
Evaluation of Public Health Field Training

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Prior to January 1948, evaluation of field training of public health workers consisted principally of observation by staff personnel of Training Services, CDC, and suggestions of trainees and health officials. At that time the need for a more objective approach to supplement these judgments was felt and a program was inaugurated to develop and coordinate the evaluation of field training activities.

It was evident that the evaluation program should be developed in terms of the training program's chief objectives and that practical means and methods for carrying out a program of evaluation should be found and employed. As a statement of these objectives, the following questions were formulated:

1. Are we meeting the needs for practical field training of those persons who are attending our field training programs?

2. In what way can we improve the value of this training for public health workers?

Certain basic principles to be followed in the development and use of measures for the evaluation studies were adopted early in the program. Some of these principles are as follows:

1. The types of field training courses, as much as they differ in detail and subject matter, are essentially alike in their underlying purpose and organization.

2. Methods of evaluation should recognize differences in the trainees' experience, education, and working conditions.

3. The bases and methods of evaluation should be such as to require interest and participation in the process on the part of the trainees and their supervisors, the training staff, and members of participating agencies.

4. Methods of evaluation should be based on two factors: (a) objective evidence such as questionnaires, standardized tests, and similar devices; and (b) considered judgment of competent health officials and others concerned.

As the attention of the training staff was

focused on their training problems and as these problems became more clearly defined, the end results toward which the evaluation program should be directed were discerned. Goals were stated and adopted. They have been modified somewhat as policies and procedures are determined, but fundamentally they remain the same.

At the 1950 conference of training officers these goals were restated by the committee on evaluation and the needs for a program of evaluation were defined. The work done by this committee was a definite step forward in the understanding and acceptance of the role that evaluation can play in a field training program. The needs as defined are:

1. To establish bases for assisting the training officer in program planning so that he may present the best possible training for the trainee and employer.

2. To establish bases for the Training Services Headquarters to assist training centers in their training problems.

Some of the end results which the committee felt should be provided by the program insofar as possible are:

1. Improvement of training methods and techniques.

2. Improvement of curriculum as to subject matter and allocation of time.

3. Determination of the extent to which we are meeting the desires and needs of trainees and employers.

4. Reasonably objective evidence of the effectiveness of field training as a justification of expense involved.

5. Determination of the extent to which the attitudes and philosophy of the trainee toward his work have been changed.

6. Appraisal of the training center as to physical plant, staff, organization, and administration.

MEASURES AND TECHNIQUES

In determining the methods and measuring devices to be used, several approaches and techniques have been considered. Use of some

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of these evaluation techniques has been postponed until standards can be established; others have proved impractical because of the expense involved or time necessary for study and research. Those which have been used or are being developed are: (1) judgments of trainees and supervisors through the medium of a questionnaire study, (2) a standardized test for the environmental sanitation field training courses, and (3) standards for training literature insofar as readability and comprehensibility are concerned.

SURVEY OF TRAINEES AND SUPERVISORS

This survey was made through the medium of questionnaires to trainees and their supervisors 6 months or more after completion of the 3-month field training course in environmental sanitation. In spite of the limitations inherent in such an evaluation, it was hoped that some information could be obtained concerning the extent to which knowledge, skills, and attitudes had been acquired and were being utilized. Comments and criticisms which would improve the value of this training also were desired.

Questionnaires were distributed during the period June 1948 to July 1949. On the whole the response was satisfactory. Of the 318 questionnaires distributed, 83 percent were completed and returned. The report was completed in January 1950.

In general, the replies of trainees and supervisors were in agreement and were strongly favorable concerning the extent to which improvement in the work of the trainee should be credited to the impetus given by the training. The degree of credit varied according to the trainee's education and experience level, with the poorer qualified trainee giving comparatively more credit to the training than did the better qualified trainee. Based on their replies, the following statements appear justified:

1. There is a better understanding by trainees of the work involved in their present duties.
2. The training has made it possible for the trainees to assume increased responsibilities and broaden the scope of their work.
3. Trainees generally are carrying on more comprehensive programs.
4. Trainees have developed increased assurance and ability to meet people and to promote public health activities.

