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Spatial Relationships Between the Location of
State and County Psychiatric Hospitals and
Concentration of the General Population, United States,
1960, 1970, and 1980

MENTAL HEALTH

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Historically, State psychiatric hospitals have not been established to any great extent in urban settings. In fact, they deliberately had been positioned in non-urban sites quite distant from the high density centers of their respective States. The rationale for locating these hospitals in nonpopulous locales was that patients would benefit because rural settings are conducive to peace of mind.

In recent years, some observers have advanced the idea that State psychiatric hospitals should augment their services by acting as community resources in addition to retaining their traditional role as caretakers for patients with long-term mental illnesses. In order to adapt to this role, however, the hospital's physical location would have to be proximal to a sufficiently large general population in a State to assure a flow of patients between the community and the hospital.

During the two most recent decades, the time period in which the concept of a community role for State hospitals was being articulated, a fair number of mental hospitals were phased out or used for other purposes and many new hospitals were established. In view of these events, a systematic examination of the spatial relationship between State mental hospitals and surrounding populations over time would seem to be requisite. Such an investigation, however, is not a matter of record. For this reason, a statistical analysis of existing data was undertaken to learn how many of the States maintained psychiatric hospitals close to their larger population centers and whether any recent trends in the relocation of hospitals could be discerned.

MATERIALS

There were several available resources from which population-based rankings between various population centers in each State could be derived. A careful consideration of these resources led to the selection of the Ranally City Ratings system, a concept developed and maintained by the Rand McNally Corporation.^{1/} A statistical table and verbal description of the Ranally concept are contained in the Appendix. However, the advantages of the Ranally concept over other schema merit mention here.

The Ranally scheme employs a consistent set of criteria to rate, annually, each city in the United States that contained a population of 25,000 persons or more into one of 25 different categories, ranked in terms of

precise operational definition needed to be adopted for the January 1978 inventory. 4/ As a result of this additional change, the universe of RTCs changed somewhat between the January 1976 and the January 1978 inventories.

Of 331 RTCs covered in the January 1976 inventory under the old definition, 285 met the specifications outlined in the new definition, whereas the remaining 46 did not meet these specifications and were excluded from the January 1978 inventory. Moreover, under the new definition, 90 additional facilities were included in the universe of RTCs in the January 1978 inventory, which resulted in an increase in the total number of RTCs to 375. Table 1 shows the distribution by State of RTCs which were only included in the January 1976 inventory or the January 1978 inventory or were included in both years.

Sources and Qualifications of the Data

From 1970 onward, the Inventory of Mental Health Facilities, the source of data presented in this report, changed from an annual to a biennial survey conducted by NIMH in January of each even-numbered year to obtain basic information for the prior year from a wide variety of mental health facilities including RTCs. The current report incorporates data from the two most recent inventories of RTCs conducted in January 1978 (1977 data) and January 1980 (1979 data). Because of the definitional change instituted with the 1978 inventory, the universe of RTCs covered in these latest inventories and the data describing these facilities are not entirely comparable to those for the earlier inventories. Consequently, this report will not attempt comparisons of the current data with data from prior inventories. Earlier data from inventories of RTCs conducted in January 1969, 1974, and 1976, and a special survey of RTCs in August 1972 are available in reports published earlier by NIMH. 5/

For the January 1978 and 1980 inventories, the names and addresses of prospective RTCs to which inventory forms were mailed were derived from a number of sources including lists supplied by State mental health statisticians, Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), and the Association of Psychiatric Facilities for Children, as well as names and addresses obtained from the Porter-Sargent Directory for Exceptional Children. 6/ An RTC was included in the 1978 inventory only if it fulfilled the new operational definition. 4/

For the January 1978 inventory, 375 RTCs located in the 50 States and the District of Columbia were included; in the January 1980 Inventory, 368 RTCs were covered. For certain basic data items on the inventory, estimates were obtained for all covered RTCs, both respondents and nonrespondents. These data items were (1) type of control; (2) type of setting in which services were provided, for example, residential, outpatient, day treatment, etc.; (3) number of resident beds; (4) number of residential admissions; (5) number of residents at end of year; (6) number of outpatient additions; (7) number of day treatment additions; and (8) total expenditures. Most RTCs provided data on these items by submitting the inventory form; a smaller number provided the information when later contacted by phone. In the case of the few nonrespondent RTCs for which data could not be obtained by phone, data from the 1976 inventory were used; but if these, too, were unavailable, the average for the responding RTCs in the same geographic region (as defined by the U.S. Department of Health and Human Services) was used.

For all other items on the inventory form, the number of RTCs responding to a given item varied, e.g., number of staff, type of expenditures, detailed patient movement data. The extent of the reporting for these items will be indicated in footnotes to the tables or figures in which these data are presented.

For certain items on the January 1978 and 1980 inventory forms, e.g., staffing, types of service settings, and number of resident beds, the reference date is

January of the respective years and is so designated in the tables. For all other data items, the reference period is the calendar year ending December 31, 1977 or 1979 or a fiscal year ending in 1977 or 1979.

Characteristics of RTCs

As of January 1978, there were 375 RTCs in the United States; in January 1980 the number of RTCs had dropped slightly to 368. During this 2-year interval, 30 RTCs included in the January 1978 inventory were excluded from the January 1980 inventory due either to facility closing or failure to continue to meet the operational definition, while 23 other facilities were added to the universe of RTCs. Despite these changes in the universe of RTCs, the number of beds in these facilities remained relatively constant, at just slightly over 20,000 for both time periods, thus maintaining an average of 54-55 beds per RTC, and a rate of about 31-32 beds per 100,000 U.S. population 7/ under age 18 (table 2). Also, almost no change occurred in the distribution of RTCs and RTC beds by type of ownership, with about 95 percent of the RTCs and 97 percent of the beds under private/nonprofit auspices (table 2).

The distribution of RTCs by bed-size group showed relatively little or no change between January 1978 and 1980. At both time periods, almost two-thirds of the RTCs had fewer than 50 beds, approximately one-fifth were in the 50-74 bed-size group, and the remainder (16-17 percent) had 75 or more beds (table 2). While only 9-10 percent of the RTC facilities were in the 100 or more bed-size group, this group accounted for almost one-third of the total RTC beds (table 2).

