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COMMUNITY CONTROL, HOLMES COUNTY,
MISSISSIPPI


by

Dennis A. Frate, et al.

January 1975

Papers presented at the American
Public Health Association, New Orleans, La
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CAC #144

Montgomery, Bernice

In 1964, projects popped up all over the state of Mississippi, wherein people were taught what their rights were and why they should register to vote and have a say in what projects they would like to have in Mississippi that would affect themselves and their children. In 1964, Federal programs became an issue and there was discussion as to how funds could be brought into local communities. It was at this time that a young couple, Henry and Susan Lorenzi, came through Mississippi on the way to Los Angeles on their honeymoon. They stopped by a community they had heard of, the Mileston community in the Delta of Holmes County, the community where the original 13 persons who were the first to register to vote resided. This couple finding out that these people were desirous of improving conditions for themselves not only stayed overnight but stayed in this Holmes County community for a period of five years before continuing on their honeymoon.

Mileston community was where people first became organized and decided to build a community center. While this was happening one of the community members who was housing some of the out-of-state organizers was accused of arson when a group of Whites drove by his home and shot into it; he returned the gunfire. His house was set on fire and this man, his family, and the visitors were frightened almost out of their wits.

The First Federal Programs

In 1965, the first Federal program came into the state of Mississippi and that program was Head Start, a program geared toward the needs of the preschool child, his family, and community. CDM, the Child Development Group of Mississippi, was organized at that time. Holmes County then opened six centers; children were brought in from all parts of the rural areas to these centers.

In 1967 a much more extensive program was organized in the County, when Holmes County itself had its first independent program, not just centers subordinated to another program. This program was named for a young Black man, named Milton Olive III, who was killed in Vietnam and received the Congressional Medal of Honor. So the program became the Milton Olive III Memorial Program for Children. An office was set up in Lexington, Mississippi in Pecan Grove in a dwelling house not far from the little shack which was first used for voter education, known as the Freedom Democratic Party office.

One of the volunteers to help with voter registration who worked out of this office was Alexander Shimkin. He lived with Black families in the County for quite some time. He helped to write proposals, set up meetings, taught voter education classes, night watched for any potential violence, and did whatever was necessary to help the Black community. After awhile his father, Dr. Demetri Shimkin, became concerned (and I'm not sure what his concern was, but he was concerned) to the point that he came to Holmes County, Mississippi to find out what kind of activities his son was engaged in. Maybe he came to encourage his son to go back home--I am not sure. But when he got to Holmes County, Mississippi and saw the kind of work his son was engaged in he met with some community people and found out what their struggles had been; he sat down and listened to their stories. And when the time came to go home he did not say, "Alex, I want you to go home to Urbana, Illinois." He decided himself that there were things that he could do so he pitched in to do whatever was necessary for voter registration drives and to plan for Federal programs.

Montgomery, Bernice

WORKING FOR HUMAN NEEDS IN HOLMES COUNTY:
A GRASSROOTS VIEW

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This paper outlines the history of the Civil Rights effort, and subsequent community projects, in Holmes County, Mississippi from the viewpoint of a community leader.

Introduction

My comments will deal with the beginnings of organizations and projects in the Black community of Holmes County, Mississippi. The functions of these organizations and projects were geared toward improvements in education, health, total child care, and to the overall well-being of all residents in the County. I would like to start by mentioning the fact that Blacks were beginning to realize how much they were being oppressed by Whites in the 1950's. At that time plantations in the Delta were still in the booming years of the cotton era. And on these plantations you could find the plantation owner and 25 or 30 Black families. Children seldom went to school more than four months during the year; they had to stay on the plantation and pick cotton or chop cotton or what have you. Those were the days when we had split sessions in school. School started in September but we were let out in October and November to allow the children to go home to work in the fields after which they would come back into the school system.

