



Hospital Occupational Health Services Study

VI. Special Information

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Hospital Occupational Health Services Study

VI. Special Information

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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National Institute for Occupational Safety and Health

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This publication presents the third and fourth of a series of reports of a national survey of hospitals. This study was performed under NIOSH Contract HSM-099-71-050 by Computer Sciences Corporation, further analyzed and edited by Applied Health Physics, Inc. The purpose of this study is to provide NIOSH with resource information on existing employee health services in hospitals and to develop an acceptable action program to protect and promote the health of hospital employees in the United States.

The following publications in this series are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Hospital Occupational Health Services Study.

- I. Environmental Health and Safety Control. HEW Publication No. (NIOSH) 75-101. Price per copy \$1.75. Stock No. 1733-00033.

FOREWORD

As the nation's hospitals respond to the growing needs of all phases of health care delivery, these institutions have grown rapidly in size, number and complexity. Hospitals are now the third largest employer in the United States, with approximately three million employees working full and part time.

Occupational health and safety services must become an integral part of health services and should be available to all groups of workers, including hospital employees. Yet, data from reliable sources during the past 10 years indicate that the accident frequency rate for hospitals has increased alarmingly.

Clearly, positive action is called for. As a consequence, the National Institute for Occupational Safety and Health conceived and implemented the Hospital Occupational Health Services Study — the first such major study ever conducted.

The initial step was to develop practical criteria for effective occupational health and safety programs for hospital personnel. The next step was to determine, through a comprehensive survey of American Hospital Association members, the extent to which these criteria could be or were being applied.

The final step will be the development of a workable action program to protect and promote the health of three million hospital employees, and indirectly, to safeguard millions of hospital patients serviced by these workers.

This series of seven reports on the study is disseminated by NIOSH — in the hope and belief that you, the reader, will find the Hospital Occupational Health Services Study not only enlightening but eminently usable.

ACKNOWLEDGMENTS

The National Institute for Occupational Safety and Health wishes to express its appreciation to the many individuals whose cooperation made this study possible and especially to the hospital administrators who supplied data on which this and future reports are based.

The design, distribution, and computerized analyses of the survey were performed by the Computer Sciences Corporation.

Mr. John H. Morrison, Jr. assisted in the final preparation of the statistical information. Dr. Mildred Kendrick, formerly with the United States Public Health Service, Center for Disease Control, provided valuable statistical assistance.

Mr. Marshall E. LaNier, M.S., Jane A. Lee, R.N., B.S., and Ruth Reifschneider, R.N., M.P.H. contributed substantially to the project. Acknowledgment is also given to Warren Smith, M.D., George W. McCarl, M.D. and Bruce Margolis, Ph.D. who assisted in developing the original criteria to plan an effective occupational health and safety program for hospital employees.

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KEY TO FIGURES AND TABLES

Question Number	FIGURE		TABLE		Title
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30			2	23	Estimated number and percent of hospitals with contract workers, by geographic region, and by number of contract workers.
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30			4	25	Estimated number and percent of hospitals with volunteers, by geographic region, and by number of volunteers.
31	1	7	5-6	26	Percent of hospitals in which immunization requirements are the same for contract workers as for hospital employees, by number of contract workers, and by geographic region.
31	2	8	7-8	27	Percent of hospitals in which immunization requirements are the same for volunteers as for hospital employees, by number of volunteers, and by geographic region.
32	3	10	9-10	28	Percent of hospitals in which health services are the same for contract workers as for hospital employees, by number of contract workers, and by geographic region.
32	4	11	11-12	29	Percent of hospitals in which health services are the same for volunteers as for hospital employees, by number of volunteers, and by geographic region.
33	5	14	13-14	30	Percent of hospitals with a union or other employees' organization participating in development of policies and procedures for safety programs, by hospital size, and by geographic region.
33	6	15	13-14	31	Percent of hospitals with a union or other employees' organization participating in development of policies and procedures for health programs, by hospital size, and by geographic region.

KEY TO FIGURES AND TABLES — Continued

Question Number	FIGURE		TABLE		Title
	Number	Page	Number	Page	
33			15	31	Estimated number and percent of hospitals by whether a union or other formal employees' organization participates in development of policies and procedures for health and safety programs, and by whether hospital has established a formal program for the provision of occupational health care to employees.
33	7	16	16-17	32	Percent of hospitals which have a collective bargaining agreement, by hospital size, and by geographic region.
33	8	17	16	32	Percent of hospitals which have a collective bargaining agreement, and which had a strike or slow down, by hospital size.
7	9	20	18	33	Percent of Hospitals which indicated that they have a formal policy on pregnancy which includes provisions for the indicated policies, by hospital size.
7	--	----	19	33	Estimated number and percent of hospitals which indicated that they have a formal policy on pregnancy which includes provisions for the indicated combinations of policies, by hospital size.
--	10	38	20	39	Regional distribution of the 5,298 hospitals included in the study population (U.S. Bureau of the Census Divisions).

Hospital Occupational Health Services Study

VI. Special Information

INTRODUCTION

This is the sixth in a series of seven reports comprising The Hospital Occupational Health Services Study, which was conducted by the National Institute for Occupational Safety and Health. Publication I described various aspects of Environmental Health and Safety Control. The second report covered Hospital Employee Health and Safety Statistics and Records. The third publication presented statistical information on the Organization and Administration of Employee Health Services. The fourth report dealt with Staffing of the Hospital Occupational Health Unit. Publication V reported on Occupational Health Services for Hospital Employees.

This sixth report presents Special Information on the number of Contract and Volunteer Workers in hospitals of various sizes and in various regions, the immunization requirements for contract and volunteer workers, health services provided for these two types of workers, and the participation of a collective bargaining unit in the development of health and safety programs. It also covers policies and practices with respect to pregnancy of hospital employees.

This series of reports based on responses to a questionnaire sent to 3,687 U.S. hospitals in 1972. Responses were received from 72.4 percent of these hospitals. The part of the questionnaire discussed in this report is reproduced below. A detailed analysis of the responses to these particular questions is presented below. The statistical data are presented in tabular form in Appendix A.

**SECTION B. ORGANIZATION AND ADMINISTRATION
OF EMPLOYEE HEALTH SERVICES**

7. Does your hospital have a formal policy with respect to pregnancy which includes provisions for:
(Check all applicable boxes)
- Early Reporting of Pregnancy ☐
 Medical Clearance to Continue Employment ☐
 Reassignment to Safer Working Conditions ☐
 Maternity Leave ☐
 Pre and Postnatal Counseling by Employee Health Services ☐
 None of the above ☐

SECTION G. SPECIAL INFORMATION

30. How many persons in the following categories perform services in your hospital?
(Indicate 1 as 001, 10 as 010, etc.)
- Contract Workers ☐☐☐
 Volunteers ☐☐☐

31. Do you impose the same immunization requirements on contract workers and volunteers that you do on hospital employees? Yes No
 Contract Workers ☐ ☐
 Volunteers ☐ ☐
32. Do you provide the same health services for contract workers and volunteers that you do for hospital employees? Yes No
 Contract Workers ☐ ☐
 Volunteers ☐ ☐
33. Does any union or other formal employees' organization participate in development of policy and procedures for your health and safety programs?
 Yes, Employee Health Program ☐
 Yes, Safety Program ☐
 Yes, Both Programs ☐
 No, Neither Program ☐

SUMMARY

This is the sixth of seven reports presenting the results of the first national study of occupational safety and health of hospital workers, who comprise the third largest and one of the most rapidly growing employee groups in the nation. This report is concerned with the health services provided for Contract and Volunteer hospital workers and the immunization requirements imposed on them. It also presents findings relative to the participation by hospital employee unions in the development of health and safety programs. In addition, it provides the results of an inquiry into the policies and practices with respect to the health and safety of pregnant hospital employees.

Of all hospitals included in the study, only a little more than half (50.6%) indicated that they had contract workers. This low percentage may have resulted from a lack of appreciation of the many functions performed in hospitals by contract workers, ranging from security guards to vending machine service people and telephone repairmen. About 70 percent of the hospitals reported that they had volunteer workers.

On the question of whether immunization requirements were the same for contract workers as for hospital employees, 14.4 percent answered in the affirmative. In general, as the number of contract workers in a hospital increased, so did the tendency to require the same immunizations for them as were required for hospital employees.

Immunization requirements for volunteers follow a somewhat different pattern. Similar immunization requirements for volunteers and hospital workers increased with the number of volunteers up to the 100-199 volunteer level, and decreased in those hospitals with 200 or more volunteers.

Almost 25 percent of all hospitals provided the same health services for contract workers as for hospital employees. The percentages ranged from 38.4 percent for hospitals with 1-9 contract workers to 61.0 percent for hospitals with 200 or more contract workers.

About 30 percent of the hospitals reported that they provided the same health services for volunteers as for hospital employees, with little variation related to the number of volunteers used.

Over 15 percent of the hospitals reported that employee unions participated in the development of health or safety programs. However, there was far more participation by unions in the development of safety programs than in health programs.

Of those hospitals that reported having a collective bargaining agreement, less than 2 percent indicated that they had ever had a strike or slow down.

Only about 10 percent of all hospitals (7.7%) reported they had no formal policy with respect to pregnancy. However, less than 40 percent of the hospitals required early reporting of pregnancy, and less than 15 percent reassigned pregnant workers to safer working conditions. Very few hospitals (4.8%) provided for pre- and postnatal counseling of pregnant hospital employees. Medical clearance to continue employment while pregnant was a requirement in almost two-thirds of the hospitals, and almost 90 percent granted maternity leave.

SPECIAL INFORMATION — RESPONSES TO QUESTIONS IN SECTION G

Question 30. How many persons in the following categories perform services in your hospital?
(Indicate 1 as 001, 10 as 010, etc.)

Contract Workers

Volunteers

Results: Contract Workers. Contract workers are employees of other organizations whose work within the hospital is performed under a written or implied contractual agreement with the hospital. Such work may involve wide variations in controls over occupational health and safety of each contract worker during the performance of his job within the hospital. It is quite possible that many respondents did not consider the variety of jobs within hospitals that are performed by contract workers. A partial list of some types of contract workers follows:

Security guards

Telephone service repair and installation

Heating, ventilation, air conditioning
service men

Elevator service

Trash, garbage man

Food services and supplies

Vending machine service

Public utility (electric, water, gas)

Medical equipment and instrument
repairmen

Consultants; e.g., radiological physicist,
health physicist

Medical specialists under contract (not
employees of the hospital; e.g., medical
researchers, self-employed anesthesiologist,
radiologist, etc.)

The numbers of contract workers in hospitals were analyzed by the following categories: 1–9, 10–19, 20–49, 50–99, 100–199, and 200+.

About half of all hospitals (50.6%) reported having at least one contract worker. Slightly less than half of the small hospitals (25–99 beds) — and slightly more than half of the medium-sized (100–299 beds) and large (300+ beds) hospitals had at least one contract worker. It is not surprising that a larger percentage of small hospitals had only 1–9 contract workers (40.4%) than did medium-sized (30.2%) and large hospitals (12.8%). There were many fewer small and medium-sized hospitals in the 10–19 and 20–49 categories than in the 1–9 group. There were about the same number of large hospitals in these two groups as in the 1–9 category. Only 1.3 percent of the small hospitals had 50 or more contract workers, while 4.0 percent of the medium-sized and 11.9 percent of the large hospitals had 50 or more contract workers. See Table 1, Appendix A, for complete statistical data.

Overall, 49.4 percent of all hospitals had no contract workers. Analysis by geographic region indicated that the Pacific (38.2%) and Middle Atlantic Regions (43.6%) had the lowest percentages with no contract workers, while the West North Central (61.0%) and Mountain (56.1%) Regions had the highest percentages of hospitals with no contract workers. There are similar variations in each of the categories of numbers of contract workers, but no patterns seem to emerge. For example, the Pacific Region had the lowest percentage of hospitals with no contract workers, the highest percentage with 1–9, and was among the lowest for 200+ contract workers. The next lowest region, the Middle Atlantic, had the lowest percentage of hospitals in the 1–9 contract worker category, and the highest percentage of hospitals in the 200+ contract worker category. For details, see Table 2, Appendix A.

