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(Community Action in Appalachia)

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THE HEALTH EDUCATION PROGRAM - UNIT 12

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Lexington, Kentucky

August 1968

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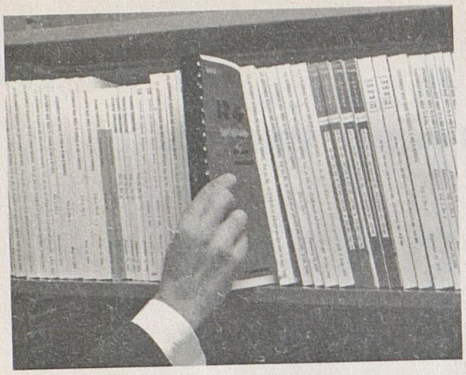

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COMMUNITY ACTION IN APPALACHIA

An Appraisal of the "War on Poverty"
in a Rural Setting of Southeastern Kentucky

(Report of a study by an interdisciplinary team of the University of Kentucky, performed under Contract #693 between the University of Kentucky Research Foundation and the Office of Economic Opportunity, 1965-1968)

UNIT 12

THE HEALTH EDUCATION PROGRAM

by

Paul Street

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ABSTRACT

The Health Education Program, a part of the Knox County OEO community action program, has, since it began in 1965, changed from an almost purely educational operation into one additionally involved with service. Whereas it was at first, in effect, restricted to such activities as distributing posters and leaflets, showing health movies, promoting and presenting discussions, conferences, or lectures on health, and urging people generally to seek professional medical services, it now provides a mobile unit staffed with one or more nurses who can administer services within the scope represented by the role of the public nurse.

The mobile unit, a clinic and laboratory in several respects--with examination facilities, sterilizing and refrigerating equipment, air conditioning and its own power plant--delivers services to remote areas of a rural mountain county by scheduling regular appearances at the various 14 community centers scattered about the county. It is operated in close cooperation with the county health office, reporting its activities, for instance, with those of that office in monthly records for the State Department of Health.

After some three years of operation--two with the mobile unit--the program has gained considerable acceptance among the Knox County population. Samplings among leaders of the county as well as householders generally provided evidence of approval, in terms of feelings

that health services in the county had improved since 1965--ranging from 82 percent among householders to 95.7 percent among leaders.

The specific impacts of the Health Education Program are illusively intertwined with other forces representing both the OEO community action operations (adult education, home economics and home improvement counseling, the Early Childhood Program with shots and physical checkups for youngsters, etc.; and there are others not connected with OEO). The task of sorting its influences from among the "conglomerate" was not accomplished in this study.

Nevertheless, some impact--in some instances rather clearly related to the OEO community action program if not directly to the Health phase--emerged as measurably significant. For instance, more of the youth from areas served by the community action program (where centers operated) responded correctly to questions of health information than did those from other areas. County-wide, too, youth reported more dental and medical checkups and more recent treatment from a nurse, when questioned at Time 2, than they had at Time 1 some 18 months earlier (all at significance < .05 level).

Also, a question in the householder interview schedules, dealing indirectly with the family planning emphasis in the program--asking people's opinions of the ideal number of children for a family--had a response at Time 2 significantly reducing the number named at Time 1.

In general, however, the public health operations in "bulk" in Knox County appear not to have increased substantially, either

since the program began in 1965, or perhaps even since the mobile unit went into operation in August 1966. The combined outputs of both the OEO and the county health office, routinely reported by the county health office monthly were analyzed for trends in four basic activities: immunizations, family planning conferences, child health checkups, and chronic disease checks. Only in the second and fourth of these was there any discernible increase that might show a relationship to the coming of the mobile unit, and the variations were such that no conclusions could be made with assurance.

The cooperative relationship between the OEO and the county health programs appears to effect an efficient arrangement. It does not, however, produce more trained personnel. Actually, the OEO Health Education Program, since it apparently could pay more, "pirated" two nurses from the county when the mobile unit was obtained. These have not been replaced--for such personnel is in short supply in Knox County. The effect is somewhat, therefore, a partial displacement of, rather than addition to the original health service program in the county--which may explain why the measurable "bulk" of fundamental health services has not significantly increased since the "addition" of the OEO health program.

ACKNOWLEDGMENTS

Credit is due Dr. Arthur S. Holmes and Miss Peggy Kemner and their staffs for the generous help they gave in providing the information compiled here, but particularly for their openness, forthrightness, candor, and patience with the "inquisitor."

THE HEALTH EDUCATION PROGRAM

by

Paul Street

The Health Education Program was one of the originally specified undertakings set forth in the component approved by the Office of Economic Opportunity for funding the Knox County Community Action Program in spring 1965. While the original draft of goals and requirements of the undertaking emphasized the educational function, the request included plans for a mobile unit as part of the operation, and the program which has now emerged gives considerable emphasis to services.

