Funded by the Office of Economic Opportunity and carried out in Springfield, Massachusetts, during 1965-67, this training project sought to meet employment needs of disadvantaged high school graduates, the shortage of health professionals, and the need to improve and coordinate professional public health services. It combined a half-time, remunerated field training sequence with a half-time academic curriculum leading to an Associate of Science degree from Holyoke Community College. The project was administered by a trained nurse with a bachelor's degree and several years of public health experience. The academic sequence included several required courses and two public health courses; field training itself was in such areas as child hygiene, health education, environmental sanitation, air pollution, and welfare. Counseling proved to be the chief factor in retaining trainees. Of the original 20 trainees, 16 completed the program. Fourteen received their degree; the other two were still trying to complete their course work. Despite success in training and placement, a serious problem persists in regard to advancement and career development. (A public health aide job description is included.) (LY)
Training Public Health Assistants

SOCIAL DEVELOPMENT CORPORATION
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A Note About Reading This Report

This project was planned and executed in a manner that could be adapted to similar situations in other cities. The report, therefore, is an analysis not only of what was done, but also of what might have been done. The commentary will tell you how you can improve on the Springfield project. The commentary appears in smaller type on the outside edge of the page. This format was designed to present the text and commentary in a most usable way.
Preface

This report is an evaluation of a demonstration project in the training of public health sub-professionals, funded by the Office of Economic Opportunity and carried out under the auspices of the Department of Health in Springfield, Massachusetts, from June 1965 to September 1967. Its objective was to train disadvantaged high school graduates for employment in a new job category—the public health sub-professional. It was the first of a kind in its combination of a half-time remunerated field training sequence with a half-time academic curriculum leading to an Associate of Science degree at a nearby educational institution, Holyoke Community College.

Most broadly, the project aimed at bringing to the manpower needs besetting the public health services such unexploited manpower resources as are of concern to the Office of Economic Opportunity. The basic assumption underlying the program was that, in the field of public health today, the employment of paraprofessional personnel is both necessary and valuable as a solution to the two-pronged problem of unemployment and personnel shortages. The program was intended to deliver, through systematic training, a new product—public health assistant—trained in new ways for a new career in public health.

The report’s purpose is to be instructive to City, County and State health officers and to others who may continue the socially valuable work so well demonstrated in Springfield—training new public health personnel.
Introduction

This training project was directed toward the solution of three central problems:

The shortage of jobs as a cause of poverty.
The shortage of health professionals.
The need for improvement of professional public health services, especially in relation to fragmentation of services.

In an interim report that appeared on this project one year after its inception¹ the health professionals who initiated it enlarged on the need for such a development. They saw a public demand for public health services which far exceeded the supply, and which would continue to do so as professional education became more specialized and therefore longer in duration. Added to this was a further curtailment in the flow of services as people trained to render these services either lost professional time performing routine and non-professional tasks or were pressed into early administrative responsibility. The project initiators welcomed the precedent set by some health disciplines in the education and effective employment of paraprofessional assistants—the dental hygienist, laboratory aide, licensed practical nurse, and “medics” trained and used by the military. With particular reference to the category of public health assistant that they hoped to introduce via the project, they considered both the possible improvement in communication when the new public health workers would be from the same socio-economic class as the clients and also the potential contribution a subprofessional “generalist” could make in counteracting the fragmentation of services caused by excessive specialization.

In the original proposal, plans were made for an objective evaluation of the program, over and above an on-going assessment by its participants. Upon the suggestion of the Office of Economic Opportunity, the task of evaluation was assigned to the Social Development Corporation, a private non-profit organization “committed to the strengthening of human resources” and especially interested in innovative programs such as this. The evaluation was carried out between November, 1967 and February, 1968 by a social scientist working in consultation with the staff of the Social Development Corporation. He studied the records compiled during the twenty-four months of the program, interviewed administrative staff at the Health Department, and interviewed faculty and administrative staff at Holyoke Community College. Members of the Health

Outside evaluators can bring a broader and more objective perspective than insiders, although they may initially lack detailed knowledge of important events, forces, and processes.

Evaluation procedures were noteworthy for one innovation in particular: trainees were interviewed in small groups and were paid to take the role of evaluator, drawing up the outline for the questionnaires used in the research. The group milieu tended to free trainees to express criticisms; it also stimulated their recall for important events and reactions to them. The payment for their time gave them an experience where their opinions and ideas were valuable.

The time pressure limited recruiting efforts, which resulted in more self-selection by applicants than is ideal in an OEO-funded project intended to reach the especially disadvantaged.

"Objective" criteria, such as high school class standing, may be less predictive of trainees' success than such criteria as high motivation, which is, of course, much harder to determine quickly. The trainees were almost all motivated by the desire to obtain entry into college-level education. (Also see next page of text.)

The large proportion of women raises an important policy question: should an investment of public funds be made to improve the career opportunities of young women, in view of the likelihood that many will be in the labor market only a few years? The question has many ramifications, but it may be somewhat academic in relation to a program which trains for a field that is dominated by women. (In fact, the nearly even distribution of women and men may be rather remarkable.) The white to non-white ratio more than fairly reflects the ratio in Springfield's poverty population.