In the early 1960's the situation was no better. I can remember the late summer and early fall of 1962, when 13 Black people attempted to enter the Holmes County courthouse in Lexington, Mississippi to become registered voters. They were held hostage on the courthouse lawn in the hot sun for hours and hours. They were not allowed to go in and register nor allowed to go home. After that time quite a bit of tension was felt around Holmes County. People from other states, mostly attorneys, came in to organize people and set up voter education classes, and to encourage people to become registered voters because this was their right. In December, 1962, I went along with two other school teachers to attempt to register to vote. At that time any Black person attempting to register had to fill out a four-page questionnaire and interpret a section of the Constitution. Most times Blacks were told that they did not pass because they could not interpret that particular section of the Constitution. We knew that Whites did not have to take this long examination but Blacks did. We Black people took the questionnaire, filled it out, interpreted the section of the Constitution, and were allowed to leave after being very harshly treated and told to return in thirty days to see if we had passed. The other two people were so frightened they never came back to see if they passed or not. I went back the last part of January, 1963, to see if I had passed the test. I was told that I had passed but since I had put down the wrong Beat (political subdivision in the County) I would not be allowed to become a registered voter.

When the first Head Start program came into the County, I think I was the first person who decided that the next program that Holmes County needed was a health services program, because I was having problems getting health services for 600 Head Start children. We had a special condition to our grant which said that no children could be served by segregated medical facilities. The only medical facilities in Holmes County were segregated and most of them still are. Our children received inferior services and they still do. (Just last year we knew of a physician who examined 30 children in 30 minutes.) Realizing how important it was that our children get the very best care--most of them were malnourished, most of them had not received any immunizations, and most of them had never seen a doctor in their entire lives--I felt it was necessary to attempt to bring services into the County. With Dr. Shinkin coming back to the County and Alex living in the County they helped write proposals and get them submitted to the Department of Health, Education and Welfare.

Beginning of the Holmes County Health Research Program

We were told that there were no funds to set up such a service program but that there were monies in the area of research. If we could set up a research program and first prove the health needs in Holmes County, then there would be plans for research to fade into services after a four-year period. Proposals were written and submitted to DHEW and were finally funded. This project did a study on hypertension and related illnesses in Holmes County. It was a very successful project because there were dedicated people in Holmes County who worked with the consultants from the University of Illinois and Rush-Presbyterian Medical College.

There were also other projects during that time. A young man working with the local Head Start program, Otis Nelson, working with the consultants from the University of Illinois, set up Project Grassroots. It was a project wherein local people with limited amounts of education were encouraged to attend an adult education program. The majority of them were at a six grade level and in a very short time most of the people attending classes were receiving their certificates. There was a celebration in their honor and that night we saw many a proud smiling face because most of them had gone from a six grade level to as high as a Junior College level after a period of about four months.

Current Accomplishments and Future Problems

Today we have reached a lot of goals and have documented all kinds of information on Blacks in Holmes County. One outstanding fact is that hypertension is the number one illness in the County. Today we are faced with some of the same problems we were faced with back in 1962, '63, '64, and '65. The basic problem is funding. Quite a number of programs are becoming extinct and the same old cries of unemployment are being heard again. Prior to the late 1960's, malnutrition in rural Holmes County, Mississippi was a basic problem. After experiencing the great impact of Federal programs that emphasized improvements and innovations in the health and nutrition of disadvantaged people, malnutrition was rapidly disappearing. It is now very frightening to think how the rising cost of living, the energy crisis, and unemployment in Holmes County, Mississippi may cause the reoccurrence of all kinds of health problems stemming from this national crisis. We feel sure

that the hardcore poor will be most affected. We are interested in programs geared toward meeting the health needs of poor people from a clinical and family health care standpoint. I would like to end with a thought for the day. I used to think I was poor; then they told me, I wasn't poor--I was needy. They told me it was self-defeating to think of myself as needy--I was deprived. Later they told me deprived was a bad image--I was underprivileged. Then they told me that underprivileged was overused--I was disadvantaged. I still don't have a dime, but I have a great vocabulary.

**BIOSOCIAL ASSESSMENT OF A POPULATION
A TOOL FOR RESEARCH AND
HEALTH ACTION**

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A new approach integrating environmental health and epidemiological concepts with intervention strategies is described, and its record, 1967-74, evaluated.