The distribution of RTCs and RTC beds by State for January 1978 and 1980 (table 3) shows that in 1980 California continued to have the most RTCs (39) followed by Massachusetts and New York with 27 and 26 RTCs, respectively. Other States with 20 or more RTCs in 1980 were Michigan, Ohio, and Wisconsin. Only four States--Alaska, Delaware, Mississippi, and North Dakota--did not have an RTC in January 1980. At both time periods, New York, followed by California and Pennsylvania, maintained the most RTC beds. In January 1980, the U.S. rate of 32 RTC beds per 100,000 population under age 18 was exceeded in 20 of the States. Four of these States--Colorado, Connecticut, Maine, and Massachusetts--had rates of 80 or more beds per 100,000 population under age 18, with Maine being the highest (145 beds per 100,000 population under age 18) (table 3 and figure 1).

In addition to the residential settings maintained by all RTCs, other settings in which services were provided and the percent of RTCs maintaining each in January 1978 included outpatient treatment (17 percent), day treatment (30 percent), halfway house (12 percent), and emergency services (2 percent) (figure 2). In January 1980, the percentages of RTCs providing outpatient and halfway house services were slightly higher, whereas the percentages providing day treatment and emergency services were somewhat smaller (figure 2).

Utilization of RTCs 8,9/

There were 15,453 admissions to RTCs during 1979, a rate of 24 admissions per 100,000 population under age 18. A total of 18,276 persons were residents of these facilities at the end of 1979, a rate of 29 residents per 100,000 population under age 18. These numbers and rates were almost identical to the corresponding figures for 1977 (table 4).

At both time periods, two States combined--New York and California--had the most RTC admissions (28 percent of all admissions) and the most RTC residents at end of year (25-27 percent of all residents) (table 4). However, the RTC admission and resident rates per 100,000 population under age 18 in these two States were exceeded by those in several other States. For example, in 1979, New York had an RTC admission rate which was exceeded by the rates in five other States

(Connecticut, Colorado, Maine, Minnesota, and Wisconsin), as well as an RTC resident rate which was exceeded by those in six States (Arizona, Colorado, Connecticut, Maine, Massachusetts, and Wisconsin). Among these other States, Maine had the highest RTC admission and resident rates in 1979, 79 and 143 per 100,000 population under age 18, respectively (table 4).

Utilization indices for all RTCs (table 5) indicate that between 1977 and 1979 little change occurred in the average number of beds per RTC (54 and 51, respectively) and in the average daily census (47 and 45, respectively), with the result that the overall occupancy rate for RTCs remained unchanged (87-88 percent). During 1977, occupancy rates for RTCs with fewer than 25 beds (94 percent) and with 100 or more beds (98 percent) were somewhat higher than those for RTCs in the middle bed-size groups (86-88 percent). However, in 1979 there was less differential in the occupancy rate among the different bed-size groups (86-91 percent) (table 5).

Two indices that measure rates of turnover experienced almost no change between 1977 and 1979 for all RTCs; the number of admissions per 100 beds was 75 and 76, respectively, and the number of admissions per 100 average residents was 86 and 84, respectively. Moreover, the average length of stay (average days per resident) dropped only slightly--from 200 to 196 days in this interval (table 5). During 1979, the number of admissions per 100 beds and per 100 average residents were greater for RTCs with fewer than 75 beds than in the larger size RTCs. The higher rates of turnover in these smaller facilities was due, in part, to the shorter average length of stay of residents (table 5). A somewhat similar pattern of turnover rates prevailed in 1977, among the different RTC bed-size groups, with the exception of RTCs with 75-99 beds, where the turnover rate was more like that of the smaller-size facilities (table 5).

Although RTCs are primarily residential facilities, a number of children and adolescents are also served in the nonresidential settings provided by some RTCs. For example, during 1977, there were 18,155 additions to the outpatient treatment settings maintained by 62 RTCs, and 3,147 additions to day treatment settings maintained in 114 RTCs. Comparable figures for 1979 showed a small increase in the number of RTC outpatient treatment settings and additions, but a decrease in the number of RTC day treatment settings and additions (table 6). For both the outpatient and day treatment settings, the average number of additions per RTC declined slightly between 1977 and 1979 (table 6).

Staffing Patterns 10/

In the inventories conducted during January 1978 and 1980, NIMH collected information on the number of staff employed and hours worked in RTCs during a sample week. This information is available for specific staff disciplines by employment status, that is, whether persons are employed full-time (35 or more hours weekly), part-time (less than 35 hours weekly), or as trainees, residents, or interns. These data were examined to ascertain the number of full-time equivalent (FTE) staff employed in RTCs and the distribution of staff by discipline and by employment status in January 1978 and 1980.

The 23,612 FTE staff employed in RTCs during a sample week in January 1980 represented a small increase (5 percent) over the 22,442 FTE staff employed in January 1978. Small gains also occurred in each of the major staff categories between 1978 and 1980, with the number of FTE professional patient care staff increasing by 3 percent, other patient care staff by 10 percent, and administrative/maintenance staff by 5 percent (table 7). All of the specific staff disciplines shown in table 7, with the exception of psychiatrists and licensed practical and licensed vocational nurses (LPNs/LVNs), had percentage increases in number of FTE staff ranging from 1 percent for social workers to 20 percent for psychologists. Because of the relatively small changes in the number of average residents and the number of FTE staff in the 1978-1980 interval, the ratios of FTE staff to residents for the various staff disciplines remained almost unchanged over this period (table 7).

The percentage distribution of FTE staff by staff discipline in January 1978 and 1980 was nearly the same. In each of the years, professional patient care staff comprised almost half of the total FTE staff, while other patient care staff and administrative/maintenance staff each made up approximately one-quarter of the total. Of the professional patient care staff, 90 percent were either social workers, schoolteachers, or other health and mental health professionals (table 7).

During the sample week in January 1980, RTCs employed an estimated 26,324 persons; the comparable figure for January 1978 was slightly smaller (25,052). At both time periods, 81 percent were employed full-time, 16 percent part-time, and 3 percent as trainees (table 8). Similar percentage distributions for employment status were observed in each of the major staff categories--professional patient care staff, other patient care staff, and administrative/maintenance staff. Among the professional patient care staff disciplines, 80 to 90 percent of the social workers, schoolteachers, and other health and mental health professionals were employed full-time; approximately three-fifths of the psychologists and registered nurses worked full-time and about one-third were part-time employees; whereas almost all of the psychiatrists (87 to 90 percent) were employed part-time. In both 1978 and 1980, psychologists and social workers had the largest percentages of trainees (table 8).

Expenditures

During 1977, RTCs spent an estimated \$359.1 million to operate and maintain their facilities; in 1979, this expenditure figure rose to \$436.2 million, an increase of 21 percent. However, when these figures, which are expressed in current dollars, are adjusted for inflation, the increase in expenditures between 1977 and 1979, expressed in constant dollars, 12/ was considerably smaller. In constant dollars, expenditures increased from \$177.4 million to \$182.0 million or only about 3 percent (table 9). Thus, in 1979 for example, \$254.2 million of the total expenditure figure (\$436.2 million minus \$182.0 million) was the amount due to inflation. Similar differences are also noted in the trends among various expenditure indices for RTCs when expressed in current and constant dollars (table 9).