The program appears to have undergone some very considerable revision since its initiation in spring 1965, both in philosophy of operation and in actual function. Its original director described it as almost purely educational, with little liaison between its staff and that of the county health program, or of medical practitioners of the county. Several months were spent in waiting for the delivery of a mobile unit by which the program was to be, and now is, carried directly to areas throughout the county. By the time this unit had been placed in operation (in August 1966) a new director, herself a licensed nurse, was in charge, and a relationship had been developed with the local health authorities so that the program was operating beyond what might be termed purely an "educational" scope. The staff

of the mobile unit included a licensed nurse and, in addition to distributing literature, lecturing, or presenting health movies, they administered limited physical examinations, made some innoculations, and gave considerable advice with emphasis upon referral to competent sources of treatment. As of the closing date for gathering data for this study (March 31, 1968), the county health department and the Health Education program of Knox County CAP appear to be a well coordinated combination. The mobile unit first got use in connection with health examinations for the Early Childhood Program, in which every participating child was examined and given the typical battery of "shots" for the garden varieties of childhood diseases. (It appears that the county health officer administered most, if not all, of these examinations.)

The mobile unit is a motorized van of rather impressive proportions and arrangements. With its own power plant (to produce either 110 or 220 voltage current), it is air conditioned, provides cooking (sterilizing) and refrigerating units, and minimum laboratory and examination facilities. It makes possible a program of periodic visits to communities (usually to the CAP community centers--though it does not discriminate between center participants and others) which otherwise are rather severely isolated from health services. Two nurses, in addition to the Health Education coordinator, ordinarily work with the unit. The nurses have, of course, certain respected competencies but are presumed to be representing the county health service in what they do in performing physical examinations, administering innoculations, or advising in a way beyond what might be termed "educationally." They do not, they report, dispense any

medicine. They may advise on contraceptives, but do not dispense "the pill." The only pills they appear to have dispensed (beyond such things as aspirin which may be obtained without prescription) have been vitamin tablets, free samples provided by drug companies in very considerable amounts.

More specifically, functions of the program appear to be:

1) Physical examinations (including simple urinalysis--excluding any microscopic examination for infection). (Also, the unit has no X-ray.)
2) Innoculations for common diseases.
3) Diabetic tests (conducted in a special campaign).
4) Counseling (on family planning, for example) with emphasis on referral of cases to particular agencies, doctors, the county health office, or other treatment resources.
5) Education--by movies, leaflets, conferences.

Design for Evaluation

Postulated in the design for this study were these hypotheses related to the Health Education program:

1) That the Health Education program will influence the attitudes of people of Knox County in the direction of concern for prevention of disease (as opposed to a less sophisticated "fatalistic" acceptance of poor health).
2) That it will increase understanding of health problems.

It is worth considering that the functions of the program have been enlarged since the study of it began--i.e., functions like

vaccinations that go beyond education. Accordingly, the evaluations offered here are a bit different from those originally planned.

As indicated, there appears to be close cooperation between the county health office and the program, the work done in the mobile unit, for instance, being reported through the health office monthly reports. Also, the mobile unit is expected to refer cases to the health office, and the entire Health Education Program is presumed to generate concern about health problems that should increase the activities of both public and private health agencies.

This report will:

1) Examine for possible trends in use of public health services, on the assumption that the Health Education Program, if effective, should generate some increased use of those most readily available to low-income people.
2) Provide some descriptive interpretation of the program, as a basis for the readers of this report to make judgments.
3) Review briefly information gathered for other phases of the larger study of which this is a part as they relate to possible impacts of the Health Education program.

Trends in Public Health Activities

From the items included in the monthly reports of the county health office, those appearing most representative of those impacts the CAP is meant to effect were selected. They were in four categories assumed to be germane to any basic appraisal of the program: Immunizations, Field and Office Visits for Family Planning, Child

Health Examinations, and Screening Tests for Diabetes, Cancer, and Heart Disease. Tabulations were made on records going back approximately a year before the program began and more than two years before the mobile unit was obtained, on the assumption that any significant changes, indicated in quarter-by-quarter comparisons, could reasonably be presumed to represent impacts. Table 1 interprets the results, as do graphs 1, 2, 3, and 4, which are based on Table 1.

Table 1 and the graphs suggest the possibility of some increased activity coincident with the mounting of the field-operations phase of the program--the use of the mobile unit beginning in fall 1966. This possibility appears, however, in only the categories, Family and Office Visits for Family Planning and Screening Tests for Chronic Diseases. Even so, the data hardly justify any comfortable generalization one way or the other.

The most obvious conclusion would be, of course, that the program is ineffective, at least in two of the four major areas selected for the tabulation. Visits to the mobile unit, conferences with staff, and examination of diaries of the nurses who go with the mobile unit, however, provide convincing evidence that the program is reaching into outlying areas and serving people of poverty and of real health need. Also, the opinions of Knox County people generally are supportive of the program. Somehow, such service is not interpreted through the statistics--that is, in statistics which provide a baseline against which to measure. The change is in quality, more than quantity, of service.