Department who gave field instruction to the trainees were asked to complete questionnaires about this experience. The trainees met with him in a series of group discussions where they developed their own schedule of questions which were distributed to all trainees.

The report that follows is based on SDC's appraisal of these data. The principal focus of analysis is on the successes and failures of the project in relation to the following objectives: preparing a new kind of manpower - the sub-professional - for careers in public health; raising the educational level of recent high school graduates whose poverty would otherwise prevent such advancement; developing compensable employment on a sub-professional level; and expanding public health programs through the employment of sub-professionals.

The trainees

The twenty candidates for the project had to be recent high school graduates, in good health, academically qualified but financially unable to pursue a college education: their incomes fell within the OEO definition of poverty. The program was publicized among health, education, and welfare agencies in Springfield. Because the grant was not approved until late April, recruits had to be screened rapidly, in interviews with high school counselors, the program director, and Holyoke Community College admissions staff. All interviewers sought evidence of a capacity to assume responsibility and to take direction and criticism. College entrance requirements applicable to all students had to be met: chiefly a high school diploma and a passing score on the College Qualification Test. (Nevertheless, nearly all trainees had to take some remedial work in English and/or math early in the program.) These selection procedures, partly improvised, partly based on the College's existing requirements, proved satisfactory and reliable when judged by the ultimate results.

Initially, the group consisted of eleven young women and nine men. Thirteen were white, six Negro, and one was Puerto Rican. One early dropout was quickly replaced; later, one trainee was lost through death in a motor accident, and three more quit. Three of the four dropouts were in good standing, leaving for personal reasons (finances, marriage, and military enlistment) but urging the others to remain; the fourth was asked to leave because of improper behavior. Sixteen completed the two-year program. Fourteen
of these have received the A.S. degree; the remaining two are trying to complete their course work.

The program was presented to the trainees as a combination of work and study designed "to introduce new people to the field of public health." They understood that they would earn a salary while learning; the minimum wage of $1.25/hour for 20 hours/week of field work throughout the year. When they were questioned, after completing the program, about their motivation for enrolling, the trainees almost without exception stated that their interest stemmed from their desire to obtain a college education. Most reported that they had grasped little or nothing of the nature and meaning of public health, but this apparently did not deter them. Some few had previously thought of related work; most had no clear-cut vocational direction. Nowhere on the questionnaire was salary per se mentioned as a motivating factor in joining, though many suffered from strained finances throughout the two years.

In a program involving adolescents, parental attitudes may impede or promote its goals, so that some contact with the family is desirable. Examination of the trainees' questionnaires indicated that while some had only the acquiescence of their parents, most had their considerable approval. One parent was thought to have objected to an interracial group, one preferred "real earnings," and some questioned the long and sometimes irregular hours. In this connection, two "open houses" were effective, in the opinion of the director and most of the trainees, in winning over parents, who were enabled to see and understand more of the program. Invitations were also extended to the trainees' friends, who were reported by them to be enthusiastic and occasionally envious of the trainees' educational and career opportunities.

Group interactions, important in any work situation, take on added significance for adolescents. Their peer group can influence attitudes and set standards, provide outlets for opinions and give them support. The trainees, individually well motivated, manifested strong group spirit as well throughout the program. They shared many social activities, set up a weekly bowling schedule, and even at Holyoke College tended to stay together and maintain their group identity. The questionnaire showed that even occasional personality clashes with fellow trainees did not seriously divide the group or handicap participation in the program.

In retrospect, it became apparent that more advantage could have been taken of their group cohesiveness. For example, through-
The shared purposes of the trainees, and the shared experiences, both negative and positive, gave them a natural group cohesion, which could have been used for problem-solving and morale-building purposes, a complement or supplement to individual counseling sessions. Regular group meetings should be scheduled for all trainees. One advantage in having such meetings conducted by an outside leader would be the trainees' greater freedom to express criticism, combined with the leader's greater objectivity. One disadvantage would be the greater difficulty in dealing with administrative issues when the leader has no administrative authority. (Further comments on administrative functions versus expressive functions of the counselor's role follow, in connection with the discussion of the program coordinator's two-sided job.)

out the program they brought their discouragement and frustrations individually to the busy program director; yet many commented on the questionnaire that they had not felt "heard out." A suggestion box was available to them for a while, but was scarcely used. The evaluation meetings, conducted, not incidentally, by an outsider to the program, demonstrated how constructive such group meetings might have been all along: pent-up resentments were released, attitudes were expressed freely. Even the written questionnaires they submitted after the group meetings did not provide all the material or nuances that the group leader had obtained.

In the original proposal it was anticipated that the program coordinator would have to "supervise the trainees, coordinating their academic and field work." This supervision, when translated into the daily realities of the program and the needs brought by these trainees, became a full-time counseling program. The trainees looked for supports that their own environment and immature inner resources could not provide: half of this group already had lost one parent through death or divorce; crowded housing, financial hardships, and emotional stresses were their burden.

The nature and importance of the counseling given have been well described in the first report on the project:

Counseling has turned out to be the most important feature in retaining the poverty youngster in the program.