Volunteers. Volunteers in hospitals were analyzed in the same manner as contract workers, but using slightly different categories (1–9, 10–19, 20–49, 50–99, 100–199, 200–299, 300–399, 400–499, and 500+).

Over 50 percent (53.0%) of large hospitals reported having 200 or more volunteers. For medium-sized hospitals, the percentage was 21.7, and for small hospitals, only 1.4 percent.

Of all hospitals, only 29.4 percent had no volunteers. It is not surprising that small hospitals (25-99 beds) had fewer volunteers than did medium-sized hospitals (100-299 beds), which in turn had fewer volunteers than did large hospitals (300+ beds). Of the small hospitals, 37.9 percent had no volunteers, while 23.2 percent of the medium-sized and 13.7 percent of the large hospitals had no volunteers.

Small hospitals had a larger percentage in the next three categories (1-9, 10-19, 20-49) than did medium-sized and large hospitals. In these three categories combined, small hospitals reported 43.0 percent; medium-sized, 21.5 percent; and large, 5.3 percent. In the middle range (50-199 volunteers), there were 27.7 percent of the small hospitals, 33.7 percent of medium-sized hospitals, and 28.1 percent of the large hospitals that reported having volunteers. See Table 3, Appendix A, for complete tabulation of these data.

Like the data on contract workers, data on number of volunteers had no geographic pattern. In all geographic regions combined, about 30 percent (29.4%) had no volunteers. Two regions reported over 40 percent of the hospitals with no volunteers — the East South Central Region (42.9%), and the West South Central Region (40.5%). There were also two regions in which only about 20 percent of the hospitals had no volunteers — the Pacific Region (21.6%) and the East North Central Region (21.9%). There results are given in full in Table 4, Appendix A.

Question 31. Do you impose the same immunization requirements on contract workers and volunteers that you do on hospital employees?

Contract Workers
Volunteers

Results: A detailed approach to immunization practices for hospital employees appears in the hospital survey questionnaire under Question 16 and is analyzed in Publication IV. The Center for Disease Control (CDC), U.S. Department of Health, Education, and Welfare, establishes guidelines for immunization practices for hospital workers. The National Institute for Occupational Safety and Health (NIOSH) recommends the CDC guidelines in developing occupational safety and health programs for hospital workers. While Question 16 asked about immunization practices for all employees (or for employees in certain age groups or selected job categories), Question 31, above, inquired into immunization practices for contract workers and volunteers.

Contract Workers. In only 14.4 percent of the hospitals were the immunization requirements for contract workers the same as for hospital employees. After eliminating those hospitals which reported there were no contract employees, the percentage rose to 24.8 percent.

In general, as the number of contract workers increased, the percentage of hospitals which required similar immunizations for contract workers and employees also increased.

Between 21 and 24 percent of the hospitals with 1-19 contract workers required similar immunizations, while for hospitals with 20-199 contract workers, the rate was between 27 and 30 percent, and for hospitals with 200+ contract workers, the percentage rose to 51. These data are shown in Figure 2 and in Table 5, Appendix A.

The percentage of hospitals that had the same immunization requirements for both contract workers and hospital employees, by geographic region, is shown in Figure 1 and in Table 6, Appendix A.

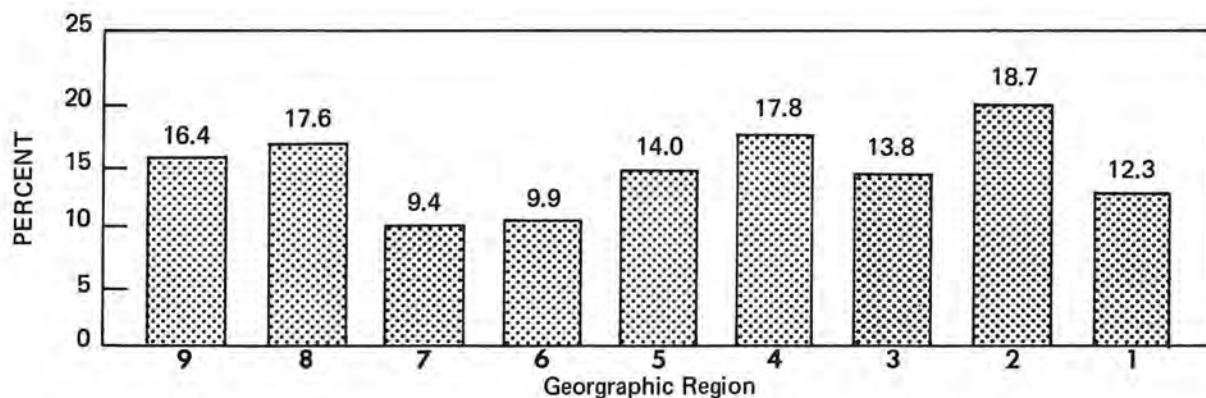
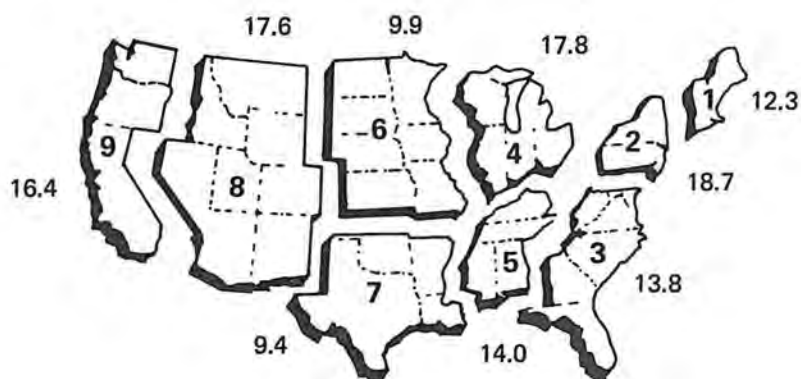
Volunteers. Immunization requirements were the same for volunteers as for hospital employees in only 15.7 percent of the hospitals. The percentage was 19.7 after eliminating those hospitals that had no volunteers.

Hospitals with 100-199 volunteers had the highest percentage (23.4%) that required the

same immunization for volunteers as for hospital employees. Hospitals with the lowest percentage requiring similar immunizations were those with 1–9 volunteers (15.2%) and those with 500 or more volunteers (14.5%). These data are shown in Figure 2, and in Table 7, Appendix A.

When geographic regions were considered, the Pacific Region clearly had the highest percentage (30.4%) of hospitals that required the same immunization for volunteers and for hospital employees. The lowest percentages were in the New England (7.9%) and East South Central (8.8%) Regions. For full details see Figure 2, and Table 8, Appendix A.

FIGURE 1
RESPONSE BY 30 PERCENT OF HOSPITALS IN WHICH
IMMUNIZATION REQUIREMENTS ARE THE SAME FOR CONTRACT WORKERS
AS FOR HOSPITAL EMPLOYEES, BY NUMBER OF CONTRACT WORKERS
AND BY GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 31)²



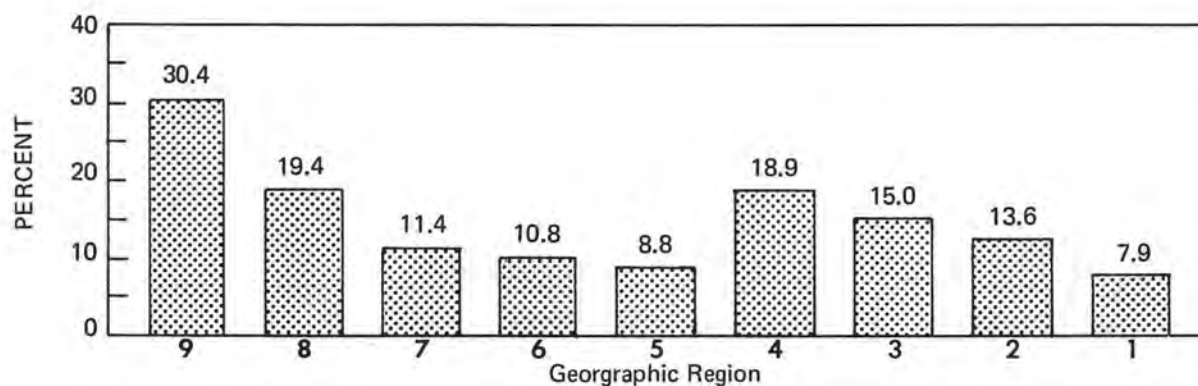
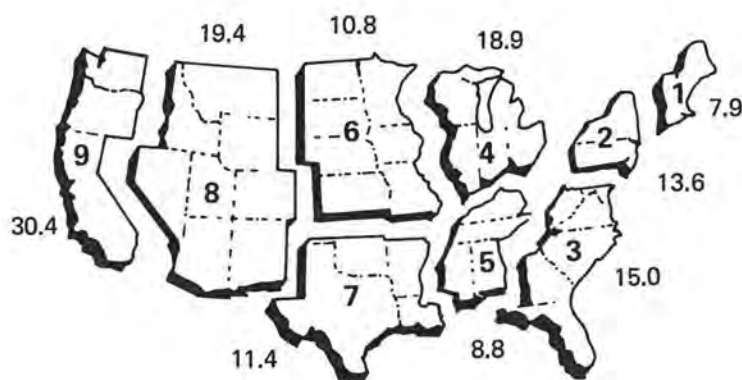
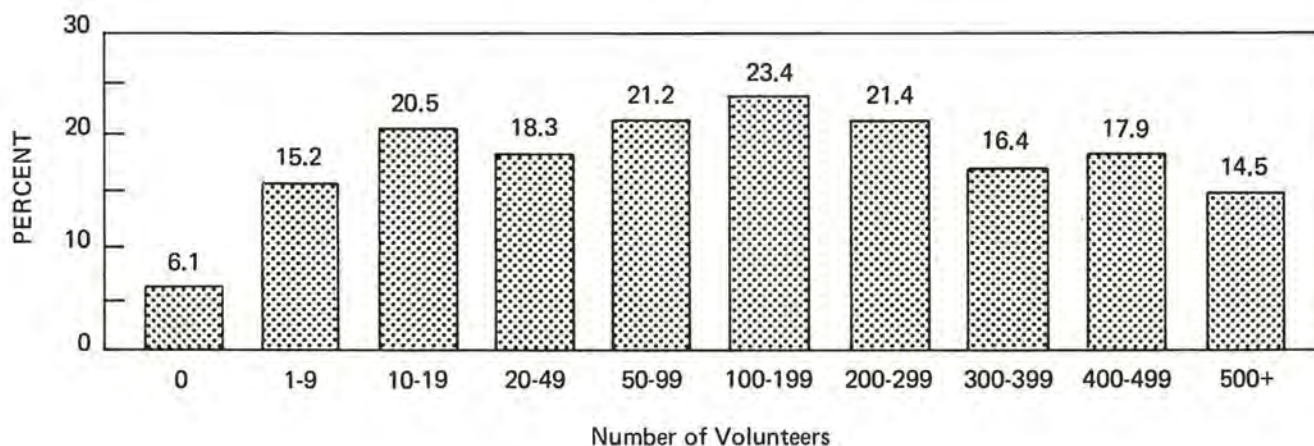
¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.

²These data are presented in tabular form in Appendix A, Tables 5 and 6.

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

FIGURE 2

**RESPONSE BY 30 PERCENT OF HOSPITALS IN WHICH
IMMUNIZATION REQUIREMENTS ARE THE SAME FOR VOLUNTEERS
AS FOR HOSPITAL EMPLOYEES BY NUMBER OF VOLUNTEERS
AND BY GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 31)²**



¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.

²These data are presented in tabular form in Appendix A, Tables 7 and 8.

