

procedures, the average figure given should be regarded only as indicative of the general level of such costs.¹

The total personnel of medical departments reported by the forty-five companies was 1,326, classified as follows: 25 medical directors, 156 full-time doctors, 254 part-time doctors, 8 doctors "on call," 572 full-time nurses, 16 part-time nurses and 295 other staff. The part-time doctors worked on an average fifteen hours a week. Assuming that full-time doctors and medical directors are on duty an average of forty hours per week and taking account of the number of hours worked by part-time doctors, it appears that the equivalent of one full-time doctor was employed for every 2,089 employees.² There was one full-time nurse for every 979 employees and one additional clerk or technician for every 1,899 employees.

The size of establishment is an important factor in determining the basis on which doctors are employed, as is shown in the following tabulation:

Employees	Estab- lishments	Percentage of Establishments With Doctors on Specified Basis				
		Full Time	Part Time	Full and Part Time	On Call	None
Less than 500.	32	..	71.9	..	3.1	25.0
500-999.....	28	21.4	60.7	..	..	17.9
1,000 and over	96	37.5	42.7	14.6	3.1	2.1
Total.....	156	25.6	51.9	10.3	2.6	9.6

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The American College of Surgeons found the average per capita cost in 1942-1943 to be \$6.21, ranging from \$7.82 in plants with less than 500 employees to \$5.59 in plants with 1,000 or more employees. G. R. Hess, Medical Service in Industry and Workmen's Compensation Laws (revised ed.), Chicago: American College of Surgeons, 1946, p. 57.

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In calculating this figure the plants for whose part-time doctors the number of hours worked was not reported and two large plants where complete medical service is furnished to the families of employees were excluded.

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Nurses, most of them full-time, were employed at 84 per cent of the locations. In establishments without nurses, doctors' services on some basis were provided except in a handful of locations where there were fewer than 500 employees.

The most complete medical coverage was supplied by companies that employed only full-time doctors, where there was one for every 1,498 employees, and \$13.42 per employee was spent on the program. Companies that made use only of part-time doctors had the equivalent of one full-time doctor for every 3,703 employees and spent \$6.18 per employee. Those companies, generally large and with multiplant operations, that engaged both full-time and part-time doctors provided the equivalent of one full-time doctor for every 2,085 employees, and the programs cost an average of \$9.04 per employee.

Of the forty-five reporting companies, nineteen, mainly firms with multiplant, scattered operations, had full-time medical directors at their central headquarters, whose duties were principally administrative. Three companies relied on part-time medical directors and two received advice from outside doctors. In two companies the medical programs were supervised by registered nurses.

Fifteen out of the twenty-two companies employing full-time doctors permitted them also to engage in private practice. Of the 156 full-time doctors, however, 98 were not given this privilege.

As would be expected, full-time doctors, with rare exceptions, are compensated by salary. Of the part-time doctors, 151 were on salary, 98 on a fee basis.

The replies show not only that there is general recognition of the need for pre-employment physical examinations among the reporting companies

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but that a high proportion of them have come to provide the following examinations. Some indication of the intensiveness of the examinations is given by the character of equipment provided, which included the following: X ray (34.6 per cent of establishments), cardiograph (19.9 per cent), and basal metabolism (5.1 per cent). First aid was available in nearly all locations, and in most cases the treatment was given in rooms especially equipped for this purpose. In the field of preventives, somewhat over half the establishments were giving vaccines or vitamins. Physiotherapy was also fairly common, with infrared and ultraviolet lamp installations in 66 and 51 per cent of the establishments. Although relatively few companies felt it necessary to provide optical examinations, nearly half of them made use of some kind of optical equipment in examining employees. About 7 per cent of the establishments provided home nursing for employees, and the same proportion supplied medical service to the families of employees.