Counseling is no casual thing. Counseling is not limited to a leisurely excursion in course selection or a theoretical analysis of variegated career aspirations. Instead, the program coordinator is obliged to confront all types of discordant pressures—from personal discouragement on the part of the pupil to indifference, hostility, and even lamentable brutality in the home life of the pupil. There have been the numerous "routine" psychosexual problems of adolescence but problems within a milieu lacking the middle-class buffers of home, church, and community center, not to mention mental health therapists. One trainee would have withdrawn from the program had the coordinator not been able to locate a home for her, when the temporary foster home suddenly proved unsuitable. Another trainee would have been subject to a jail sentence had the coordinator not interceded with the Youth Aid Bureau authorities. A third trainee would have been obliged to leave the program to take a job to support his family had the coordinator not succeeded in having the local welfare department make special financial arrangements for the trainee's family.
Meetings with draft boards to verify that trainees are bona fide college students are likewise necessary, lest the male trainees be abruptly conscripted... The coordinator must maintain week-to-week contact with college instructors to identify forthwith any incipient academic difficulties, so that supplementary tutoring can be utilized without delay. The coordinator has the dual role of confidante and parent and simultaneously must maintain a degree of professional aloofness lest trainees become excessively dependent on her as "mother hen" for the most trivial decisions. The purpose of the program, after all, is to foster not only economic but also psychological independence.

The fact that 18 of the original 20 voluntarily remain in the program testifies to the success of this counseling, which might be more accurately characterized as individualized casework. Considering the social problems of our trainees, we initially anticipated an attrition of at least eight, rather than three... by the end of the first year. The actual burden of this work-study program upon these youths is more onerous than what the average middle-class student faces on the college campus.

The attitudes of the trainees to the counseling help were marked by ambivalence, a response not unexpected in this age group. On the one hand, they all cited numerous instances of advice, concrete assistance, and encouragement given them by the program director; indeed, they lamented the insufficient time she had available for such help. On the other hand, they criticized her for differences of opinion with them on decisions she had to make, although they stated in the same breath that "probably that was all that could have been done at the time." Some dissatisfaction was expressed with her firmness and her continuing expectations of them. Counseling as an administrative function will be discussed elsewhere in this report, but there can be no doubt that for trainees in this age-group extensive and intensive counseling is a sine qua non.

In this program, with both male and female trainees, assignments to traditionally "male" or "female" public health tasks presented occasional problems—the resistance of a male student to assisting a nurse in the Child Health Conference, the reluctance of a sanitarian to supervise a teenage female trainee on housing and restaurant inspection.

The fact of their youth occasionally limited the extent of responsibility they could be allowed to take, as is true in training for other professions when some tasks must await greater maturity and ex-
Youthful trainees have more energy and malleability than older trainees, and are more used to assuming the student's role and performing the student's tasks. On the other hand, they may adapt less easily to the worker's role, and their inadequacies in this aspect of the program may be aggravated by the field teacher's reluctance to provide them with responsible assignments.

A program which offers education and training to adolescents, if successful, will also be offering opportunities to mature socially and emotionally.

Experience. In many ways, however, the youth of the trainees was advantageous for a program of this nature. Their formal education had not been interrupted, so that study habits were not forgotten. They enjoyed the physical stamina necessary to meet the demands of constant study, travel, and field work. The enthusiasm of youth looking forward to a career which once seemed beyond the realm of possibility, helped them tolerate the resistance a new program inevitably generates. Above all, they still were open to new ideas and influences and had the capacity and flexibility for personal growth. The trainees confirmed this: "I grew up in this program." "I believe we will all be better and more responsible adults in our community." Repeatedly, too, the questionnaires of the field training teachers included comments on the maturity, poise, and confidence they had seen the trainees acquire.

The academic program

Holyoke Community College, located about fifteen miles from Springfield, is strictly a commuter college. About 65% of its student body is engaged in some form of outside work, and many evening courses are available. Its administrative and teaching staff worked with the Health Department on developing the trainees' curriculum, evaluated the students' educational progress with the program director, and supplied some individual tutoring when necessary. Although regular academic requirements had to be met by the trainees, the approach of the college to them and to the program was individualized and flexible.

Courses were selected on the basis of their anticipated relevance to the field experience of the trainees. Required courses included English Composition, Chemistry, Mathematics, Biology, Bacteriology, and Physics, plus two Public Health courses--Community Sanitation and Communicable Disease Control--given by faculty from the University of Massachusetts, School of Public Health, and taught, by special arrangement, in Springfield. Electives were offered in History, Sociology, Psychology, Economics, Literature, and Typing.

Beyond a doubt the trainees were generally gratified by their course of study. Many, however, encountered difficulties in math and chemistry, and there was considerable criticism of the heavy load of courses in the natural and physical sciences. Some wished a wider range of electives had been open to them; others complained of inadequate preparation for subsequent studies they under-
took in other colleges. When asked about the relevance of their college work to their field work, they cited some few isolated examples. By and large, they regarded only the public health courses as pertinent.

Further efforts to construct an ideal core curriculum for the training of public health assistants seem indicated. Perhaps selected courses in the physical sciences could be adapted to the particular needs of public health practitioners. Perhaps, too, a social science core could be an alternative for those whose interests may take them to eventual work in mental health and social welfare.

