

# Medical Self-Help Demonstration Project in Davis County, Utah

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DAVIS COUNTY, Utah, developed a demonstration project in medical self-help training during the 1963-64 school year that helped meet the need for disaster preparedness of teachers, students, and parents in the community. The State health department has since recommended the methods used to other counties in Utah.

Davis County has 14 cities, 2 towns, and a total land area of 268 square miles. The population has been growing rapidly from 64,760 in 1960 to an estimated 82,000 in 1964 (1). In the county, there are 27,055 school children (2), about one-third of the population, and approximately 12,722 preschool children (3). There are 33 physicians and 208 registered nurses and in 41 public schools, 891 teachers. Davis County's school district, civil defense, PTA, and health department jurisdictions coincide with political county boundaries and function in all cities and towns.

The county's medical self-help training committee (4) was composed of the health officer, civil defense director, women's civil defense director, superintendent of schools, and of representatives of Hill Air Force Base and the medical society. This committee recognized the necessity for first training key volunteers, who when trained would become leaders in teaching medical self-help to others in the community. Since public school pupils comprise approximately one-third of the county population, professional teachers trained in medical self-help

methods could assume a leadership role in the school and in the community. Trained teachers could conduct the medical self-help course for high school students and PTA groups. Training of these groups would further the national objective of having at least one member of each family in the community prepared in medical self-help.

## Method and Procedure

To meet these objectives, the committee developed a four-phase project, which the local health department, school district, civil defense, and the Parent-Teacher Association agreed to carry out. Working as a team, members of these key organizations enlisted the help of numerous other persons representing medicine, nursing, and educational television facilities, all of whom devoted many hours to promoting the project. These goals were established:

1. Recruit a group of specialists to be initial instructors for a core group.
2. Have these specialists train at least one faculty member from each elementary and secondary school in the county.
3. Prepare video tapes for future use in the program.
4. Have each faculty representative train his fellow faculty members with the aid of these video tapes.
5. Incorporate the training material into the high school curriculum, once the teachers were well prepared.
6. Train as many parents of children enrolled in school as would put forth the effort to be trained.

*Phase 1. Preparing instructors and TV tapes.* To fulfill phase 1 of the project, the

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local health officer selected 11 specialists from faculties of the University of Utah College of Medicine, Weber State College of Nursing, and Utah State University to give the medical self-help training lessons to a core group. One man was also selected from the Utah State Civil Defense Corps, another from the American Red Cross, and one from the Salt Lake County Health Department. All agreed to serve without pay.

One teacher from each district elementary school (with the exception of three schools which were already participating in other unrelated inservice projects) and two teachers from each secondary school (because of larger faculties in secondary than in elementary schools) were selected by each principal with approval from the superintendent of the school district. This core group of 44 teachers and 5 supervisors was to learn medical self-help training with the understanding that the 44 teachers would in turn teach it to their respective school faculties.

Simultaneously, the superintendent of the school district and the health officer arranged with the Utah State University Extension Division at Logan to add a 2 quarter-hour upper-division course entitled "Health Education 154" to the extension program (5). In this course, the 49 members of the core group and, subsequently, 82.2 percent of the school district teachers were enrolled. Throughout the course, each core-group student received an opportunity for individual practice of principles and techniques presented, such as mouth-to-mouth resuscitation experience with "Resusci-Anne" manikins and similar procedures.

The school district appropriated \$5,348 so that 44 of the 49 persons in the core group could be paid \$40 each to take the course and subsequently teach it to his fellow faculty members; (5 supervisors in the district were not paid since they were not required to teach the course). The remaining \$3,588 was used to purchase and produce eight 30-minute video tapes, later used as enrichment material in the course, and to pay for extension division credit for teachers who wished to enroll in the extension class. A brief survey had revealed that there was a well-functioning television set in every school in the district.

Television tapes were made at the Utah State University's educational television studio with the cooperation of the studio's technical staff, the Utah State Health Department health educator who was working with the medical self-help training program, and the 11 experts previously recruited. The State health department representative and the State department of education television coordinator arranged with the University of Utah's educational TV channel 7 (KUED in Salt Lake City) to telecast the medical self-help training series without cost.

The video tapes consisted of a condensed presentation of key points in eight of the lessons. Although the telecasts went to homes as well as schools, emphasis was given to the school faculty training.

Criteria for successful completion of the course were a grade of 70 percent or higher on the final examination and attendance at no less than 9 of the 11 sessions (6a).