The character of the service provided in the 156 establishments of the forty-five companies furnishing this information is summarized in the following tabulation, which lists the services in order of their prevalence:

Medical Service Provided	Percentage of Establishments Reporting Specified Service
Pre-employment examinations.....	95.5
First-aid treatment.....	95.5
Periodic examinations.....	71.8
Preventives, vaccines, vitamins.....	55.1
Physiotherapy.....	41.0
Optical examinations.....	13.5
Home nursing.....	7.1
Medical service to family.....	7.1
Laboratory examinations.....	4.5
Dentistry.....	3.2
Psychiatry.....	2.3

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The medical facilities reported are listed below in the order of their prevalence:

Medical Facilities Provided	Percentage of Establishments Reporting Specified Facility
First-aid room.....	92.9
Infrared lamp.....	66.0
Ultraviolet lamp.....	51.3
Eye-testing equipment.....	47.4
X ray.....	34.6
Cardiograph equipment.....	19.9
Oxygen tents.....	5.1
Basal metabolism equipment.....	5.1
Diathermy machine.....	5.1
Operating room.....	5.1
Dental equipment.....	4.5
Dental X ray.....	3.8
Ambulance.....	3.2
Ward in local hospital.....	1.9

The information on costs and size of staff is shown for 111 establishments in the attached table.

*No real case of employee is
seen outside - of a very little treatment
the study of sickness etc.*

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COST OF MEDICAL SERVICES, AND NUMBER OF MEDICAL PERSONNEL, BY COMPANY, BY PRODUCT, BY TYPE OF SERVICE, AND BY SEX, NOVEMBER, 1945

Company Code	Employees	Annual Cost of Services Per Employee	Medical Staff				
			Director	Doctors			
				Full Time	Part Time		
Chemicals, Drugs and Soap Products							
Company A	4,350	\$15.16	1	4		13	3
Company B	3,542	\$24.00	1	2		12	6
Company C	975	\$17.03	1	1		1	1
Company D							
Unit 1	609	\$15.16		1		1	
2	1,920	6.24		1		2	
3	1,206	9.60		1		1	
4	507	11.53			1	1	
5	486	9.91			1	1	
6	279	15.59			1	1	
7	237	19.62			1	1	
Total	5,244	\$10.00		3	4	8	
Electrical Products							
Company E							
Unit 1	1,500	\$10.00			1	2	2
2	13,000	2.23		1	8	6	1
3	4,500	8.89			1	4	5
4	4,300	8.37			1	7	1
5	2,000	5.50			1	3	
6	1,700	11.18			2	1	1
7	2,000	9.50			1	4	
Total	29,000	\$ 5.83		1	15	27	10
Company F							
Unit 1	27,353	\$13.86	1	4	29	47	36
2	32,840	12.60	1	6	18	46	25
3	7,523	19.86		1	8	22	22
4	5,804	22.83			4	15	2
Total	73,520	\$14.62	2	11	59	130	85

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COST OF MEDICAL SERVICES (Continued)

Company Code	Employees	Annual Cost of Services per Employee	Medical Staff				
			Director	Doctors		Nurses	Others
				Full time	Part time		
Food and Allied Products							
Company G							
Unit 1	1,200	\$ 3.83			1	1	
2	600	8.50			1	1	
3	1,300	11.54			1	1	
4	1,200	3.33			1		1
5	1,200	3.75			1	1	1
Total	5,500	\$ 6.04			5	4	2
Company H							
Unit 1	687	\$21.11			1	1	
2	5,147	7.29		2		3	
3	1,542	7.78		2		2	
4	4,378	7.42		1		2	
5	5,248	11.57		3		6	
Total	17,002	\$ 9.25		8	1	14	
Company I							
Unit 1	1,842	\$ 2.39			1	3 ^a	
2	936	.84			1	1 ^a	
3	282	4.62 ^b			1	1 ^a	
4	1,490	.12			1		
5	589	1.11			1	1 ^a	
6	263	1.52			1		
Total	5,402 ^c	\$ 1.43			6	6 ^a	
Company J	1,180	\$13.86			1	2	1
Company K	1,200	\$12.92	d		6	3	
Company L							
Unit 1	936	\$ 8.17			1	2	
2	1,350	2.91			1	2	
3	789	4.96			1	1	
4	428	5.01					
5	200	2.59					
6	174	12.95			1	1	
Total	3,877	\$ 5.26			4	6	

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Company Code	Employees	Annual Cost of Services	Medical Staff				
			Director	Doctors		Nurses	Others
				Full Time	Part Time		

Machinery

Company M	3,500	\$ 5.01			2	5	
Company N							
Unit 1	3,450	\$17.68	1	1		6	2
2	5,540	27.62		2		6	3
3	3,000	10.00		1	1	6	1
Total	11,990	\$20.35	1	4	1	18	6