During the twenty-seven months of the program, fourteen trainees were able to accumulate sufficient credits for the Associate degree. Joint efforts by the program director and Holyoke Community College culminated in arrangements with the Commonwealth of Massachusetts, Department of Higher Education, to grant the students the degree of Associate of Science in Public Health, the first so conferred.

In evaluating the program, the students unanimously objected to taking coursework during the summer months. They found studying especially onerous during their first summer. They would have preferred being assigned more field work during the summer and earning more course credits during the normal academic year. Some spoke of not having had a full "college life." In the light of the experience of many colleges that had accelerated programs during World War II, it seems that the students correctly identified a recognized need for a period of absorption, reflection, and consolidation. One must keep in mind, too, that field work was also a learning situation. Despite the uninterrupted academic demands, sixteen trainees stayed with the program, of whom fourteen earned their degrees. The remaining two may yet do so. At Holyoke College an average of 20% of the total student body fails and does not reach graduation. The trainees did at least as well. It is noteworthy that even some trainees whose high school achievement level raised doubts as to their ability to complete the academic program did in fact make the grade.1

There is no doubt about the trainees' strong motivation to succeed. Additionally, the individual attention and consideration given them were surely contributory. Even before the first semester began, those trainees known to have deficiencies in mathematics and English were afforded a summer of intensive remedial help. For all the trainees, course loads were built up gradually so as to facilitate

1Distribution of the eighteen students in the program as of February, 1967, by high school class rank, grouped in quartiles, was: 1st quartile—6; 2nd quartile—4; 3rd quartile—6; 4th quartile—2. The two in the fourth quartile, one of whom was at the very bottom of his class and the other nearly so, did not complete the program. Perhaps this indicates that there are limits to how much such objective criteria as high school ranking may safely be ignored.

There are salient problems of integrating theory and practice in any program which offers simultaneous training in the academy and in the field. The problems are undoubtedly greater at the beginning of such programs. For one thing, students may have to take some remedial work in English or math or both before they can take more specialized courses—most students in this program had to. Since such remedial courses are necessarily quite general, they may seem irrelevant to the students. For another, it may take time, money, and the experience that is derived from thoughtful experimentation before a community college can set up a flexible curriculum geared to the needs of a new training program. In the meantime, students might be helped by being given an over-view of the entire curriculum and the rationale for it, however provisional it may be. One important function of the program administrator, of course, is to provide a bridge between the academy and the field, not only in terms of decisions about courses and field assignments, but also in terms of articulating theoretical concepts and demonstrating their application to the field.

The trainees particularly objected to being at school in the summer. It seems likely that part of their objection stemmed from the virtual lack of a break between high school graduation and college matriculation. Also, the objections might have been less strong were the science courses with labs given in the fall or spring rather than the summer.

If students are launched immediately into field work, without prior academic training, their needs for in-service training will obviously be greater.
It is likely that the first weeks or months of a new venture are the hardest. This is the time when the risk of dropping out is the greatest. It is the time when trainees need the most help from staff, ranging from concrete assistance (such as orientation, tutoring, help with transportation) to a chance to talk over feelings.

An innovatory training program might be more easily and effectively organized by a relative new community college than by an older city health department. The college may offer more experience in organizing classroom curriculum, more flexibility in overall program-planning, and a more prestigious base for the development of field work curriculum and staff.

Two meetings with the professional staff were not enough. Too little was done to involve professional staff in planning for the program. Thus an important source of useful knowledge was bypassed, and normal resistance to a new venture was not adequately met. One way to manage such resistance is to include some of the resistors in the planning stages of the program which threatens them.

The field training program

The objectives of the on-the-job training program at the Health Department are spelled out in the original proposal: "The public-health-aide trainees will develop a comprehensive knowledge of public health at the sub-professional level and learn how to apply public health methodology in dealing with health needs of all socio-economic classes within the community." Two preliminary meetings were held with the professional staff of the Department of Health to acquaint them with the program for the trainees and to point up the expectation that "increased supervisory responsibilities and prestige would accrue to them with the introduction of sub-professional public health workers into the organizational structure." Three divisions of the Springfield Health Department—Child Hygiene, Health Education, and Environmental Sanitation—provided the field experience and assigned staff, to be known as field teachers, to supervise the trainees. Trainees were assigned duties on a rotating basis, working eight months in each division during the twenty-four months of the project.
Examples of the work experience are described in the project's first report:

**Child Hygiene**

*Division Office*

- File, type, answer telephone, assist senior clerk typist in assigned office procedures.

**Child Health Conference**

- Help set up conferences, i.e., take out equipment, dust, and so on.
- Register clients attending conference.
- Assist with weighing babies.
- Assist mothers with several children.
- Help charge nurse pull records and perform other related clerical duties as requested.
- Help clear area when conference is completed.

**School Health Service Program**

- Participate in weighing and measuring children.
- Assist nurse during school physical examinations.
- Assist in special programs, i.e., Tine testing, immunization programs, and others.
- Perform other duties as assigned.

**Health Education**

*Audiovisual*

- Operate 16mm projector, slide projector, film strip projector.
- Prepare posters and displays for use in various health department programs.
- Practice lettering, design, and layout.