In both 1977 and 1979, slightly over 60 percent of the total expenditures for RTCs was allocated to salaries; almost one-third was for other operating expenses including maintenance and ordinary repair costs; and 6 percent represented capital expenditures including costs of building construction, additions, and purchases of durable equipment (table 10).

In both 1977 and 1979, salary expenditures comprised a slightly higher percentage of the total expenditures in the smallest RTCs (less than 25 beds) compared with RTCs in the larger bed-size groups, whereas the percentage of total expenditures allocated to other operating expenditures was highest for the largest RTCs (100 or more beds) (table 10).

Two expenditure indices presented in tables 11 and 12--average expenditures per resident day 12/ and average expenditures per discharge 12/--are useful in comparing relative expenditures in RTCs which differ as to size. The average expenditure (table 11) per resident day (that is, the average amount spent to care for one resident for one day), indicates that between 1977 and 1979 this index rose from \$56 to \$68 per day for all RTCs. Increases in this index were also noted for RTCs in each of the bed-size groups. At both time periods, the average expenditures per resident day were highest for the smallest RTCs (less than 25 beds) and lowest for the largest RTCs (100 or more beds). Moreover, among RTCs in the three middle bed-size groups, there was almost no differential in the index. Differences in salary expenditures per resident day accounted for nearly all of the differential in total expenditures per day noted for the various bed-size groups (table 11).

The second index, average expenditures per discharge, is a function of both the average expenditure per resident day and the average length of stay of residents. To illustrate this relationship, it is seen that in 1979, RTCs in the 50 to 74 and 75 to 99 bed-size groups each had almost identical average expenditures per resident day (\$70 to \$71) (table 11), but the average expenditures per discharge for the two bed-size groups were \$26,886 and \$33,257, respectively (table 12). A longer average length of stay for residents in RTCs with 75 to 99 beds (204 days) compared to 180 days for RTCs with 50 to 74 beds (table 5), contributed to the difference in the average expenditures per discharge.

Whereas the average expenditures per resident day, as noted above, tended to vary inversely with the size of RTCs, the average expenditures per discharge exhibited a somewhat more variable pattern among the different bed-size groups in 1977 and 1979. For example, in 1979, although RTCs with fewer than 25 beds had the highest average expenditures per discharge, RTCs with 75 to 99 beds and with 100 beds or more ranked next highest in that order with respect to this index (table 12).

FOOTNOTES

1/ Thus, this provision excludes psychiatric facilities which provide services solely in nonresidential settings such as day treatment centers and day schools, and also facilities which may provide some psychiatric treatment, but are established primarily for other purposes. This latter group includes general purpose children's institutions such as observation and receiving homes, special schools for the physically handicapped and children with learning disorders, training schools and detention homes for juvenile delinquents, homes and schools for the developmentally disabled, and halfway houses for the mentally ill.

2/ Day, J.R. Treatment models for adolescents: Residential Treatment Centers vs. Hospitals. Journal of the National Association of Private Psychiatric Hospitals 4(4), Winter 1972-73.

3/ Prior to the 1977-78 data collection period, RTCs were defined by NIMH as follows:

RTCs are defined as psychiatric facilities (exclusive of psychiatric hospitals for children) providing residential services usually under the supervision of a psychiatrist and primarily to persons under 18 years, who by clinical diagnosis are moderately or seriously emotionally disturbed.

4/ For the 1977-78 and 1979-80 data collection periods, the following operational definition was used:

A residential treatment center for emotionally disturbed children must meet all of the following criteria:

1. It is an organization, not licensed as a psychiatric hospital, whose primary purpose is the provision of individually planned programs of mental health treatment services in conjunction with residential care for its clients.
2. It has a clinical program within the facility directed by a psychiatrist, psychologist, social worker, or psychiatric nurse at or above the Master's degree level.
3. It serves children primarily under the age of 18.
4. The primary reasons for the admission of 50 percent or more of the children are emotional disturbances or mental illnesses which can be classified by DSM-II codes other than 310-315 (mental retardation), 304.0-304.8 (drug dependence), or 303.0-303.7 (alcoholism).

5/ Recent NIMH publications on residential treatment centers are as follows:

National Institute of Mental Health. Statistical Note 11, Residential Treatment Centers for Emotionally Disturbed Children - 1968. Rockville, Md.: Division of Biometry and Epidemiology, Survey and Reports Branch, November 1969.

National Institute of Mental Health. Series A No. 14, Residential Psychiatric Facilities for Children and Adolescents: United States 1971-72. DHEW Pub. No. (ADM)74-78. Washington, D.C.: Supt. of Docs., U.S. Govt. Print. Off., 1974.

National Institute of Mental Health. Statistical Note 130, Residential Treatment Centers for Emotionally Disturbed Children 1973-74. Rockville, Md: Division of Biometry and Epidemiology, Survey and Reports Branch, April 1976.

FOOTNOTES (continued)

National Institute of Mental Health. Statistical Note 135, Residential Treatment Centers for Emotionally Disturbed Children 1975-76. Rockville, Md.: Division of Biometry and Epidemiology, Survey and Reports Branch, July 1977.

- 6/ The Directory for Exceptional Children: A Listing of Educational and Training Facilities. 8th ed. Boston, Mass.: Porter-Sargent Publishers, Inc., 1978.
- 7/ The population used in the calculation of these rates was derived from unpublished U.S. Bureau of the Census estimates of civilian population by State obtained by averaging the estimates for July 1, 1977 and July 1, 1978 for the January 1978 rates, and averaging the estimates for July 1, 1979 and July 1, 1980 for the January 1980 rates.
- 8/ Terms relating to patient movement and annual volume of service are as follows:

Residents at Beginning of Year -- Includes persons receiving inpatient services in RTCs on the first day of the calendar or fiscal year or who were away on short visits but were expected to return to the inpatient service.

Admissions During Year -- Includes admissions and readmissions as well as persons transferred from noninpatient components of the RTCs (e.g., outpatient treatment, day treatment).

Patients Under Care During Year -- Patients under care during the year is approximated by the sum of the residents at beginning of year and additions during the year.

Discharges During Year -- Persons discharged from RTCs, either alive or deceased, and those transferred to noninpatient components of the RTCs.

Residents at End of Year -- Persons who were receiving inpatient services in RTCs on the last day of the calendar or fiscal year.

