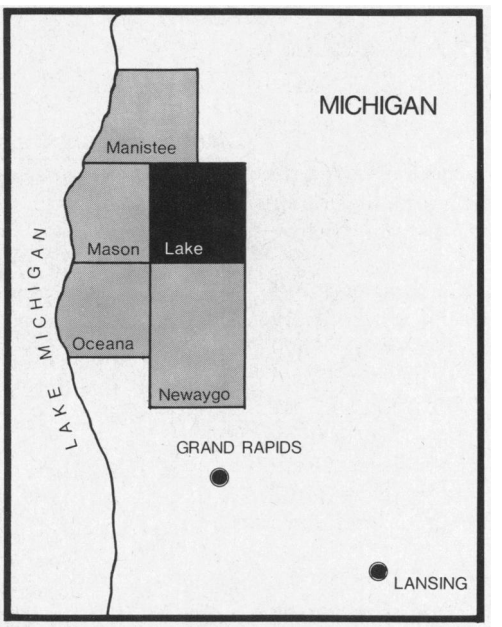
LAKE COUNTY, MICHIGAN A Profile of Rural Poverty, Public Health, and a Plan That Failed



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LAKE COUNTY is a very small segment of Michigan. Due to its relative isolation, most State residents probably are unaware of its existence. Although Lake County is an even smaller segment of the nation, there are areas comparable to Lake County in most States. Awareness and understanding of rural poverty with its concomitant public health problems and of the factors relating to the successes and failures of the programs which have been initiated in recent years to remedy these problems are essential if meaningful action is to occur.

Background

Lake County is in the western part of Michigan's lower peninsula, 24 miles east of Lake Michigan and 50 miles north of Grand Rapids (see map). It encompasses 572 square miles, with a majority of the land area in the

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Table 1. Population of Michigan, Lake County, and four adjacent counties, 1900–70

Census	Michigan	Lake County	4 adjacent counties[1]
1900	2,420,982	4,957	78,058
1910	2,810,173	4,939	86,119
1920	3,668,412	4,437	73,709
1930	4,842,325	4,066	66,999
1940	5,256,106	4,798	71,926
1950	6,371,766	5,257	76,670
1960	7,823,194	5,338	81,678
1970	8,875,083	5,661	88,682
Percent change, 1900 to 1970	+266.6	+14.2	+13.6

[1]Manistee, Mason, Newaygo, and Oceana.

Table 2. Percentage distribution by age groups, population of Michigan, Lake County, and four adjacent counties, 1970 census

Age group	Michigan	Lake County	4 adjacent counties[1]
Total	100.0	100.0	100.0
0–4	9.1	7.0	8.3
5–14	21.4	19.4	22.1
15–24	17.8	13.0	14.9
25–34	12.2	7.9	10.6
35–44	11.3	8.3	10.3
45–54	11.3	10.4	11.1
55–64	8.4	13.4	10.2
65 and over	8.5	20.6	12.5
65–74	5.3	14.1	7.4
75–84	2.6	5.3	4.1
85 and over	.6	1.2	1.0
Median age (years)	26	38	29

[1]Manistee, Mason, Newaygo, and Oceana.

Manistee National Forest and the Pere Marquette State Forest. Much of the rest is occupied by a number of private estates, preserves, and resorts as well as more than 4,000 summer cottages.

Ottawa and Potawatomi Indians were the county's initial inhabitants. White settlers, primarily lumbermen, arrived shortly after the end of the Civil War. Black migrants arrived later, after the first World War. They came mostly from Chicago, attracted by land promoters who had induced them to buy lots by spreading the false rumor that the Ford Motor Company was planning to establish an assembly plant in the county. Most presently live in an unincorporated ghetto, Idlewild, and in adjacent areas.

Much of the extensive forests were cut down by the turn of the century. The resultant departure of the lumbermen led to a gradual population decline which continued for 30 years. A number of resorts for black persons were opened in the 1930s since segregation practices commonly enforced then effectively barred them from many recreational facilities in all parts of the country. Because of the widespread desegregation which resulted from Federal civil rights legislation in the early 1960s, the resorts have closed and are now largely abandoned or used for other purposes.