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

Question 32. Do you provide the same health services for contract workers and volunteers that you do for hospital employees?

Contract Workers

Volunteers

Results: Questions on the provision of occupational health services for all employees appear in Section C of the hospital survey questionnaire. Questions 11, 12, 13, 14, 15, 16 and 17 are concerned with physical examinations, preplacement and periodic examinations and the components (tests and measurements) of these examinations, immunizations, and health counseling services for employees. The statistical analyses of these questions appear in Publication IV. Following are the data asked for in Question 32 on Contract Workers and Volunteers.

Contract Workers. Almost 25 percent (23.2%) of the hospitals provided the same health services for contract workers as for their own hospital employees. When those hospitals with no contract workers were eliminated, the figure rose to nearly 40 percent (38.8%).

The percentage of hospitals that provided the same health services for both contract workers and hospital employees increased for each succeeding larger category of contract workers, except for the 20-49 group. For example, in the 1-9 contract worker category, 38.4 percent of the hospitals provided the same health services for contract workers as for hospital employees, while in the 200+ category, 61.0 percent of the hospitals provided the same services. These data are shown in Figure 3 and in Table 9, Appendix A.

When analyzed by geographic region, hospitals that provided the same health services for contract workers and hospital employees showed a narrow spread (between 19.2% and 24.6%) — except for the East North Central Region, which had the highest percentage (28.7%). These data are shown in Figure 3 and in Table 10, Appendix A.

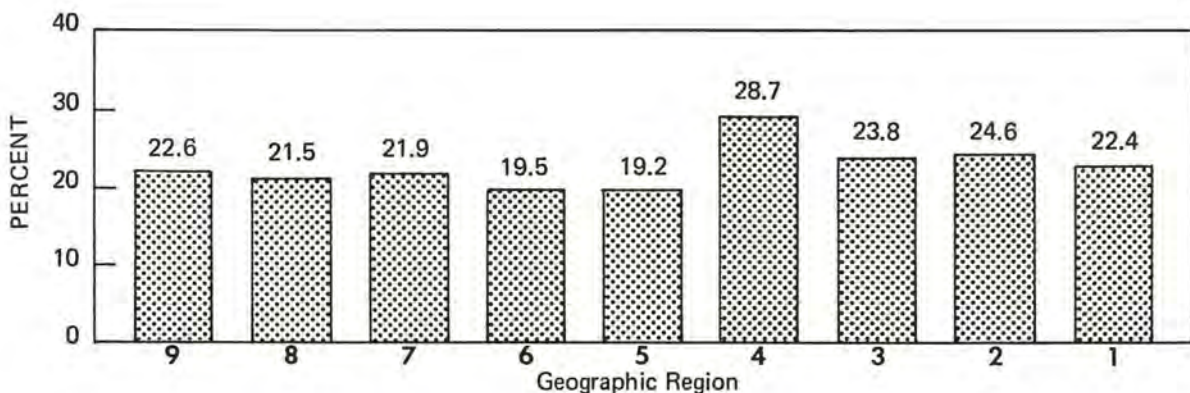
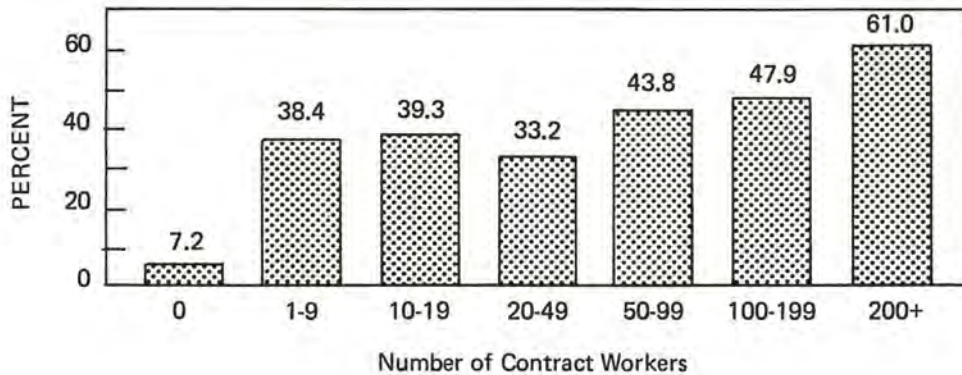
Volunteers. More than 30 percent (30.4%) of the hospitals provided the same health services for volunteers as they did for hospital employees, as compared with less than 25 percent (23.2%) that provided similar health services for contract workers. After hospitals with no volunteers were eliminated, the figure was nearly 40 percent (37.8%) or about the same as for contract workers.

From 36 to 42 percent of hospitals with between 1 and 299 volunteers provided similar health services for volunteers and hospital employees. The percentages dropped to between 28 and 33 percent for hospitals with 300 or more volunteers. See Figure 4 and Table 11, Appendix A, for complete data.

In providing the same health services for volunteers and hospital employees, the two geographic regions with the highest percentages were the East North Central Region (39.1%) and the Pacific Region (38.8%). The East South Central Region had the lowest percentage (18.2%). These data are included in Figure 4 and in Table 12, Appendix A.

FIGURE 3

**RESPONSE BY 30 PERCENT OF HOSPITALS IN WHICH
HEALTH SERVICES ARE THE SAME FOR CONTRACT WORKERS
AS FOR HOSPITAL EMPLOYEES BY NUMBER OF CONTRACT WORKERS
AND BY GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 32)²**

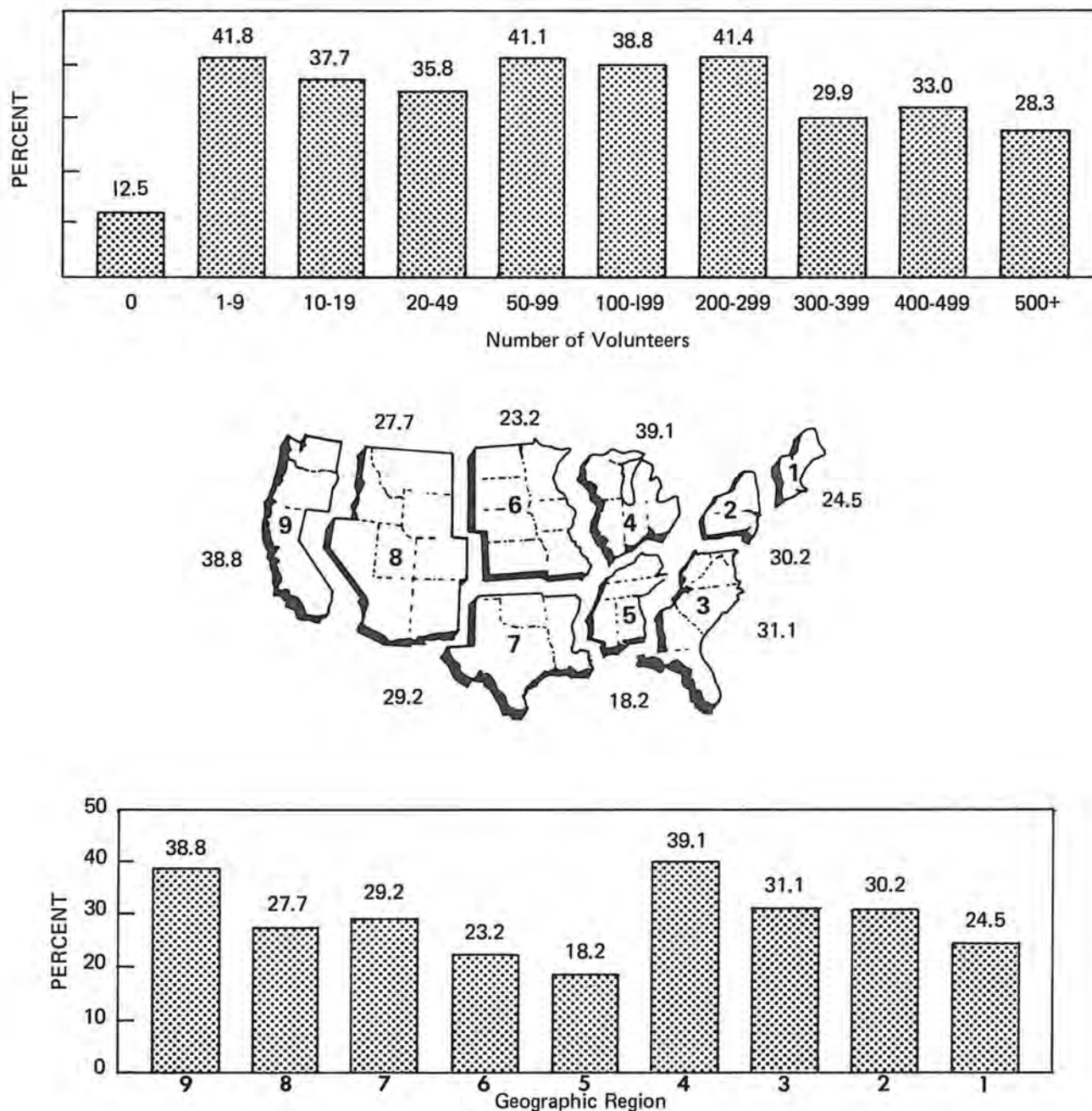


¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.

²These data are presented in tabular form in Appendix A, Tables 9 and 10.

Source of Data: NIOSH *Hospital Occupational Health Services Study*, U.S., 1972.

FIGURE 4
RESPONSE BY 30 PERCENT OF HOSPITALS IN WHICH
HEALTH SERVICES ARE THE SAME FOR VOLUNTEERS
AS FOR HOSPITAL EMPLOYEES BY NUMBER OF VOLUNTEERS
AND BY GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 32)²



¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.

²These data are presented in tabular form in Appendix A, Tables 11 and 12.

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

Question 33. Does any union or other formal employees' organization participate in development of policy and procedures for your health and safety programs?

Yes, Employee Health Program

Yes, Safety Program

Yes, Both Programs

No, Neither Program

Results: Of the hospitals involved in this study, 6.8 percent reported that employees' organizations with collective bargaining agreements participated in the development of both health and safety programs; 1.5 percent indicated participation in health programs only, and 8.0 percent in safety programs only. Therefore, in 8.3 percent of the hospitals, the organized employees' unit participated in health programs, and 14.8 percent of the organized units participated in the development of safety programs. See Table 13, Appendix A.

When the above figures were analyzed by hospital size, there are noticeable differences in the percentages of hospitals with union participation in health programs. Small hospitals (25–99 beds) reported only 6 percent of their hospitals with union participation, compared with 9.5 percent for medium-sized hospitals (100–299 beds) and 12.8 percent for large (300+ beds) hospitals. It should be noted that these percentages include those hospitals that reported union participation in only health programs and those that indicated such participation in both health and safety programs. Similar combined percentages will be used when reporting on safety programs.

The participation in safety programs by employees' unions also increased with hospital size: 10.7 percent for small hospitals, 17.8 percent for medium-sized hospitals, and 22.3 percent for large hospitals.

It is important to point out that the percentage of hospitals that reported union participation in safety programs is between 1.7 and 1.9 times the percentage of hospitals that indicated union participation in health programs, depending on hospital size.

When data were analyzed by geographic region, the same general pattern held true: the regions that were highest in health programs were also highest in safety, while the regions lowest in one were lowest in the other. However, the differences between union participation in health and safety were varied. In the Pacific Region, participation in safety programs was 1.4 times the participation in health programs (the lowest difference), while in the West South Central Region, the percentage of union participation in safety programs was 2.7 times the percentage for health programs (the greatest difference). The remainder of the regions reported that participation in safety programs was between 1.6 and 2.1 times participation in health programs.

Five geographic regions (Pacific, East North Central, Middle Atlantic, West North Central and New England) reported that between 9.4 and 11.2 percent of hospitals had union participation in health programs. The West South Central Region had by far the lowest percentage (2.4%) of union participation in health programs.