TABLE 1

PUBLIC HEALTH ACTIVITIES OF THE
KNOX COUNTY HEALTH OFFICE*

(Activities selected as relevant to Knox County OEO-CAP Health Education Program)

Quarter	Immunizations**	Field & Office Visits for Family Planning***	Child Health Examinations****	Screening Tests for Diabetes, Cancer, Heart Disease*****
July-Sept. 1964	1,558	111	21	0
Oct.-Dec. 1964	2,655	128	467	498
Jan.-Mar. 1965	3,040	105	3	0
Apr.-June 1965	966	115	110	0
July-Sept. 1965	1,266	110	273	146
Oct.-Dec. 1965	3,810	117	209	7
Jan.-Mar. 1966	4,390	114	628	2
Apr.-June 1966	1,896	90	812	11
July-Sept. 1966	870	116	615	696
Oct.-Dec. 1966	1,280	161	0	317
Jan.-Mar. 1967	1,565	155	0	699
Apr.-June 1967	2.095	141	129	191
July-Sept. 1967	538	158	388	322
Oct.-Dec. 1967	1,685	87	0	938
Jan.-Mar. 1968	1,351	147	0	32

*Both the OEO-CAP staff and the county Health Office report that there are often delays in getting their reports together, that what is left out one month is reported in the next. It was for this reason that data were grouped into quarters, rather than reported by months. Also, parts of the program are by "campaigns." Diabetes testing, children's vaccinations, etc., are usually done in concerted drives--which explains the extreme variations even the 3-month intervals did not adjust.

**Includes item coded 103-007.

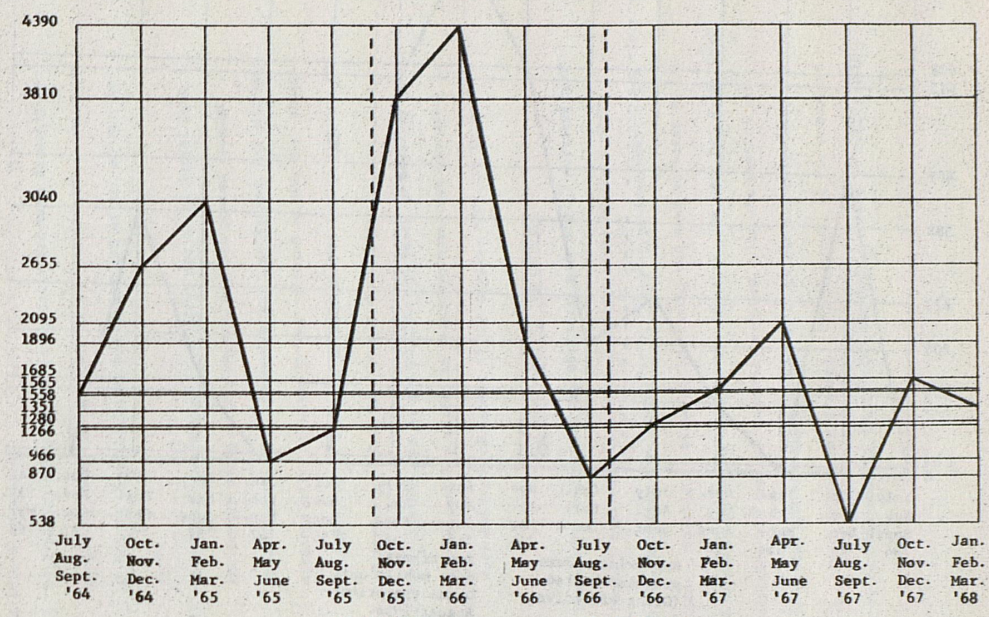
***Includes items coded 201-048-D1-25; 202-049-D1-26; and 202-066-D2-18.

****Includes items coded 22-101-E2-21; 222-102-E2-22; and 22-102-E2-23.

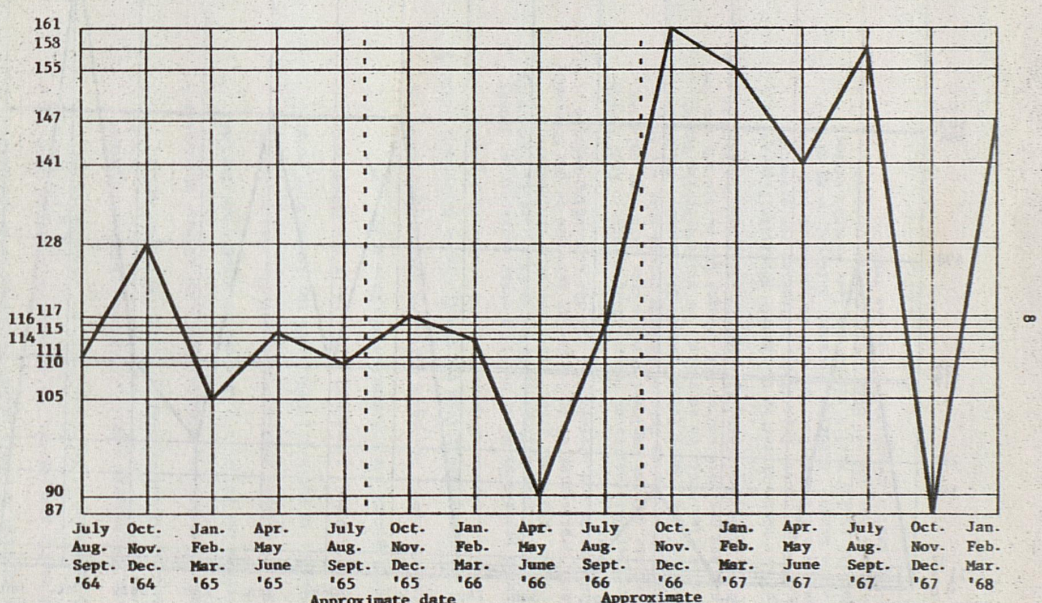
*****Includes items coded 313-155-H2-21; 323-156-H2-22; and 333-157-H2-23.