Introduction

In March 1967, Adrian Ostfeld, M.D., and I organized a planning conference, as a part of the International Biological Program, on the Ecology of Negro Peoples. Our concerns were to define the causes and consequences, particularly in regard to health, child development, sociopsychological capacity, and reproductive patterns, of a dominant phenomenon of the industrialized and industrializing world. In the United States, we placed special emphasis on the study of Black migratory streams, since our initial evidence indicated that these were associated with the most intense stresses and adaptive problems, both in source communities and at destinations. We sought to design efforts that might combine advances in knowledge, benefits to the people studied, and contributions to public policy.

This brief sketch, the forerunner of a monograph, will describe our methodology, what we failed to do, what we accomplished, and what value our experience might have.

Basic Concepts

Our approach, the Biosocial Assessment of a Population, proposed to invert traditional epidemiology; rather than seeking the prevalence and environmental associations of a defined disease, we would evaluate the "fitness" of a population subjected to stresses yet to be precisely defined, and supported by social mechanisms yet to be mapped. Both passive observations and appropriate interventions would be needed. The first would define ecological parameters. The second would disclose dynamic responses and adaptive potentials, social and individual, and also bring in practical benefits.

The entire effort was to be a joint undertaking of scientists and target populations, with the latter controlling funding, providing recruits for on-site staffing, and determining policy. We felt that this unconventional partnership was essential ethically. Scientifically, it was our strategy to gain that active and comprehensive cooperation by the community which alone could assure "ecological validity," in Egon Drunsew's usage. The basic procedure we developed included seven stages--an initial assessment, an initial ecological model, a battery of field and comparative studies, operational ecological models, periodic assessments of intervention strategies,

intervention programs and operations, and program evaluations. Each stage had appropriate components. Each involved cooperation between scientists and the target community (Fig. 1).

Underlying these procedures was a heuristic model, which is specified for the Holmes County case in Fig. 2. Our start in this model was the Biological Population, an assembly of inter-related and/or inter-marrying persons, and their offspring, as of a given date. Technically, a "quasi-stable" population, this provides an effective base for both demographic and genetic analysis. Our system of end-points was "fitness," or the health and human development status of the population as measured by life expectancies, disability and morbidity rates, psycho-motor development levels in childhood, and allied indicators. Intermediate analysis evaluated population gains and losses, under the impact of stresses of general physical, socio-psychological, and occupational origins; and with mediation by supportive institutions and directing values.

This heuristic has provided a model for data acquisition, and the basis for developing specific testable hypotheses.

Given the novelty and complexity of our objectives, site selection involved critical decisions. The populations to be studied had to be identifiable and traceable. Each had to be large enough to gain valid results for important problems, yet small enough to be manageable. But relatively small populations could be used only if the expectable deviations from American averages in regard to stresses and "fitness" were large. Nevertheless, we also had to have populations sufficiently unified and competent to be active partners in this work.

After some fieldwork by me and extensive consultation, especially the advice of Alexander Shimkin, then on the staff of the Mississippi Freedom Democratic Party, and Alvin F. Poussaint, M.D., then with the Medical Commission on Human Rights, we selected Holmes County, Mississippi, as our most promising site. It encompassed Delta alluvia, loess hills and clay uplands; small town, plantation, and independent farm settlements; and a Black population of nearly 20,000, migrating to Chicago and elsewhere in the wake of unemployment, disfranchisement, and bitter poverty. Also, Dr. Poussaint's clinical work at Mileston, on Holmes County's Delta fringe, indicated bad health statuses from infancy onward; the prevalences of depression and psychosomatic symptoms were especially high. Yet Holmes County's Black people had effectively organized and would be capable of needed partnership.

These advantages far outweighed the physical difficulties and possible hazards we might face in Holmes County.

Failures, Struggles and an Indirect Success

Our efforts, even more than the International Biological Program as a whole, suffered from shortages and failures in funding. Field operations in Holmes County alone were provided for, by the National Center for Health Services Research and Development. Almost all else had to be improvised, scrounged and donated; our unpaid consultants have given us about ten man-years of skilled work. The Executive Committee of the Milton Olive III Memorial

Corporation, poor people all, has received nothing for long trips and tiring meetings, week after week, year after year. The University of Illinois has been the source of extensive statistical aid, through Vijai Moses of the Medical Center and, more recently, Richard Roistacher, Ph.D., of the Center for Advanced Computation.