Demography

The county's population reported in the 1970 census was 5,661, an increase of 323 (6.1 percent) over 1960 and 704 (14.2 percent) since 1900 (table 1). Lake County ranked 79 among Michigan's 83 counties in number of inhabitants. Baldwin, the county seat and largest incorporated area, had a population of 612. Most of the remaining residents live in a rural setting.

Lake and the adjacent counties have had a steady population growth since 1930, primarily due to the inmigration of older, largely white, residents with limited income who have purchased retirement homes. Also, a number of former migrant farm laborers, mainly Chicanos from Texas, have settled in the area. One-fourth of Lake County's inhabitants are black, a percentage exceeded in Michigan only by Detroit's Wayne County. Their number, however, decreased 9 percent between 1960 and 1970 because of outmigration of younger black persons who found local employment opportunities limited or nonexistent. Many younger white residents have moved out for similar reasons. The populations of surrounding counties are all more than 97 percent white.

The inmigration of older residents and the concomitant outmigration of younger inhabitants has produced an age distribution in Lake County which differs drastically from the State as a whole and from adjacent counties. In the 1970 census, the average (median) age was 38 years in the county, 26 years in Michigan, and 29 in four adjacent counties—Manistee, Mason, Newaygo, and Oceana (table 2). Among Michigan counties, Lake residents had the oldest average age and the highest proportion (20.6 percent) of persons 65 or older, the comparable proportions being 8.5 percent for the State and 12.5 for the contiguous counties. The ratio of dependent (those under 15 and those 65 or

Table 3. Resident birth rate and fertility rate 1959–61 and 1969–71, natural increase, and migration 1960–70, Michigan, Lake County, and four adjacent counties

Item	Michigan	Lake County	4 adjacent counties[1]
Birth rate:			
1959–61	25.0	17.7	24.0
1969–71	18.8	15.5	16.7
Fertility rate:			
1959–61	123.3	120.3	136.0
1969–71	89.0	106.5	89.0
Population change, 1960 to 1970	1,051,889	323	7,004
Natural increase	+1,009,456	−130	+6,275
Migration	+42,433	+453	+729

[1]Manistee, Mason, Newaygo, and Oceana.

Table 4. Social and economic indicators, Michigan, Lake County, and four adjacent counties, 1970

Indicator	Michigan	Lake County	4 adjacent counties[1]
Percent of housing units with more than 1 person per room	7.6	10.4	8.0
Median value of owner-occupied housing	$17,500	$6,000	$10,683
Percent of housing units lacking plumbing facilities	4.2	17.3	10.8
Per capita income	$3,373	$2,067	$2,557
Percent of families with income less than $3,000	6.4	25.0	12.7
Percent unemployed	5.9	10.5	7.6
Percent of persons under 21 years on Aid to Families with Dependent Children	11.9	23.7	10.4
Percent 65 and over receiving old-age assistance	4.0	15.3	6.2
Percent of persons examined who were rejected by Selective Service	38.2	41.2	37.1
School dropout rate for grades 9-12	6.0	7.8	3.4
Median years of school completed by population 25 years or older	12.1	10.1	11.6
Percent of live births to unwed mothers	10.6	16.0	6.7

[1]Manistee, Mason, Newaygo, and Oceana.

older) to working age (15 to 64 years) residents was 0.88 for Lake, 0.64 for the entire State, and 0.75 in the four adjacent counties.

In 1970, only 29 percent of Lake County women were in the childbearing years (15–44) compared with 41 percent of all Michigan women. This relatively small proportion in recent years has accounted for a birth rate consistently lower than the State's average (table 3). The fertility rate is a more meaningful measurement, since its denominator is the number of women aged 15 to 44. In 1959–61, the rates for Lake County, Michigan, and the adjacent counties were close, but by 1969–71, Lake County's rate had declined 11 percent, the State's, 28 percent, and the four counties, 35 percent. Lake County now has a high fertility rate, but few births because of the small number of women in the childbearing ages. As a consequence of the low birth rate and the relatively high death rate, Lake was one of four Michigan counties with an excess of deaths over live births between 1960 and 1970.