GRAPH 1

IMMUNIZATIONS REPORTED IN MONTHLY REPORTS
OF KNOX COUNTY HEALTH OFFICE BY QUARTERS
(July 1964-March 1968)

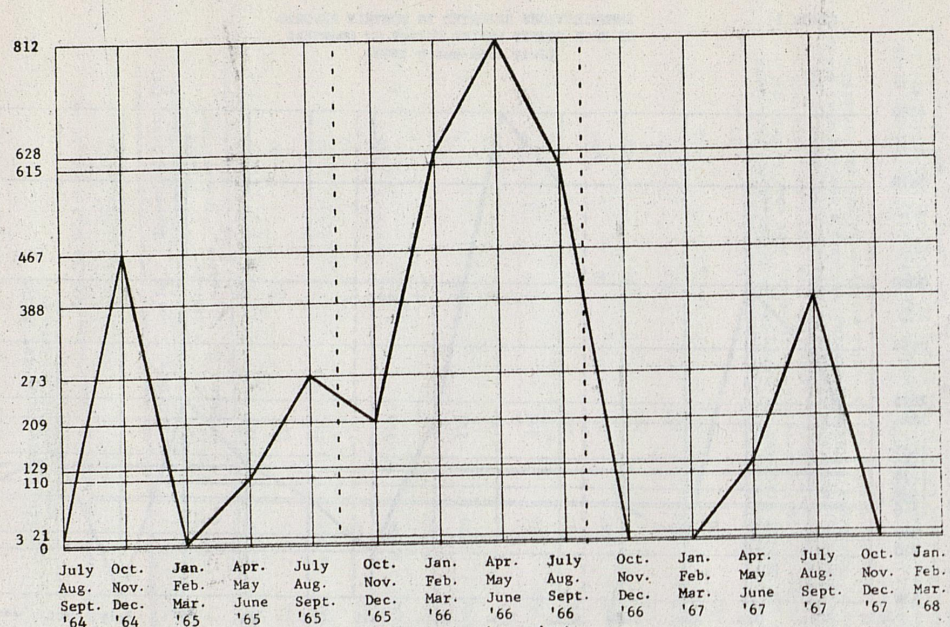


(July 1964-March 1968)

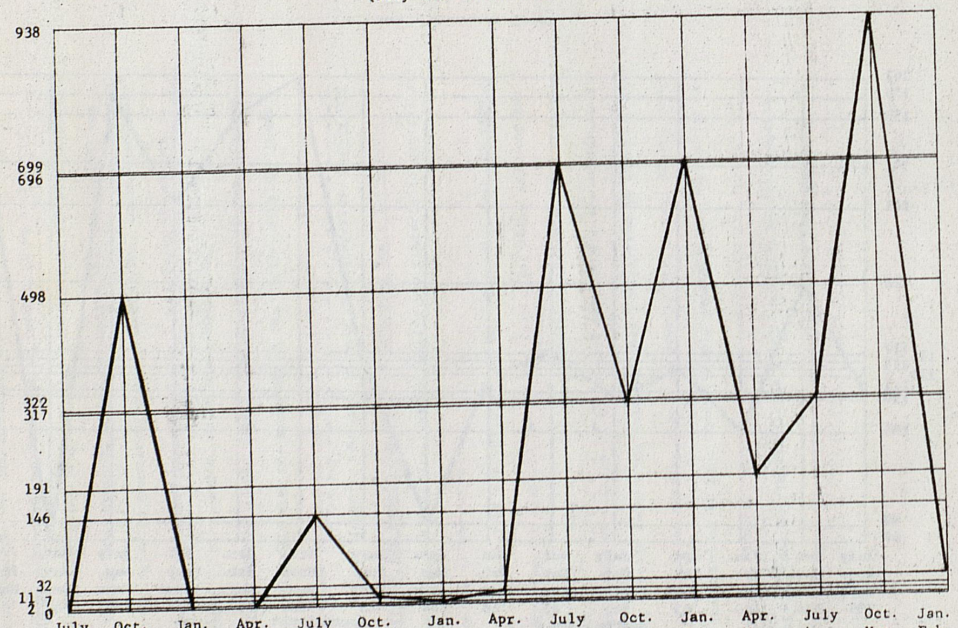


GRAPH 3

CHILD HEALTH EXAMINATIONS REPORTED IN MONTHLY REPORTS
OF KNOX COUNTY HEALTH OFFICE BY QUARTERS
(July 1964-March 1968)



