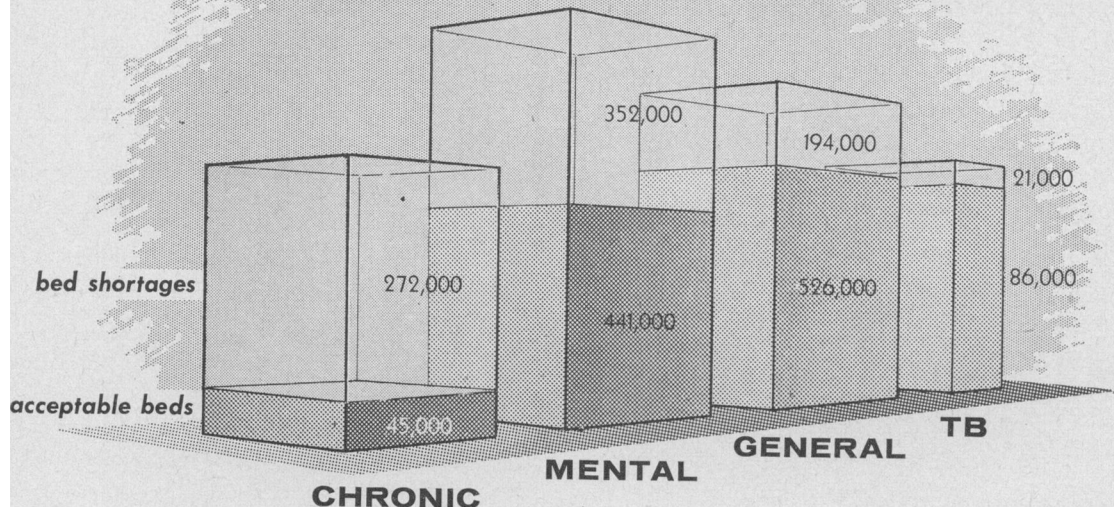


# Hospital Beds

## in the United States, 1955



By **LESLIE MORGAN ABBE, B.S.**

**T**HE COMPREHENSIVE, long-range plans for hospital facilities developed in connection with Title VI of the Public Health Service Act are revised annually. This continuing responsibility of the official State hospital planning agencies has come, with ripening experience, to provide an authoritative sourcebook on the Nation's hospital resources. Both total capacities and highlights of operating data are recorded in these annual tabulations. By "capacity" is meant that capacity

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*Mr. Abbe is assistant chief of the Program Evaluation and Reports Branch, Division of Hospital Facilities, Public Health Service.*

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for which the hospital was planned, rather than a fluctuating bed count, which may reflect either a serious overcrowding or a closed wing. Also, beds which are unacceptable because of functional or physical hazards are listed separately from the acceptable capacity.

Table 1 shows on this basis the record of existing hospital beds in each State and Territory as of January 1, 1955, according to the four principal categories of service provided: general, mental, chronic, and tuberculosis. States are grouped, for convenience of comparison, by the broad socioeconomic regions of the United States.

We now have approximately 1,100,000 acceptable beds in all four categories, with 176,000 additional beds which were classified by the

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This current inventory and continuation report brings up to date the general review of hospital bed requirements in the United States, published in *Public Health Reports*, April 1953, p. 425. It also outlines the present situation in other types of medical facilities and pending efforts for their expansion. The report is limited to hospital bed needs and related accomplishments in that field, including the Hospital Survey and Construction (Hill-Burton) Program. It does not cover nursing home beds and other fields of accomplishment such as the construction of public health centers, State health laboratories, and related health facilities.

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State agencies as nonacceptable for long-range use. Nearly one-half of these acceptable beds, 526,000, are in general hospitals, and mental hospitals have 40 percent of the total. The record of nonacceptable beds is undergoing continual change, as closer inspections identify other obsolete and hazardous conditions. New construction, on the other hand, is replacing and removing from the record a considerable number of such outmoded facilities.

The data in table 1 do not include beds for civilians in Federal hospitals. In general, these do not provide communitywide service available to the general public. According to recent reports, there are 117,000 such beds in operation in veterans hospitals and about 8,000 more in hospitals operated by the Public Health Service for merchant seamen and others, including some Indian facilities.

### **What Has Happened Lately**

During World War II, hospital construction was virtually at a standstill. After 1946, accumulated reserves of public and private funds were applied to meet long-deferred needs. The encouragement of Federal assistance under the Federal Hospital Survey and Construction Act of 1946 combined to establish an unprecedented peak in hospital construction volume.