The highest percentage of union participation in safety programs (19.3%) was reported by the East North Central and Middle Atlantic Regions. The other three regions which were high for health were almost as high as the above two for safety: West North Central with 16.3 percent, Pacific with 15.9 percent, and New England with 15.5 percent. As with health programs, the West South Central Region had the lowest percentage of hospitals (6.5%) with union participation in safety programs. The above data on union participation in health and safety programs are shown in Figures 5 and 6, and in Tables 13 and 14, Appendix A.

A comparison was made between this question (Question 33) and Question 1 of the survey questionnaire, which asked whether hospitals had a formal program for the provision of occupational health care to employees. (Detailed results of Question 1 appear in Publication V). About 69 percent of the hospitals included in this study had a formal employee health program. Of those hospitals that reported union participation in health programs only, 86 percent had a

formal occupational health program. Of those hospitals which reported union participation in the development of safety programs, only 74 percent had a formal occupational health program. Of those hospitals that reported union participation in both health and safety programs, 83 percent had a formal occupational health program. In each of the above cases, a larger number of hospitals reported union participation in the development of programs than reported having formal occupational health programs. This may be because in some hospitals the union was involved in discussions with the hospital related to setting up formal occupational health programs.

Two additional items related to this general topic were found in supplementary information available and therefore were not asked on the survey questionnaire. The number of hospitals which had collective bargaining agreements and the number of hospitals which reported a strike or slow down were estimated for the year 1970 from the American Hospital Association data tape which was made available to NIOSH.

About 13 percent of the hospitals (12.9%) had collective bargaining agreements. Over 5 percent (6.5%) of small hospitals, over 15 percent (16.0%) of medium-sized hospitals, and nearly 30 percent (28.0%) of large hospitals had collective bargaining agreements.

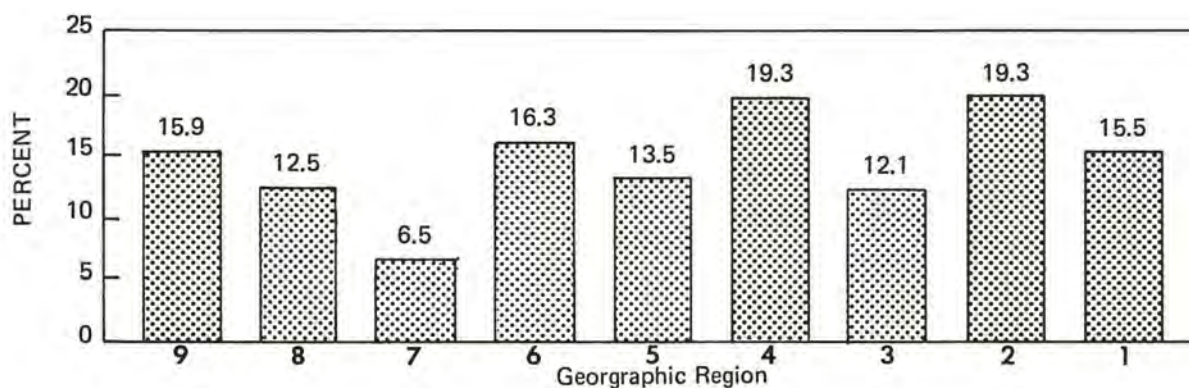
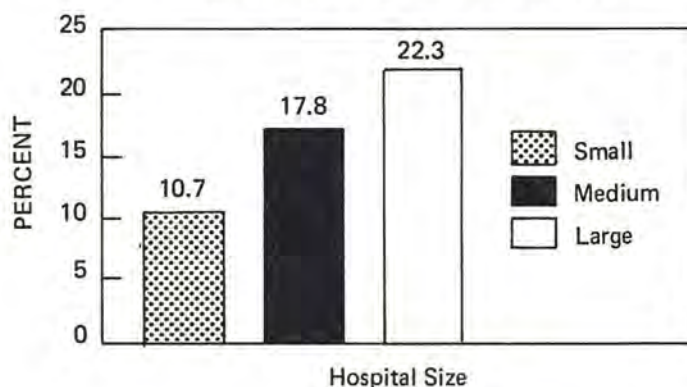
The Pacific Region far exceeded any other region in the percentage of hospitals with collective bargaining agreements — 42.2 percent. Four regions had under 4 percent (1.6 to 3.8%). These were the South Atlantic, East South Central, West South Central and Mountain Regions. The remainder had from 10.8 percent to 16.7 percent with union agreements.

Less than 2 percent of the hospitals reported having had a strike or slow down. The percentages by hospital size were: small hospitals, 0.4 percent; medium-sized, 1.8 percent; large hospitals, 6.5 percent. By geographic region, the percentages of hospitals that reported a strike or slow down ranged from zero to 3 percent. See Figure 8 and Table 16, Appendix A.

Information on the occupational composition of the collective bargaining units was not available. It is not known whether the bargaining units in the hospitals represented health professionals, allied health personnel, or other hospital workers.

FIGURE 5

**PERCENT OF HOSPITALS WITH A UNION OR OTHER FORMAL
EMPLOYEES' ORGANIZATION PARTICIPATING IN DEVELOPMENT OF
POLICIES AND PROCEDURES FOR SAFETY¹ PROGRAMS
BY HOSPITAL SIZE² AND BY GEOGRAPHIC REGION³
(RESPONSE TO QUESTION 33)⁴**



¹Included are those indicating participation in only safety programs and in both safety and health programs.

²Hospital Size based upon number of beds: (Small: 25-99) (Medium: 100-199) (Large: 300+).

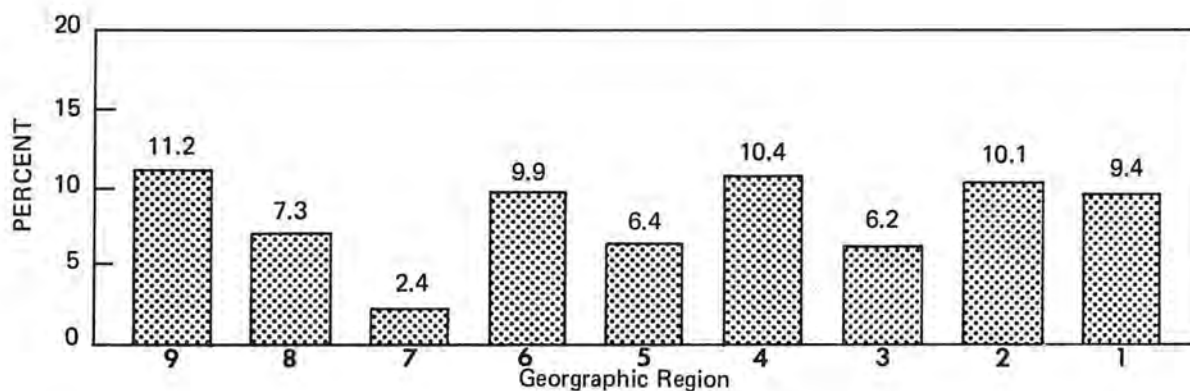
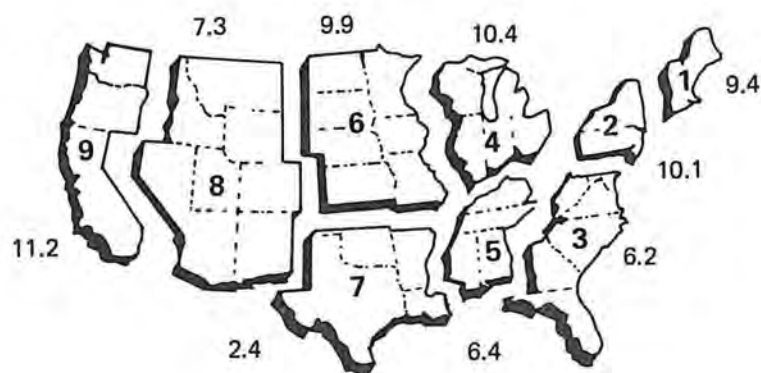
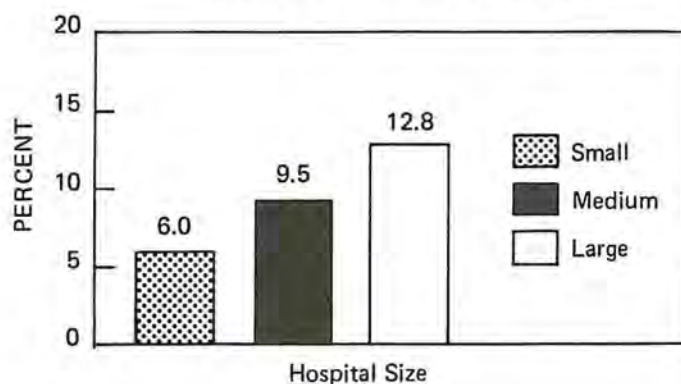
³Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.

⁴These data are presented in tabular form in Appendix A, Tables 13 and 14.

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

FIGURE 6

PERCENT OF HOSPITALS WITH A UNION OR OTHER FORMAL
EMPLOYEES' ORGANIZATION PARTICIPATING IN DEVELOPMENT OF
POLICIES AND PROCEDURES FOR HEALTH¹ PROGRAMS
BY HOSPITAL SIZE² AND BY GEOGRAPHIC REGION³
(RESPONSE TO QUESTION 33)⁴



¹Included are those indicating participation in only health programs and in both health and safety programs.

²Hospital Size based upon number of beds: (Small: 25–99) (Medium: 100–199) (Large: 300+).

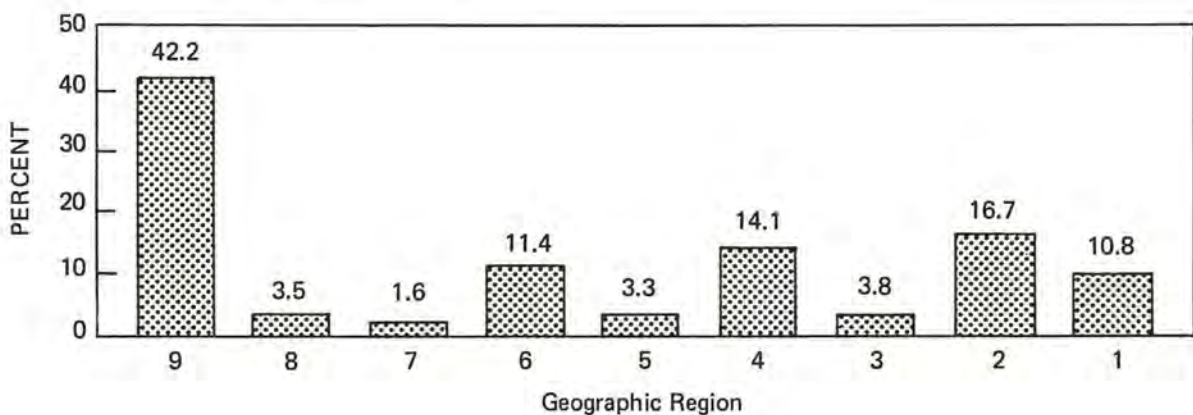
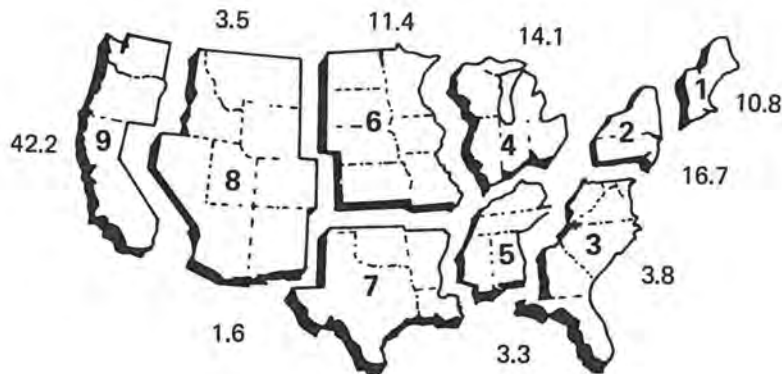
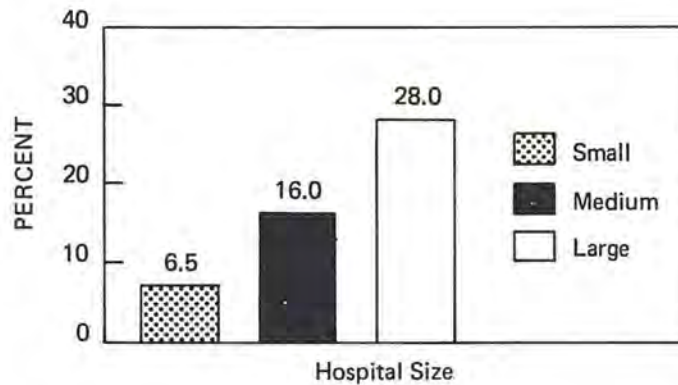
³Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.