GRAPH 4 SCREENING TESTS FOR DIABETES, CANCER, HEART DISEASE, REPORTED IN MONTHLY REPORTS OF KNOX COUNTY HEALTH OFFICE BY QUARTERS (July 1964-March 1968)



Part of the explanation, this writer believes, is in the fact that the OEO-CAP health program has, by unfortunate fortuity, been permitted to displace much of the county health program as it was operating when the OEO program began.[1] (The cooperative arrangement between the program staff and the county health department would appear to be good. That is, it supports efficiency of both operations--so cooperation is not the point.) A shortage of nurses--and the CAP appears to be able to recruit them more successfully than the county health office--has (as of March 31, 1968) left the latter with only one nurse (rather than a full complement of 3) while the former now has, as of the closing date for information for this study, two nurses plus a director who is herself a qualified nurse. (Incidentally, she was drawn to the directorship from the County Health Department staff.[2])

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[1]An unpublished paper done by A. D. Wills under direction of Robert Gloor, University of Kentucky College of Medicine Field Staff, "Community Diagnosis Knox County, Nov.-Dec. 1966," draws the same conclusion. Mr. Wills itemizes "Duplication of Public Health Services by the Community Action Program" as one of his impressions. In the concluding section of his paper he states:

> There is improper utilization of the existing nurses in Knox County. The CAP under the OEO has employed three nurses with high salaries and a $30,000 Mobile Health Unit to do many things that are the responsibility of the County Public Health Department. The solution to this problem would be to retire the present Public Health Nurse and replace her with one of the younger CAP nurses and use the money spent on these duplicated services to carry out its program

[2]This writer has been assured by the Health Education Program director that the County Health Department is seeking replacements for vacancies in its staff and that there is no intent to have one program displace the other. Actually, however, information as of July 1968 is that the county health office has lost another nurse, by her retirement, who has not yet been replaced; also that the director of the CAP Health Education Program has resigned.

In effect it appears:

1) That health services are being delivered more directly to people of need--though there is no "yardstick" by which to objectify what should be the extent and effect of the services.

2) That as of the date of this report the total impact upon the health needs of the county, as interpreted through objective evidence of service units delivered, has not been substantially increased by the addition of the CAP, except, tentatively, in the area of counsel for family planning and of screening tests for chronic diseases.

3) That instability in the program and delay in delivery of the mobile unit and shifts in personnel have been obstacles to full delivery of impact of the program upon its target.

The Character of the Service

The mobile health unit has obviously made health services much more readily available to people in remote areas of the county. (Also, CAP has made the "Scouts"--the "jeep"-type four-wheel drive vehicles--available to those of low income who need services at the local or other hospitals outside the county.) The unit has a schedule for visiting all the CAP community centers, with the days of its visits posted and announced in advance. It has not restricted its visits, however, to centers alone. For instance, it has scheduled days to be stationed in the Artemus community, where no center exists.

Table 2, based on monthly reports of the Health Education staff, interprets the pattern of activities with which it is involved. It appears likely that whatever impact it has had will be found generally diffused throughout the county.

TABLE 2

ACTIVITIES OF MOBILE HEALTH UNIT STAFF
BY QUARTERS, BASED ON MONTHLY REPORTS
NOVEMBER 1966-MARCH 1968

Quarter	Immuni-zations	Personal Contacts Conf.	Family Plan-ning	Refer-rals	Examina-tions, Tests	Movie Viewers	Persons Receiving Vitamins
Nov.-Dec. 1966*	306	598	15	3	467	489	126
Jan.-Feb. 1967**	185	570	11	10	468	673	146
Apr.-June 1967	473	1,014	4	5	602	301	200
July-Sept. 1967	353	1,373	6	4	1,126	768	258
Oct.-Dec. 1967	249	757***	9	3	1,166	392***	196***
Totals	1,566	3,312	45	25	3,829	2,623	926

*October report not available.
**March report not available.
***October report incomplete.

Note: Figures above are based on monthly tabulations. This reporting arrangement appears to have been changed, the reports since January 1, 1968 being in narrative diary form in which "counts" of activities are in many instances not recorded. One suspects that the above tabulations lack accuracy--but probably in the direction of under, rather than over, reporting.

Obviously, data presented in the table above provide no "baseline" from which to appraise progress in the health services to the county--though the starting point for such services delivered by the mobile unit was obviously zero. The table does perhaps, however, provide a basis for each to make his own judgment of a sort.

Perhaps some "flavor" of the program emerges in the monthly report by the Health Education Program director, quoted here to provide some view of the wide range of program activities. (It may be noted that, despite the shift in character of the program to include services not purely <u>educational</u>, the activities do include very considerable attention to education. Indeed, it appears likely that much of the energy of the staff is given to promotion of health understandings and attitudes, and in actually persuading people of poverty to make use of available health resources.