Figure 1 shows the history of hospital construction from 1920 to date, at constant prices, and in relation to a growing population. This chart indicates that the postwar peak volume of construction in 1950 amounted to \$5.00 per capita as compared with \$1.00 per capita, or less, during 1942-44 and as compared with a previous high point in 1929 of about \$3.50 per capita, at constant prices. If the volume of

direct Federal construction and federally aided construction is excluded, the remainder undertaken entirely by State and local resources is somewhat less than the 1929 volume per capita—or less than \$3.00. It will be seen that relative volume has declined sharply from the postwar peak.

Studies on the regional distribution of the recent volume of hospital construction (1) show that the largest total activity per capita is occurring in the high-income census regions of the Nation. Federally aided construction accounts for nearly all new work in the regions of lowest income, while in the region of highest income federally aided construction is a minor portion of total construction activity.

The annual log of the State hospital plans, from its beginning in 1948, helps to put this construction history in perspective. It reflects the net gains from new construction, against mounting obsolescence and rapid growth in population. In addition to inventories, these plans show the remaining need in each category of hospital, according to standards prescribed by the basic act and regulations thereunder.

The annual summary of beds and additional needs from 1948 to 1955 is contained in table 2. This record shows that there are today nearly 260,000 more hospital beds in the country than in 1948; of this number, 220,000 are acceptable beds. On the other hand, 27,000 more non-acceptable beds are recorded. The net progress in reducing the total backlog of need has been limited, amounting to about 70,000 beds, or less than 8 percent. Nationally, our general hospitals now have 73 percent of total requirements, while mental hospitals have only 56 percent of requirements, and chronic hospitals

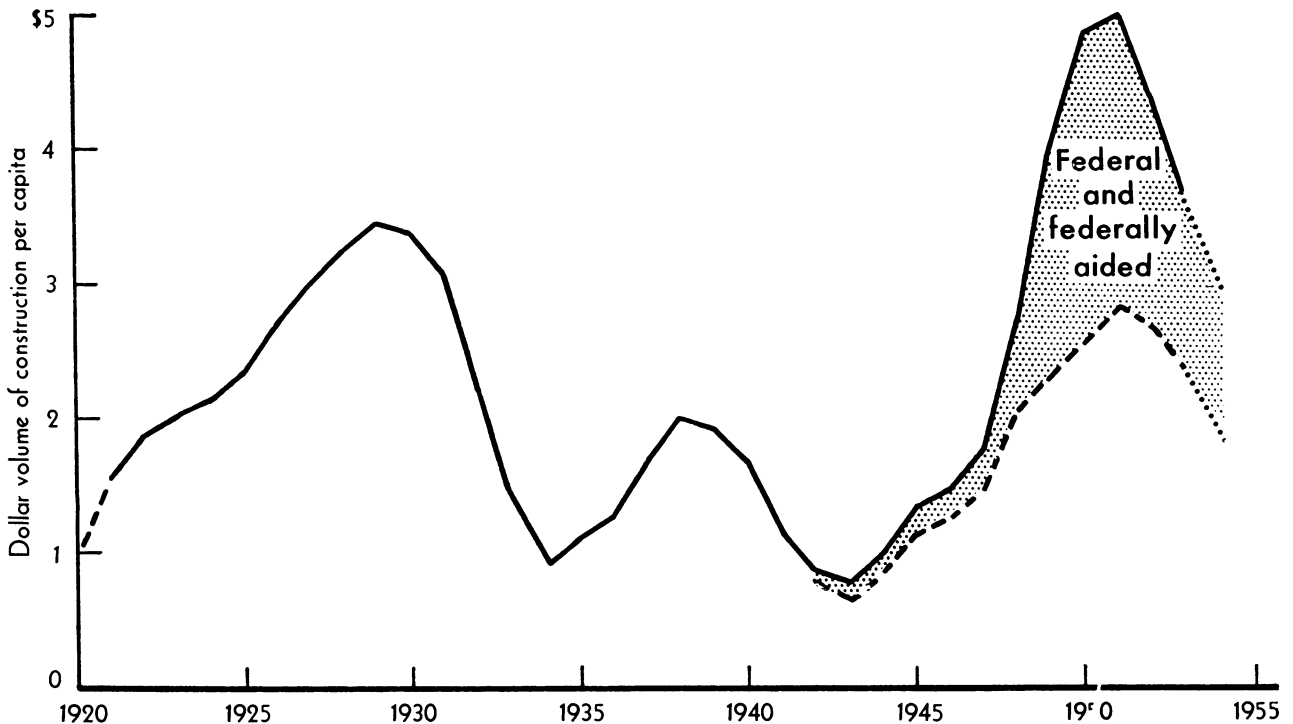
**Table 1. Existing civilian hospital beds<sup>1</sup> in the United States and Territories, by service category, as of January 1, 1955**