Average Resident Patients -- The average of the residents at the beginning of the year and residents at the end of the year.

Patient Days -- Days of inpatient care provided to persons in RTCs during the year. Excludes days for which patient was on overnight or weekend pass, or other short-term leave. Also referred to in this report as days of care.

- 9/ Terms relating to utilization indices are as follows:

Average Daily Census -- The average daily number of persons resident as inpatients which is the total annual patient days divided by the total number of days in a year (365).

Average Daily Census per RTC -- The sum of the average daily census (see above definition) for a particular group of RTCs (e.g., RTCs of size 25-49 beds) divided by the number of RTCs in that group.

Average Percent Occupancy per RTC -- The ratio, expressed as a percent, of the average daily census per RTC (average number of residents occupying inpatient beds daily) to the number of beds available per RTC.

FOOTNOTES (continued)

Average Annual Additions per RTC -- The total number of annual additions occurring in a group divided by the number of RTCs in that group.

10/ Terms relating to staffing are as follows:

Full-time Employees -- Persons employed 35 hours or more a week (excluding trainees).

Part-time Employees -- Persons employed less than 35 hours a week (excluding trainees).

Trainees -- Trainees including residents and interns regardless of the number of hours worked in a week.

Patient Care Staff -- All employees excluding administrative and maintenance employees (see definition below).

Professional Patient Care Staff -- Includes psychiatrists, nonpsychiatrist physicians, psychologists, social workers, registered nurses, other mental health professionals (e.g., occupational therapists, vocational rehabilitation counselors, schoolteachers, and other mental health professionals requiring B.A. level training) and health professionals (e.g., dietitians, dentists, dental technicians, pharmacists, and medical record administrators).

Other Patient Care Staff -- Includes licensed practical and vocational nurses and mental health workers with less than a B.A. degree.

Administrative and Maintenance Staff -- Includes administrative and other professional (nonhealth) staff (e.g., accountant, business administrator) as well as clerical and maintenance staff.

Staff Hour -- A unit of 1 hour's work by one employee.

Full-time Equivalents -- The total staff hours worked by full-time employees, part-time employees, and trainees in each staff discipline, divided by 40 hours, to indicate the number of persons working a 40-hour week to provide this many staff hours.

11/ Constant dollars are the expenditures that would have occurred if inflation were eliminated completely, or in other words, expenditures that would have resulted if equivalent goods and services that were purchased for \$100 in the base year 1967 could be purchased for the same amount in subsequent years. It has been assumed that the rate of inflation for RTC expenditures was the same as that for services included in the medical care component of the consumer price index.

12/ The reader is cautioned that the average expenditures per patient day and per discharge shown in this report are overestimated since the numerator reflects expenditures provided in residential and in other service settings, but the denominator reflects the days and discharges in residential services only. However, the expenditures in other services in RTCs are probably small relative to the expenditures made in the provision of treatment in residential settings. For this reason, the indices, although somewhat overstated, are reasonably accurate and can be employed for comparative purposes.

Table 1. Total number of RTCs identified for the January 1978 Inventory, and comparisons between the universes employed for the 1976 and 1978 Inventories

State	Total RTCs identified in 1978	Number in universe		
		Both years	1978 only	1976 only
U.S. totals ...	375	285	90	46
Alabama	2	1	1	-
Alaska	-	-	-	-
Arizona	6	5	1	1
Arkansas	3	1	2	-
California	41	32	9	7
Colorado	9	8	1	-
Connecticut ...	12	10	2	-
Delaware	-	-	-	1
Dist. of Col ..	2	2	-	1
Florida	5	3	2	2
Georgia	4	3	1	-
Hawaii	1	1	-	-
Idaho	2	1	1	-
Illinois	15	12	3	3
Indiana	5	4	1	-
Iowa	5	5	-	-
Kansas	1	-	1	1
Kentucky	4	1	3	-
Louisiana	2	2	-	1
Maine	5	2	3	1
Maryland	7	5	2	1
Massachusetts .	28	18	10	2
Michigan	22	21	1	-
Minnesota	12	11	1	1
Mississippi ...	-	-	-	-
Missouri	13	11	2	-
Montana	1	-	1	-
Nebraska	1	-	1	1
Nevada	1	1	-	1
New Hampshire .	3	3	-	1
New Jersey	11	7	4	-
New Mexico	1	-	1	-
New York	31	22	9	1
North Carolina.	3	2	1	2
North Dakota ..	-	-	-	-
Ohio	20	18	2	2
Oklahoma	3	3	-	1
Oregon	7	7	-	-
Pennsylvania ..	10	7	3	2
Rhode Island ..	3	2	1	-
South Carolina.	2	1	1	-
South Dakota ..	2	2	-	1
Tennessee	2	1	1	-
Texas	13	8	5	4
Utah	3	3	-	-
Vermont	7	1	6	-
Virginia	7	4	3	1
Washington	11	8	3	-
West Virginia .	-	-	-	-
Wisconsin	25	24	1	8
Wyoming	2	2	-	-

Table 2. Number and percent distribution of RTCs, number, percent distribution, and average number of beds per RTC, and number of beds per 100,000 U.S. civilian population under age 18, by selected facility characteristics: United States, January 1978 and 1980

Selected facility characteristics	RTCs						Inpatient beds		Beds per 100,000 population under age 18			
	Number		Percent		Number		Percent		Average No. per group			
	1978	1980	1978	1980	1978	1980	1978	1980	1978	1980		
All RTCs	375	368	100.0	100.0	20,071	20,197	100.0	100.0	54	55	31.4	31.9
<u>Size (based on number of beds)</u>												
Less than 25 beds	99	94	26.4	25.5	1,589	1,517	7.9	7.5	16	16	2.5	2.4
25-49 beds	142	140	37.9	38.1	5,115	5,128	25.5	25.4	36	37	8.0	8.1
50-74 beds	74	70	19.7	19.0	4,382	4,178	21.8	20.7	59	60	6.9	6.6
75-99 beds	24	32	6.4	8.7	2,026	2,742	10.1	13.6	84	86	3.2	4.3
100 beds and over	36	32	9.6	8.7	6,959	6,632	34.7	32.8	193	207	10.8	10.5
<u>Ownership</u>												
Private/nonprofit	357	351	95.2	95.4	19,462	19,586	97.0	97.0	55	56	30.5	30.9
State and county government	18	17	4.8	4.6	609	611	3.0	3.0	34	36	0.9	1.0

Table 3. Number of RTCs, number of beds, and beds per 100,000 U.S. civilian population under the age 18, by State: United States, January 1978 and 1980