*Phase 2. Courses for school teachers.* The local health officer distributed teaching materials, supplies, projectors, and film strips, provided through the State health department, to the 44 teachers in the core group at their final training session. In phase 2, these teachers taught the course to their respective school faculties with the aid of these materials and the television tapes produced at the Utah State University.

The county superintendent of schools, who had been discussing the self-help training program with all district school principals for some time, recommended that they initiate this program for their faculties. The principals therefore unitedly supported the program and encouraged faculty participation. Classes were held in every county school once each week for 11 weeks from 3:15 to 5:15 p.m. The tapes were telecast for the first 30 minutes in 8 of the class sessions. Following the broadcast, the core-group teachers then presented the material live to their respective faculties and allowed time for demonstration and individual practice.

During this second phase of the program, 733 of the 891 teachers in the county were enrolled in this course. The university's requirements for upper-division credit were met by using the television tapes prepared by experts as well as

the instructions given by the core-group teachers.

*Phase 3. Courses for high school students.* To fulfill phase 3 of the program, the school district accepted the recommendation of the planning committee that medical self-help training be added to the high school health curriculum, excluding the lessons on emergency childbirth. Instructional supplies and materials were subsequently obtained by the State health department from the Federal Government as part of the total Utah medical self-help training program and distributed to the county high schools. Health teachers taught the course to their students, using these materials and the television tapes to enrich it. Inasmuch as medical self-help training was incorporated into the curriculum, no special grades were given for this group of lessons, but all students successfully completing the entire course were awarded appropriately inscribed medical self-help training certificates.

*Phase 4. Courses for parents.* The president of the PTA council, the State PTA health chairman, and two members of the county's medical self-help training committee met with all local PTA presidents and health chairmen and requested support for Phase 4, a training project for parents, recommending that classes for parents and other interested adults be held in all the county elementary schools. The local PTA presidents with their health chairmen, school principals, and public health nurses joined in organizing the classes and recruiting parents to take this training. Room mothers telephoned parents to inform them of the project and encourage them to participate.

The course for parents was presented in evening classes a week apart for 11 weeks at 21 of the district's 29 elementary schools. Medical self-help training materials which were already available in the schools were used. Additional instructional supplies, obtained as needed from the State health department, were distributed by local public health nurses during their routine school visits.

Some of the teachers who had been trained during phase 2 volunteered to teach the parents. Physicians, nurses, sanitarians, and civil defense personnel in the communities also were recruited by the PTA presidents and health

chairmen and participated as assistants to the instructors without remuneration. Criteria for successful completion of the course were a grade of 60 percent or higher on the final examination (as compared to 70 percent for the teachers) and attendance at a minimum of 9 of the 11 sessions.

## Results

During the first phase of the medical self-help training project, all 49 members of the core group of teachers and supervisors taking the course completed it with an average final examination score of 97 percent.

In the second phase, 733 (82.2 percent) of the 891 teachers of the school district enrolled and successfully completed the course. The core group taught these classes, using TV tapes as enrichment as well as live presentation of the training material. The group of 733 comprised 436 of the district's 529 elementary teachers, 170 of its 178 junior high teachers, and 127 of its 184 high school teachers. (A few administrators are included in the figures for elementary and junior high school teachers.) The average final examination score of the 733 was 94 percent. Although individual evaluations of the course were not tabulated, many favorable remarks were volunteered concerning the adequacy of its content and the method of presentation, and appreciation was expressed for the free university extension-division credit.

The course was the largest single extension course ever given in any one semester at Utah State University and the largest inservice training program ever attempted by the Davis County School District. Utah State University Extension Division officials, the Davis County school district administration, and faculty members expressed delight at the excellent response and beneficial outcome of this project.

In the third phase of the project, 1,381 Davis County high school students (489 in the 10th grade, 816 in the 11th, and 76 in the 12th) were given lessons in medical self-help as part of health courses in their secondary school curriculum. It was planned that during the 1963-64 school year students in the 10th and 11th grades in high school would take the course; then in succeeding years medical self-help would be in-

corporated into 10th grade health classes. The 11th grade is the last one in which a formal health course is required by the school district.

In the fourth phase, 446 (54.1 percent) of 824 PTA members who enrolled in the medical self-help training course completed it. Those who failed to receive certificates had not attended the required minimum of nine sessions.