Socioeconomic Characteristics

The 1970 census reports show that Lake County's median family income was $3,000 for black residents, $7,000 for white residents, and $6,000 for the entire population. The $6,000 income was nearly 50 percent lower than the comparable Statewide figure ($11,643) and one-fourth less than in the adjacent counties ($8,255). This ratio has improved only slightly even though the county's median income has doubled since 1960 and nearly quadrupled since 1950. One-fourth of Lake County families in 1970 had an annual income of less than $3,000, compared with 6.4 percent of Michigan families and 12.7 percent of families in the contiguous counties (table 4). Conversely, the proportion of all families with incomes of $10,000 or more in the three areas was 21.4, 61.4, and 35.7 percent, respectively.

Lake County compares unfavorably with the State and with adjacent areas on a wide gamut of social and economic indicators, as indicated in table 4. While some of these should be interpreted with caution since the number of cases in Lake County is limited, the significance primarily lies in the consistency of this relationship. Latest available data show that, in comparison with the State, Lake County had—

- One-third more housing units with more than one person per room
- A median value of owner-occupied housing 60 percent lower
- Four times as many housing units lacking indoor plumbing facilities
- A per capita income 40 percent lower
- Four times as many families with an annual income less than $3,000
- Nearly twice as many unemployed
- Twice as many children receiving aid through Aid to Families with Dependent Children (A.F.D.C.)
- Nearly four times as many older residents receiving old-age assistance
- 7.5 percent higher rejection rate for persons examined by Selective Service
- 30 percent higher school dropout rate in grades 9–12
- An average of 2 years less schooling completed among adults
- 50 percent higher percentage of births to unwed mothers.

Among Michigan's 83 counties, Lake County ranked—

- 79 in percent of housing units with more than one person per room
- 82 in median value of owner-occupied housing
- 75 in percent of housing units lacking indoor plumbing facilities
- 81 in per capita income
- 83 in percent of families with annual income less than $3,000
- 68 in percent of work force unemployed
- 83 in percent of children receiving A.F.D.C.
- 82 in percent of older residents receiving old-age assistance
- 72 in rejection rate of persons examined by Selective Service
- 81 in school dropout rate in grades 9–12
- 82 in median years of school completed
- 82 in percent of births to unwed mothers.

Current Health Status—Mortality

Lake County's annual mortality rate in 1969–71 of 18.3 per 1,000 was more than twice as high as the State rate of 8.7 and 60 percent greater than the 11.5 rate in the contiguous counties (table 5). While this disparity, in part, reflects Lake County's greater percentage of older residents, its death rates were higher in every age group and were more than twice as large for all age

groups under 45 years. The infant death rate was 46.0 compared with 20.5 for the State. The age-adjusted mortality rate (11.6) was 21 percent higher than the comparable State figure (9.6), 18 percent greater than the 9.8 rate in the four adjacent counties, and was exceeded by only three Michigan counties. Lake's age-adjusted death rates were higher for most major causes of death with three (accidents, diabetes, and homicide) accounting for approximately half of the excess (table 6).

Between 1957–61 and 1967–71, life expectancy declined appreciably in Lake County at every age, with decreases most pronounced between 20 and 49 years (table 7). Concurrently, comparable life expectancy figures for the State and four contiguous counties in general remained virtually constant or improved slightly. Life expectancy, which had been quite similar in Lake County, the State, and the adjacent counties in 1957–61, was consistently lower in the county by 1967–71. At birth, the difference of 1 year noted in 1957–61 had increased to more than 3 years by 1967–71.

Current Health Status—Morbidity

Statistics on reportable communicable diseases are generally of questionable validity because of possible under-reporting and major changes over time in rates based on a small number of cases. For example, in the period 1969–71, Lake County residents had no reported cases of measles, rubella, whooping cough or rheumatic fever, one case of tuberculosis, and three cases of mumps. In contrast to these minimal numbers, 69 cases of syphilis were reported during these 3 years. This number is equal to an annual rate per 100,000 of 406.3, compared with the State rate of 47.0, and is the highest for any Michigan county.