State	Number of RTCs		Number of beds		Beds per 100,000 U.S. population under age 18	
	1978	1980	1978	1980	1978	1980
U. S. totals...	375	368	20,071	20,197	31.4	31.9
Alabama	2	2	146	146	12.8	12.7
Alaska	-	-	-	-	-	-
Arizona	6	9	286	498	38.8	63.9
Arkansas	3	2	78	73	12.0	11.1
California	41	39	2,130	2,050	34.1	32.4
Colorado	9	17	421	721	53.0	89.5
Connecticut ...	12	13	757	871	88.2	106.0
Delaware	-	-	-	-	-	-
Dist. of Col ..	2	2	42	46	23.2	30.3
Florida	5	4	427	409	19.1	17.7
Georgia	4	4	346	446	21.8	27.6
Hawaii	1	1	53	50	19.1	18.2
Idaho	2	2	133	122	46.5	40.3
Illinois	15	16	573	639	17.2	19.7
Indiana	5	5	258	250	15.8	15.5
Iowa	5	4	133	158	15.7	19.2
Kansas	1	2	24	76	3.7	11.7
Kentucky	4	4	133	133	12.6	12.4
Louisiana	2	2	74	72	5.7	5.5
Maine	5	5	403	464	123.2	145.0
Maryland	7	7	351	346	29.2	29.8
Massachusetts .	28	27	1,216	1,381	76.4	92.1
Michigan	22	21	901	968	31.9	35.2
Minnesota	12	12	521	615	47.6	52.5
Mississippi ...	-	-	-	-	-	-
Missouri	13	12	426	437	31.0	31.2
Montana	1	1	90	96	37.7	41.0
Nebraska	1	1	30	30	6.5	6.7
Nevada	1	2	16	49	8.1	23.1
New Hampshire .	3	3	127	136	49.8	52.9
New Jersey	11	8	342	282	16.5	14.1
New Mexico	1	1	14	14	3.4	3.4
New York	31	26	3,152	2,814	63.5	59.8
North Carolina.	3	8	63	96	3.8	5.9
North Dakota ..	-	-	-	-	-	-
Ohio	20	21	940	926	29.5	30.0
Oklahoma	3	3	86	150	10.5	17.8
Oregon	7	6	247	271	36.0	37.9
Pennsylvania ..	10	6	1,500	1,418	46.3	45.4
Rhode Island ..	3	3	114	114	44.2	46.7
South Carolina.	2	2	59	59	6.4	6.4
South Dakota ..	2	2	96	86	45.3	42.0
Tennessee	2	2	26	26	2.1	2.0
Texas	13	12	1,159	709	28.6	16.8
Utah	3	3	135	138	28.2	26.1
Vermont	7	5	79	59	53.7	40.7
Virginia	7	7	333	352	22.4	24.1
Washington	11	9	428	289	39.8	25.7
West Virginia .	-	2	-	64	-	11.6
Wisconsin	25	21	1,073	980	77.1	72.3
Wyoming	2	2	80	68	61.5	47.2

Table 4. Number of RTC admissions and residents, and admissions and residents per 100,000 U.S. civilian population under age 18, by State: United States, 1977 and 1979

State	Number of RTCs		Admissions				Residents			
			Number		Rate per 100,000 population under age 18		Number		Rate per 100,000 population under age 18	
	1977	1979	1977	1979	1977	1979	1977	1979	1977	1979
U.S. totals ...	375	368	15,152	15,453	23.7	24.4	18,352	18,276	28.8	28.9
Alabama	2	2	158	135	13.8	11.7	118	98	10.3	8.5
Alaska	-	-	-	-	-	-	-	-	-	-
Arizona	6	9	276	337	37.4	43.3	268	455	36.3	58.4
Arkansas	3	2	120	102	18.5	15.5	81	63	12.5	9.5
California	41	39	2,175	2,129	34.8	33.6	1,983	1,858	31.7	29.4
Colorado	9	17	268	603	33.8	74.8	405	658	51.0	81.6
Connecticut ...	12	13	575	501	67.0	60.9	710	783	82.8	95.3
Delaware	-	-	-	-	-	-	-	-	-	-
Dist. of Col ..	2	2	25	10	13.8	6.6	32	37	17.7	24.3
Florida	5	4	190	279	8.5	12.1	428	404	19.2	17.5
Georgia	4	4	182	235	11.5	14.5	280	368	17.7	22.8
Hawaii	1	1	51	62	18.3	22.5	43	41	15.5	14.9
Idaho	2	2	79	66	27.6	21.8	127	90	44.4	29.7
Illinois	15	16	345	417	10.3	12.9	528	590	15.8	18.2
Indiana	5	5	180	323	11.0	20.1	228	215	14.0	13.4
Iowa	5	4	143	168	16.9	20.4	121	153	14.3	18.5
Kansas	1	2	12	60	1.8	9.3	24	72	3.7	11.1
Kentucky	4	4	104	105	9.9	9.8	102	96	9.7	9.0
Louisiana	2	2	25	30	1.9	2.3	65	64	5.0	4.9
Maine	5	5	148	254	45.3	79.4	379	456	115.9	142.5
Maryland	7	7	270	246	22.5	21.2	290	299	24.1	25.8
Massachusetts .	28	27	625	588	39.3	39.2	1,118	1,234	70.3	82.3
Michigan	22	21	994	1,205	35.2	43.9	811	880	28.7	32.0
Minnesota	12	12	665	738	55.5	63.0	506	544	42.2	46.5
Mississippi ...	-	-	-	-	-	-	-	-	-	-

Table 4. Number of RTC admissions and residents, and admissions and residents per 100,000 U.S. civilian population under age 18, by State: United States, 1977 and 1979 (continued)