*Other Duties*

- Prepare and maintain a health education leaflet dispensary with public school librarian.
- Serve as guides to community and student groups visiting Health Department; contact groups to promote these tours. Work with small groups through seminars within the department. Work with community groups in the promotion, organization, and operation of health study groups. Prepare simple statistics and graphs.

**Environmental Sanitation**

*Division Office*

- Assist with filing, typing; answer telephone, and assist senior clerk with office procedures as assigned.

**Field Training**

- Assist in the inspection and investigation of bakeries, stores, and other food-handling establishments.
- Assist in the inspection and investigation of sanitary conditions in houses, rooming-houses, motels, hotels, schools, theaters, nursing homes, and so on.
- Assist in complaint investigations.

Trainees have also participated in other programs:

**Air Pollution**

- One male trainee assists the engineer in collecting data from equipment in the city. He and a female trainee transcribe meteorological data under the supervision of the air pollution engineer.

**Glaucoma Detection Clinics**

- Acted as registrars and gave the Snellen Eye Test. The service of the public health assistant trainees expedited the clinics, resulting in the assignment of only four public health nurses instead of the usual eight to ten required.

**Heart Association**

- Prepared materials for Heart Fund drive. Work performed during these three days advanced the Fund drive work on December 31 to the status it normally attains by mid-February.

**Medicare Alert**

- Canvassed apartment blocks, climbed to the fourth and fifth floors...
of elevatorless buildings, contacting elderly social isolates who otherwise would have been unable to sign up for Medicare.

**Welfare Department**

Three trainees completed a 16-week experience in which they received instruction and field experience under the direction of a division supervisor. Also in this group with the public health assistant trainees were two young women from a four-year college. In the Welfare Department it is innovative to have community college—two-year students—participate in experience usually available only to four-year students.

In addition to the previously described college courses, all trainees have completed both elementary and advanced first aid instruction. They now hold certificates from the American Red Cross.

Departmental seminars, some designed for the trainees, others conducted by the trainees, have included such topics as the history of public health, health codes, nutrition, accident prevention, civil defense, normal growth and development, sex education, and so on.

Two female trainees audited a graduate program in human relations conducted by the University of Massachusetts. This course was designed for students representing multiple disciplines—education, counseling, nursing, and law.

The field work was badly planned, both as to content and scheduling. (For instance, both students and teachers were inconvenienced by frequent last-minute schedule changes.) This occurred partly because it was beyond the capacity of a single coordinator to handle all the planning, along with her many other tasks. Also, those field teachers who had a positive interest in the program were not sufficiently encouraged to contribute their knowledge to the planning effort, or to express their interests, needs, and misgivings.

The field work program was innovatory, and, as such, was only partly successful. By its very nature it called for changes in approach to professional tasks; while changes are instituted in the expectation that they will benefit the professionals, they are usually responded to initially as threats.

Some field teachers showed resistance during the entire field program. "It was baby-sitting with pay." "Most of the students were disinterested and showed it." Others came to accept it. "At its inception I felt it was just another 'give-away' program but my feelings changed as the program and participants progressed." Some were laudatory throughout. "I can't think of a better way for the Government to spend money than on education for the youth of America, particularly those who would never have the opportunity to further their education." "The trainees were at all times cooperative, enthusiastic, interested in every way possible." The trainees, in turn, sensed the resistance. "They disliked us," "were skeptical," "didn't think we had the ability to think," "were scared of us and thought we would take their jobs." They identified the teachers who had taught them the most: "friendly," "showed mutual respect," "he would go out of his way to help the students gain an understanding of public health."

One criticism of the field program was voiced by all the trainees and field teachers alike: the program was weak in planning content and scheduling time. The trainees spoke about "idle time,"
"monotony," "unplanned assignments," "being shifted too much," "doing only manual labor." The field teachers spoke repeatedly of "haphazard planning," "no continuity," "students' arriving without prior notice." One spoke of having hoped to "educate the trainee, not exploit him." "During a more than average busy day we were slowed down by having to stop to explain." Both groups, too, raised the problem of clerical tasks: the field personnel would seem, in reality, to be overburdened by the clerical aspects of their jobs, and the students, with perhaps insufficient understanding of this situation, resented such assignments.

A theme common to many field teachers' discussions was the feeling that the program was one imposed on them rather than one involving them. "We had little exchange on the program's objectives," "no contact with the administration," "wasn't truly a Health Department program as originally presented," "not informed on the students' progress, problems and potentials."

Both groups reported gains from the field program despite its problems and shortcomings. The students felt they had acquired an understanding of community problems and learned to perform many public health duties. "I increased my understanding of public health." "I learned specific jobs." "I learned good work habits." The field teachers described the students as matured and competent in knowledge and skills. Additionally, they pointed up gains in efficiency from use of the trainees: "they performed such duties as calculation and tabulation of data, an important and time-consuming aspect of our program that otherwise would have necessitated the use of our own personnel;" "freed sanitarians to pursue more urgent duties;" "in our child health conference they have assumed responsibilities previously assumed by one or two nurses, thus giving better service to our patients:"

Several nurses suggested additional duties for which trainees were ready.

To a question about financial remuneration, only one field teacher stated directly that it would have motivated him to prepare more thoroughly for teaching. Other rewards were cited: "I got help in my work, and teaching experience." "I enjoyed the stimulation of the students." "In teaching the students I became more conscious of the work myself and thus did a more thorough inspection."