⁴These data are presented in tabular form in Appendix A, Tables 13 and 14.

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

FIGURE 7

PERCENT OF HOSPITALS WHICH HAVE A COLLECTIVE BARGAINING AGREEMENT, BY HOSPITAL SIZE¹ AND BY GEOGRAPHIC REGION² (RESPONSE TO QUESTION 33)³



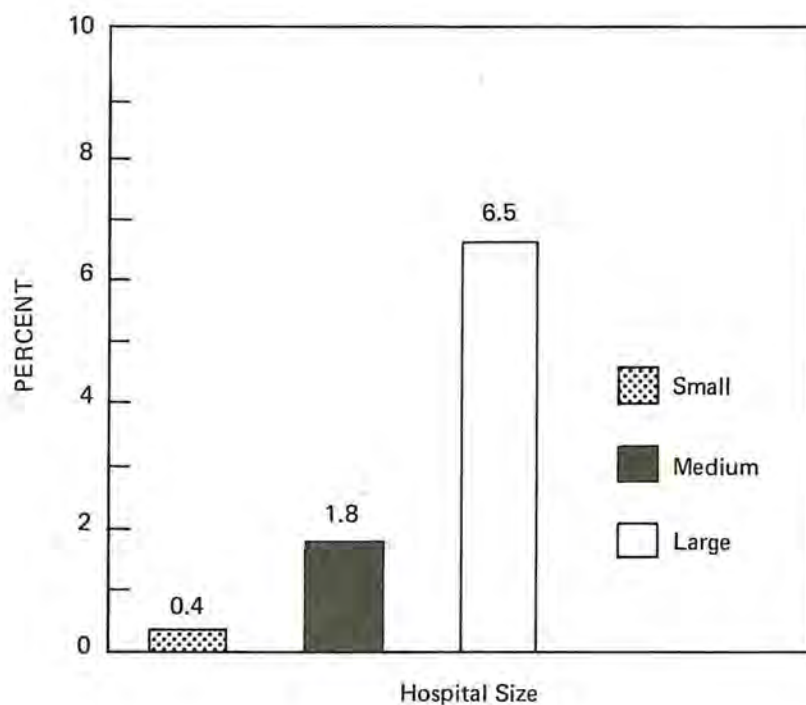
¹Hospital Size based upon number of beds: (Small: 25–99) (Medium: 100–199) (Large: 300+).

²Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.

³These data are presented in tabular form in Appendix A, Tables 16 and 17.

Source of Data: American Hospital Association, 1970.

FIGURE 8
PERCENT OF HOSPITALS WHICH HAVE A COLLECTIVE BARGAINING
AGREEMENT, AND WHICH HAD A STRIKE OR SLOW DOWN
BY HOSPITAL SIZE¹
(RESPONSE TO QUESTION 33)²



¹Hospital Size based upon number of beds: (Small: 25–99) (Medium: 100–199) (Large: 300+).

²These data are presented in tabular form in Appendix A, Table 16.

Source of Data: American Hospital Association, 1970.

ORGANIZATION AND ADMINISTRATION OF EMPLOYEE HEALTH SERVICES, QUESTION 7

A formal policy with respect to pregnancy is very important to hospital management as well as to employees, especially since a large number of women of childbearing age are employed in hospitals. A formal policy for protecting the health and safety of a pregnant hospital worker should contain both administrative and health considerations. Question 7 of Section B, Organization and Administration of Employee Health Services, contains five basic elements of an effective pregnancy policy based on good occupational medicine as noted in current literature. The question asked that all applicable provisions of the hospital's policy on pregnancy be checked.

Question 7. Does your hospital have a formal policy with respect to pregnancy which includes provisions for:

(Check all applicable boxes)

Early Reporting of Pregnancy
Medical Clearance to Continue Employment
Reassignment to Safer Working Conditions
Maternity Leave
Pre- and Postnatal Counseling by Employee Health Service
None of the above

Results: Almost 10 percent (7.7%) of the hospitals reported they had no formal policy on pregnant workers. Small hospitals (25–99 beds) had the largest percentage (11.9%) without a policy, while most (96.3%) of the medium-sized hospitals (100–299 beds) and almost all (97.5%) of the large hospitals (300+ beds) had formal policies covering pregnant hospital employees. Figure 9 graphically presents the data contained in Appendix A, Table 18.

Early reporting of pregnancy is essential if the expectant worker and the fetus are to be protected against certain known risks (e.g., radiation, toxic solvents, rubella, etc.). Less than 40 percent (36.8%) of all hospitals indicated they had such a requirement. Nearly half of the large hospitals (47.9%), 40 percent (39.6%) of the medium-sized, and only about one-third (31.9%) of the small hospitals required early reporting of pregnancy.

Medical clearance to continue employment while pregnant was a requirement in almost two-thirds of the hospitals (63.1%) included in this study. About 60 percent of the small hospitals (57.0%) reported having this requirement; while results from the medium-sized and large hospitals indicated slightly higher percentages (68.5% and 72.1%, respectively).

Less than 15 percent of the hospitals (13.9%) indicated that reassignment to safer working conditions was one of the provisions of their policies pertaining to pregnant hospital employees. Fewer small hospitals reported having this provision than medium-sized and large hospitals. Results were 11.4, 16.1 and 17.4 percent, respectively, for each of the three sizes of hospitals.

Maternity leave was reported by almost 90 percent of all hospitals (87.4%) as a provision of a formal policy with respect to pregnant employees. Some difference was seen in results depending upon hospital size. Only 80 percent of the small hospitals (81.4%) provided for maternity leave, while over 90 percent of the medium-sized and large hospitals (93.1% and 95.2%, respectively) reported granting maternity leave.

Very few hospitals (4.8%) provided for pre- and postnatal counseling for their pregnant employees. Only 3 percent of small hospitals (2.7%), 5 percent of the medium-sized, and 11.6 percent of large hospitals reported having this provision in a formal policy for pregnant workers.

Responses to Question 7 appeared to have certain combinations of the provisions previously discussed. These combinations of maternity provisions were analyzed and found to fall into the following four groups of combinations in over 75 percent of the hospitals.

- 1.) Maternity leave only
- 2.) Early reporting of pregnancy and maternity leave
- 3.) Medical clearance and maternity leave
- 4.) Early reporting, medical clearance, and maternity leave

Less than 10 percent of the hospitals (7.4%) granted maternity leave only. Large hospitals had the smallest percentage (4.6%); medium-sized reported almost 7 percent (6.9%), and small hospitals had the largest percentage (8.5%).

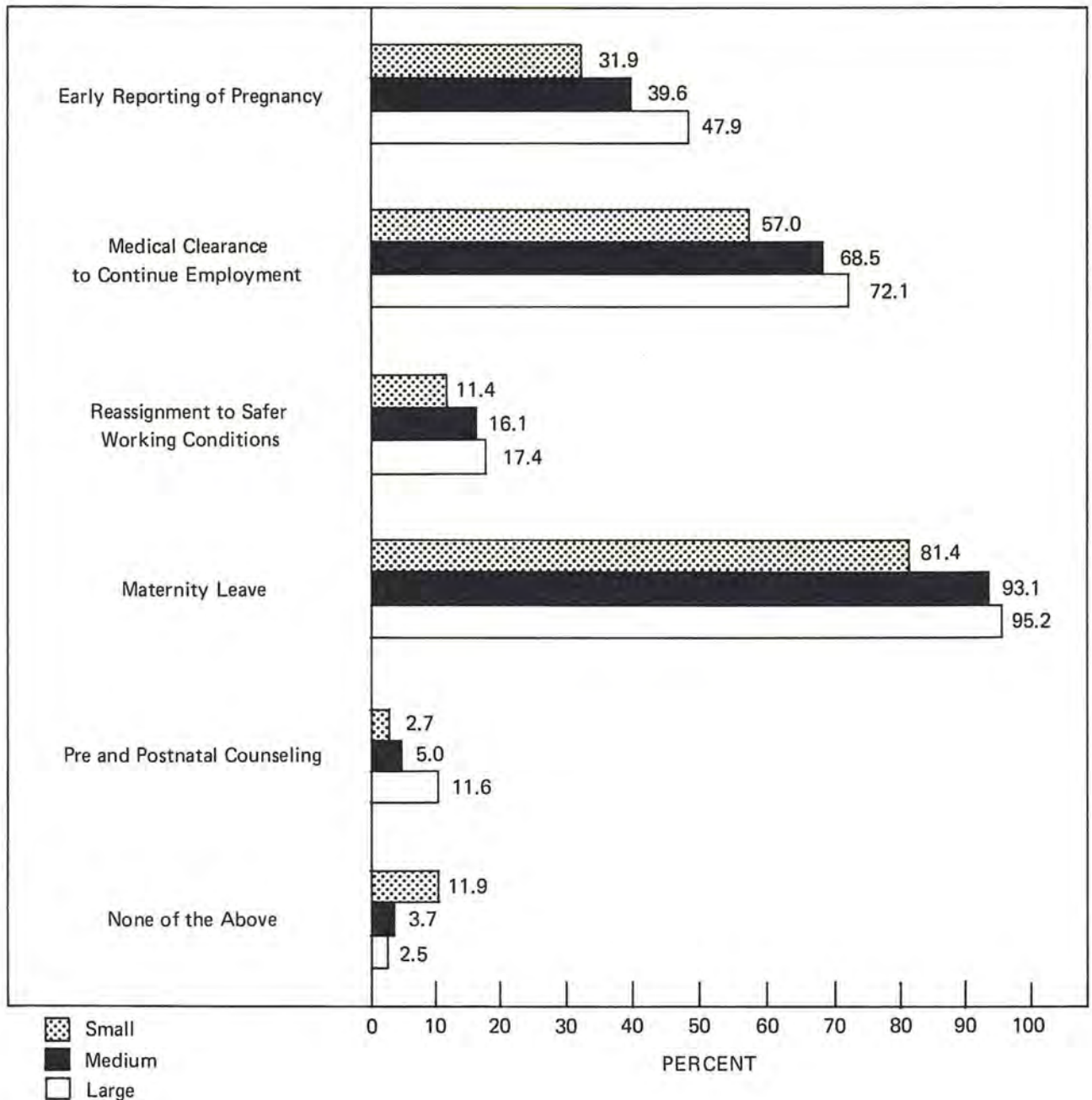
Thirty percent of the hospitals reported the combination of early reporting of pregnancy and maternity leave. There was little difference as to hospital size — all were about 30 percent (29.2% for small; 32.5% for medium-sized; and 27.0% for large hospitals).

Slightly more than 30 percent of the hospitals (31.1%) reported medical clearance and maternity leave as provisions of their policy on pregnancy. Results of analyses of this combination followed the usual pattern seen throughout this study: as the size of the hospital increased, the percentages they reported also increased. A fourth of the small hospitals (24.3%) reported this combination, while one-third of the medium-sized hospitals (35.8%) and over 40 percent of the large hospitals (44.0%) had this combination of provisions.