This fact suggests the futility of any effort toward objective quantification of what may well be regarded as some of the greatest values in the program. The objective data provided in this report may well be viewed by many as missing the most important points of value.

Note in the report quoted below that there is great variety in what goes on in the program, that it is entangled with activities of many groups, that, of necessity, it makes adaptations to exigencies of weather, local resources, personnel limitations, and emergency demands. This report, quoted in its entirety, is for January 1968:

SUBJECT: Health Coordinator's Report for January

The nutrition talk was given by Hester Neal in only two centers, Kay Jay and Jackson. This is a course of ten lessons suggested by Head Start Guidelines. We hope that more centers will take advantage of this nutrition course. I, also, explained to the center directors that if they were going to use this course that they should start this month so that we would not have to be teaching several different lessons in one month. The talk was scheduled at Barbourville Center but bad weather cancelled it once and illness cancelled it the second time.

The Good Grooming 4-H Project is going well in several centers: Kay Jay, Messer, Rosenwald, Jackson, Middlefork, Grays, and Barbourville; all report good groups. Two movies, one on teeth and one on dating, were shown in all of the centers, by Sue, that could schedule them during the week they were here. They were not shown at Messer, Cannon, Wilton, and Bethel. The King and Queen Contest has been put off until March to allow more time for the centers to get ready.

The Mobile Unit was hampered this month by bad weather. Flat Lick and Fount cancelled, and then Rosenwald cancelled but had a make up day the following week. The film strip on breakfast was shown in most centers. At Cannon and Kay Jay it was not shown because it was not taken. At Middlefork it was not shown because of no center building. Wilton said it was not shown because no one asked to see it. At Ketchen it was not shown - no reason was given.

Senior Citizen's Day was held at five centers: Messer, Kay Jay, Jackson, Grove, and Barbourville. Jackson and Kay Jay had 24 and 27 in attendance, and even Grove reported 23, so Senior Citizens must be enjoying themselves

The centers reported having taken nine people to the dentist. This involved five centers, which is indeed an improvement. In the Middlefork Center Area, where it has in the past been reported to me that the parents would not take their children to the dentist, I have done a lot of visiting myself. I took four car loads on each Friday of the month, using all three dentists. Twenty-eight different children made thirty-one visits to the dentist. One hundred and forty-four fillings were done, thirteen extractions, twenty-six cleanings and twenty-five fluoride treatments. Ten of these children still

need to go for further work. I have given these statistics to show how badly needed this program is to educate the people that their medical cards will pay for all this work, and we will furnish transportation if they need it. With only one family done I need to make more than one visit and one family cancelled their appointment. This family cancelled twice but the third time four went to the dentist. I have at least proved to myself it can be done, and I hope I have proved this to others.

The Dewitt School has now had vision checked by Mrs. Foley on Mondays. Three hundred and eighty-three children were checked and twenty-four were found to need referral to the doctor. All but a few of the twenty-six children in the Flat Lick School, who needed referrals to the eye doctor, have been visited at home and transportation arrangements been made as necessary.

Sue and I have visited four one-room schools giving shots, and did some Health Education on teeth. Sue will be working in some of these areas getting the children with medical cards to the dentist.

We did not get to work on finding out how many children missed the measles vaccine this month. We will try again next month.

We supplied transportation for nine people to University of Kentucky Medical Center, and I have provided transportation for two to London T.B. Hospital.

Questionnaires were given to the center directors on Monday, January 29. Information for this report was asked for and they were to return them to me by Wednesday, January 31 when they were all in town for a meeting. They were not turned in by Bethel, Ketchen, or Flat Lick even by February 1 at noon.

Goals for March:

1. Continue working on the 4-H Good Grooming

2. Continue on-going programs:
   a. Mobile Unit Day
   b. Senior Citizen's Day
   c. Dental Programs
   d. Supplying transportation
   e. Follow-up of vision tests

3. Work on measles vaccine

4. Get ready for T.B. Testing.

A nurse's report for the same month provides more detail and concrete imagery. It is presented here without editing, in the practical form she delivered it from her notes.

SUBJECT: Nurse's Report For January

MESSER - January 3

Only four children were able to get in for school. We showed the film strip to them and what adults that were in the center. The children were taken home at noon. They had no water, the pipes had frozen, and the furnace got off to a slow start. Several came for vitamins and to have their blood pressure taken. The building was clean and all the staff was present except the director. Mrs. James came for Adult Education Classes.

MIDDLEFORK - January 4

Another chilly day. Several came for blood pressures and vitamins. The Children came back for shots, also, give some measle vaccine. We parked on the road across from the Scalf Post Office. There was not enough room to get off the road, but it wasn't too bad since there is not much traffic. Rachel was the only one that worked.

JACKSON - January 5

We had a good day for such a cold time. Several women came in the center to sew. Hester helped one lady make a dress and one to start a sweater. Some of the women pieced quilts. A door prize was given. Early Childhood was not weighed since the Mobile Unit didn't make the trip. The whole staff was present.

I checked eyes at Dewitt School on January 8, did 117 tests.