Current statistics on the prevalence of chronic diseases in Lake County are not available. A multiphasic screening program for adult residents was conducted in the county by the Michigan Department of Public Health in 1963. The program employed tests concerned with weight, blood pressure, anemia, blood sugar, syphilis, urine sugar, and urine albumin, and included chest X-rays. Of the 1,012 residents screened, 460 (45.4 percent) were determined to have 914 abnormalities. In comparable screening programs conducted elsewhere in Michigan, about one-third of those tested were found to have abnormalities. Whether or not this difference is meaningful cannot be stated since the composition of the populations tested is not known.

In a random sample of 263 Lake County residents 21 years or older screened in 1965, 74 or 28 percent were

Table 5. Resident age-specific death rates[1], Michigan, Lake County, and four adjacent counties, 1969–71

Age at death (years)	Michigan	Lake County	4 adjacent counties[2]
Less than 1	20.5	46.0	18.5
1–19	.6	1.4	.8
20–44	2.1	4.6	1.9
45–64	11.1	12.2	10.4
65 and older	61.0	63.9	64.9
Total:			
Crude rate	8.7	18.3	11.5
Age-adjusted rate	9.6	11.6	9.8

[1]Per 1,000 population in specified age group.
[2]Manistee, Mason, Newaygo, and Oceana.

Table 6. Age-adjusted death rates[1] from leading causes of death, Michigan, Lake County, and four adjacent counties, 1969–71

Cause of death	Michigan	Lake County	4 adjacent counties[2]
All causes	955.1	1,155.8	976.5
Heart disease	375.9	433.1	392.1
Cancer	167.7	175.1	154.9
Stroke	99.3	61.5	102.3
Accidents	52.7	122.9	73.6
Diabetes mellitus	27.3	40.7	26.7
Influenza and pneumonia	27.2	23.5	26.0
Arteriosclerosis	15.8	11.3	25.4
Emphysema	14.6	18.7	15.6
Suicide	12.1	18.1	13.0
Homicide	10.5	35.2	1.4
All others	152.0	215.7	145.5

[1]Per 100,000 population.
[2]Manistee, Mason, Newaygo, and Oceana.

Table 7. Years of life expectancy at specified ages, Michigan, Lake County, and four adjacent counties, 1957–61 and 1967–71

Age group (years)	Michigan		Lake County		4 adjacent counties	
	1957–61	1967–71	1957–61	1967–71	1957–61	1967–71
Under 1	71.2	71.0	70.1	67.3	71.0	70.8
1–9	72.0	71.6	70.6	68.7	71.7	71.2
10–19	63.5	63.0	62.7	59.8	63.2	62.5
20–29	53.8	53.4	53.7	50.7	53.6	53.1
30–39	44.4	44.1	44.5	42.1	44.4	43.9
40–49	35.0	34.9	35.3	33.4	35.1	34.6
50–59	26.4	26.4	26.2	25.7	26.4	25.8
60–69	18.8	18.8	18.5	18.2	18.6	18.1
70 and older	12.9	12.8	13.6	12.6	12.4	11.8

receiving medication for a cardiovascular condition; 4 or 2 percent had rheumatic heart disease; 54 or 21 percent had high blood pressure; 5 or 2 percent had had a stroke; 26 or 10 percent had renal or urinary tract disease or both; 31 or 12 percent either had diabetes or were suspect; 10 or 4 percent had positive serologic tests for syphilis; and 13 or 5 percent had edema (treated for congestive failure). Because of the small number of detected cases, these percentages cannot be compared with similar data for other areas.