Several areas of initial concern, e.g., population genetics, psychological assessment, and micro-climatic studies, could not be effectively pursued. Administrative difficulties prevented mounting intervention efforts in the wake of the studies, by Leland Van den Daele, Ph.D., and Kenrad Nelson, M.D., of physical, psycho-motor, and social development in a 10 percent simple random sample of Holmes County's Head Start population, in comparison with an observed group of 125 children in Yazoo County, where there is no Head Start.

The improvement of child health and the lowering of infant mortality (67/1000 in 1965, even by official data) were goals of the perinatal effort initiated by Kenrad Nelson, M.D. Its initial scope was to train local midwives who attended perhaps three-fourths of the births in the Black population in screening for high-risk pregnancies, which could then be transferred to medical care; and in other elements of mothercraft. In 1969, the University of Mississippi launched a superseding County Health Improvement Program (C.H.I.P.) with similar aims and larger resources. By early 1971, the midwives trained and employed by us had placed some 400 women into the new medical care system instituted by C.H.I.P. A viable and continuing service effort well rewarded the abortion of this phase of our research.

Field and Comparative Studies Made

Despite these difficulties, much has been done. The thirteen field and comparative studies completed as direct parts of this investigation are summarized below:

1. Special Population Census, 1970. (D.B. Shimkin, E. Eckenfels). Some 16,500 usable files comparable to the U.S. Census, but with greater detail on household composition, health, work status, migration, etc.
2. Housing-Unit Census, 1970 (W. Peltz, D.B. Shimkin). Some 4,000 housing units evaluated in relation to health-risk factors, including pathogen exposures, accidents, and crowding.
3. Pregnancy and Perinatal Survey, 1969-70. (K. Nelson). About 400 cases with associated medical and social data, including knowledge and use of contraceptives.
4. Head Start Evaluation Program, 1969-70. (L. Van den Daele, K. Nelson). About 250 matched cases in Holmes and Yazoo Counties evaluating health statuses, psycho-motor and intellectual performances among children with and without Head Start.
5. Streptococcus Epidemiology Survey, 1970. (K. Nelson, A. Bisno). About 600 cases; half the Head Start population bears dermal streptococcus infections in late summer, which are associated with nephritic rather than rheumatic-heart sequelae. The reservoirs of infection have not been identified.

6. Parasitoses, 1970. (K. Nelson, K. Todd). About 250 cases, Head Start children. Mild to severe parasitoses (especially Ascaris) are found among one-third of Delta children and 10-15% of Hill children.

7. Nutritional Survey, 1971. (H. Draper, K. Nelson). A sample of 900 persons, deliberately over-representing the Delta, according to standard protocols, with serology, blood pressure measurements, etc.

8. Geophagy Investigation, 1970-71. (D. Vermeer, D. Frate). A systematic practice of Holmes County women and children, particularly associated with pregnancy, when prevalence reaches 40 percent. Chemical and serological analyses disclose neither deficiency associations nor pathologies. Contentment and appetite stimulation are subjective correlates.

9. Hypertension Screening, 1972-74. (J. Schoenberger, K. Nelson, E. Eckenfels). Field screenings with clinical workups as indicated, totalling about 4,500 cases, including over 500 with multiple testings; associated re-checks of Census data.

10. Health Services Accessibility and Utilization Surveys, 1968-72. (D.B. Shimkin, J. Patterson). Extensive interviews and public workshops in 1968-69 demonstrated poor access, high costs, and discriminatory services in health care for Black people. (E. Eckenfels). A stratified sample, about 300 households, 1972, now showed wide use of medical services, especially for "high blood," but with poor results perceived.

11. Holmes Countians in Chicago, 1969. (D.B. Shimkin, R. Stewart, O. Edwards). A survey of the migratory history, family formations, and economic status of 105 households.

12. Mortality in Mississippi, 1963-67, 1971. (D.B. Shimkin, A. Rice). An analysis of mortality, standardized for composition by sex and age, for all counties, and by race in each county. Levels and major causes of death were related to environmental and social factors. Only two proved to be significant: a 35 ± 15 percent adverse differential for Black compared to White mortalities, and a clustering of higher mortalities with alluvial soil and plantation areas (Delta, Black Belt). An association between infant mortality and intensity of pesticide dusting is highly suspect. Neither measures of poverty per se nor numbers of physicians per 1000 persons had detectable influences on mortality.