CANNON - January 9

Another bad day, the roads were very bad. Several women came to quilt and had a dinner. There wasn't any Early Childhood today. All staff was present except the Early Childhood workers.

GROVE - January 10

All the staff was present. James came in the afternoon. Mr. Folk came for Consumer Education, but no one came for the class. Eva went to Callebs Creek and brought some in, but he had to leave. It takes an hour or more just to go up there in bad weather. Several came in the afternoon.

I took a day off on Thursday due to bad weather. I was unable to go to Fount so I stayed in the office most of the day and worked on records.

BETHEL - January 12

We had a pretty good day at Bethel. I talked to the Early Childhood Children about breakfast.

On January 15 and 16 I took Emergency Leave due to the bad weather.

KAY JAY - January 17

Several ladies were in and out of the center, mostly for a short visit or a knitting lesson. The roads were very bad and there wasn't any school.

BARBOURVILLE

I did very little at Barbourville Center. The Early Childhood had good attendance. I gave several shots and showed the filmstrip on a good breakfast.

GRAYS

The business was as good as usual, although some of the children that needed shots were sick and unable to come.

On January 22 I did shots and eye test at Dewitt - 57 shots and 36 eye test.

ROSENWALD - January 23

This was a make up day, but we had a fair day. Most of the women were in for knitting lessons.

WILTON - January 24

A very good day. Several children came in for shots.

HEARING CLINIC - January 25

KETCHEN - January 26

A good day, had two children for measle shots. I, also, worked Ketchen School.

On January 30 I went to Dewitt School and did 100 eye test.

One consideration in appraising a health program is that the effectiveness of the program may reduce the demand for its services. If, for example, family planning should become widely accepted there would be few seeking help of the family planning counselors. Similarly, once the youngsters are immunized for some extended periods against the more common diseases for which protection is available, the fewer will be eligible to take the shots. This consideration complicates the making of any conclusive appraisal. The assumption made here, however, is that the "market" for the Health Education Program is not yet saturated.

Responses to the Program

Popularity is certainly no scientific yardstick of effectiveness of a program--so long as any more objective data are available. Certainly, however, the judgments of the consumers of the Knox County CAP Health Education Program, the people of the county, should be considered in the appraisal, though how heavily they should be weighted is obviously an open question.

The program, identified widely with the mobile health unit, appears to be generally approved. Sutton (Unit 8 of this report) gathered opinions on various phases of the CAP in his study of community and CAP leadership and in the Time 2 form of the householders interview

schedules. He asked respondents their impression of whether or not the health services of the county had improved since the inception of CAP. While the approval was, as might be expected, highest among CAP staff, it was actually quite high in all groups. In fact, the Health Education Program appears to have the most general approval of all the CAP undertakings except the Early Childhood Program. Here are the results of Sutton's tabulation:

	Number in Group	Percentage Who Felt County Health Services Had Improved since CAP
CAP Staff	28	100.0
Member, Board of Knox County (CAP) Economic Opportunity Council	22	95.7
CAP Leaders of Poor	32	88.9
Community Leaders (non-CAP)	22	75.9
Members of CAP Local Action Groups Interviewed in Householder Survey	74	93.7
Non-Members of Local Action Groups Interviewed in Householder Survey	441	81.8

As already suggested, the Health Education program had, at least in the beginning, an <u>educational</u> more than <u>direct-service</u> goal. That is, it was not expected to displace the existing county health program--though it seems reasonable to assume that, since the mobile unit was a very early idea, the CAP health program was to <u>supplement</u> the existing health services.

In the original application for funds for the project are these words:

> A program is envisioned which will educate all residents of Knox County about health and sanitation . . . .
>
> Its purposes are:
>
> --To provide a "point of contact" for health services at a grass-roots level.
>
> --To provide mobile facilities which can be taken to residents of economically depressed areas of the county--including the isolated hollows.
>
> --To teach residents about the nature and needs of the human body . . . .
>
> --To encourage use of the County Health Department.
>
> --To provide a referral service.
>
> --To help the County Health Department through providing space and assistance in the community centers and outposts.
>
> --To provide health services which can be carried out by a registered nurse.[3]

While service was included, the original focus (as emphasized also by the original director of the program) was <u>education</u>. An important aspect of evaluating the Health Education program, therefore, would appear to be its effect upon the attitudes and values of the population of the study, as those are concerned with modernization in matters of health.

In the householder interview schedules were questions related to home sanitation. Of 335 homemakers responding in both Time 1 and Time 2 interviews, 38.0 percent reported running water in the home

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[3] "Community Center Program Component," proposed to Office of Economic Opportunity, sponsored by Knox County Economic Opportunity Council, Inc., March 1, 1965.

in Time 1, while 45.2 percent did so in Time 2--a difference significant at the .03 level. The cause of this change may be variously assigned, especially since the responses come from both community center and non-community center areas. Also, whether or not the change should be "credited" to the Health Education or to the Family Development program with its home improvement campaign, or to various other agencies and forces, would be moot questions even if the relationship between CAP and the change were made clear. The diffusion of interest and willingness to adopt changes which spreads the impact of a change agency to areas beyond the geographic focus of its operation is, of course, generally recognized. Also, it has been pointed out that the program does not limit itself to the CAP community center areas.