A number of interesting points were brought

out in the survey. Of considerable interest were the phases of the 3-month environmental sanitation course found most helpful by trainees. The six most valuable subjects were, in descending order: milk sanitation, food sanitation, sewage disposal, water supplies, bacteriology, and insect and rodent control.

Other points of interest were that 98 percent of the trainees who participated in the survey were engaged in environmental sanitation duties, and that 65 percent of the trainees had received an advancement in position.

Based on the findings of the survey, it was concluded that:

1. There is definite improvement noted in the sanitarians' work after the training experience. Although there were undoubtedly other contributing factors, this improvement is credited by the trainees and supervisors to the training program.
2. Training time in the various subject matter areas apparently is apportioned according to the trainees' needs.

It was recommended that further consideration be given to: (1) special topical courses for trainees who have taken the 3-month environmental sanitation course, (2) additional training in public speaking and public relations, (3) development of a manual for the environmental sanitation trainee, and (4) continued improvement in field training practices.

ENVIRONMENTAL SANITATION ACHIEVEMENT TEST

An achievement test for the environmental sanitation field training program is being developed to measure the growth of the trainee's factual knowledge during the training period and to determine the trainee's strength and weaknesses in the major areas of knowledge. The test is being developed in cooperation with the State Merit System Service, American Public Health Association. When completed, it will consist of two tests, of approximately 125 items each, for use as pretests and post tests.

Administration of the preliminary form of this achievement test to 200 trainees as a pretest and as a post test has been completed. Five regional field training centers and three State field training centers participated in the testing program. In selecting the 480 test items included in the preliminary test, an outline was used which reflected the emphasis to be placed on the subject matter areas covered by the course. The outline

was based on an analysis of course breakdowns submitted by the field training centers and the philosophy and objectives of these courses. The items were selected by the American Public Health Association and were reviewed by a committee of representative training officers. Items not considered applicable were discarded and additional items selected to conform to the emphasis of the course. Upon completion of the item analysis by APHA, the committee of training officers will meet again to set up the two comparable forms of the test.

To determine the validity of the test, one criterion to be used is the rating by training officers of trainees' knowledge in the various subject matter areas covered by the training experience. Use of other criteria such as trainees' education and experience is planned.

The test should be ready to accompany courses beginning in January 1952. It is hoped that the test can be used to determine the most effective training methods employed in regional and State field training centers and to assist the States in maintaining the level of instruction at established field training centers.

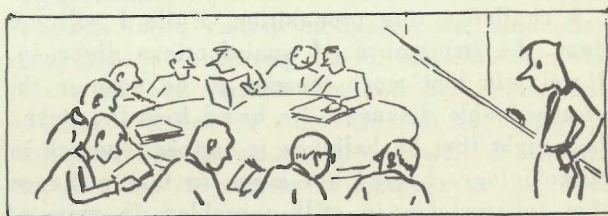
READABILITY OF TRAINING MATERIALS

A program to determine the readability of various training materials was initiated in July 1950 with the assistance of the Experimental and Evaluation

Branch, Division of Health Education, U. S. Public Health Service. Although some of the methods used were fairly crude and frankly experimental, the results point up certain factors which indicate the value of pretesting training materials before they are published. Further study and experiments in cooperation with the Experimental and Evaluation Branch are planned.

SUMMARY

The evaluation program has been mainly experimental. As objectives become more clearly defined, evaluation methods and devices are determined and specialists called upon for assistance in their development. Some measuring devices have proved effective; others are still in the preliminary stage. It has been a slow process as there has been little precedent to follow so far as the evaluation of field training is concerned. However, the bases on which the program is being built appear to be sound, and it is believed that a useful program of evaluation will result.



The Importance of Respiratory Diseases *

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In speaking to you, I propose to examine some of the general epidemiological principles that have led to our successful control of many communicable diseases. I shall attempt to analyze the prospects of substantial improvement in the control of the respiratory diseases that still plague

us. May I quote from the book, *Plague on Us*, by Mr. Geddes Smith:

"Great and small, the respiratory infections are indubitably unfinished business. These common ailments form a nosological jungle in which bacteria and viruses roam at will, despoiling the human race and defying both classification and control. Symptoms overlap and no one knows how many different diseases lurk behind them. For some of them the doctor can do little. The epidemiologist who hacks his way into this mess

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