13. The Extended Family and Its Functions in Black Society, 1968-74. (D.B. Shimkin, G.J. Louis, D.A. Frate). 1968-72: Multi-household families with extensive cooperation and child exchanges (fosterage) proved basic to survival in poverty ("Witchells") and in migratory upward mobility ("Bidwells"), (D.B. Shimkin, E.M. Shimkin, D.A. Frate). 1972-74. Coordinated field studies in Illinois, Louisiana, Texas and California evaluated the significance of this widespread Afro-American institution.

All statistical data deriving from these studies, and pertaining to Holmes County residents have been, or are being, incorporated in individual, carefully safeguarded files, under the Osiris III data management system.

All field operations in our program were conducted by, or with, our local staff, under the direction of Henry J. Lorenzi (Sojourner) to October, 1969, and Eddie W. Logan, thereafter. Miss Katie Jones supervised our health laboratory; Miss Nadine Randle, the social-survey team. Mrs. Bernice Montgomery has aided in the design of the entire Holmes County Health Research Program, and especially in its articulation with needs and activities in health, child development, and adult education in Holmes County and the entire State of Mississippi.

Intervention Strategies

Throughout our entire effort, the definition of pathologies, the specification of groups at risk, and the assessment of potential interventions have been dominant concerns. Our commitments to find approaches to, and resources for, attacking the many problems of housing, educational needs, care of the aged, as well as health, that have been disclosed by this Biosocial Assessment, will persist.

At the same time, it is important to note that many potential interventions were not developed for reasons apart from the lack of money. The absence of effective measures of control for hyperendemic streptococcus, and the extreme difficulty and uncertainty of obesity control are illustrative. Work on the parasitoses terminated, in part, because of strenuous staff objections to handling stools, which was perceived to be a humiliating assignment.

It should also be emphasized that, even with limited resources, some scattering of efforts has been essential to meet crises and to explore major yet difficult problems, tentatively at least. These reasons have justified a modest family-health clinic, and small alcoholism and anti-drug addiction undertakings.

Certain aspects of our major attack upon hypertension may be examined in the light of these remarks. Early in 1971, D.B. Shimkin and Ann Rice had found, through the analysis of a 2.5 percent random sample of our Census, that 15 percent of the entire population aged 16-74 was "too sick to work." Even graver was the fact that nearly 30 percent of the women aged 30-49, key ages of familial responsibility, were in this category. It was suggested that "...hypertension and diabetes with complications associated with frequent pregnancy and with deep frustrations, are among the most important factors involved." In fact, our Nutritional Survey, a few months later, did identify an extremely high prevalence of hypertension.

Also, Edward Eckenfels had recruited James Schoenberger, M.D., an eminent specialist on hypertension, to our volunteer staff. We knew, from both local evidence and the statewide analysis of mortality, that the crisis medicine prevailing in Mississippi would be ineffective, even with excellent medication possible. At the same time, the effectiveness of our local staff, including former midwives, and the support of the Black community encouraged belief that we could devise an effort, with careful organization and staff re-training, that could gain the access to patients and their families, and the continuity of care, essential for therapeutic success.

In the actual conduct of this screening and intervention, our preliminary evidence proved to be valid in three important aspects. Table 1 shows that, without question, hypertension is an important although not exclusive component of disability and retirement in Holmes County. Moreover, the interdependence of households via extended families is a major explanation for the non-significance of inter-household differences, e.g., in crowding, in correlation with hypertension. The higher prevalence of hypertension among in-migrants to Holmes County, people from even more deprived backgrounds, often with little articulation socially, was also predictable. At the same time, the differentially high prevalence of hypertension among household heads was a surprise, while the absence of sex differences in hypertension ran counter to expectation. The life situations of educated Black women and unmarried mothers in Holmes County are particularly difficult. Are these persons specially resistant or are the effects manifested elsewhere, e.g., in more frequent "nervous breakdowns," as Jacqueline Jackson indicates? We do not know.

A Final Discussion

This paper has described the concepts, development and results of an approach integrating environmental health, epidemiology, and the planning of health services which has been termed "Biosocial Assessment of a Population."