Two other questions in the householders schedules were relevant to the Health Education Program. One asked the respondent what he regarded as the "ideal" number of children for a family. The other regarded adoption of birth-control practices.

The responses to the first question produced:

TABLE 2

RESPONSES TO QUESTION OF WHAT MAKES IDEAL NUMBER OF CHILDREN FOR FAMILY

	Ideal Number of Children			
	N	T_1 M	T_2 M	t Probability of Differences
Non-Center Areas	273	4.20	4.32	.45
Non-Participants in CAP Center Areas*	84	4.79	4.50	.44
Lower Participation	107	5.23	4.73	.13
Higher Participation	67	5.26	4.49	.07

*Participation was judged by community center directors for eight report periods: 1 = no participation in center activities; 2 = below 25% participation; 3 = 25% to 75% participation; 4 = above 75% participation. Lowest score, therefore, was 8, highest 32. No participation = 8; Lower participation = 9-12; Higher = 13-32.

The table reveals that no change made by the different groups reached a statistically significant level (.05), though the change for the higher participation group approached doing so (.07). Also, the trend, along a "continuum" from non-center areas to higher participation groups appears uniform enough to suggest that it is no "accident."

Donohew and Singh (Unit 7 of this study) report their treatment of the responses to the question of adoption of birth-control practices. They analyzed the results by area: (1) non-center, (2) areas where there were comparatively new CAP community centers, and (3) areas where centers were in operation when the study began. They obtained significant figures (< .05) demonstrating change (toward increased adoption of birth-control practices) in both the non-center and older-center areas between Time 1 and Time 2 of the study--about eighteen months. In the newer center areas they also got increased-adoption results, but not at an acceptable level.

A little point worth noting, however, is that with the "least modern" types of people (the more isolated, lower-income, etc.--people who are the prime target of OEO-CAP) Donohew and Singh found significant change (< .01) toward adoption of birth-control practices in the longer-established community center areas. This suggests that the program may be somewhat "on target."

Caudill (Unit 6 of this study) concludes that youth of the county have changed in their responses to questions about health and in their reported behavior toward care of themselves in the period since the CAP began, and that in some instances the change is related to the CAP.

He asked youths in grades 6, 7 and 8 three questions of health information. A greater percent of those whose homes were in CAP community center areas gave correct answers than did those from non-center areas ($p = .02$).

Regarding county-wide responses, he observed that seventh graders, between Time 1 and Time 2 of his questioning (October 1966 and February 1968) reported more recent dental and medical checkups. (For both, probability was $< .05$.) Also, seventh graders at Time 1, who were eighth graders at Time 2, reported more recent ($p = < .05$) treatment by a nurse.

Conclusions

It would certainly be derring-do to generalize that the CAP Health Education Program has, alone, raised the level of behavior and attitude regarding health values in Knox County to a measurable extent. There are measurable changes, but forces which generate them are too illusive to permit assured conclusions. Perhaps the most acceptable interpretation of the impact of the Health Education Program appears in the report by Donohew and Singh (Unit 7 of this study) which was previously cited. It deals with change and adoption of innovations. They offer evidence that between Time 1 and Time 2 of the study there was a general movement of the population of the study toward "modernity," and that this movement was in some instances related to participation in the CAP and location of residence in areas served by the CAP centers.

Actually, the Health Education Program, along with programs for adult education (many of which are health), home improvement, child care, and involvement in CAP group activities, appears to have become part of a blend of forces identified with the CAP--though it should not be overlooked that there are other forces too. (There was already, for example, a "family planning" program operating in the county when OEO-CAP was established.)[4] It seems reasonable to assume, however, that the Health Education Program has contributed somewhat in this "blend," to the trend toward acceptance of a more modern way of life which Donohew and Singh document (within the limitations of their study) as emerging out of the impacts of Knox County CAP.

In summary it may be said:

1) The Knox County CAP Health Education Program has, perhaps, increased public health services in two areas: Family Planning and Examinations for Chronic Diseases. That such is the case cannot, however, be asserted with any real assurance.

2) The character (quality) of the program has "improved"--as service is delivered to remote areas and, presumably, more directly to the CAP "target," people of poverty.

3) The "marriage" between the CAP Health Education Program and the county health office is a mixed blessing: The cooperation may well be regarded as commendable--the competition, for personnel, for instance, and the consequent displacement,

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[4] The Rural South Fertility Experiments, Report No. 1, Feb. 1966 (Edited by Donald J. Bogue), published by Community and Family Study Center, University of Chicago, reports a program of planned parenthood in eastern Kentucky, including Knox County.

in part, of one program with another--is a different matter.

4) There have been in the last two years measurable impacts upon the health practices and understandings of Knox County people, and they appear to be related in some instances to the CAP. These impacts cannot, however, be directly related to the Health Education Program, since it is only one in the field among other CAP and non-CAP operations concerned with health.