PROFESSIONAL DEVELOPMENT BY HOMESTUDY

H. E. Eagan

Communicable Disease Center
U. S. Public Health Service, Atlanta, Georgia

Homestudy courses are a means of direct training and an aid to local, state and federal health organizations in constructing in-service training programs. The Training Branch of the Communicable Disease Center has four major objectives in its program to strengthen the public health endeavors to control the incidence of communicable diseases. These objectives are basic and are planned to: (1) aid the states in the development and improvement of their own training resources; (2) provide training in those states where training services are not otherwise available; (3) promote the use of public health training aids; and (4) provide training services for the Public Health Service and other federal agencies.

At the beginning of the training activities in 1945, all CDC courses were held at the headquarters at Savannah and Atlanta. Field training stations were soon developed in eight locations throughout the United States. This step brought training into every geographical area of the country. When it was discovered that even this arrangement did not meet the need because of state limitations on out-of-state travel, field courses were undertaken. This mobile training could be taken into any state and it reached and continues to reach a significant proportion of the states' public health personnel. But the high cost of field courses severely restricts this activity.

Concurrent with these developments, the Center was encouraging in-service training programs within the individual states by assisting the states to conduct their own training programs. Despite these efforts, however, an appreciable number of state and local personnel were not receiving badly needed instruction.

So, in spite of the expansion and diversification of the Center's training program, the demand for qualified field personnel, particularly in the field of environmental sanitation, could not be satisfied by the means at hand. Population growth and the public's demand for more and better services combined to aggravate the situation, while the demand grew to far exceed the services. The situation was about the same with respect to other public health disciplines. The obstacles to training, though circumvented to some degree by field stations, field courses, in-service training and other measures, have not been removed in fact or reduced in quantity.

A given facility still can accommodate only so many persons, fiscal regulations that prohibit employees leaving a state for training have not been changed, and personnel shortages continue to make it impracticable to release employees from their work for full-time training. To surmount these obstacles requires a system that will (a) allow trainees to remain at their duty stations and carry their usual workloads and (b) require a minimum outlay of funds, in contradistinction to the substantial cost of per diem and travel that is required to attend formal courses at locations remote from the work station.

Homestudy courses offer a basis for a training program that will meet these requirements. They have a further desirable characteristic of allowing each trainee to set his own goal. The theoretical advantages of homestudy courses were sufficiently enticing that in 1962 the State of Mississippi undertook an experiment with homestudy courses for county sanitarians. With the advice and counsel of Mr. C. Bradley Bridges, then Regional Training Consultant of DHEW, Region IV, the first course, "Basic Mathematics for the Sanitarian," was launched on a statewide basis. The initial field trial showed this sort of activity to be both popular and beneficial. "Basic Math" was quickly followed by "Communicable Disease Control," "Vector Control," and other homestudy courses.

The success of the Mississippi experiment led Mr. Bridges to modify three of the Mississippi courses to meet the requirements of all states and to offer these courses on a nationwide basis. The first offering was made July 1, 1965. More than 1450 individuals in 43 states and two foreign countries have since enrolled. A breakdown of the origins of this response indicates that the homestudy courses are meeting a significant need among sanitarians and members of other public health disciplines, not only throughout the United States but in Canada and a number of foreign countries as well. Several local health units now require completion of certain courses as part of their in-service training.

---

*Presented at the annual meeting of the Michigan Public Health Association, Environmental Health Section, Detroit, Michigan, May 15, 1966.
Administration

The Center's homestudy courses are administered by the Special Projects Unit of Training Branch's Community Services Training Section. Lessons are developed, field tested, and processed by the unit's staff. The courses are made available to individuals as well as groups.

Circumstances alter administrative requirements; no one procedure has proved practicable for all the needs of all the states. Present administrative philosophy is to reserve sufficient flexibility to meet the needs of the majority of interested agencies.

Under the group enrollment plan, there is no contact between trainee and Center personnel; all arrangements are made with the agency or institution that sponsors the course for its employees. Homestudy material is sent to the sponsoring agency which, in turn, arranges for its distribution to the trainees. Completed lessons are collected and returned by the sponsor. They are then graded and returned to the sponsor by Center personnel. Under this plan, which requires each trainee's supervisor to handle final administrative details, dropouts are extremely rare.

The individual enrollment plan permits applications to be forwarded by individuals with the endorsement of the sponsoring agency to the Communicable Disease Center. All communication between the Center personnel and the trainee is direct in this arrangement.

Operating Procedures

Prospective trainees must fill out and sign a "training application." This application must, except under certain conditions, be approved by the applicant's sponsoring agency. When applications are received at CDC, the first lesson of the requested course (in quantity appropriate for individual or group) is mailed. As completed lessons flow into the Center, papers are corrected and records showing approval, disapproval, grades, etc., are kept for each trainee. Answer sheets are returned to trainees with the mailing of each successive lesson.

Final examinations are taken under the supervision of a preselected proctor and without access to any reference material. All other lessons and review examinations are "open book" studies. Satisfactory completion of a course is determined by the trainee's score on the final examination. The answer sheet is returned to the trainee but not the examination. When performance is satisfactory, a certificate of completion is issued and the announcement of his grade is mailed.

