 109. Most of this growth occurred during the latter part of the decade. There were two non-metropolitan areas with transplant centers in 1982 and five in 1992 (one which is located in the U.S. Virgin Islands).

### ESRD Patients: Number and Treatment Locale

As shown in Figure XI-4, the overwhelming majority of dialysis patients were treated in metropolitan areas. However, the annual compound rate of growth over the 1982 to 1992 interval in non-metropolitan areas (14.1 percent) is higher than for metropolitan areas (8.7 percent).

The distribution of dialysis patients

by type of dialysis unit (plus profit status for the freestanding units) is presented in Figure XI-5 for 1982 and 1992. In 1982, freestanding, for-profit units treated 40 percent of outpatient dialysis patients. By 1992, this percentage had grown to 56 percent. Hospital dialysis centers treated 34 percent of the patients in 1982, but by 1992 this had fallen to 23 percent.

The number of center hemodialysis patients per station by ESRD Network in 1992 is shown in Figure XI-6. Nationally, on average there were 4.1 patients per station. At the lower end of the scale, ESRD Network 13 (AR, LA, OK) averaged 3.1 patients per station, while ESRD Network 2 (NY), with the largest number of patients per station (6.5), had more than twice that number. With the exception of New York, which appears to be an outlier, the number of patients per station per network ranges

**Prevalent Dialysis Patients Treated in Metropolitan and Non-Metropolitan Areas, 1982 and 1992**

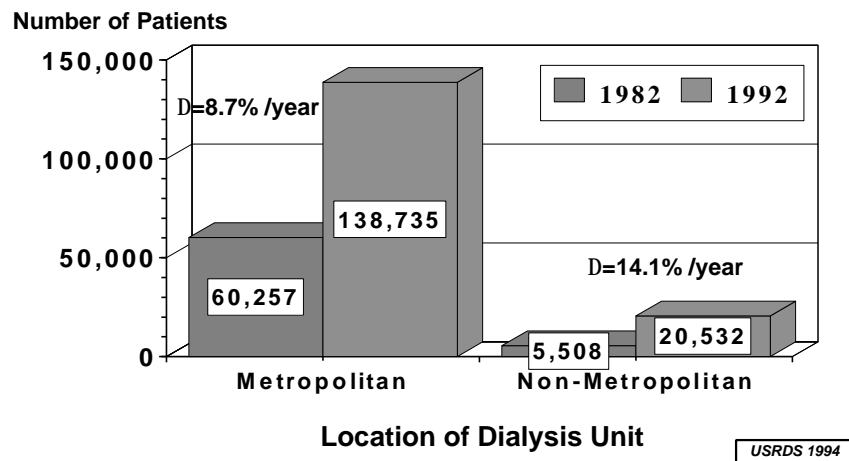


Figure XI-4

Number of dialysis patients treated by dialysis unit location type (metropolitan, non-metropolitan) for 1982 and 1992, with annual compound rate of change. Source: Reference Table I.3.

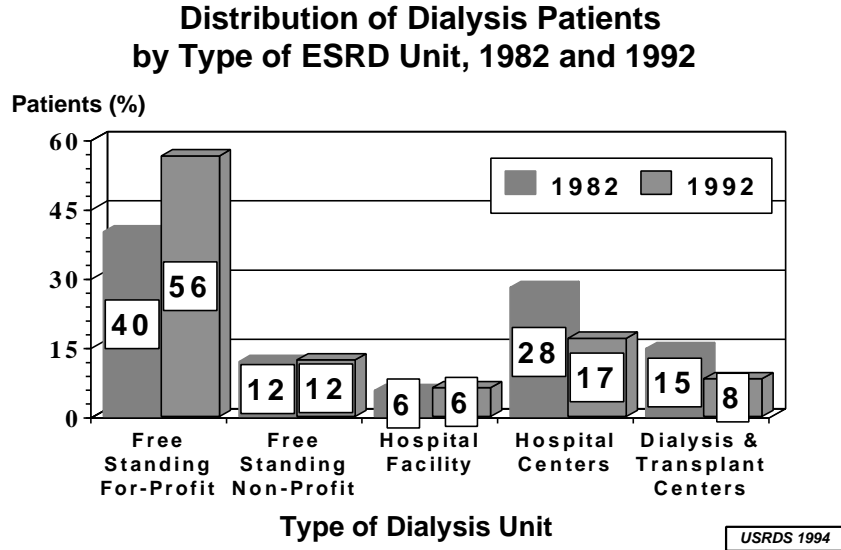


Figure XI-5

Distribution (percent) of dialysis patients by type of dialysis unit for end of the year point prevalent patients, 1982 and 1992. Source: Reference Table I.12.

from 24 percent lower than the national average to 32 percent higher. Comparing the results for 1992 with 1991 yields the fact that the national average has remained constant.