State	Number of RTCs		Admissions				Residents			
	1977	1979	Number	Rate per 100,000 population under age 18	Number	Rate per 100,000 population under age 18	Number	Rate per 100,000 population under age 18	Number	Rate per 100,000 population under age 18
	1977	1979	1977	1979	1977	1979	1977	1979	1977	1979
Missouri	13	12	280	360	20.3	26.5	386	419	28.1	30.9
Montana	1	1	32	37	13.4	15.8	90	79	37.7	33.8
Nebraska	1	1	64	35	13.9	7.8	30	30	6.5	6.7
Nevada	1	2	23	44	11.7	20.8	16	49	8.1	23.1
New Hampshire .	3	3	48	56	18.8	21.8	122	131	47.8	51.0
New Jersey	11	8	244	240	11.7	12.0	338	244	16.3	12.2
New Mexico	1	1	8	20	2.0	4.9	13	7	3.2	1.7
New York	31	26	2,050	2,210	41.3	46.9	2,958	2,710	59.6	57.6
North Carolina.	3	8	96	99	5.8	6.0	56	89	3.4	5.4
North Dakota ..	-	-	-	-	-	-	-	-	-	-
Ohio	20	21	961	791	30.2	25.6	797	795	25.0	25.7
Oklahoma	3	3	79	128	9.7	15.2	58	94	7.1	11.2
Oregon	7	6	225	192	32.8	26.9	239	255	34.8	35.7
Pennsylvania ..	10	6	685	616	21.2	19.7	1,325	1,378	40.9	44.2
Rhode Island ..	3	3	39	31	15.1	12.7	99	108	38.4	44.3
South Carolina.	2	2	16	23	1.7	2.5	59	59	6.4	6.4
South Dakota ..	2	2	73	57	34.4	27.8	79	79	37.3	38.5
Tennessee	2	2	27	6	2.1	0.5	21	21	1.7	1.6
Texas	13	12	661	442	16.3	10.4	1,078	582	26.6	13.8
Utah	3	3	117	96	24.4	18.1	128	116	26.7	21.9
Vermont	7	5	43	30	29.3	20.7	69	53	46.9	36.5
Virginia	7	7	194	204	13.0	14.0	304	324	20.4	22.2
Washington	11	9	440	213	40.9	19.0	404	269	37.5	23.9
West Virginia .	-	2	-	64	-	11.6	-	46	-	8.3
Wisconsin	25	21	1,056	846	75.9	62.4	965	818	69.3	60.4
Wyoming	2	2	81	20	62.3	13.9	71	63	54.6	43.8

Table 5. Utilization indices for inpatient services of RTCs by bed size: United States, 1977 and 1979

Bed size	Caseload indices per RTC		Average annual admissions per 100 beds	Admissions per 100 average discharges residents	Admissions per 100 discharges resident
	Average daily census of beds	Average percent occupancy			
			<u>1977</u>		
All RTCs	54	47	40	86	110
Less than 25 beds	16	15	15	101	111
25-49 beds	36	31	28	90	110
50-74 beds	59	52	55	107	110
75-99 beds	84	74	78	106	103
100 beds and over	193	189	104	60	114
			<u>1979</u>		
All RTCs	51	45	39	84	101
Less than 25 beds	17	14	14	93	99
25-49 beds	36	32	28	88	102
50-74 beds	59	57	53	101	104
75-99 beds	86	76	60	78	100
100 beds and over	180	163	112	67	98

Table 6. Selected data for outpatient and day treatment settings of RTCs: United States, 1977 and 1979

Year	Outpatient treatment		Day treatment	
	Number of RTCs	Additions Total Average per RTC	Number of RTCs	Additions Total Average per RTC
1977	62	18,155 293	114	3,147 28
1979	68	19,653 289	104	2,519 24

Table 7. Number, percent distribution, percent change in number of full-time equivalent (FTE) staff, and average FTE staff per 100 average residents, by staff discipline, RTCs: United States, January 1978 and 1980

Staff discipline	Estimated number of FTE staff		Percent change 1978-80	Percent distribution of FTE staff		Average FTE staff per 100 average residents	
	1978	1980		1978	1980	1978	1980
Total, all staff	22,442	23,612	+ 5.2	100.0	100.0	127.1	129.2
Total patient care staff .	16,464	17,344	+ 5.3	73.4	73.5	93.2	94.9
Total professional patient care staff .	10,824	11,158	+ 3.1	48.2	47.3	61.3	61.1
Psychiatrists	140	132	- 5.7	0.6	0.6	0.8	0.7
Psychologists	497	594	+19.5	2.2	2.5	2.8	3.3
Social workers	2,196	2,222	+ 1.2	9.8	9.4	12.4	12.2
Registered nurses	324	337	+ 4.0	1.4	1.4	1.8	1.8
Schoolteachers - B.A. and above	2,431	2,551	+ 4.9	10.8	10.8	13.8	13.9
Other health and mental health professionals	5,236	5,322	+ 1.6	23.4	22.6	29.6	29.1
Other patient care staff LPN, LVN	5,640	6,186	+ 9.7	25.2	26.2	32.0	33.8
Mental health workers (less than B.A.) ...	151	108	-28.5	0.7	0.5	0.9	0.6
Administrative and maintenance staff ..	5,489	6,078	+10.7	24.5	25.7	31.1	33.3
Administrative and maintenance staff ..	5,978	6,268	+ 4.9	26.6	26.5	33.8	34.3

Table 8. Percent distribution by employment status of number of persons employed and percent distribution of staff hours worked in a sample week, by staff discipline, RTCs: United States, January 1978 and 1980

Staff discipline	Number of positions	Employment status		Hours worked						
		Total	Part-time	Total	Full-time					
			Trainee	number	time	Trainee				
			time			time				
<u>January 1978</u>										
Total all staff	25,052	100.0	80.7	15.8	3.5	897,636	100.0	90.3	7.6	2.1
Total patient care staff .	18,441	100.0	79.6	15.8	4.6	658,499	100.0	89.9	7.4	2.7
Total professional	12,471	100.0	77.4	16.9	5.7	432,899	100.0	89.3	7.2	3.5
patient care staff .	459	100.0	7.2	86.7	6.1	5,587	100.0	28.3	60.8	10.9
Psychiatrists	654	100.0	55.1	33.9	11.0	19,829	100.0	77.4	12.9	9.7
Psychologists	2,419	100.0	82.5	7.8	9.7	87,818	100.0	89.4	4.6	6.0
Social workers	402	100.0	63.2	35.3	1.5	12,956	100.0	78.1	21.3	0.6
Registered nurses	2,803	100.0	85.1	10.8	4.1	97,234	100.0	92.6	5.0	2.4
Schoolteachers - B.A. and above	5,734	100.0	80.6	14.8	4.6	209,475	100.0	91.2	6.4	2.4
Other health and mental health professionals	5,970	100.0	84.0	13.6	2.4	225,600	100.0	91.1	7.7	1.2
Other patient care staff LPN, LVN	151	100.0	77.5	22.5	-	6,036	100.0	85.0	15.0	-
Mental health workers (less than B.A.) ...	5,819	100.0	84.3	13.3	2.4	219,564	100.0	91.3	7.5	1.2
Administrative and maintenance staff ..	6,611	100.0	83.9	15.7	0.4	239,137	100.0	91.3	8.3	0.4

Table 8. Percent distribution by employment status of number of persons employed and percent distribution of staff hours worked in a sample week, by staff discipline, RTCs: United States, January 1978 and 1980 (continued)

