Illness is the night-side of life, a more onerous citizenship. Everyone who is born holds dual citizenship, in the kingdom of the well and in the kingdom of the sick. *Susan Sontag, Illness as Metaphor*
Because the length and frequency of hospitalizations are closely linked to morbidity, hospitalization rates can be used to gauge the efficacy of ESRD therapy. Since 1994 the number of hospital days per admission has decreased—12.4% for hemodialysis patients, 11.6% for patients on peritoneal dialysis, and 15.5% for transplant patients (fig 5.2). The number of hospital days per patient year at risk has also decreased—15.6%, 8.7%, and 22.8%. While reasons for these declines are not clear, increased dialysis therapy and hematocrit levels may play an important role in reducing overall patient morbidity.

The number of admissions per patient within a calendar year is highest in the mid-Atlantic and southern regions, areas that also tend to have the highest rates of catheter placement and the lowest hematocrit levels. The highest numbers of hospital days per admission occur in a wider area (figs 5.3–4). Patterns of hospital days per full year at risk are similar for hemodialysis and peritoneal dialysis, with the highest rates most evident in the eastern region and the lowest in the northwest (figs 5.5–7). The map for transplant patients is similar, with an even more distinct band on the east coast and in the southern states (fig 5.8).

Admission rates are slightly higher for females, and similar for all races except Asians, who tend to have lower rates. Diabetics have higher rates than non-diabetics in all modalities (figs 5.11–13).

Hospital days for cardiovascular procedures and amputations are similar for both hemodialysis and peritoneal dialysis patients, and in both modalities the highest amputation rates are found in Native Americans. Cardiac catheterization and revascularization days show little difference except for diabetic Asian males and female Native American peritoneal patients, whose revascularization rates are noticeably higher than those of other groups. Hospital days for infection are higher among peritoneal patients (figs 5.17–19). The rate of development of most comorbidities in ESRD patients has remained relatively stable at 5–15%; hepatitis rates, however, have increased, which may be a reflection of increased monitoring for Hepatitis C (fig 5.21).
Figure 5.2
Hospital days per admission and per patient year at risk by modality
prevalent patients

The number of hospital days in 1994, and the percent change in values between 1994 and 1998, are shown in the legends.

Figure 5.3
Hospital admissions per patient prevalent ESRD patients, 1998, by HSA

This map is smoothed, and weighted by the number of patients in each HSA. Admissions per patient = total number of admissions / total number of patients in the calendar year.

Figure 5.4
Hospital days per admission prevalent ESRD patients, 1998, by HSA

This map is smoothed, and weighted by the number of admissions in each HSA.
**Figure 5.5**
Hospital days per year at risk
prevalent ESRD patients, 1998,
by HSA

This map is smoothed, and
weighted by the number of pa-
tients in each HSA.

**Figure 5.6**
Hospital days per year at risk
prevalent hemodialysis patients,
1998, by HSA

This map is smoothed, and
weighted by the number of pa-
tients in each HSA.

**Figure 5.7**
Hospital days per year at risk
prevalent peritoneal dialysis
patients, 1998, by HSA

This map is smoothed, and
weighted by the number of pa-
tients in each HSA.
Figure 5.8 Hospital days per year at risk prevalent transplant patients, 1998, by HSA
This map is smoothed, and weighted by the number of patients in each HSA.

Figure 5.9 Hospital days per year at risk prevalent diabetic ESRD patients, 1998, by HSA
This map is smoothed, and weighted by the number of patients in each HSA.

Figure 5.10 Hospital days per year at risk prevalent non-diabetic ESRD patients, 1998, by HSA
This map is smoothed, and weighted by the number of patients in each HSA.
Figure 5.11
Hospital admissions by age group
prevalent patients, 1996–1998 combined

Figure 5.12
Hospital admissions by race
prevalent patients, 1996–1998 combined

Figure 5.13
Hospital admissions by diabetic status
prevalent patients, 1996–1998 combined
Figure 5.14 Hospital days per year at risk by age group prevalent patients, 1996–1998 combined
No male diabetic peritoneal dialysis patients under the age of 20 were reported.
Inpatient and outpatient hospitalization claims data are obtained from Part A institutional claims. ICD-9-CM codes are as follows: for vascular access, 38.95, 39.27, 39.42, 39.43, 39.93, and 39.94; for infection, vascular access, 996.62; for cardiovascular overall, all codes between 35 and 40, excluding those for vascular access procedures and excluding 39.95; for heart catheterization, 37.21, 37.22, and 37.23; and for amputation, 84–84.19, 18.39, 21.4, 64.3, 67.4, 71.4, 77.59, and 8491. Diagnosis codes for overall infection are provided in Appendix A (Analytical Methods).
Figure 5.16
Frequency of principal procedures & diagnoses prevalent peritoneal dialysis patients, 1998

Inpatient and outpatient hospitalization claims data are obtained from Part A institutional claims. Principal ICD-9-CM procedure codes identical to those used in Figure 5.15 are used to determine occurrences of overall cardiovascular, heart catheterization, and amputation. Diagnosis codes are used to determine diagnoses classified as overall infection, peritonitis, or catheter complications. Peritonitis is noted by an ICD-9-CM diagnosis code of 567.2 or 567.9, while catheter complications are determined by an ICD-9-CM diagnosis code of 996.56, 996.62, 996.68, or 996.73. Diagnosis codes for infection overall are provided in Appendix A (Analytical Methods).
Figure 5.17  Hospital days for cardiovascular procedures & amputations prevalent dialysis patients, 1998
ICD-9-CM principal procedure codes are listed in the caption of Figure 5.15.

Figure 5.18  Hospital days for heart catheterizations & revascularizations prevalent dialysis patients, 1998
ICD-9-CM principal procedure codes for heart catheterization are listed in the caption of Figure 5.15; revascularization is indicated by ICD-9-CM codes of 36.1 to 36.2, 36.3, 36.31, 36.32, and 36.39.

Figure 5.19  Hospital days for access infections & complications prevalent dialysis patients, 1998
ICD-9-CM principal procedure codes are identical to those listed in Figure 5.16.
Figure 5.20
Hospital admissions per patient incident & prevalent transplant patients
Because Medicare eligibility may be lost and hospitalization data may be incomplete, patients whose most recent transplant was ≥3 years ago are excluded from the data set used to construct this graph.

Figure 5.21
Development of new diagnoses prevalent ESRD patients without a prior history of the diagnosis
Principal diagnosis codes are provided in the section on analytical methods in Appendix A.