State and socioeconomic region	General		Mental		Chronic		Tuberculosis	
	Acceptable	Nonacceptable	Acceptable	Nonacceptable	Acceptable	Nonacceptable	Acceptable	Nonacceptable
<b>United States and Territories</b> .....	<b>526, 458</b>	<b>74, 783</b>	<b>441, 440</b>	<b>71, 838</b>	<b>45, 016</b>	<b>15, 303</b>	<b>85, 901</b>	<b>14, 333</b>
<b>New England</b> .....	<b>29, 995</b>	<b>7, 201</b>	<b>33, 810</b>	<b>7, 088</b>	<b>7, 592</b>	<b>2, 025</b>	<b>5, 474</b>	<b>1, 301</b>
Connecticut.....	6, 741	801	8, 530	1, 925	1, 779	53	1, 693	-----
Maine.....	2, 087	1, 381	2, 478	54	156	-----	50	404
Massachusetts.....	16, 197	3, 817	15, 926	4, 877	4, 316	1, 972	2, 848	849
New Hampshire.....	1, 842	421	2, 314	-----	-----	-----	88	45
Rhode Island.....	1, 967	394	2, 979	-----	1, 291	-----	622	-----
Vermont.....	1, 161	387	1, 583	232	50	-----	173	3
<b>Middle East</b> .....	<b>129, 112</b>	<b>23, 207</b>	<b>135, 344</b>	<b>21, 340</b>	<b>13, 656</b>	<b>2, 110</b>	<b>19, 442</b>	<b>6, 740</b>
Delaware.....	1, 483	12	804	820	336	-----	223	66
District of Columbia.....	2, 706	1, 363	4, 724	127	180	40	935	107
Maryland.....	7, 781	-----	7, 368	125	2, 056	1, 363	1, 718	303
New Jersey.....	15, 214	1, 824	19, 584	1, 008	1, 246	210	3, 114	157
New York.....	59, 566	10, 658	70, 406	10, 326	8, 092	178	8, 193	4, 525
Pennsylvania.....	35, 598	8, 251	29, 593	7, 962	1, 586	319	4, 019	1, 478
West Virginia.....	6, 764	1, 099	2, 865	972	160	-----	1, 240	104
<b>Southeast</b> .....	<b>95, 543</b>	<b>9, 889</b>	<b>72, 355</b>	<b>12, 265</b>	<b>4, 637</b>	<b>430</b>	<b>16, 589</b>	<b>730</b>
Alabama.....	8, 645	166	3, 351	-----	329	-----	814	67
Arkansas.....	4, 341	1, 672	2, 700	1, 761	116	-----	1, 653	-----
Florida.....	9, 829	692	8, 867	195	998	156	1, 942	-----
Georgia.....	8, 842	1, 829	10, 894	30	728	115	2, 096	-----
Kentucky.....	7, 961	560	7, 360	75	312	-----	1, 324	30
Louisiana.....	11, 094	481	7, 609	3, 505	372	-----	1, 497	36
Mississippi.....	5, 685	1, 682	3, 591	1, 982	-----	27	650	-----
North Carolina.....	13, 756	214	9, 672	-----	415	-----	2, 733	-----
South Carolina.....	6, 781	168	3, 738	-----	172	-----	839	56
Tennessee.....	9, 087	1, 828	8, 154	471	1, 135	132	1, 720	262
Virginia.....	9, 522	597	6, 419	4, 246	60	-----	1, 321	279
<b>Southwest</b> .....	<b>41, 128</b>	<b>3, 397</b>	<b>23, 766</b>	<b>303</b>	<b>1, 898</b>	<b>167</b>	<b>7, 124</b>	<b>42</b>
Arizona.....	3, 094	422	1, 544	260	359	40	820	22
New Mexico.....	2, 876	102	1, 184	43	55	43	706	-----
Oklahoma.....	7, 834	303	8, 689	-----	544	-----	1, 095	-----
Texas.....	27, 324	2, 570	12, 349	-----	940	84	4, 503	20
<b>Central</b> .....	<b>139, 494</b>	<b>17, 645</b>	<b>98, 001</b>	<b>25, 823</b>	<b>8, 268</b>	<b>8, 888</b>	<b>21, 219</b>	<b>2, 688</b>
Illinois.....	31, 618	4, 107	20, 488	7, 433	983	205	5, 139	-----
Indiana.....	9, 287	2, 659	6, 282	2, 857	292	150	1, 154	553
Iowa.....	9, 383	1, 425	3, 284	5, 167	805	7, 995	641	132
Michigan.....	20, 326	4, 528	12, 945	7, 238	1, 693	184	5, 033	801
Minnesota.....	11, 096	1, 608	9, 534	402	517	-----	1, 759	65
Missouri.....	16, 423	1, 106	12, 888	-----	2, 294	-----	2, 048	-----
Ohio.....	27, 655	1, 375	20, 359	2, 228	890	345	3, 920	542
Wisconsin.....	13, 706	837	12, 221	498	794	9	1, 525	595
<b>Northwest</b> .....	<b>33, 089</b>	<b>5, 279</b>	<b>22, 007</b>	<b>2, 786</b>	<b>1, 490</b>	-----	<b>2, 212</b>	<b>563</b>
Colorado.....	6, 021	781	5, 582	424	41	-----	363	275
Idaho.....	2, 042	330	1, 298	-----	-----	-----	100	40
Kansas.....	7, 556	1, 118	2, 556	2, 285	32	-----	506	42
Montana.....	3, 473	321	1, 950	-----	-----	-----	335	62
Nebraska.....	5, 684	661	5, 094	77	1, 079	-----	290	-----
North Dakota.....	2, 825	526	1, 725	-----	60	-----	350	-----
South Dakota.....	2, 464	532	1, 896	-----	103	-----	118	144
Utah.....	1, 891	606	1, 134	-----	70	-----	100	-----
Wyoming.....	1, 133	404	772	-----	105	-----	50	-----
<b>Far West</b> .....	<b>50, 723</b>	<b>5, 335</b>	<b>52, 825</b>	<b>1, 885</b>	<b>6, 850</b>	<b>712</b>	<b>9, 365</b>	<b>1, 722</b>
California.....	37, 215	3, 630	40, 469	1, 113	6, 423	712	6, 884	1, 419
Nevada.....	869	115	440	-----	16	-----	48	-----
Oregon.....	5, 283	533	4, 667	-----	-----	-----	500	50
Washington.....	7, 356	1, 057	7, 249	772	411	-----	1, 933	253
<b>Territories</b> .....	<b>7, 374</b>	<b>2, 830</b>	<b>3, 332</b>	<b>348</b>	<b>625</b>	<b>971</b>	<b>4, 476</b>	<b>547</b>
Alaska.....	508	381	18	348	41	-----	472	315
Hawaii.....	1, 371	774	903	-----	282	935	1, 232	60
Puerto Rico.....	5, 376	1, 675	2, 396	-----	249	36	2, 767	172
Virgin Islands.....	119	-----	15	-----	53	-----	5	-----