The fourth combination, early reporting, medical clearance, and maternity leave, was reported by less than 10 percent of all hospitals. Ten percent of the small hospitals (10.4%) and under 5 percent of the medium-sized and large hospitals (3.3% and 2.2% respectively) indicated this combination of provisions. The data are tabulated in Appendix A, Table 19. When these data were analyzed by geographic region, the apparent differences were so slight that any minor variations were not considered important to this report.

In another section of the NIOSH questionnaire pertaining to safety and health education, Question 26a asked: "Does your hospital have a formally organized safety and health education program?" If so, respondents were asked to check certain health topics . . . including "Pregnancy," which received emphasis in their health education program. "Family Planning" was another topic in this question. Results of this question have been reported in Publication I of *Hospital Occupational Health Services Study*, titled *Environmental Health and Safety Control*. There were so few hospitals which reported any emphasis on "Family Planning" that they were excluded from analysis. Only about half of all hospitals reported having a safety and health education program; and of these, less than 10 percent (6.8%) indicated that the topic "Pregnancy" received emphasis. About 10 percent of the large hospitals (11.1%), 8 percent of the medium-sized hospitals, and less than 5 percent of the small hospitals (4.6%) emphasized pregnancy as a personal health topic to their employees.

FIGURE 9
PERCENT OF HOSPITALS WHICH INDICATED THAT THEY HAVE
A FORMAL POLICY ON PREGNANCY WHICH INCLUDES PROVISIONS
FOR THE INDICATED POLICIES, BY HOSPITAL SIZE¹
(RESPONSE TO QUESTION 7)²



¹Hospital Size based upon number of beds: (Small: 25–99) (Medium: 100–199) (Large: 300+).

²These data are presented in tabular form in Appendix A, Table 18.

Source of Data: NIOSH *Hospital Occupational Health Services Study, U.S., 1972.*

APPENDIX A — STATISTICAL TABLES

TABLE 1
ESTIMATED NUMBER AND PERCENT OF HOSPITALS WITH CONTRACT
WORKERS BY HOSPITAL SIZE¹ AND BY NUMBER
OF CONTRACT WORKERS
(RESPONSE TO QUESTION 30)

Number of contract workers	Number					Percent		
	Total	Hospital size ¹			All hospitals	Hospital size ¹		
		Small	Medium	Large		Small	Medium	Large
Total	5,298	2,710	1,824	764	100.0	100.0	100.0	100.0
0	2,618	1,386	863	369	49.4	51.1	47.3	48.3
1-9	1,745	1,096	551	98	32.9	40.4	30.2	12.8
10-19	440	156	179	105	8.3	5.8	9.8	13.7
20-49	292	35	156	101	5.5	1.3	8.6	13.2
50-99	96	23	37	36	1.8	0.8	2.0	4.7
100-199	48	10	8	30	0.9	0.4	0.4	3.9
200+	59	4	30	25	1.1	0.1	1.6	3.3

¹Hospital Size based upon number of beds: (Small: 25-99) (Medium: 100-199) (Large: 300+).

Source of Data: NIOSH *Hospital Occupational Health Services Study*, U.S., 1972.

TABLE 2
ESTIMATED NUMBER AND PERCENT OF HOSPITALS WITH CONTRACT
WORKERS BY GEOGRAPHIC REGION¹ AND
NUMBER OF CONTRACT WORKERS
(RESPONSE TO QUESTION 30)

Number of contract workers	Number									
	Geographic Region ¹									
	Total	New Eng.	Mid. At.	So. At.	E.N.C.	E.S.C.	W.N.C.	W.S.C.	Mt.	Pacific
Total	5,298	277	663	718	878	422	694	703	289	654
0	2,618	136	289	374	406	219	423	359	162	250
1-9	1,745	82	156	240	294	129	202	298	98	246
10-19	440	30	78	55	85	46	30	26	15	75
20-49	292	21	83	22	58	16	18	12	8	54
50-99	96	2	17	15	22	6	13	2	3	16
100-199	48	2	9	6	6	4	4	5	3	9
200+	59	4	31	6	7	2	4	1	0	4
Percent										
All hospitals ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0	49.4	49.1	43.6	52.1	46.2	51.9	61.0	51.1	56.1	38.2
1-9	32.9	29.6	23.5	33.4	33.5	30.6	29.1	42.4	33.9	37.6
10-19	8.3	10.8	11.8	7.7	9.7	10.9	4.3	3.7	5.2	11.5
20-49	5.5	7.6	12.5	3.1	6.6	3.8	2.6	1.7	2.8	8.3
50-99	1.8	.7	2.6	2.1	2.5	1.4	1.9	.3	1.0	2.4
100-199 ..	.9	.7	1.4	.8	.7	.9	.6	.7	1.0	1.4
200+	1.1	1.4	4.7	.8	.8	.5	.6	.1	.0	.6

¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.
Source of Data: NIOSH *Hospital Occupational Health Services Study*, U.S., 1972.

TABLE 3
ESTIMATED NUMBER AND PERCENT OF HOSPITALS WITH
VOLUNTEERS BY HOSPITAL SIZE¹ AND
NUMBER OF VOLUNTEERS
(RESPONSE TO QUESTION 30)

Number of volunteers	Number					Percent		
	Total	Hospital size ¹			All hospitals	Hospital size ¹		
		Small	Medium	Large		Small	Medium	Large
Total	5,298	2,710	1,824	764	100.0	100.0	100.0	100.0
0	1,556	1,028	423	105	29.4	37.9	23.2	13.7
1-9	335	274	60	1	6.3	10.1	3.3	0.1
10-19	454	358	91	5	8.6	13.2	5.0	0.7
20-49	807	533	240	34	15.2	19.7	13.2	4.5
50-99	637	322	253	62	12.0	11.9	13.9	8.1
100-199	672	158	361	153	12.6	5.8	19.8	20.0
200-299	365	15	218	132	6.9	.6	12.0	17.3
300-399	214	13	92	109	4.0	.5	5.0	14.3
400-499	106	4	42	60	2.0	.1	2.3	7.9
500+	152	5	44	103	2.8	.2	2.4	13.5

¹Hospital Size based upon number of beds: (Small: 25-99) (Medium: 100-199) (Large: 300+).
Source of Data: NIOSH *Hospital Occupational Health Services Study*, U.S., 1972.

TABLE 4
ESTIMATED NUMBER AND PERCENT OF HOSPITALS WITH
VOLUNTEERS BY GEOGRAPHIC REGION¹ AND
NUMBER OF VOLUNTEERS
(RESPONSE TO QUESTION 30)

Number of volunteers	Number									
	Geographic Region ¹									
	Total	New Eng.	Mid. At.	So. At.	E.N.C.	E.S.C.	W.N.C.	W.S.C.	Mt.	Pacific
Total	5,298	277	663	718	878	422	694	703	289	654
0	1,556	77	162	187	192	181	229	285	102	141
1-9	335	6	32	50	55	22	48	64	25	33
10-19	454	18	29	44	72	40	82	78	25	66
20-49	807	35	75	130	99	77	133	78	47	133
50-99	637	33	81	94	101	41	61	96	30	100
100-199 ..	672	48	97	99	145	33	71	66	29	84
200-299 ..	365	26	60	58	91	14	33	17	17	49
300-399 ..	214	21	54	22	47	7	19	13	9	22
400-499 ..	106	3	24	9	38	4	11	4	4	9
500+	152	10	49	25	38	3	7	2	1	17
Percent										
All hospitals ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0	29.4	27.8	24.4	26.0	21.9	42.9	33.5	40.5	35.3	21.6
1-9	6.3	2.2	4.8	7.0	6.3	5.2	7.0	9.1	8.7	5.0
10-19	8.6	6.5	4.4	6.1	8.2	9.5	12.0	11.1	8.7	10.1
20-49	15.2	12.6	11.3	18.1	11.3	18.2	19.4	11.1	16.3	20.3
50-99	12.0	11.9	12.2	13.1	11.5	9.7	8.9	13.7	10.4	15.3
100-199 ..	12.7	17.3	14.6	13.8	16.5	7.8	10.4	9.4	10.0	12.8
200-299 ..	6.9	9.4	9.0	8.1	10.4	3.3	4.8	2.4	5.9	7.5
300-399 ..	4.0	7.6	8.1	3.1	5.4	1.7	2.8	1.8	3.1	3.4
400-499 ..	2.0	1.1	3.6	1.3	4.3	.9	1.6	0.6	1.4	1.4
500+	2.9	3.6	7.4	3.5	4.3	.7	1.0	.3	.3	2.6

¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.
Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

TABLE 5
ESTIMATED NUMBER AND PERCENT OF HOSPITALS WITH CONTRACT
WORKERS BY NUMBER OF CONTRACT WORKERS AND WHETHER
IMMUNIZATION REQUIREMENTS ARE THE SAME AS FOR
HOSPITAL EMPLOYEES
(RESPONSE TO QUESTION 31)
Response by 30

Number of contract workers	Number				Percent			
	Total	Blank	Yes	No	All hospitals	Blank	Yes	No.
Total	5,298	1,296	765	3,237	100.0	24.5	14.4	61.1
0	2,618	1,206	99	1,313	100.0	46.1	3.8	50.2
1-9	1,745	51	417	1,277	100.0	2.9	23.9	73.2
10-19	440	6	93	341	100.0	1.4	21.1	77.5
20-49	292	13	86	193	100.0	4.5	29.5	66.1
50-99	96	2	26	68	100.0	2.1	27.1	70.8
100-199	48	6	14	28	100.0	12.5	29.2	58.3
200+	59	12	30	17	100.0	20.3	50.8	28.8

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

TABLE 6
ESTIMATED NUMBER AND PERCENT OF HOSPITALS BY WHETHER
IMMUNIZATION REQUIREMENTS ARE THE SAME FOR
CONTRACT WORKERS AS FOR HOSPITAL EMPLOYEES
AND GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 31)

Geographic region ¹	Number				Percent			
	Total	Blank	Yes	No	All hospitals	Blank	Yes	No.
Total	5,298	1,296	765	3,237	100.0	24.5	14.4	61.1
New England	277	62	34	181	100.0	22.4	12.3	65.3
Middle Atlantic	663	136	124	403	100.0	20.5	18.7	60.8
South Atlantic	718	162	99	457	100.0	22.6	13.8	63.6
E. North Central	878	179	156	543	100.0	20.4	17.8	61.8
E. South Central	422	120	59	243	100.0	28.4	14.0	57.6
W. North Central	694	186	69	439	100.0	26.8	9.9	63.3
W. South Central	703	211	66	426	100.0	30.0	9.4	60.6
Mountain	289	100	51	138	100.0	34.6	17.6	47.8
Pacific	654	140	107	407	100.0	21.4	16.4	62.2

¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.
Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

TABLE 7
ESTIMATED NUMBER AND PERCENT OF HOSPITALS WITH
VOLUNTEERS BY NUMBER OF VOLUNTEERS AND WHETHER
IMMUNIZATION REQUIREMENTS ARE THE SAME AS FOR
HOSPITAL EMPLOYEES
(RESPONSE TO QUESTION 31)
Response by 30

Number of volunteers	Number				Percent			
	Total	Blank	Yes	No	All hospitals	Blank	Yes	No.
Total	5,298	997	833	3,468	100.0	18.8	15.7	65.5
0	1,556	834	95	627	100.0	53.6	6.1	40.3
1-9	335	22	51	262	100.0	6.6	15.2	78.2
10-19	454	22	93	339	100.0	4.8	20.5	74.7
20-49	807	35	148	624	100.0	4.3	18.3	77.3
50-99	637	26	135	476	100.0	4.1	21.2	74.7
100-199	672	20	157	495	100.0	3.0	23.4	73.7
200-299	365	18	78	269	100.0	4.9	21.4	73.7
300-399	214	8	35	171	100.0	3.7	16.4	79.9
400-499	106	8	19	79	100.0	7.5	17.9	74.5
500+	152	4	22	126	100.0	2.6	14.5	82.9

Source of Data: NIOSH *Hospital Occupational Health Services Study*, U.S., 1972.