### Facility Size and Treatment Patterns

The size of the various types of dialysis units, measured by the median

### Number of In-Center Hemodialysis Patients per Station, by Network Office, 1992

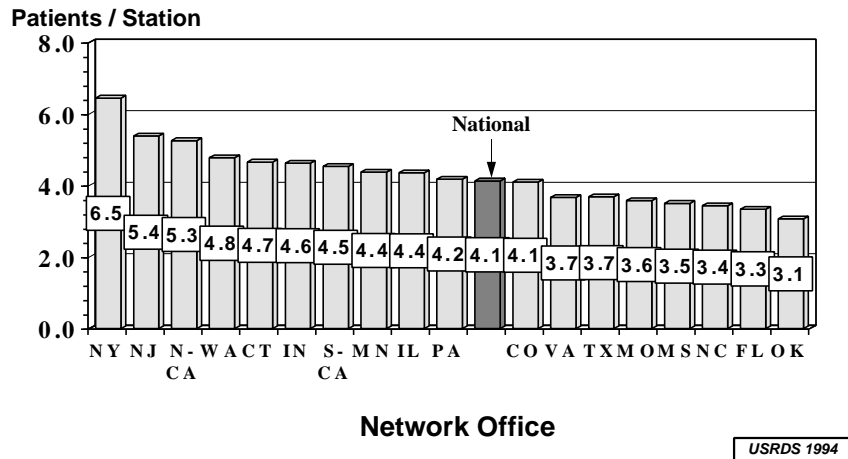


Figure XI-6

Average number of center hemodialysis patients per station, by Network, for 1992. See Figure III-7 for a network key. National is the national average. Source: Reference Table I.13.

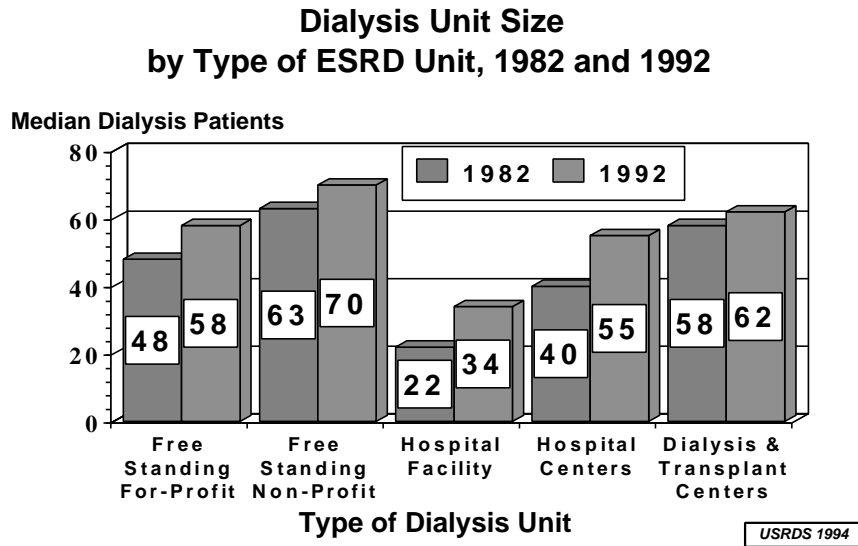


Figure XI-7

Median (number of patients) dialysis unit size by type of dialysis unit for 1982 and 1992. Source: Reference Table I12.

number of dialysis patients in 1982 and 1992, is indicated in Figure XI-7. Freestanding, not-for-profit units were the largest in both years.