<sup>1</sup> Does not include Federal facilities.

SOURCE: State plans for hospital construction, approved under Title VI of the Public Health Service Act.

**Figure 1.** This history of hospital construction, 1920–54, shows postwar peak and decline. Relative volume per capita is indicated by 3-year moving averages of constant prices (1947–49=100).



14 percent. Tuberculosis hospitals are now reported as having 89 percent of requirements.

### Where the Shortages Are Found

Our present need for hospital beds is distributed very unevenly among the States and among areas within States. There are also wide differences among the categories of hospitals, according to the standards applied in the comprehensive State hospital plans. The standards in effect under the Hospital Survey and Construction Act are empirical, based upon those measures having most general acceptance as related to true medical need, according to modern standards of medical practice. They are related to population, with the exception of need for tuberculosis beds. The computation of this need, after extended study, has recently been transferred, by regulation, from a mortality basis to a more realistic one based on incidence of new cases.

Figures 2 and 3 show the total remaining need, in beds per 1,000 population, in relation to the average income per capita of the States.

This need is substantially greater in low-income States, but there are wide variations from the general pattern. This is true also of the present shortages in each of the separate categories of hospitals.

Perhaps the most striking relation shown by this chart, aside from the pattern of high need with low income, is the great variation in need for mental hospitals, among States with similar incomes.

There are several probable reasons for this variation:

First, it is quite likely that the States have not all faced this problem with comparable vigor, even though they may have comparable financial means.

Second, the present record of acceptable and nonacceptable beds does not reflect a uniform or consistent appraisal of obsolescence in each State.

Finally, there may be differences among the States in actual total need. This is not allowed for by the uniform standard applied, and there is now no detailed evidence on the matter.