TABLE 8
ESTIMATED NUMBER AND PERCENT OF HOSPITALS BY WHETHER
IMMUNIZATION REQUIREMENTS ARE THE SAME FOR
VOLUNTEERS AS FOR HOSPITAL EMPLOYEES
AND GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 31)

Geographic regions ¹	Number				Percent			
	Total	Blank	Yes	No	All hospitals	Blank	Yes	No.
Total	5,298	997	833	3,468	100.0	18.8	15.7	65.5
New England	277	52	22	203	100.0	18.8	7.9	73.3
Middle Atlantic	663	90	90	483	100.0	13.6	13.6	72.9
South Atlantic	718	112	108	498	100.0	15.6	15.0	69.4
E. North Central	878	92	166	620	100.0	10.5	18.9	70.6
E. South Central	422	120	37	265	100.0	28.4	8.8	62.8
W. North Central	694	146	75	473	100.0	21.0	10.8	68.2
W. SouthCentral	703	204	80	419	100.0	29.0	11.4	59.6
Mountain	289	66	56	167	100.0	22.8	19.4	57.8
Pacific	654	115	199	340	100.0	17.6	30.4	52.0

¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.
Source of Data: NIOSH *Hospital Occupational Health Services Study*, U.S., 1972.

TABLE 9
ESTIMATED NUMBER AND PERCENT OF HOSPITALS WITH
CONTRACT WORKERS BY NUMBER OF CONTRACT WORKERS
AND WHETHER HEALTH SERVICES ARE THE SAME
AS FOR HOSPITAL EMPLOYEES
(RESPONSE TO QUESTION 32)
Response by 30

Number of contract workers	Number				Percent			
	Total	Blank	Yes	No	All hospitals	Blank	Yes	No.
Total	5,298	1,217	1,229	2,852	100.0	23.0	23.2	53.8
0	2,618	1,173	188	1,257	100.0	44.8	7.2	48.0
1-9	1,745	17	670	1,058	100.0	1.0	38.4	60.6
10-19	440	7	173	260	100.0	1.6	39.3	59.1
20-49	292	5	97	190	100.0	1.7	33.2	65.1
50-99	96	5	42	49	100.0	5.2	43.8	51.0
100-199	48	3	23	22	100.0	6.3	47.9	45.8
200+	59	7	36	16	100.0	11.9	61.0	27.1

Source of Data: NIOSH *Hospital Occupational Health Services Study*, U.S., 1972.

TABLE 10
ESTIMATED NUMBER AND PERCENT OF HOSPITALS BY WHETHER
HEALTH SERVICES ARE THE SAME FOR CONTRACT WORKERS
AS FOR HOSPITAL EMPLOYEES AND GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 32)

Geographic region	Number				Percent			
	Total	Blank	Yes	No	All hospitals	Blank	Yes	No.
Total	5,298	1,217	1,229	2,852	100.0	23.0	23.2	53.8
New England	277	60	62	155	100.0	21.7	22.4	56.0
Middle Atlantic	663	124	163	376	100.0	18.7	24.6	56.7
South Atlantic	718	160	171	387	100.0	22.3	23.8	53.9
E. North Central	878	177	252	449	100.0	20.2	28.7	51.1
E. South Central	422	122	81	219	100.0	28.9	19.2	51.9
W. North Central	694	167	135	392	100.0	24.1	19.5	56.5
W. South Central	703	200	155	348	100.0	28.4	21.9	49.6
Mountain	289	92	62	135	100.0	31.8	21.5	46.7
Pacific	654	115	148	391	100.0	17.6	22.6	59.8

¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.
Source of Data: NIOSH *Hospital Occupational Health Services Study*, U.S., 1972.

TABLE 11

**ESTIMATED NUMBER AND PERCENT OF HOSPITALS WITH
VOLUNTEERS BY NUMBER OF VOLUNTEERS AND WHETHER
HEALTH SERVICES ARE THE SAME AS FOR HOSPITAL EMPLOYEES
(RESPONSE TO QUESTION 32)**

Response by 30

Number of volunteers	Number				Percent			
	Total	Blank	Yes	No	All hospitals	Blank	Yes	No.
Total	5,298	850	1,611	2,837	100.0	16.0	30.4	53.5
0	1,556	791	195	570	100.0	50.8	12.5	36.6
1-9	335	7	140	188	100.0	2.1	41.8	56.1
10-19	454	11	171	272	100.0	2.4	37.7	59.9
20-49	807	13	289	505	100.0	1.6	35.8	62.6
50-99	637	9	262	366	100.0	1.4	41.1	57.5
100-199	672	5	261	406	100.0	.7	38.8	60.4
200-299	365	3	151	211	100.0	.8	41.4	57.8
300-399	214	4	64	146	100.0	1.9	29.9	68.2
400-499	106	5	35	66	100.0	4.7	33.0	62.2
500+	152	2	43	107	100.0	1.3	28.3	70.4

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

TABLE 12

**ESTIMATED NUMBER AND PERCENT OF HOSPITALS BY WHETHER
SERVICES ARE THE SAME FOR VOLUNTEERS AS FOR
HOSPITAL EMPLOYEES AND GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 32)**

Geographic region ¹	Number				Percent			
	Total	Blank	Yes	No	All hospitals	Blank	Yes	No.
Total	5,298	850	1,611	2,837	100.0	16.0	30.4	53.5
New England	277	42	68	167	100.0	15.2	24.5	60.3
Middle Atlantic	663	69	200	394	100.0	10.4	30.2	59.4
South Atlantic	718	110	223	385	100.0	15.3	31.1	53.6
E. North Central	878	83	343	452	100.0	9.5	39.1	51.5
E. South Central	422	113	77	232	100.0	26.8	18.2	55.0
W. North Central	694	129	161	404	100.0	18.6	23.2	58.2
W. South Central	703	173	205	325	100.0	24.6	29.2	46.2
Mountain	289	60	80	149	100.0	20.8	27.7	51.6
Pacific	654	71	254	329	100.0	10.9	38.8	50.3

¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

TABLE 13
ESTIMATED NUMBER AND PERCENT OF HOSPITALS BY WHETHER
A UNION OR OTHER FORMAL EMPLOYEES' ORGANIZATION
PARTICIPATES IN DEVELOPMENT OF POLICIES AND PROCEDURES
FOR HEALTH AND SAFETY PROGRAMS,
AND HOSPITAL SIZE¹
(RESPONSE TO QUESTION 33)

Participate in	Number					Percent		
	Total	Hospital size ¹			All hospitals	Hospital size ¹		
		Small	Medium	Large		Small	Medium	Large
Total	5,298	2,710	1,824	764	100.0	100.0	100.0	100.0
Health	77	28	41	8	1.5	1.0	2.2	1.0
Safety	425	154	191	80	8.0	5.7	10.5	10.5
Both	358	135	133	90	6.8	5.0	7.3	11.8
None	4,085	2,187	1,342	556	77.1	80.7	73.6	72.8
Blank	353	206	117	30	6.7	7.6	6.4	3.9

¹Hospital Size based upon number of beds: (Small: 25–99) (Medium: 100–199) (Large: 300 +).
Source of Data: NIOSH *Hospital Occupational Health Services Study*, U.S., 1972.

TABLE 14
ESTIMATED NUMBER AND PERCENT OF HOSPITALS BY WHETHER
A UNION OR OTHER FORMAL EMPLOYEES' ORGANIZATION
PARTICIPATES IN DEVELOPMENT OF POLICIES AND PROCEDURES
FOR HEALTH AND SAFETY PROGRAMS,
AND GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 33)

Participates in	Number									
	Geographic Region ¹									
	Total	New Eng.	Mid. At.	So. At.	E.N.C.	E.S.C.	W.N.C.	W.S.C.	Mt.	Pacific
Total	5,298	277	663	718	878	422	694	703	289	654
Health	77	11	4	4	14	2	12	0	4	26
Safety	425	28	65	47	92	32	56	29	19	57
Both	358	15	63	40	77	25	57	17	17	47
None	4,085	208	486	577	664	325	498	621	213	493
Blank	353	15	45	50	31	38	71	36	36	31

Percent										
All hospitals ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Health	1.5	4.0	.6	.6	1.6	.5	1.7	—	1.4	4.0
Safety	8.0	10.1	9.8	6.5	10.5	7.6	8.1	4.1	6.6	8.7
Both	6.7	5.4	9.5	5.6	8.8	5.9	8.2	2.4	5.9	7.2
None	77.1	75.1	73.3	80.4	75.6	77.0	71.8	88.3	73.7	75.4
Blank	6.7	5.4	6.8	7.0	3.5	9.0	10.2	5.1	12.5	4.7

¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.
Source of Data: American Hospital Association computer tape, 1970.

TABLE 15
ESTIMATED NUMBER AND PERCENT OF HOSPITALS BY WHETHER
A UNION OR OTHER FORMAL EMPLOYEES' ORGANIZATION
PARTICIPATES IN DEVELOPMENT OF POLICIES AND PROCEDURES
FOR HEALTH AND SAFETY PROGRAMS, AND WHETHER HOSPITAL
HAS ESTABLISHED A FORMAL PROGRAM FOR THE PROVISION
OF OCCUPATIONAL HEALTH CARE TO EMPLOYEES
(RESPONSE TO QUESTION 33)

Participate in	Number			Percent		
	Total	Formal Program		All hospitals	Formal Program	
		Yes	No		Yes	No
Total	5,298	3,641	1,657	100.0	68.7	31.3
Health	77	66	11	100.0	85.7	14.3
Safety	425	313	112	100.0	73.6	26.4
Both	358	298	60	100.0	83.2	16.8
None	4,085	2,743	1,342	100.0	67.1	32.9
Blank	353	221	132	100.0	62.6	37.4

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

TABLE 16
ESTIMATED NUMBER AND PERCENT OF HOSPITALS WHICH HAVE A
COLLECTIVE BARGAINING AGREEMENT AND WHICH HAD
A STRIKE OR SLOW DOWN BY HOSPITAL SIZE¹
(RESPONSE TO QUESTION 33)

Hospital size ¹	Collective bargaining				Strikes			
	Total	Yes	No	Yes	Total	Yes	No	Yes
		Number		Percent		Number		Percent
Total	5,298	682	4,616	12.9	5,298	93	5,205	1.8
Small	2,710	177	2,533	6.5	2,710	10	2,700	0.4
Medium	1,824	291	1,533	16.0	1,824	33	1,791	1.8
Large	764	214	550	28.0	764	50	714	6.5

¹Based upon U.S. Bureau of the Census Divisions, and selection criteria specified in Appendix B.
Source of Data: American Hospital Association computer tape, 1970.

TABLE 17
ESTIMATED NUMBER AND PERCENT OF HOSPITALS WHICH HAVE A
COLLECTIVE BARGAINING AGREEMENT AND WHICH HAD
A STRIKE OR SLOW DOWN BY GEOGRAPHIC REGION¹
(RESPONSE TO QUESTION 33)

Geographic region ¹	Collective bargaining				Strikes			
	Total	Yes	No	Yes	Total	Yes	No	Yes
		Percent		Number		Number		Percent
Total	5,298	682	4,616	12.9	5,298	93	5,205	1.8
New England	277	30	247	10.8	277	1	276	0.4
Middle Atlantic ..	663	111	552	16.7	663	20	643	3.0
South Atlantic	718	27	691	3.8	718	21	697	2.9
E. North Central ..	878	124	754	14.1	878	21	857	2.4
E. South Central ..	422	14	408	3.3	422	9	413	2.1
W. North Central ..	694	79	615	11.4	694	11	683	1.6
W. South Central ..	703	11	692	1.6	703	0	703	—
Mountain	289	10	279	3.5	289	0	284	—
Pacific	654	276	378	42.2	654	10	644	1.5

¹Hospital Size based upon number of beds: (Small: 25–99) (Medium: 100–199) (Large: 300+).
Source of Data: American Hospital Association computer tape, 1970.