During the 1963-64 school year, 2,609 persons in Davis County completed the course, and 378 additional persons participated in parts of it (see table). The national objective is to have at least one person in every family trained (?). Approximately 20 percent of Davis County families achieved this goal. Comparison of training results with those for previous years demonstrated that the type of community approach used in 1963-64 was superior to other medical self-help training methods previously tried in the county. In 1961-62, only 251 persons completed such courses and in 1962-63, only 278.

Phases 3 and 4 are to be continued as part of the total medical self-help training program in Davis County, but the planning committee is also exploring training for other groups. Such training will be included in an additional phase which will round out the total community organization plan.

#### Discussion

Directions contained in the medical self-help training instructions indicate that persons teaching the lessons should read the material from the prepared text (6b). Two hours of reading at each session, however, had previously proved to be an effective soporific. Therefore, most of the principals and faculty members suggested that instructors prepare, in advance, lessons which would emphasize fundamental principles and that students read assignments before coming to class. As a result, ennui decreased. A slight switch in the lesson sequence was also found more subjectively appealing. The lessons on rescue breathing and emergency childbirth were given first and second and "Radioactive Fallout and Shelter" third even though "Infant and Child Care" would perhaps more logically follow immediately after the lesson on childbirth. All other lessons were given in the original sequence.

#### Number completing medical self-help training course during school year 1963-64, Davis County, Utah

Phase	En-rolled	Completed course	
		Number	Percent
1. Faculty representatives----	49	49	100
2. Faculty members-----	733	733	100
3. High school students-----	1, 381	1, 381	100
4. PTA members-----	834	446	53. 6
Total-----	2, 997	2, 609	80. 4

School principals' requests that faculty participate in the courses and the scheduling of sessions at the schools from 3:15 to 5:15 p.m. promoted teacher attendance. Also, free tuition for 2 quarter-hours of upper-division college credit upon satisfactory completion of the course was arranged to fulfill part of the teacher certificate renewal requirements. In addition, as mentioned, \$40 was paid to each core-group teacher for teaching his respective faculty.

Health and physical education teachers taught the course to high school students. Several physical education and health teachers had specific athletic assignments, however, and were unable to remain throughout the 3:15 to 5:15 p.m. sessions. Although they successfully completed their final examinations and subsequently handled the course work well, this handicap should be anticipated if such personnel are used. All things considered, the time chosen probably resulted in more faculty members enrolling than would have been possible at any other time.

The conscientious teamwork of the agencies participating in the project helped to lighten or overcome many of the difficulties that developed during the project. Some early assumptions required modification as the project progressed. For example, the planning committee had assumed that if professional teachers were well trained in medical self-help training, they would assist in teaching PTA sessions. The average final examination score of the teachers in medical self-help was 94 percent,

indicating that they had probably acquired excellent understanding of the training material. Most of the elementary teachers, however, were so child-oriented that, although they were willing to do their part in the community effort, the majority were hesitant to teach adult groups, even with experts to assist. As a result, some difficulty arose in recruiting teachers for phase 4.

It was believed that if classes for PTA members were held in elementary schools, proximity of the schools to members' homes would make attendance convenient and help to increase enrollment. Although this assumption may be true, even after courses were announced through mass media and personal telephone invitations were extended by room mothers to parents of every child in each county classroom, only 834 parents enrolled.

Moreover, during phase 4, significant numbers dropped out of the course, an occurrence characteristic of similar adult programs throughout the State. This phase was the only one taught to noncaptive audiences and not at a place of employment. Perhaps an employment-centered approach results in higher enrollment and fewer dropouts. Next year efforts will be made to pick up dropouts from the course. Each elementary PTA health chairman has a class roster and will be requested to telephone dropouts and inform them when and where classes will be held, particularly the specific lessons that they missed.

Working through the schools to train teachers, children, and parents in medical self-help appears to be an efficient and effective approach. Training a core group, which in turn trains peer groups, is an expedient way to train large numbers of people. This same method of training in phases is being used in Davis County schools for other programs also, such as training in recent developments in mathematics. Involvement of community decision makers in such a project facilitates its promotion.

The lifesaving principles presented in a medical self-help training course may prove to be among the most important things that high school students can be taught, especially those students who will discontinue school shortly to start families of their own.

The Davis County project amply demonstrated that a method of outside reading by students, coordinated with educational television and classroom instruction, is effective in disseminating semitechnical information in a minimum time to geographically widespread school faculties.