The record of remaining need for chronic

**Table 2. Civilian hospital beds<sup>1</sup> in the United States and Territories, 1948-55**

Hospital category and year <sup>2</sup>	Total beds needed <sup>3</sup>	Existing beds			Additional beds needed	
		Total	Acceptable			Nonacceptable <sup>4</sup>
			Number	Percent of total need		
<i>All categories</i>						
1955.....	1, 926, 600	1, 275, 072	1, 098, 815	57. 0	176, 257	838, 745
1954.....	1, 887, 372	1, 242, 087	1, 083, 056	57. 4	159, 031	812, 765
1953.....	1, 899, 279	1, 218, 781	1, 057, 427	55. 7	161, 354	848, 567
1952.....	1, 899, 806	1, 193, 836	1, 017, 823	53. 6	176, 013	881, 983
1951.....	1, 883, 487	1, 185, 480	1, 009, 918	53. 6	175, 562	873, 569
1950.....	1, 850, 052	1, 118, 535	952, 196	51. 5	166, 339	897, 856
1949.....	1, 776, 673	1, 025, 179	879, 872	49. 5	145, 307	896, 801
1948.....	1, 776, 401	1, 016, 712	867, 960	48. 9	148, 752	908, 441
<i>General hospitals</i>						
1955.....	720, 001	601, 241	526, 458	73. 1	74, 783	193, 543
1954.....	704, 400	589, 565	515, 934	73. 2	73, 631	188, 420
1953.....	714, 469	572, 493	495, 185	69. 3	77, 308	219, 222
1952.....	708, 574	554, 084	474, 334	66. 9	79, 750	234, 240
1951.....	700, 952	548, 798	469, 192	66. 9	79, 606	231, 760
1950.....	682, 601	513, 814	437, 786	64. 1	76, 028	244, 815
1949.....	652, 611	474, 532	397, 168	60. 9	77, 364	255, 443
1948.....	652, 974	469, 398	388, 144	59. 4	81, 254	264, 830
<i>Mental hospitals</i>						
1955.....	793, 125	513, 278	441, 440	55. 7	71, 838	352, 349
1954.....	773, 428	500, 568	437, 659	56. 6	62, 909	336, 989
1953.....	766, 463	490, 598	431, 007	56. 2	59, 591	336, 676
1952.....	755, 097	482, 733	412, 932	54. 7	69, 801	342, 165
1951.....	744, 323	483, 310	415, 530	55. 8	67, 780	328, 793
1950.....	725, 203	462, 859	399, 138	55. 0	63, 721	326, 065
1949.....	692, 150	428, 931	381, 627	55. 1	47, 304	310, 523
1948.....	690, 381	427, 201	380, 343	55. 1	46, 858	310, 038
<i>Tuberculosis hospitals</i>						
1955.....	96, 507	100, 234	85, 901	89. 0	14, 333	20, 902
1954.....	100, 467	101, 425	86, 035	85. 6	15, 390	21, 707
1953.....	112, 075	100, 204	86, 698	77. 4	13, 506	30, 934
1952.....	133, 899	99, 147	87, 550	65. 4	11, 597	46, 349
1951.....	140, 391	96, 955	85, 351	60. 8	11, 604	55, 040
1950.....	148, 936	94, 024	81, 511	54. 7	12, 513	67, 425
1949.....	155, 101	85, 466	72, 560	46. 8	12, 906	82, 541
1948.....	155, 987	84, 158	71, 151	45. 6	13, 007	84, 836
<i>Chronic hospitals</i>						
1955.....	316, 967	60, 319	45, 016	14. 2	15, 303	271, 951
1954.....	309, 077	50, 529	43, 428	14. 1	7, 101	265, 649
1953.....	306, 272	55, 486	44, 537	14. 5	10, 949	261, 735
1952.....	302, 236	57, 872	43, 007	14. 2	14, 865	259, 229
1951.....	297, 821	56, 417	39, 845	13. 4	16, 572	257, 976
1950.....	293, 312	47, 838	33, 761	11. 5	14, 077	259, 551
1949.....	276, 811	36, 250	28, 517	10. 3	7, 733	248, 294
1948.....	277, 059	35, 955	28, 322	10. 2	7, 633	248, 737

<sup>1</sup> Excluding Federal facilities.

<sup>2</sup> As of January 1, each year.

<sup>3</sup> Set by Title VI of the Public Health Service Act and regulations thereunder. For some categories (tuberculosis and mental, 1953-55, and general, 1953-54), certain States now have beds in excess of current standards of need.

<sup>4</sup> Classified by State agencies, on the basis of fire and health hazards.

SOURCE: State plans for hospital construction, approved under Title VI of the Public Health Service Act.

facilities indicates that only a start has been made, principally in the high-income States, toward providing specific facilities for long-term care. The State variation of need for general hospitals in relation to income is much less pronounced than at the beginning of the program of Federal assistance for hospital construction.