Staff discipline	Number of positions	Employment status		Total number	Hours worked	
		Full-time	Part-time		Full-time	Part-time
<u>January 1980</u>						
Total all staff	26,324	100.0	15.8	2.6	944,498	100.0 90.4 7.8 1.8
Total patient care staff .	19,418	100.0	16.3	3.2	693,773	100.0 90.1 7.6 2.3
Total professional patient care staff ...	12,678	100.0	16.1	3.3	446,331	100.0 90.7 7.1 2.2
Psychiatrists	438	100.0	90.4	3.4	5,277	100.0 25.1 67.8 7.1
Psychologists	747	100.0	30.5	9.9	23,742	100.0 77.6 12.8 9.6
Social workers	2,345	100.0	7.7	6.0	88,891	100.0 92.5 4.0 3.5
Registered nurses	415	100.0	34.9	2.7	13,472	100.0 76.8 21.7 1.5
Schoolteachers - B.A. and above	2,847	100.0	6.3	3.1	102,023	100.0 94.7 3.3 2.0
Other health and mental health professionals	5,796	100.0	15.6	1.5	212,926	100.0 92.0 7.1 0.9
Other patient care staff	6,740	100.0	16.5	3.1	247,442	100.0 89.0 8.7 2.3
LPN, LVN	110	100.0	28.2	1.8	4,336	100.0 81.0 17.6 1.4
Mental health workers (less than B.A.) ...	6,630	100.0	16.3	3.1	243,106	100.0 89.1 8.5 2.4
Administrative and maintenance staff ..	6,906	100.0	14.6	0.6	250,725	100.0 91.1 8.3 0.6

Table 9. Total expenditures for RTCs, average expenditure per RTC, average expenditure per resident day, and average expenditure per discharge, expressed in current and constant (1967) dollars: United States, 1977 and 1979

Year	Index ^{1/}	Total expenditures (in thousands)		Average expenditures per RTC (in thousands)		Average expenditures per resident day		Average expenditures per discharge	
		Current dollars	Constant dollars	Current dollars	Constant dollars	Current dollars	Constant dollars	Current dollars	Constant dollars
1977	202.4	\$359,062	\$177,402	\$ 957	\$ 473	\$ 56	\$ 28	\$26,085	\$12,888
1979	239.7	436,246	181,997	1,185	494	69	29	30,111	12,562

^{1/} Medical care component of the consumer price index, 1967 = 100.

Table 10. Total annual expenditures by bed size and percent distribution of total expenditures for each bed size, RTCs: United States, 1977 and 1979

Bed size	Number of RTCs	Total expenditures (in thousands)	Percent distribution of total expenditures by type				
			Total expenditures	Operating expenditures Total Salaries Other		Capital expenditures	
			<u>1977</u>				
All RTCs	375	\$359,062	100.0	94.5	62.5	32.3	5.5
Less than 25 beds	99	45,609	100.0	97.5	65.7	31.8	2.5
25-49 beds	142	94,449	100.0	92.5	63.2	29.3	7.5
50-74 beds	74	80,163	100.0	94.9	63.1	31.8	5.1
75-99 beds	24	37,912	100.0	87.2	57.2	30.0	12.8
100 beds and over	36	100,929	100.0	97.5	60.7	36.8	2.5
			<u>1979</u>				
All RTCs	368	\$436,246	100.0	94.5	62.6	31.9	5.5
Less than 25 beds	94	43,540	100.0	97.9	69.1	28.8	2.1
25-49 beds	140	115,861	100.0	94.6	64.3	30.3	5.4
50-74 beds	70	91,063	100.0	89.1	60.6	28.5	10.9
75-99 beds	32	65,352	100.0	96.6	64.2	32.4	3.4
100 beds and over	32	120,430	100.0	97.4	59.0	38.4	2.6

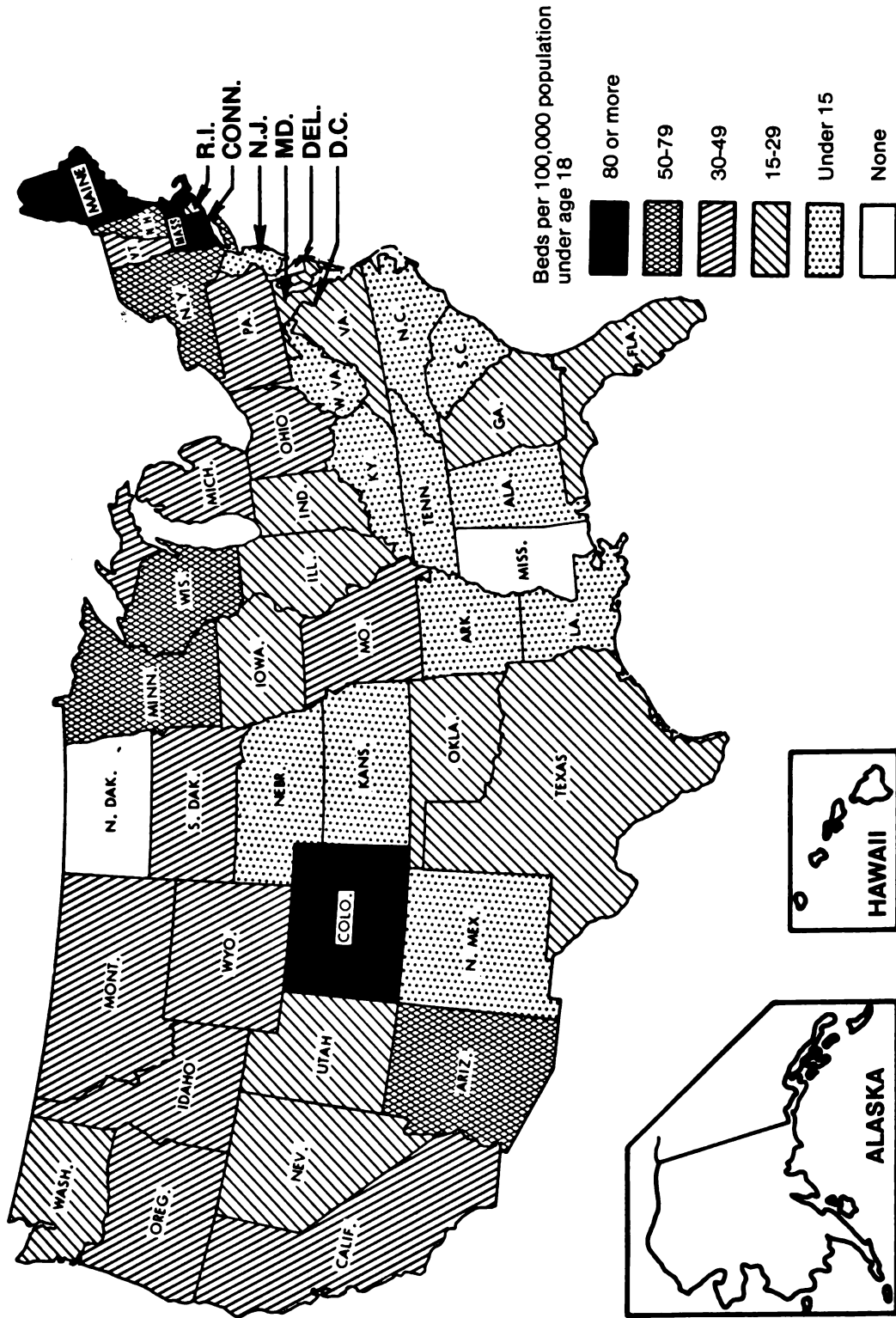
Table 11. Average expenditures per resident day by expenditure type and bed size, RTCs: United States, 1977 and 1979