Health Manpower and Health Related Resources

Health manpower and other health related resources have traditionally been limited or absent in Lake County. The one physician, until his recent retirement, spent his entire professional life in the black enclave of Idlewild but served the entire community. During the heavy influx of summer tourists, he was assisted by his daughter, a physician from Detroit. An osteopathic physician practiced in Baldwin until his death in 1965. A third physician, a retired missionary, occasionally treated local residents in her home. Presently, there are no resident physicians in private practice. The county has never had a resident dentist, optometrist, or other primary health care provider. It has had a dentist who, upon retirement, moved to Baldwin and saw some patients in his home. There are two pharmacies but no hospitals, nursing homes, or health-related facilities other than those initially funded in 1967 by the Office of Economic Opportunity and then transferred in 1971 to the Public Health Service. There are a number of small, unlicensed homes for the aged. Residents travel from 30 minutes to 1 1/2 hours to nearby counties to obtain ambulatory care and hospital-related services.

Lake County is part of District 5, a six-county local public health department (Lake, Manistee, Mason, Mecosta, Newaygo, and Oceana Counties). The department had assigned two public health nurses as well as one part-time sanitarian to the county. While this would appear to be an adequate staff, the sanitarian's responsibilities are compounded by Lake County's lack of a central sewage system, a central water distribution system (except in Baldwin), and a county housing ordinance. It has seven established solid waste disposal sites. Baldwin's municipal water supply is neither chlorine-treated nor fluoridated. Nine of the county's 15 townships do not have zoning ordinances and indiscriminate, haphazard development of dwelling sites has therefore been common. Many wells are less than 25 feet deep, are within 50 feet of a septic tank or cesspool, and were installed by unlicensed well drillers.

The Plan That Failed

For some time there had been continuing efforts to establish a hospital in Baldwin which, local residents believed, would meet the medical needs of residents and attract physicians to set up practice in the county. However, attempts to obtain Hill-Burton funds for this purpose were unsuccessful because of the existing facilities in nearby communities.

In 1967 the Michigan Department of Public Health, in consultation with District 5 staff and local residents, submitted an application to the Office of Economic Opportunity (OEO) for funding support to establish a comprehensive health care center in Baldwin. The application was 1 of about 100 approved by OEO for all parts of the country. Of these, 15 were in rural areas, with most of the others in large urban centers. An initial grant of $931,027 was received for the Baldwin center and the program officially came into existence on November 1, 1967. Patients were not seen until April 1968, in part because of the difficulty in finding suitable quarters and in obtaining the required approval from OEO for this site. Because of a mandate from OEO, the official grantee was Five-Cap, a local Community Action Program agency. However, it was anticipated that the project would be operated by the Michigan Department of Public Health with minimal Five-Cap involvement.

The initial application had been for a comprehensive health center which would serve Lake County's entire population, with those able to pay meeting the full cost of services received. To conform with OEO's mandated requirements, this provision was changed to limit eligibility to poverty-level residents of Lake County and adjacent townships in Manistee, Mason, and Newaygo Counties with comparable population characteristics. In 1970 this eligibility was broadened to encompass all parts of these three counties. Satellite centers were opened for this purpose in Manistee and Mason Counties in September 1970. Subsequently, also, an appreciable number of migrant farm laborers and their families were treated through the center. Some programs, such as an emergency ambulance service, were available to the entire community.

As specified in the OEO Manual "Guidelines: Healthright Programs" (#6128-1), published in March 1970, the aim of the centers was "to provide comprehensive health services, such as preventive, medical, diagnostic, treatment, rehabilitation, family planning, narcotic addiction and alcoholism prevention and rehabilitation, mental health, dental, and followup services together with necessary facilities and services. They were to make these services readily accessible and furnished in a manner most responsive to community needs. Further, these centers were to provide employment, education, social or other assistance to the community."

The restriction of eligibility to poverty-level residents brought to the surface a racial antagonism and split which had previously existed but had been largely unrecognized. The concept of a center which would provide health-related services and employment, education, social, and other assistance to residents subsequently led to the hiring of a large clerical staff with limited training and skills, primarily from the local black community. This step in turn contributed to dif-

ficulties in recruiting and retaining competent administrative staff with resultant problems of management and rising costs.