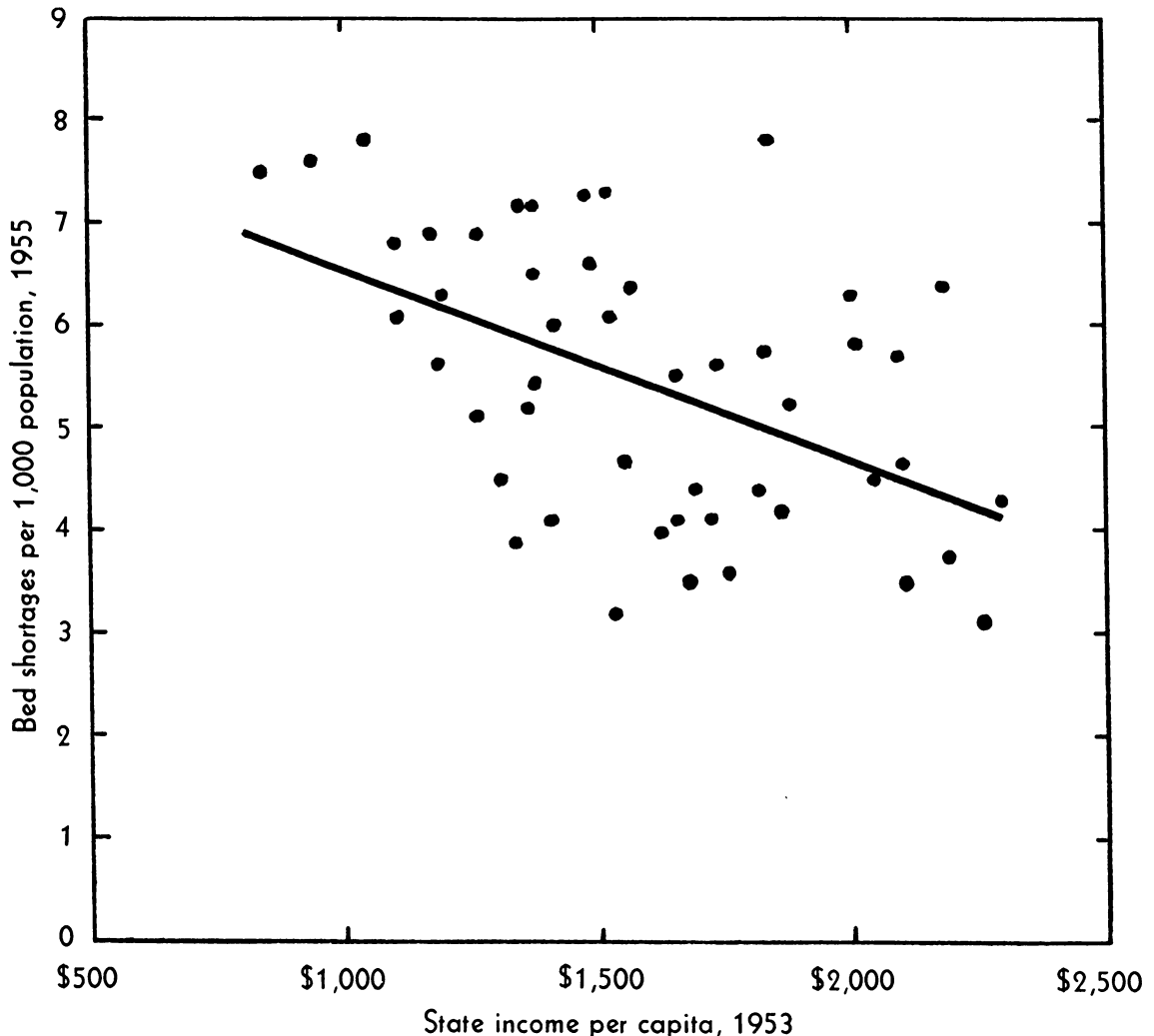
There are still extreme shortages in general hospital facilities in specific hospital service areas. Service areas for hospital care correspond in general to trading areas. For general hospitals, the limits of these areas have been defined throughout the country in State hospital construction plans. A recent study of these plans shows that, of a total of 2,275 service

areas, there are still 174 which have no acceptable general hospitals. These areas include a population of 3.2 million. There are 255 other areas with less than 50 percent of total need met; these have a population of 21.8 million. One of the more pressing problems of today, therefore, is to induce construction in these areas of maximum need, where 25 million people have below 50 percent of their general hospital requirements provided.