Reference Tables on pages I.12 and

I.13 present data on dialysis units and the two major dialytic modalities. In 1992, a total of 2,241 units treated dialysis patients. Peritoneal dialysis (PD) patients were treated in 53 percent and

### Median Number of Transplants per Center per Year, 1982-1992

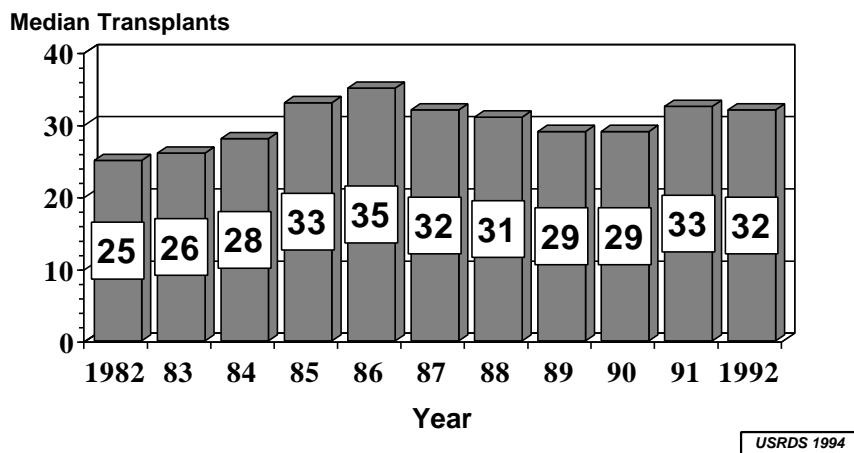


Figure XI-8

Median kidney transplant center size by year (total number of kidneys transplanted per year), 1982-1992. Source: Special analysis.

**Crude Mortality Rate for All Dialysis Patients,  
1983-1992**

Survey Year	Total Facilities	Total Deaths <sup>1</sup>	Average Patients <sup>2</sup>	Percent Died <sup>3</sup>
1983	1,255	14,028	66,679.5	21.04
1984	1,315	15,590	75,287.5	20.71
1985	1,400	18,093	81,672.5	22.15
1986	1,526	19,987	87,884.5	22.74
1987	1,610	22,116	94,417.5	23.42
1988	1,758	24,860	102,069.5	24.36
1989	1,879	26,343	111,090.5	23.71
1990	2,076	28,676	124,065.5	23.11
1991	2,185	31,667	137,802.0	22.98
1992	2,304	35,985	151,998.0	23.67

<sup>1</sup> Facility reported mortality with transplant only facilities excluded.

<sup>2</sup> Average of reported patients at the beginning of the year and reported patients at the end of the year (includes Medicare and non-Medicare).

<sup>3</sup> Deaths/Patients

**Table XI-1**

hemodialysis (HD) patients were treated in 99 percent of these units. Thirty-six units treated only PD patients.

Dialysis and transplant centers vary considerably in size, with more than a few centers performing no transplants in a given year. The largest centers perform approximately 200 renal transplants per year. As shown in Figure XI-8, between 1982 and 1986 the median center transplanted increasing numbers of patients annually (25 in 1982 vs. 35 in 1986). By 1990 the numbers had decreased to 29 transplants per year. The trend reverses in 1991 and 1992 as median transplants increased to 33 and 32, respectively

## Mortality

Table XI-1 illustrates the non-adjusted, crude mortality rates for all patients for the years 1983-92. These rates are calculated by dividing the

reported deaths per facility by the average of the number of patients reported in the Annual Facility Survey as facility patients at the beginning of the year and at the end of the year. Unlike the rates discussed in the "Causes of Death" chapter, Chapter VII, these rates include all patients treated at the facilities, not only the Medicare patients. The mortality rates continuously increased from the low of 21.0 deaths per 100 patients per year in 1983 to a high of 24.4 deaths per 100 patients per year in 1988 and declined from 1989 through 1991. The current year, 1992, saw an increase of 3 percent from the value in 1991.

## End Notes

1. See Chapter XIV for more detail on this issue. See Reference Tables, Section I for more detail on the information presented in this chapter.

2. Metropolitan areas are defined by the United States Government by several criteria. Primarily, a metropolitan area is a city or urbanized area with a population of at least 50,000. See United States Bureau of the Census, **Statistical Abstract of the United States: 1991** (109th edition), Washington, D.C., 1991.