Courses Available

Basic courses are now offered in three separate subject areas of environmental health. These courses fulfill two needs. For the newly employed trainee they supply essential basic information and for the more experienced employee they provide review of topics pertinent to everyday work. The first of these courses, "Basic Mathematics for the Sanitarian," is made up of eleven lessons, two review examinations, and the final examination. The content of these lessons was selected to develop and refresh the competency of the trainee in several areas: making conversions from one measurement system to another, determining chemical dosages, and calculating areas and volumes of certain regular figures and forms. Among the subjects presented are whole numbers, fractions, decimals, powers and roots of numbers, and the geometry of areas and volumes of polygons and solids.

"Communicable Disease Control for the Sanitarian" is designed to develop the trainee's concept of modern control methods applicable to those communicable diseases that can be affected through alteration of the environment. Subject areas include diseases of animal origin, morphology and reproduction of microbes, quantitative and qualitative considerations regarding bacteria, and diseases transmitted by milk, food, water, and the arthropods.

Of the three basic references used in this course, one is a standard textbook which must be procured either by the participant or his agency. All other references are furnished. Each lesson is made up of reading assignments and an open book examination. These examinations must be satisfactorily completed before the next lesson is released to the trainee.

"Insect and Rodent Vector Control for the Sanitarian" is largely descriptive; there are no projects or laboratory exercises. The descriptive taxonomy included in this course is covered by physical character keys and other aids. The variety of these aids enables the participant to concentrate on any particular area that interests him. A broad section of the field of vector control is covered by the various subjects offered in this course. Among these subjects are: arthropods of public health importance; insecticides and insecticidal equipment; sanitation in vector control; the control of domestic rats and mice; biological factors in domestic rodent control; household and stored food insects; and the biology and control of flies, mosquitoes, fleas, lice, ticks, and mites.

Each of the eleven lessons of the course ends with an open book examination which must be satis-
factoily completed before the next lesson is released to the trainee.

Additional Courses Planned

Additional courses, both general and specific in coverage, are planned to span the entire field of environmental sanitation. The first of these, to be entitled "Environmental Sanitation," will be made up of 17 lessons and a final examination. It will use a nationally recognized textbook on sanitation as its main reference. Aimed at the sanitarian who has had neither extensive training nor field experience, it is to be a basic or prerequisite course to be mastered as background for more advanced or specialized instruction.

Summary

If personnel of state and local health organizations are to realize their full potential in the control of communicable diseases, they must have training in the basic subjects dealing with the sanitation of the environment. The CDC homestudy courses have been developed to meet this need.

FOOD AND DRUG LAW INSTITUTE BROCHURE AVAILABLE

The Food and Drug Law Institute Inc. has issued a brochure describing the basic purpose of the Institute which is "to advance the public welfare by furthering knowledge about food, drug and related laws and their effective application."

The bulletin discusses briefly the educational programs undertaken by the Institute including: support of instruction in these laws at leading law schools; conferences, lectures and seminars bringing together representatives of industry, government, consumers and professionally interested parties; publications of the Food Drug Cosmetic Law Journal which provides timely articles and research studies on current legal problems; and maintenance of a comprehensive working reference library on food, drug and related laws. FDLI also engages in international activities.

The administrative and organizational structure of the Institute is outlined and the brochure lists supporting industry members and public members and identifies the current officers and trustees. Membership information is supplied.

The Food and Drug Law Institute, Inc. has its offices at 205 East 42nd Street, New York, N. Y. 10017 and its president and management officer is Franklin M. Depew.

Homestudy courses combine the convenience of study at home— and at leisure—with the benefit of guidance from an experienced and competent staff. Under the circumstances made possible by homestudy courses, individuals can, without absenting themselves from work and without unusual cost to their organization or themselves, broaden their knowledge of the environment and the environmentally related techniques that are involved in the control of communicable diseases.

The acceptance of this method of training by people in several different public health disciplines has been most gratifying. During the last year, the limited staff engaged in handling these courses has been severely taxed to handle the 1450 trainees who have taken this training.

Homestudy courses are intended to be supplementary to existing programs; they are not expected to replace conventional training. New homestudy courses are being develop and old ones updated. It is hoped that in a few years an array of courses broad enough to cover every phase of sanitation can be made available.

PHS ANNOUNCES CONFERENCE ON AIR POLLUTION

A National Conference on Air Pollution sponsored by the Public Health Service will be held in Washington, D. C. on December 12-14, 1966. The Conference will be open to the public and participants will be physicians, engineers, scientists, legislators, control officials and representatives of business, labor, and civic organizations.

In announcing the Conference John W. Gardner, HEW Secretary, stated that "in spite of improved local, state and federal control programs, air pollution is still growing faster than our combined efforts to cope with it. The purpose of the Conference will be to examine our present abatement efforts and to explore new approaches to this urgent task."

Conference planning will be conducted by the PHS Division of Air Pollution. Vernon G. MacKenzie, Chief of the Division, has appointed Assistant Division Chief Arthur C. Stern as Executive Secretary for the 1966 Conference. The last National Conference in 1962 was attended by some 1500 persons and a larger participation is anticipated this year.

Additional information on the Conference and program is available from the Executive Secretary.