The experience of the demonstration project yields much of the wisdom of hindsight. Ideally, a job description for a public health assistant category should have accompanied the original proposal. Such a description would, in turn, have been the logical spring-
Special pay for field teaching does not seem important to most teachers. Less tangible symbols—such as a sense of accomplishment—are more important.

The job description should serve as a basis for planning field work assignments. Ideally both should be hammered out by the project leadership in close consultation with field work teachers and department heads.

A well-formulated job description would tend to reduce the professional’s resistance to the new sub-profession by reducing his fears of encroachment.

Regular group meetings should be scheduled for administrators and field teachers, as well as for trainees.

A board for the planning of a field work program. It would have offered guidelines to selection of appropriate teaching content and tasks, and to the delineation of progressive levels of performance. A program so ordered would have resulted in more systematic teaching and more effective learning. It would have contributed, not incidentally, to the security of the teachers and ultimately to their own level of professional performance.

From the start, the planning of such a program should involve the field teachers for their ideas and for their commitment to its goals. Evaluation meetings on the progress of the program and the students should be regularly scheduled and would provide a natural forum for raising problems and airing criticisms. The possibility of compensation for the field teachers might also be considered. One field teacher proposed that remuneration be in the form of time credits for individual professional study. Social work agencies often reduce the workload of those professionals who undertake supervision of social work students and offer them in-service seminars dealing with field instruction.

**Administration**

The demonstration project was under the direction of a trained nurse who, as the job specifications required, had a bachelor’s degree and several years of working experience in public health. Her responsibilities included working with the three Division Heads of the Health Department on scheduling field work assignments and rating student performance; liaison with Holyoke Community College in relation to trainees’ curriculum and progress; maintaining ties with other community agencies involved in the program; serving as advisor to the trainees on all aspects of their work; and maintaining individual records on them. She was, in turn, responsible to the Commissioner of Public Health in Springfield and was asked to report periodically to the City Poverty Coordinator. The budget provided for one clerical assistant.

It is now apparent that the director of such a project needed the help of a full-time assistant director with appropriate division of labor between them. Counseling alone required her full-time attention and availability. Nor do two administrators seem excessive when one keeps in mind that generous amounts of time must be available for laying the ground-floor of any program; for maintaining good public relations in a community-service program; for activities

The coordinator’s job should be split between two persons. (See Page 6)
of a pioneering nature often invaluable to such an endeavor, such as securing for the trainees the first Associate of Science degree in Public Health in Massachusetts. Only the director’s abiding interest in these trainees and her dedication to the project’s goals made it possible for her to carry this administrative overload here.

To the extent possible, continuity of administration is desirable in a pilot program. Both the Commissioner of Public Health, whom the trainees knew as a sponsor of the project, and the project’s secretary, whom they regarded as a friend, left their positions before the project was completed. The trainees described a distinct sense of loss at these departures, and greater burdens were put on the director, as the person most familiar with the project.

It also became the task of the administrator to help the trainees locate employment on completing their training. She was to find, however, that no jobs whatsoever were available to them when she embarked on this. It was only by dint of long and determined efforts that she was able eventually to secure four public-health assistant positions. Her success was based in part on her personal acquaintance with people in positions of authority in the community and in local government. A significant achievement in connection with the four job slots the director did obtain was her success in arranging with the State Civil Service Commission for the first official job description for a Public Health Aide. The title was not “Public Health Assistant,” as she had requested, and its use was limited to the Springfield positions, but without doubt this can be regarded as an important breakthrough.

One is led to ask what else might have been done to the end of greater success in reaching one of the project’s clearly stated objectives: “to offer these graduates compensable employment on a sub-professional level.” In retrospect one can see how crucial it was that a job description accompany the original proposal. Consultation with the American Public Health Association on this, and on the larger problem of assuring employment, might have proved fruitful. From the beginning, appropriate contacts might have been made and specific job commitments obtained. Perhaps, too, what contributed to defeating the employment objective was the greater initial emphasis laid on the project’s educational goals, with particular stress on their potential for social rehabilitation. Social rehabilitation, indeed, might have been most fully realized for some trainees by the very assurance of employment for which they were trained, provided such employment offered some chance for upward mobility.

The data suggest that many trainees had found their own “personal counselor” in the secretary.

No job commitments were obtained before the start of the program, though contacts with community leaders had led to informal offers. While there is a demonstrated need for sub-professionals in public health, the need had not been translated into concrete positions, with potential career ladders, by the end of the program. As a result, there was a rather panicky scramble to find next steps, and there was some demoralization among the trainees.

For the full job description of a Public Health Aide, see Appendix. Note the extent to which the specific tasks are of a menial or clerical nature.
The recommendation that job commitments be obtained in advance, or in early stages of a new program, may be difficult to carry out because: (1) it involves a considerable gamble for employers; (2) few community agencies can make firm future employment commitments, for financial reasons.

The issue seems to have been: general social rehabilitation versus specific training for sub-professional jobs. Given the youth of the trainees, it is not surprising that the program leadership emphasized general education over specific vocational training. Certainly the eight trainees who went on to the university profited from this emphasis. Of course, another reason for this emphasis may have been the anticipation of some difficulty in providing enough sub-professional jobs, and of the even greater difficulty of providing sub-professional jobs with potential for advancement.