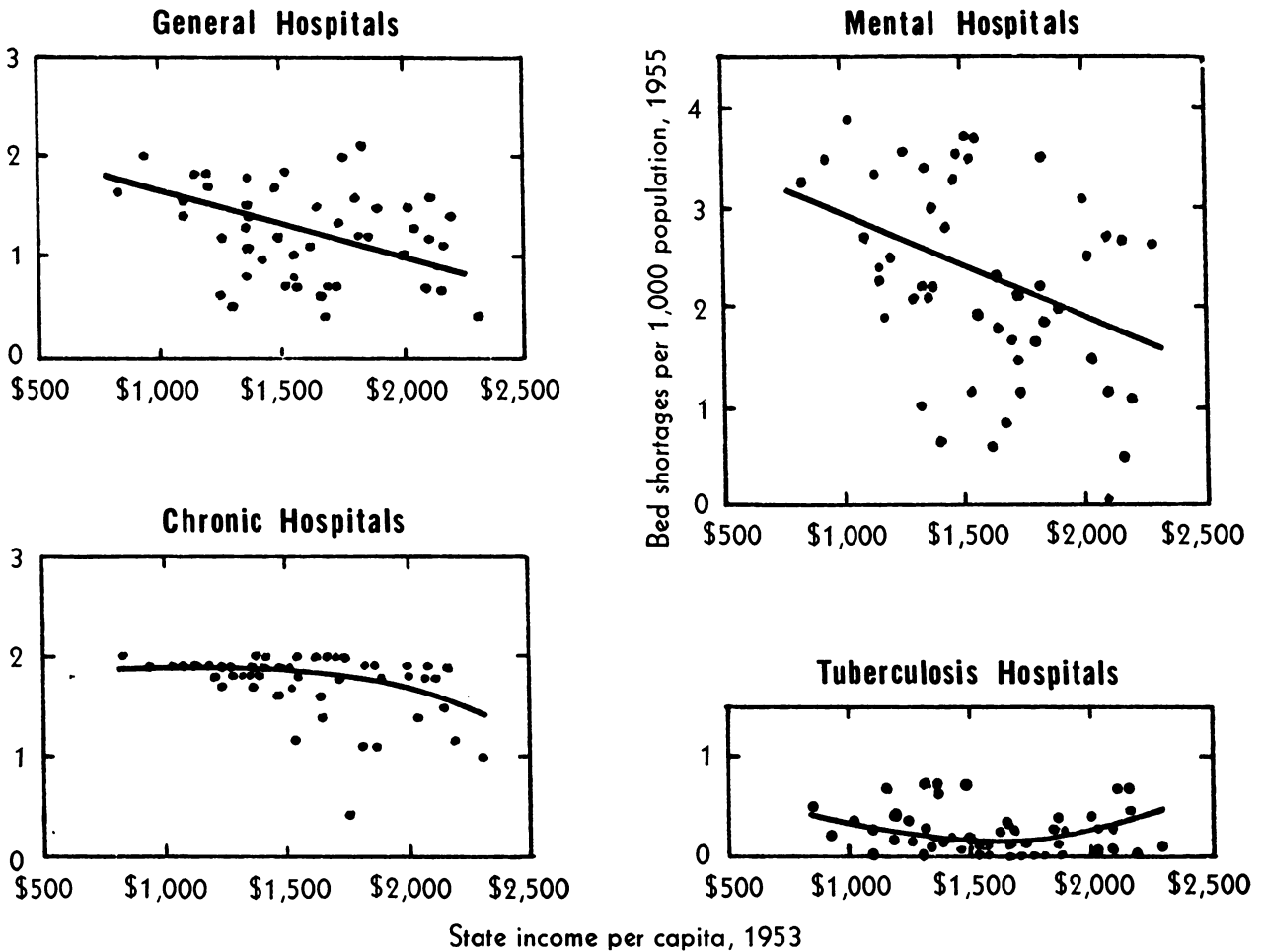
#### What Else Besides Hospitals?

Health care today requires facilities for prevention, diagnosis, treatment, extended care, and rehabilitation. Beds in hospitals do pro-

**Figure 2. The total bed shortage, in 1955, for hospitals of all categories is greatest in low-income States, but there are wide variations from the general pattern.**



**Figure 3. Principal hospital categories show widely different patterns of shortages in relation to State income.**



vide for the care of acute and long-term illness, under direct medical attention. However, skilled care, not requiring hospital resources, may be provided under medical supervision in nursing and convalescent homes. Diagnostic and treatment centers for ambulatory patients can do much to lessen the duration and effect of illness. Rehabilitation centers are another important form of health facility needed to restore disabled persons to the maximum degree of self-sufficiency. Total needs in these types of facilities and the existing plant are still unknown. A recent national survey of nursing homes (2) shows that there are now about 200,000 beds with skilled nursing care in such facilities.

The program of Federal assistance for hospital construction was broadened by 1954 amendments to the Public Health Service Act

to include additional assistance for facilities providing long-term care (either in chronic hospitals or in nursing homes), for diagnostic or treatment centers for ambulatory patients, and for comprehensive facilities for the disabled. Statewide inventories are still in process from which State plans will be developed for a construction program relating to these types of facilities.