Funding for the program steadily increased, exceeding $2 million during the 1971 fiscal year, when more than 120 local residents were working in the center and it was the largest employer in Lake County (table 8). More than 15 percent of all personal income of county residents came directly from the grant support, and this source was patently the main factor in the rising average family income noted in the 1970 census. Among black residents, the grant undoubtedly provided considerably more than 15 percent of total personal income.

The project was transferred from OEO to the Public Health Service (PHS) in August 1971, with monitoring responsibility vested in the Chicago regional office. PHS grant management staff initially informed the State health department that Federal support would be phased out within 3 years since programs of this type should ultimately be self-supporting. One result of this decision was to expand eligibility for care to persons able to pay (directly or through third-party sources) all or part of the cost of services received. Also, a third satellite center was established at White Cloud in Newaygo County. Funds provided by PHS have steadily decreased since 1971. When the PHS financial support of the project under Five-Cap—Michigan Department of Public Health auspices terminated in November 1974, more than $9 million in Federal funds had been expended (including approximately $850,000 in indirect costs paid to the department, primarily for financial, statistical, and data processing services). The support exceeds 90 percent of the project's total cost, with the remainder coming from fees received for services provided. Expenditures cannot be related to the number of persons eligible or treated since these statistics are not known.

From the onset, the State health department assigned a minimal number of staff from its offices in Lansing to the project. This decision was in line with Michigan's tradition of local control and management of health-related programs with extremely limited State involvement. A local nonprofit corporation, the Western Michigan Comprehensive Services Project, with a 36-member board of trustees having a majority of consumers, was established to advise the department. The board, in turn, selected an 11-member executive committee. Its chairman and a majority of its members were locally identified as militant blacks. The white community remained aloof, noninvolved, and in many cases hostile to the health center. Initially, the department made a commitment to the local community that as soon as the board members attained appropriate background and experience, full administrative responsibility would be transferred to them. In 1971, the department made a unilateral decision to continue its active involvement in the project. This decision reflected, in part, a belief that board members did not have the capability to assume full responsibility. It reflected, also, the department's evolving desire to be involved in direct patient care activities.

This action was construed by some board members as a reversal of the department's previously agreed-upon commitments. It created an immediate credibility gap and furthered the deterioration of relations between the department and the board. This estrangement culminated in March 1973 in a formal statement by the department to the board that any action by the board must receive departmental approval before it was implemented. This decision was resisted by the board and relationships between the two groups were, in effect, severed.

The department submitted an application to the Public Health Service in the summer of 1973, asking that it be named the grantee agency during the project's final year. The application included the provision that some medical services would be provided on a contractual basis, with the assumption that an appreciable part of the cost would be recovered in fees for services from patients and third party sources. The department believed that the cost, estimated at $250,000 per year, of maintaining some of these medical services would be assumed by the State after the withdrawal of the Public

Table 8. Expenditures of the Western Michigan Comprehensive Services Project, 1969–74[1]

Item	1969	1970	1971	1972	1973	1974
Total	$1,247,235	[2]$1,630,066	[3]$2,096,690	$1,768,592	$1,324,215	$1,238,974
Personnel	803,128	1,080,689	1,430,105	1,081,475	864,631	850,058
Salaries and wages	657,052	908,888	1,202,973	984,136	822,636	757,668
Consultants	146,076	171,801	227,132	97,339	41,995	92,390
Other	444,107	549,377	666,585	687,117	459,584	388,916
Travel	43,530	62,349	65,873	32,343	33,451	35,683
Space	83,937	17,087	11,268	10,496	([4])	([4])
Consumable supplies	118,579	191,544	241,835	218,079	144,091	112,119
Equipment	34,572	50,584	49,142	1,526	4,482	45,019
Other	163,489	227,813	298,467	424,673	277,560	196,095

[1]Jan. 1–Nov. 30 for 1969. Nov. 1–Oct. 31 for other years.

[2]Includes $3,636 from special alcoholism program.

[3]Includes $37,880 from special alcoholism program.

[4]Included in other.