Results

We now turn to the question raised in the introduction: to what extent did the project succeed in preparation of a new kind of manpower for careers in public health and in expanding public health programs through the employment of sub-professionals? The cost of the program per trainee per year was approximately $4000. Were the returns on the public funds spent commensurate with the investment? Though we shall examine the question of economic gains, we shall consider returns in their broadest meaning.

Sixteen candidates completed the training program and fourteen earned an Associate of Science degree in Public Health. Of these, four are currently employed in public health positions in the Springfield Department of Public Health; two in Child Hygiene and one in Sanitation, in the category of Public Health Aide; the fourth works for the State Division of Air Pollution Control with regular Civil Service classification for such work and at a pay rate considerably higher than that for Public Health Aide. One graduate is employed as a hospital laboratory assistant, one as a Job Corps Counselor at the Y.W.C.A. Two married females are at home. The remaining eight trainees are continuing their studies at the University of Massachusetts, seven at the School of Public Health. The project director, who had assisted them in the admission process and with finding finances for their studies, stated that, had positions been available to them, some of these students would have chosen to work immediately and continue their studies on a part-time basis. It can be concluded that the project succeeded in committing these students to careers in the field of public health.

Why, then, was this trained manpower not exploited? Did potential employers question the adequacy of this training for employment in public health? This cannot be said in regard, at least, to the four graduates who are presently accepted as competent public health workers, one of whom was considered, by open-minded employers, as qualified for related, more specialized, and better-paid work. The Health Department Director stated firmly: "the day to day (sanitarian's) work does not need to be done by a college graduate." The Principal Sanitarian, who gives direct supervision to a Public Health Assistant, concluded that there are few duties performed by the professional sanitarian which cannot be assigned to a Public Health Assistant with supervision. Others have remarked: "Actually he's as good as several of my old timers." "I'd prefer having the
Public Health Assistant with his on-the-job training than a new college graduate who has a license but no real experience:"

Yet evidence remains of reluctance among line personnel to design assignments for a Public Health Assistant on a regular basis. Although the Principal Sanitarian could not readily specify any difference in duties assigned to the Public Health Assistant and professional staff, other than working up legal depositions for court action, a task which must be assigned to professional staff, he would prefer to hire only experienced professional sanitarians. In his estimation, there are no "sub-professional" duties performed by his staff.

What of the economies claimed to result from employment of sub专业人士s? The Director of the Springfield Department of Health stated: "Public Health has never met the demand for services ... we just don't get enough professional personnel ... this is why we turn to the Public Health Assistants ... the Public Health Assistants working in the Springfield Health Department have increased the volume and quality of operations by permitting professionals to concentrate on tasks requiring more skill:"

The figures also speak for themselves. Employing the Public Health Assistant in either division of the Health Department is an immediate saving in personnel costs of nearly $40 a week, $170 a month, or $2080 a year. Beginning Public Health Assistants were paid $81 a week; the range for beginning professionals is from $121.50 to $150 a week. A department with a limited budget could be expected to increase volume and quality of its services substantially by concentrating tasks of an elementary nature in single jobs for a Public Health Assistant.

The Director, however, was reluctant to consider the use of sub-professionals in any department that is incapable of first meeting all required services with professional staff. Only when he had a full complement of professionals would he save cash by employing the sub-professionals. In other words, he would give priority to efforts to obtain budgets for professionals rather than moving in the direction of employing more sub-professionals.

Yet, even had employers unanimously agreed that an identifiable cluster of public health tasks can be performed with equal competence by both professionals and sub-professionals, and that the employment of sub-professionals results in economies that warrant independent budgetary planning for this category, still another question would confront them: why budget for a position which does not offer an attractive career ladder?

If the department head recognizes the usefulness of the sub-professional, he thereby acknowledges that many of the hours spent by the professional have been misused. Also, he has to cope with new problems of job specification and assignment. In a small department, the effort may not seem worth making. Furthermore, all professionals fear encroachment upon their hard-won territories. The fears are likely to be greater in the marginal professions than in the established professions.

The department head always struggles with a less than optimum budget, and always fights for more money. He may have professional positions remaining unfilled for years, due to lack of money. If he fills these positions with sub-professionals, this may mean that in subsequent budget fights his arguments for more money will be weakened by the very percentages he has saved on salary to the sub-professionals.
The matter of a career ladder is perhaps the most critical issue for any program which trains youth, as this one did. The task of training people for new careers is far less difficult than the task of developing careers for people once trained.

The Springfield Public Health Aides, with two years of college, began work in 1967 at $81 a week. A survey made by a Springfield high school job counselor showed that its graduates during the same year who did not go on to college were earning a median income of $78.55 a week six months after graduation. Another survey, made by the Springfield Joint Civic Agencies, showed a starting range for truck operators of $75.20 to $86.30 a week, while for secretaries with two years of college the median starting salary is $83 a week.