**Summary**

New hospital construction has been substantial throughout the postwar era.

Net gain in relation to total bed need has been considerable for general hospitals; additions to mental hospitals have not kept pace with population growth and obsolescence.

Statewide remaining bed need is unevenly

distributed and tends to be substantially higher in low-income States, with total construction volume smaller in low-income regions than in regions of highest income.

Growing attention is being given to related health facilities besides hospitals, in order to round out comprehensive health services.

Experience is maturing on broad planning for hospital bed needs, but need for other types

of medical facilities has just begun to be appraised systematically.

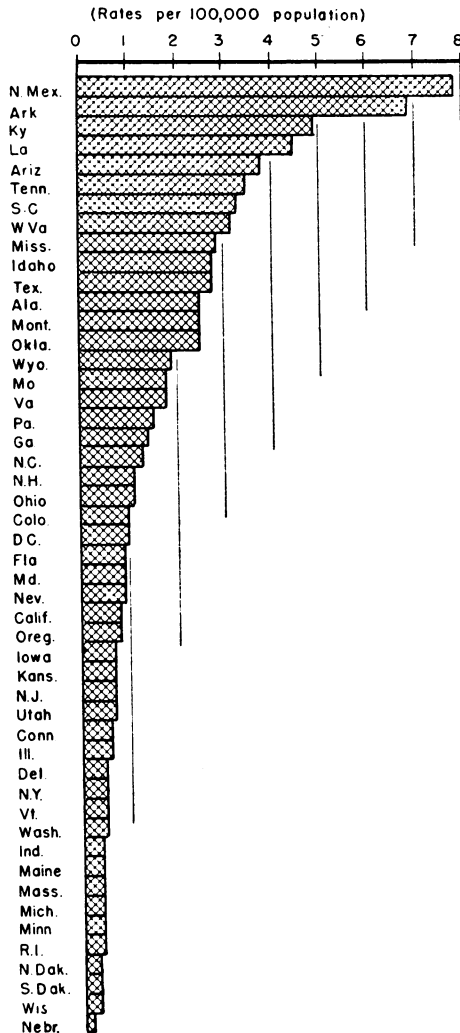
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- (2) Solon, J., and Baney, A. M.: Inventory of nursing homes and related facilities. *Pub. Health Rep.* 12: 1121-1131, December 1954.

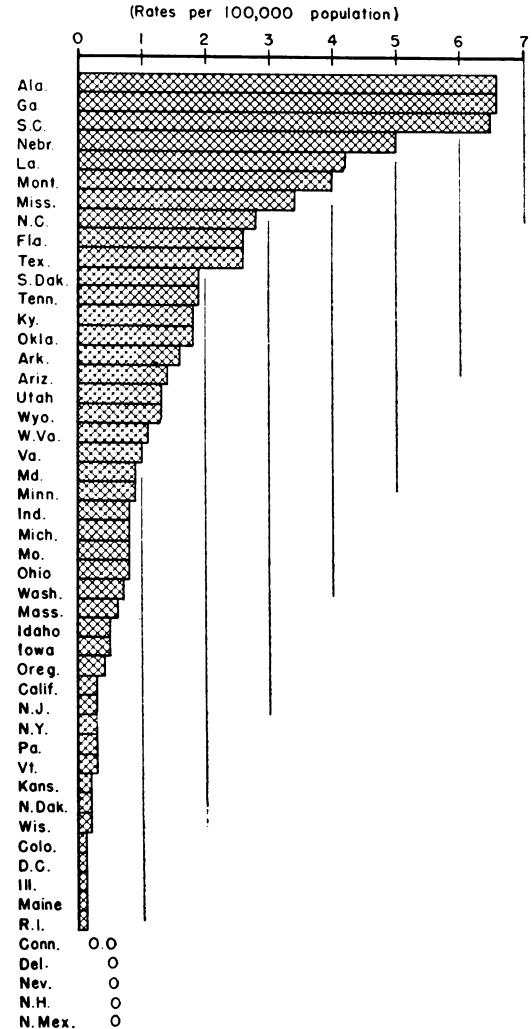
## trends

The provisional rates for typhoid fever and for diphtheria were 1.4 and 1.3 cases, respectively, per 100,000 estimated population for 1954 in the United States. Rates for each disease for individual States are shown in the charts below.

Provisional Rates for Typhoid Fever Cases Reported by Each State: 1954



Provisional Rates for Diphtheria Cases Reported by Each State: 1954



0 = Less than 0.05 0 = No cases

Charts from the National Office of Vital Statistics, Public Health Service