Use of educational television to supplement and enrich the course can be most helpful to both teacher and trainees. Some have even asked if the entire medical self-help training course could not be taught by television more effectively than by having a teacher for each group of 25 persons. In planning television teaching, however, consideration needs to be given to means of control of students in groups. An instructor will be needed who is familiar with the training materials and experienced in teaching medical self-help techniques. He should be capable of assuming responsibility for small groups of students. He will need to answer questions and supply details not covered by the telecast. Another consideration should be the provision of adequate opportunity for students to practice the techniques which TV has introduced and the instructor has demonstrated.

Natural or war-caused disaster could strike this country at any time. If school teachers have been trained to know what to do in medical emergencies when no physician is available, children in their classrooms may have a better chance of survival. Teachers previously trained in medical self-help will probably have greater confidence in their ability to act expediently to save lives and prevent panic. Finally, by such training parents may be relieved of some anxieties as to the welfare of their children, and the community will benefit from having a large segment of its population prepared for the unexpected. As part of a continuing program to maintain a high level of knowledge in ways of surviving in time of disaster, school pupils, who will be the future parents in our nation, need to receive medical self-help training along with their academic education.

### Summary

A community medical self-help training project in Davis County, Utah, proved so effective in training large numbers of people that the State health department has recommended that

the methods be used in other Utah counties. The training project required the combined efforts of county schools, civil defense, local and State health departments, PTA, Red Cross, practicing physicians, nurses, faculty members and technical assistants from two universities and one college and of other civic-minded citizens.

In the first of four phases, a core group of 49 public school teachers and supervisors was trained. The understanding was that members of this group would be paid to conduct subsequently a training course for fellow faculty members. Television tapes to enrich the course were also prepared. In the second phase, the core group taught the course to 733 of their 981 fellow teachers with the aid of television tapes. All faculty members who completed the course received 2 quarter-hours of upper-division university credit without cost to them. In the third phase, 1,381 county high school students received medical self-help training as part of their health courses. In the fourth phase, 446 of 824 PTA members who enrolled completed the training course; the classes for parents were held in elementary schools close to their homes and taught by public school teachers and health specialists residing in the community.

By July 1964, Davis County (population ap-

proximately 82,000) had trained more persons in medical self-help than any other county in Utah. Of the 3,138 people trained in the last 3 years in Davis County, 2,609 completed their training in 1963-64; 378 additional persons were also partially trained in 1963-64. One person has been trained in approximately 20 percent of the county's families.

#### REFERENCES

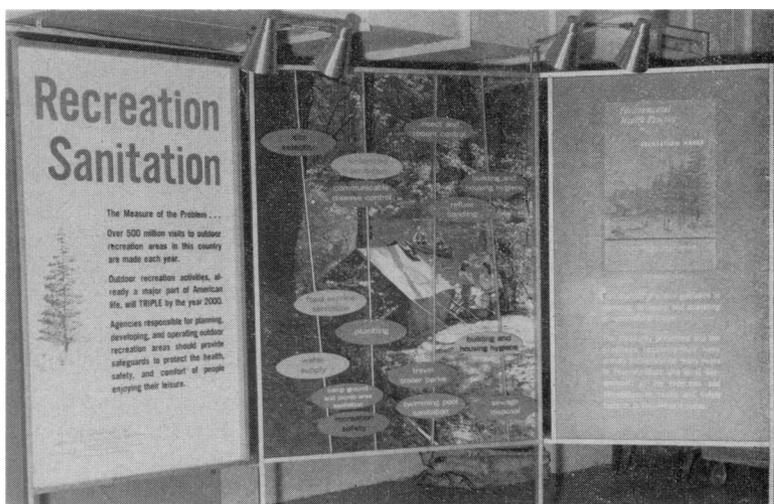
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## Exhibits

### Recreation Sanitation

Existing and future recreational sanitation problems are described and necessary health safeguards are listed on this exhibit, which announces a new Public Health Service guide, "Environmental Health Practice in Recreation Areas."

The exhibit is available on loan free from the Special Engineering Services Branch, Division of Environmental Engineering and Food Protection, Public Health Service, U.S. Department of Health, Education, and Welfare, Washington, D.C., 20201. Allow at least 2 months. Instructions for assembling are attached to the packing crate.



Specifications: No. DEEFP-113 Recreation Sanitation. Free-standing exhibit, 9 feet wide, 7 feet high, and 3 feet deep, total weight 400 pounds including the crate. Lighting fixtures require one 500-watt outlet.