Bed size	Average expenditure per resident day				
	Total expenditures	Operating expenditures		Capital expenditures	
		Total	Salaries		
<u>1977</u>					
<u>All RTCs</u>	\$56	\$53	\$35	\$18	\$3
Less than 25 beds	89	86	58	28	3
25-49 beds	58	54	37	17	4
50-74 beds	58	55	37	18	3
75-99 beds	59	52	34	18	7
100 beds and over	44	43	27	16	1
<u>1979</u>					
<u>All RTCs</u>	\$68	\$65	\$43	\$22	\$3
Less than 25 beds	94	92	65	27	2
25-49 beds	68	65	44	21	3
50-74 beds	71	64	44	20	7
75-99 beds	70	68	45	23	2
100 beds and over	57	57	34	22	1

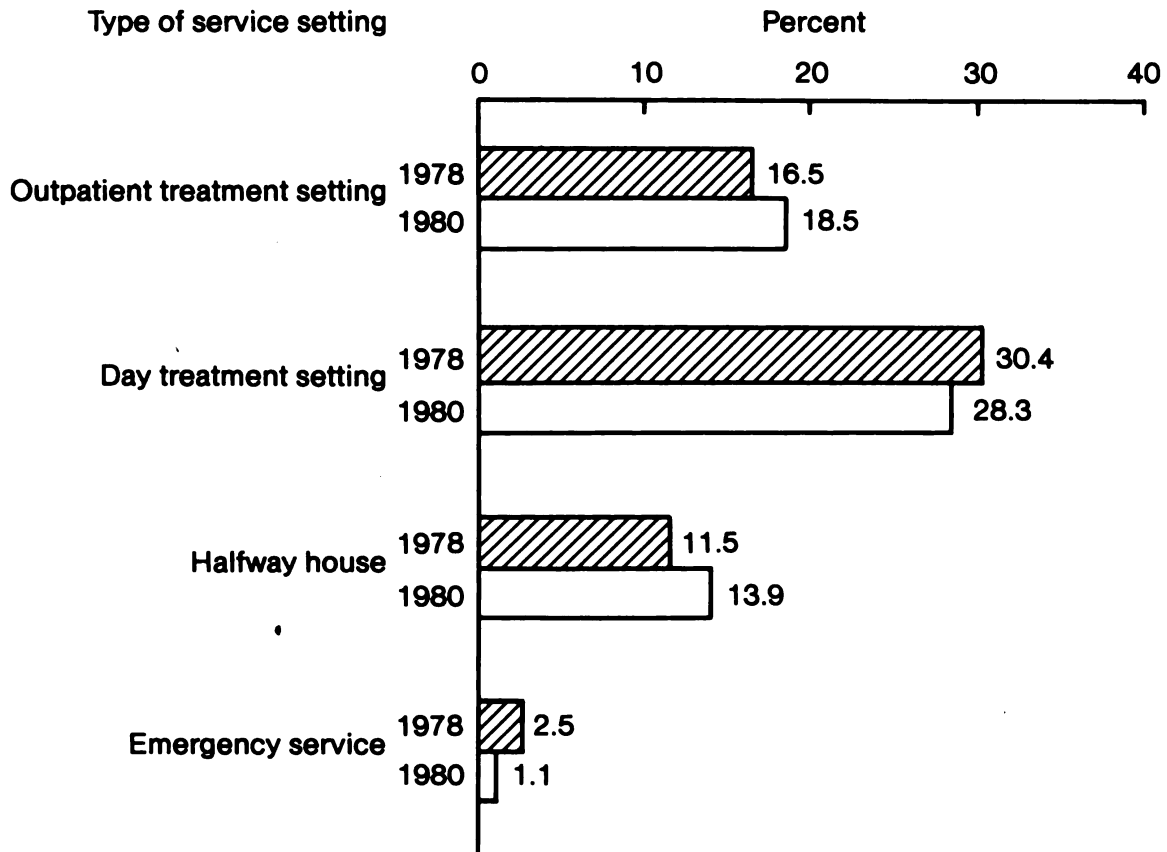
Table 12. Average expenditures per discharge by expenditure type and bed size, RTCs: United States, 1977 and 1979

Bed size	Average expenditure per discharge				
	Total expenditures	Operating expenditures		Capital expenditures	
		Total	Salaries		
<u>1977</u>					
<u>All RTCs</u>	\$26,085	\$24,659	\$16,220	\$ 8,439	\$1,426
Less than 25 beds	34,011	33,176	22,351	10,825	835
25-49 beds	25,862	23,935	16,368	7,567	1,927
50-74 beds	21,783	20,678	13,756	6,922	1,105
75-99 beds	20,924	18,323	12,016	6,307	2,601
100 beds and over	30,706	29,925	18,623	11,302	781
<u>1979</u>					
<u>All RTCs</u>	\$30,110	\$28,466	\$18,867	\$ 9,599	\$1,644
Less than 25 beds	37,090	36,308	25,640	10,668	782
25-49 beds	29,634	28,047	19,059	8,988	1,587
50-74 beds	26,886	23,966	16,291	7,675	2,920
75-99 beds	33,257	32,119	21,345	10,774	1,138
100 beds and over	30,333	29,540	17,884	11,656	793

**Figure 1. Number of beds per 100,000 population under age 18, by State, RTCs:
United States, January 1980**



**Figure 2. Percent of RTCs maintaining specified types of service settings:
United States, January 1978 and 1980**



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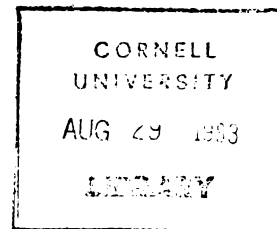
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