After working as a Public Health Aide for three years, the employee will earn a maximum of $92.40 a week. According to the same Springfield high school study, students with two years of college earn almost as much in entry level positions, with a median of $88.55 to $93.55 a week. A recent publication of the United States Department of Labor asserts that the average lifetime yearly income for males age 18–64 with one to three years of college is $6173. This is a figure to which the Public Health Aide cannot aspire, since he has already reached his maximum at $4836 a year.

In other words, the Public Health Assistant is in no position to advance himself in a recognized career. Like the licensed practical nurse, he can amass in-service training and experience but cannot be promoted to a level greater than supervision of his colleagues without additional formal training, which could prove repetitive as well as costly. The director of Springfield's Health Department stated: 'We (medical and paramedical program administrators) can have in-service training forever but that training has no ticket.' Although the Public Health Assistant, because of his broad base of training, may benefit from the flexibility of horizontal transfer, vertical mobility is limited indeed. In the final analysis, the administrator and/or the Public Health Assistant will suffer frustration due to the "deadendness" of the Public Health Assistant position.

This problem, although of paramount concern to the project personnel, goes beyond it and must be solved within the field of public health. The American Public Health Association, with the assistance of those involved in carrying out and evaluating this project, should begin to set minimum national standards for the training and use of sub-professionals in public health. Included should be clear provision for upward mobility.
Appendix A

Public Health Assistant Job Description*

Nature of Work in This Class:
This is responsible sub-professional public health work.

Work involves responsibility for performing a variety of assigned public health tasks in assisting public health specialists, such as public health nurses, sanitarians, public health educator, and public health laboratory technicians, in the less complex aspects of their specialties. Work is performed in accordance with standard, well-established procedures in the field of public health with supervisory assistance readily available in situations requiring discretionary action or material deviation from routine. No supervision is exercised over other employees.

Illustrative Examples of Work:
Assists public health nurses by performing sub-professional tasks in connection with child health conferences, school health services, mass immunizations, communicable disease control, and related programs.

Sets up, dismantles clinic and examination equipment and areas; weighs, measures babies and students; sterilizes equipment; registers patients; reviews immunization records; prepares injection sites; schedules school physicals; prepares parental notifications and reports; follows up home visits by nurses to assure compliance in correcting defects and in communicable disease cases; participates in sanitary inspections of day care centers, nurseries, and nursing homes.

Assists sanitarians and milk and food inspectors by performing sub-professional tasks in the inspection of premises, facilities, and establishments, and in the enforcement of regulatory provisions.

Serves as member of inspection team, performing less complex aspects in the sanitary inspections of eating establishments, food preparation plants, swimming pools, hospitals, and schools; investigates assigned complaints of unsanitary conditions and practices; reinspects to insure compliance with orders to correct violations; redesemstrates sanitary procedures and techniques; poisons rodent harborage sites, reports findings and recommendations to sanitarians.

Takes swabs of utensils used in food and drink establishments;

*The job title was changed by the Civil Service Commission to Public Health Aide.
collects samples of milk, dairy products, food, and pool and well water, for laboratory analysis.

Follows up lapsed venereal disease cases to insure clinic attendance.

Assists public health laboratory technicians by cleaning, sterilizing laboratory glassware, equipment, and instruments; preparing standard solutions, reagents, stains, and culture media; and maintaining the clean and orderly condition of laboratory areas.

Assists the public health educator by performing sub-professional tasks in a comprehensive educational and informational program to promote municipal public health activities and services.

Operates film projectors and tape recorders; prepares posters and displays; assists in preparing brochures and pamphlets and in cataloging health source material; serves as department tour guide; keeps pertinent records.

Performs related work as required.

Desirable Knowledges, Abilities, and Skills:

Working knowledge of the principles, practices, and techniques of modern environmental sanitation.

Working knowledge of the principles, practices, and techniques of modern public health education.

Working knowledge of the sub-professional aspects of the principles, practices, and techniques of modern public health nursing.

Working knowledge of applicable state and local public health laws, rules, and regulations.

Ability to assist in the inspection of a wide variety of premises, facilities, and establishments constituting actual or potential dangers to public health.

Ability to assist in public health nursing services in connection with school health services, pre-school health conferences, communicable disease control, mass immunizations, and related programs.

Ability to assist in the maintenance of records and the preparation of reports in the areas to which assigned.

Ability to assist in a comprehensive educational and informational program to promote public health activities and services.

Ability to establish and maintain effective working relationships with public health specialists and the general public.

Ability to follow instructions both orally and in writing.
Desirable Experience and Training:
Graduation from a standard high school or vocational school supplemented by college level courses in subjects related to public health.

Experience in sub-professional public health work.

Necessary Special Qualification:
Possession of a valid motor vehicle operator’s license as issued by the Commonwealth of Massachusetts.

Appendix B

Assistance in Designing a Similar Project and in Funding

City, county and state departments of health are eligible under the U.S. Department of Labor’s Public Service Careers (PSC) Program to apply for contracts which subsidize substantial parts of the costs of such programs (including initial salaries of trainees). Application should be made to the Manpower Administration, Department of Labor, Washington, D.C. or to the Regional Manpower Administration in your area.

Publications of the Social Development Corporation which may be helpful (e.g. Merit Systems and New Careers, Job Development) are available free.

The Social Development Corporation, a non-profit organization, can contract to assist local administrators in the planning, designing, staffing or operations of programs.