Health Service. Simultaneously, a conflicting application was filed by the Lake County Board of Commissioners in cooperation with the clinical staff of the health center. Neither application received the support of PHS's regional office, in part because of a concern over the project's continuing viability and in part because of a reassessment of Federal policy. Presently, the State health department does not maintain any programs in the area other than those provided through the local 6-county health department.

The General Accounting Office (GAO) in early 1973 commissioned and subsequently circulated a national study of the ability of ex-OEO and PHS-sponsored community health centers to be sustained by private fees and third party collections, without Federal grant support (*1*). The report documented that this expectation was not feasible, as long as the centers continued to focus services on the poor and near poor (which their location in ghettos and in rural areas assured), and as long as Medicaid programs reimbursed at levels which did not meet the cost of services provided. In response to this documentation and to pressure from the projects, the official policy of the Public Health Service since January 1974 has been to exhort the centers to maximize third party billings and collections, but to omit the previously enunciated concept of "self-sufficiency."

Because of its concerns and because of this change in policy, the Service's regional office in October 1973 decided to continue its funding support of the project in Lake County only if the following fundamental changes were initiated:

1. Termination of the relationship with the State department of public health and with the then functioning board.
2. Formation of a new policy board under the initial sponsorship of Five-Cap that would represent residents of all four counties served and would move as soon as possible to become the grantee.
3. Recruitment of a full-time project director (the position was vacant at this time with the medical director serving in an acting capacity).
4. Conceptualization and implementation of a health care delivery system with audited quality and performance standards.
5. Exploration of the feasibility of prepaid services and separate provider corporations.

To determine the feasibility of initiating and implementing these changes, the Service authorized a 3-month extension of the grant and sufficient technical assistance to aid Five-Cap with this effort. A 9-month extension was subsequently awarded in February 1974 to continue these changes, and a 12-month grant was provided to the new board, known as Regional Health Care, in November 1974. This board was informed in March 1975 by the Public Health Service that "depending on continued availability of Federal funds, we will continue to underwrite your fine program" (Personal letter from David Schlack, program officer, Department of Health, Education, and Welfare, Region V, to Lucia Hatch, project director, Regional Health Care, Inc.).

Discussion

It is difficult to evaluate the project impartially from its inception to the reorganization in 1974 because of the strong conflicting emotions which have been engendered. However, certain facts are patently indisputable.

Although this project was 1 of approximately 100 comprehensive health centers funded by OEO, we have no way of determining whether or not the issues encountered also arose elsewhere. Evaluation of these is therefore neither intended nor implied.

None of the agencies involved in the initial establishment of the center (Office of Economic Opportunity, department of public health, and Five-Cap) had ever been engaged to any appreciable extent in the direct provision of health care. Virtually none of the staff initially assigned by these agencies to administer this program had training or experience in this area. Surely, this lack should have been recognized as offering little promise for success. That it was not recognized and was allowed to continue should be considered in judging all concerned with this project.

As would be anticipated, administrative staff and health professionals were unavailable locally and had to be recruited elsewhere. Retention of the staff was a continuing problem. While it was originally proposed that some medical services would be provided by students and faculty from Michigan State University's recently established medical school, the College of Human Medicine, these plans did not materialize. The reasons for this failure are not known, but they probably relate to Lake County's distance of 150 miles from the school, the lack of suitable treatment facilities, and the school's evolving concepts of its roles and responsibilities. The project director also served as health officer of the District 5 Health Department from 1969 to 1971. While his dual role was expected to lead to closer coordination and cooperation between the two agencies, this coordination failed to materialize.

Relationships and lines of authority were never defined. Communication between and within agencies was poor and frequently nonexistent. Department staff claimed that OEO and PHS bypassed them in dealing with local project staff. OEO and PHS, in turn, felt that this action was necessary to obtain required action. Local administrators as well as clerical and professional employees were hired and controlled by the board. Internal supervision was minimal. Efforts to establish and maintain lines of authority provoked vehement counter-reactions and, in at least one instance, led to the dismissal of a supervisory employee. Charges of kickbacks to board members by persons seeking and obtaining employment with the project were made to the authors but cannot be documented.