TABLE 18

ESTIMATED NUMBER AND PERCENT OF HOSPITALS WHICH INDICATED
THAT THEY HAVE A FORMAL POLICY ON PREGNANCY WHICH
INCLUDES PROVISIONS FOR THE INDICATED POLICIES
BY HOSPITAL SIZE¹
(RESPONSE TO QUESTION 7)

Indicated policies	Number					Percent		
	Total	Hospital size ¹			All hospitals	Hospital size ¹		
		Small	Medium	Large		Small	Medium	Large
All hospitals	5,298	2,710	1,824	764	100.0	100.0	100.0	100.0
Early reporting of pregnancy	1,952	863	723	366	36.8	31.9	39.6	47.9
Medical clearance to continue employment	3,345	1,544	1,250	551	63.1	57.0	68.5	72.1
Reassignment to safer working conditions ..	735	308	294	133	13.9	11.4	16.1	17.4
Maternity leave	4,632	2,206	1,699	727	87.4	81.4	93.1	95.2
Pre- and postnatal counseling by employee health service	252	72	91	89	4.8	2.7	5.0	11.6
None of the above	409	322	68	19	7.7	11.9	3.7	2.5

¹Hospital Size based upon number of beds: (Small: 25-99) (Medium: 100-199) (Large: 300+).

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

TABLE 19

ESTIMATED NUMBER AND PERCENT OF HOSPITALS WHICH INDICATED
THAT THEY HAVE A FORMAL POLICY ON PREGNANCY WHICH
INCLUDES PROVISIONS FOR THE INDICATED COMBINATIONS
OF POLICIES BY HOSPITAL SIZE¹
(RESPONSE TO QUESTION 7)

Policy combinations	Number					Percent		
	Total	Hospital size ¹			All hospitals	Hospital size ¹		
		Small	Medium	Large		Small	Medium	Large
All hospitals	5,298	2,710	1,824	764	100.0	100.0	100.0	100.0
Maternity leave only	391	231	125	35	7.4	8.5	6.9	4.6
Early reporting of pregnancy and maternity leave	1,588	790	592	206	30.0	29.2	32.5	27.0
Medical clearance and Maternity leave	1,647	658	653	336	31.1	24.3	35.8	44.0
Early reporting, medical clearance and maternity leave	358	281	60	17	6.8	10.4	3.3	2.2
All other hospitals	1,314	750	394	170	24.8	27.7	21.6	22.3

¹Hospital Size based upon number of beds: (Small: 25-99) (Medium: 100-199) (Large: 300+).

Source of Data: NIOSH Hospital Occupational Health Services Study, U.S., 1972.

APPENDIX B — TECHNICAL NOTES

METHOD USED IN SELECTING AND CONTACTING SURVEY RESPONDENTS

The following is an excerpt of the protocol used by the contractor in performing the survey of hospitals described in this report.

A. Population Studied

In order to achieve the objectives of this study within the constraints of available time and funds, it was decided to arbitrarily limit selection of hospitals to be included in the study. According to the **Journal of the American Hospital Association**, August 1, 1971:

"Data compiled for the period 1960-1970 showed a major shift in utilization among various types of hospitals. An indication of this shift is apparent in the decline in the number of beds maintained by non-community hospitals, including Federal, psychiatric, tuberculosis, and other long-term institutions."

Based on this finding, it was decided that only short-term hospitals would be included in the study. Further, the decision was made to exclude alcoholism, psychiatric, tuberculosis and other respiratory disease hospitals since these hospitals are assumed to have employee health problems which are sufficiently different from other short-term hospitals, and their inclusion in the survey might distort the findings.

Employees of hospitals operated by the Federal Government are covered by employee health benefit plans of the U.S. Government. Since information on these plans, as well as their utilization, is available from other and less expensive sources, Federally-owned hospitals were not included in the survey.

In order to be eligible to be included in the survey, a hospital must:

- 1.) Be located in the continental United States
- 2.) Be a member of the American Hospital Association (A.H.A.)
- 3.) Have 25 or more beds, excluding bassinets
- 4.) Have an average length of patient stay of 30 days or less
- 5.) Be classed as non-Federal by the A.H.A.
- 6.) Be other than an alcoholism, psychiatric, tuberculosis or other respiratory disease hospital, or hospital unit of an institution.

The study group is believed to represent a relatively homogeneous selection of hospitals defined by the A.H.A. as "community hospitals".

B. Sampling Procedures

Hospital data for each of the 48 states (continental U.S.) were examined, and the total number of hospitals eligible included in the study population as defined above was determined. If the total number of hospitals for a particular state was 120 or less, then every eligible hospital in that state was included; i.e., a 100 percent sample was used. There are 15 states with more than 120 eligible hospitals. Hospitals in these 15 states were stratified by hospital size according to the following grouping:

Strata	Number of Beds
Small	25-99
Mediumm	100-299
Large	300 or more

Random sampling was conducted within each strata according to the following rules:

- 1.) If no fewer than about 40 hospitals fall in a hospital size group, all hospitals in that group were included.
- 2.) If about 40 or more hospitals fall in a hospital size group, the contractor selected 40 at random from that group for inclusion in the study.

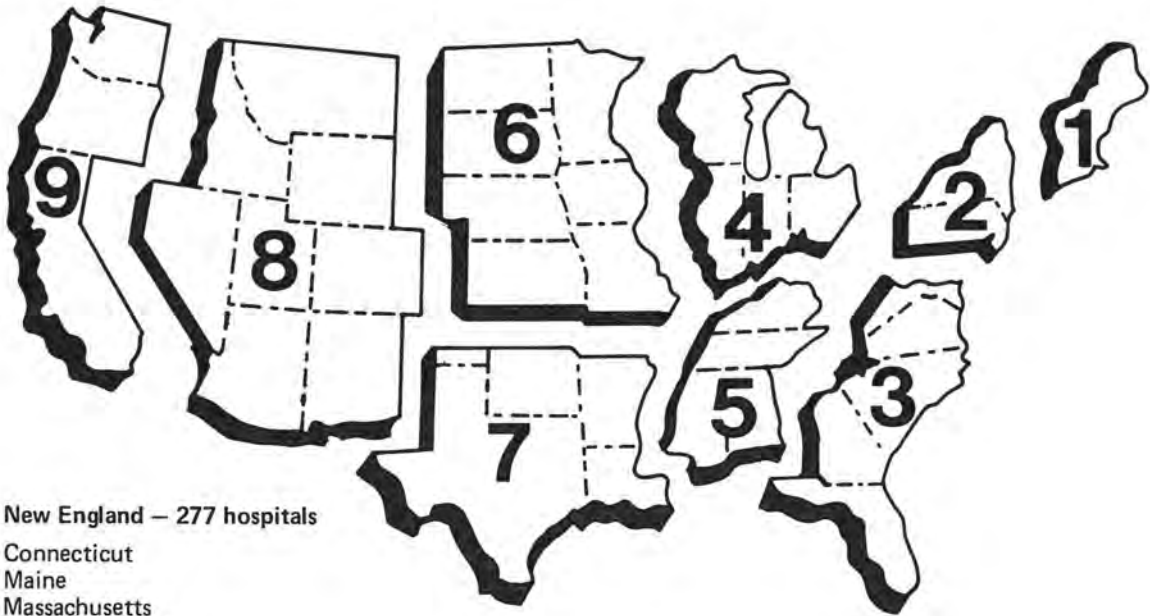
Application of the sampling procedure resulted in the selection of 3,699 hospitals as a representative sample of 5,298 hospitals in the 48 contiguous states (Alaska and Hawaii omitted). Due to the closing or merging of 12 hospitals, the sampling size became 3,687 and remained constant throughout the study.

METHODS USED FOR ANALYZING AND INTERPRETING RESPONSES

The NIOSH **Hospital Occupational Health Services Study** is based upon the statistical analyses of responses received in 2,664 questionnaires that NIOSH received by September 15, 1972. These data have been extrapolated to 5,298 hospitals which conform to the criteria described in Appendix C of Publication 1 of this study.

The overall response rate was 72.4 percent. The percentage response between states ranged from a low of 43.8 percent to a high of 92.0 percent. The range of response by geographic division was from 60.2 percent to 83.5 percent. The overall response, by size of hospital, was: small, 65.2 percent; medium, 76.7 percent; large, 83.9 percent. The population estimates for a particular response were obtained for each hospital size group within each state, rounded to the next highest integer, and accumulated as necessary for regional and national estimates. The sample response was multiplied by the result of dividing the number of hospitals for the population by the number of hospitals in the sample.

FIGURE 10
REGIONAL DISTRIBUTION OF THE 5,298 HOSPITALS INCLUDED
IN THE STUDY POPULATION
U.S. BUREAU OF THE CENSUS DIVISIONS



1. New England — 277 hospitals

Connecticut
 Maine
 Massachusetts
 New Hampshire
 Rhode Island
 Vermont

2. Middle Atlantic — 663 hospitals

New Jersey
 New York
 Pennsylvania

3. South Atlantic — 718 hospitals

Delaware
 District of Columbia
 Florida
 Georgia
 Maryland
 North Carolina
 South Carolina
 Virginia
 West Virginia

4. East North Central — 878 hospitals

Illinois
 Indiana
 Michigan
 Ohio
 Wisconsin

5. East South Central — 422 hospitals

Alabama
 Kentucky
 Mississippi
 Tennessee

6. West North Central — 694 hospitals

Iowa
 Kansas
 Minnesota
 Missouri
 Nebraska
 North Dakota
 South Dakota

7. West South Central — 703 hospitals

Arkansas
 Louisiana
 Oklahoma
 Texas

8. Mountain — 289 hospitals

Arizona
 Colorado
 Idaho
 Montana
 Nevada
 New Mexico
 Utah
 Wyoming

9. Pacific — 654 hospitals

*Alaska
 California
 *Hawaii
 Oregon
 Washington

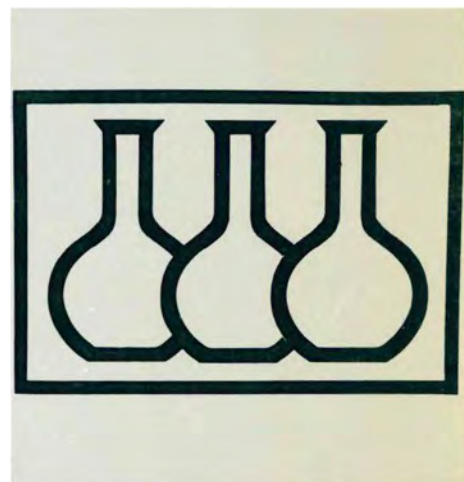
*States omitted from this study

Source of Data: NIOSH *Hospital Employee Health Services Study*, U.S., 1972.

TABLE 20
HOSPITAL POPULATION FROM WHICH SAMPLE WAS SELECTED,
BY U.S. BUREAU OF THE CENSUS DIVISION, AND BY SIZE
OF HOSPITAL¹

U.S. Bureau of the Census Division	Hospital population				Sample of hospitals			
	Total	Hospital size ¹			Total	Hospital size ¹		
		Small	Medium	Large		Small	Medium	Large
Total	5,298	2,710	1,824	764	3,687	1,799	1,221	667
New England	277	110	128	39	242	110	93	39
Middle Atlantic	663	162	327	174	341	99	127	115
South Atlantic	718	355	245	118	596	256	222	118
E. North Central	878	338	365	175	557	205	198	154
E. South Central	422	264	119	39	375	217	119	39
W. North Central	694	449	174	71	591	345	174	72
W. South Central	703	477	174	52	412	238	122	52
Mountain	289	186	77	26	289	186	77	26
Pacific	654	369	215	70	284	143	89	52

¹Hospital Size based upon number of beds: (Small: 25–99) (Medium: 100–199) (Large: 300+).
Source of Data: NIOSH *Hospital Employee Health Services Study*, U.S., 1972.



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Public Health Service
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National Institute for Occupational Safety and Health



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