The salary percentage of the monthly expense varied from a low of 46 to a high of 96, with an average of approximately 75% for the whole study.

It is, therefore, evident that at least this small group of small plants have apparently done a very good job of financing their health departments and getting adequate personnel.

Comments on General Observations

Before giving a summary of the material presented in this paper, it is probably well to give some comments on general observations made during the course of this study.

1. Greater confidence and mutual respect is apparently needed between medicine and management to accomplish the utmost in industrial health programs. We have encountered instances in which management seemed fearful of delegating responsibility to the medical staff; and also, the reverse has been true. It would seem advantageous that physicians should learn more about health administration in industry; perhaps the less interference with the technical functions of the health department, the better it could be administered—and still management could continue to be well informed about health activities.

2. The pattern of industrial health activities as observed in this study was exceedingly variable because of differences in the health program needs of various groups. There are, however, certain fundamentals common to all groups which will be discussed in the final report. It is obvious that optimum programs can only be tailored to fit each establishment, after adequate study of the group, materials, processes, equipment and products.

3. There were frequently encountered instances indicating that there is still prevalent some misunderstanding and confusion regarding the specific meanings of the terms "industrial hygiene," "industrial safety," and "industrial sanitation," (and one might well include "personal hygiene" and "industrial health"). Although it would be expected that such confusion would occur mostly in smaller plants, especially where the safety engineer may be responsible for industrial hygiene, industrial safety, and industrial sanitation, considerable incidence was also found in medium sized and large groups. A clarification of these terms would be advisable. It would seem appropriate to suggest that physicians and nurses be relieved of the necessity of devoting time to sanitation inspections.

4. There was considerable evidence that the conception of the importance of prevention still lags somewhat; it also seemed that many physicians still call employees "patients," regardless of the type of service rendered.

5. The amount of time devoted to the acquiring of first hand knowledge of processes and materials by physicians and nurses remains comparatively low, even in good sized concerns.

6. Much has been said about the defects of the service in small plants—while it is true that many of them did not have adequate facilities, there were some which did have outstanding programs; and, what seems more interesting, it was apparent that considerable improvement could be made in some of the medium sized and large groups.

Summary

The data from 278 groups of various sizes, involving many types of manufacturing and service in 33 different states, and including a population of 1,180,551 employees, showed the following results:

1. Approximately 70% of all organizations did preplacement and periodic examinations and also examinations on return to work after injury or illness; the smallest of the plants had a very good record in this respect, as did the largest, although there were considerable variations in the other sized organizations. Exit examinations at termination of employment were done in relatively few instances, except in the largest of the plants.

2. A dispensary service was provided in approximately 60% of all groups, varying from 47% in the smallest to 94% in the largest ones.

3. Slightly over half of the establishments rendered some type of industrial hygiene service, running as high as 88% in the largest organizations. Safety and sanitation services were provided for in approximately 65% of the concerns, here the smallest and the largest plants showing the highest percentages of services provided. Dental services were provided in very few instances and were limited almost entirely to emergency and prophylaxis service outside of the plants, while there were examples of part-time and full-time dentists in almost all classifications. Instruction in health and safety was given in less than half of the groups on the average, with slight variations in the different classifications.

4. With respect to intramural relationships, the health department reported directly to top management in approximately 36% of all groups; the three divisions of health, safety and personnel relations were on a par administratively in approximately 40% of all groups; and the health department had the final word with respect to health problems in approximately 43% of all groups.

5. With regard to records and reports, individual health records were kept in the medical department and available only to the medical staff in approximately one-third of all organizations; with variations from 16% in the small plants to 88% in the largest; examination information was given to individual employees routinely for all groups in about 31% of instances and in about 20% of instances on request only. Industrial hygiene information was given to individual employees mainly on request only on an average of 22% and in very few instances routinely on the average. Regular reports were made by the