Metal Products

Company O							
Unit 1	1,125	\$ 4.99			1	1	
2	1,702	20.58			1	4	
3	166	2.90			1		
4	348	14.65			1	1	
5	372	15.73			1	1	
6	2,002	17.55			1	3	
7	1,012	13.97			1	3	
8	229	17.25			1	1	
9	936	10.65			1	1	
10	658	16.69			1	1	
11	1,026	9.27			1	2	
12	781	15.18			1	2	
Total	10,357	\$14.25			12	20	
Company P	1,474	\$ 6.78			1	4	
Company Q	560	\$ 1.94			2	2	
Company R	2,688	\$11.16	1	2		5	
Company S	3,907	\$ 3.58			1	5	

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DEPARTMENT OF MEDICAL SERVICES (Continued)

Company Codes	Employees	Annual Cost of Services Employee	Medical Staff			
			Director	Doctors		Others
				Full Time	Part Time	

Paper Products

Company T							
Unit 1	155	\$.71					
2	1,526	4.59			1	1	
Total	1,681	\$ 4.23			1	1	
Company U							
Unit 1	3,000	\$17.20	1	3		8	5
2	900	7.44		1		1	
3	900	10.56		1		2	
4	875	5.94		1			
Total	5,675	\$12.86	1	6		11	5

Public Utilities

Company V							
Unit 1	8,000		1	3	2	3	2
2	308				1	1	
3	335				1	1	
4	320				1	1	
5	262				1	1	
Total	9,225	\$12.79	1	3	6	7	2
Company W							
Unit 1	1,650				2	1	
2	350				1		
Total	2,000	\$ 7.50			3	1	

Publications

Company X ^e	1,600	\$ 7.81			18.	2	1
Company Y	1,144	\$ 5.91			1	1	

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COST OF MEDICAL SERVICES (Continued)

Company Code	Employees	Annual Cost of Services Per Employee	Medical Staff				
			Director	Doctors		Nurses	Others
				Full Time	Part Time		
Textile Products							
Company Z							
Unit 1	500		2			1	2
2	2,600			1		6	2
3	3,900			1		6	2
4	2,300			1		6	2
5	3,500			1		6	2
6	3,400			1		6	2
7	1,300			1		6	2
8	3,200			1		6	2
Total	20,700	\$14.49	2	7		43	16
Company AA	2,878	\$12.31	1	2		3	
Company BB	1,022	\$ 8.23			1	2	
Company CC							
Unit 1	4,036	\$ 2.97			3	1	
2	3,495	3.15			3	1	
Total	7,531	\$ 3.05			6	2	
Miscellaneous							
Company DD							
Unit 1	5,900	\$11.75	1	1	8	3	7
2	7,844	7.20	1	1	2	3	4
3	22,647	3.92		3	7	4	15
4	41,346	6.83	1	1	30	17	35
5	14,850	4.87			5	3	7
6	13,182	5.81		1	5	11	4
Total	105,769	\$ 6.11	3	7	57	41	72
Company EE							
Unit 1	997				8	6	
2	500				8	1	
3	406				1		
Total	1,903	\$21.02			17	7	

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COST OF MEDICAL SERVICES (Continued)

Company Code	Employees	Annual Cost of Services Per Employee	Medical Staff				
			Director	Doctors		Nurses	Others
				Full Time	Part Time		

Miscellaneous (Continued)							
Company FF							
Unit 1	2,500		1	1	2	1	4
2	4,000			1		3	1
3	2,200			1		3	1
4	2,000				1	2	1
5	1,000			1		1	
6	2,000			1			
Total	23,000 ^h	\$ 5.43	1	5	3	10	7
Company GG							
Unit 1	21,511		1	7	1	13	3
2	1,250				1	4	
Total	22,761	\$ 4.91	1	7	2	17	3
Company HH							
Unit 1	13,000	\$ 9.67	1	4		4	13
2	1,300	3.85		3		2	1
Total	14,300	\$ 9.14	1	7		6	14

a

Employed seasonally, twelve to thirty weeks.

b

Employee-paid medical plan.

c

Includes 417 regular employees, 4,985 seasonal workers, distributed proportionately among plants.

d

Outside adviser.

e

One unit only.

f

Estimated for 1946.

g

On call.

h

Including subsidiaries.

(Prepared by Industrial Relations Counselors, Inc., for
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