No systematic attempt was made before initiating the project to measure and assess the magnitude of various health-related problems among Lake County's residents. A sophisticated and costly computerized data

system was designed by the Michigan State Department of Public Health; it used mark-sensed forms, with processing to be carried out in Lansing. The local staff was not accustomed or adequately trained to handle these, and a high rate of errors was the result. Forms commonly had to be returned for the correction of detected errors or omissions. These occurrences, in addition to programing difficulties and frequent breakdowns of equipment, produced delayed reports that contained data of questionable validity. Changing Federal requirements for data further aggravated these problems.

The system was designed to count services provided (primarily for the required Federal reports) and could not be used to determine the number of persons served in relation to services obtained. Computer programs to obtain such unduplicated counts were not written and would have required a unique patient numbering system which was never fully implemented. For example, while it was known how many teeth were filled, the number of persons who received fillings was not. Thus, the project's impact on the health status of residents could not be evaluated.

A report on the project (commonly referred to as the Morehead report, after its principal author) was prepared for the Public Health Service in 1972 by the Albert Einstein School of Medicine in New York. The report was highly critical of the quality of services provided and documented an extensive list of deficiencies. The authors recommended a continuing review procedure to monitor remedial actions undertaken. We were not able to determine the extent to which the recommendations were implemented. However, a number of staff members were subsequently dismissed for poor professional actions.

The initial decision to limit the project to poverty-level residents alienated the majority of the county's population who were not eligible. Although Lake County has many poor white persons, its existing racial division was deepened since the local impression was that recipients of care at the center were primarily black (actually a majority have been white) while most white persons were excluded. This belief was fortified by the fact that most clerical employees have been black and are paid in line with State civil service pay scales, which are considerably in excess of local prevailing wages. Further, this exclusion of many residents assured that a locally maintained comprehensive health service could not evolve without continuing outside (Federal or State) financial support. The decision in 1971, after the project was transferred to the Public Health Service, to accept fee-for-service patients came too late to change what had become a fixed community viewpoint and division.

While extensive services not previously available were provided, the cost per service episode, in general, appears to have been excessive in comparison with costs for comparable services in other Michigan areas. For example, the 24-hour a day emergency ambulance service responded to 100–150 calls per year at a total cost of about $50,000. This raises the question as to whether equivalent care could not have been provided more economically through some alternative, such as contractual arrangements. The project provided employment to many residents, and it has therefore been an appreciable boost to the county's economy and, by extension, to all population segments. Whether or not this should have been a suitable justification for a health project is surely open to question.

Postscript

Since the new grantee, Regional Health Care, was not approved and funded until November 1974, its efforts cannot as yet be evaluated. However the following changes which have occurred augur well for the future:

1. A 10-member board, with members from the four counties equally divided between consumers and providers, has been established and is supervising the project.
2. A full-time project director as well as two nurse practitioners have been hired. Active recruitment for additional physicians is underway.
3. An ongoing relationship with the College of Osteopathic Medicine and Surgery in Des Moines, Iowa, has been initiated. Two senior medical students have been assigned to the project on a 3-month rotation schedule throughout the year.
4. A new data collection system, utilizing a commercial processing source, has been installed. This provides ongoing service counts and unduplicated patient data for statistical reports on registration and utilization to meet Federal reporting requirements as well as a tool for local staff in management, planning, and evaluation.
5. Systematic management policies have been drawn up and approved by the board. The project has also commissioned and received its first independent audit since 1971.
6. The medical director has established a problem-oriented medical records system, as well as disease protocols. Planning for an internal medical audit and for an after-hours telephone answering service, with initial determination of service needs, are currently underway.
7. An average of 460 new patients are registered each month.
8. The new board has emphasized the regional nature of the problems to be addressed and of resources available. The satellite center in Manistee County has been relocated in the county seat in order to serve a larger population and is staffed by one of the newly hired nurse practitioners.

Reference

1. Comptroller General of the United States: Implementation of a policy of self-support by neighborhood health centers. B-164031 (2) May 2, 1973. U.S. Government Printing Office, Washington, D.C.