It is believed that our results have been sufficiently promising to justify further experimentation with this approach. Admittedly costly and time consuming, it is powerful in discovering both problems and adaptive capacities. Its economics can be improved by utilizing findings for a wide spectrum of policy and planning. Its scope can be broadened by using study sites as demonstration and training centers for professionals and community people elsewhere.

ACKNOWLEDGEMENTS

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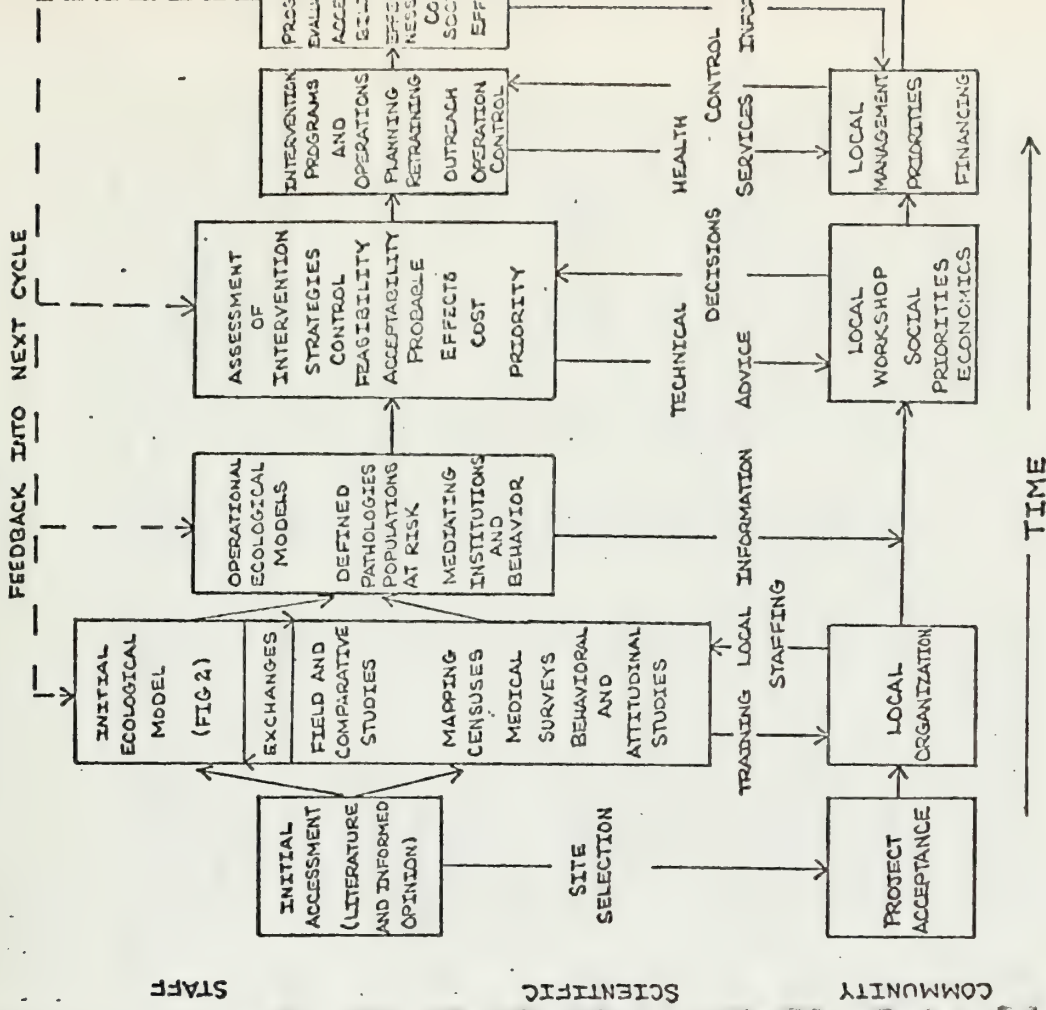


FIGURE 1 IDEAL CYCLE OF SCIENTIFIC STAFF-COMMUNITY FUNCTIONS AND INTERRELATIONS IN BIOSOCIAL ASSESSMENT

DIRECTION OF INFLUENCE →

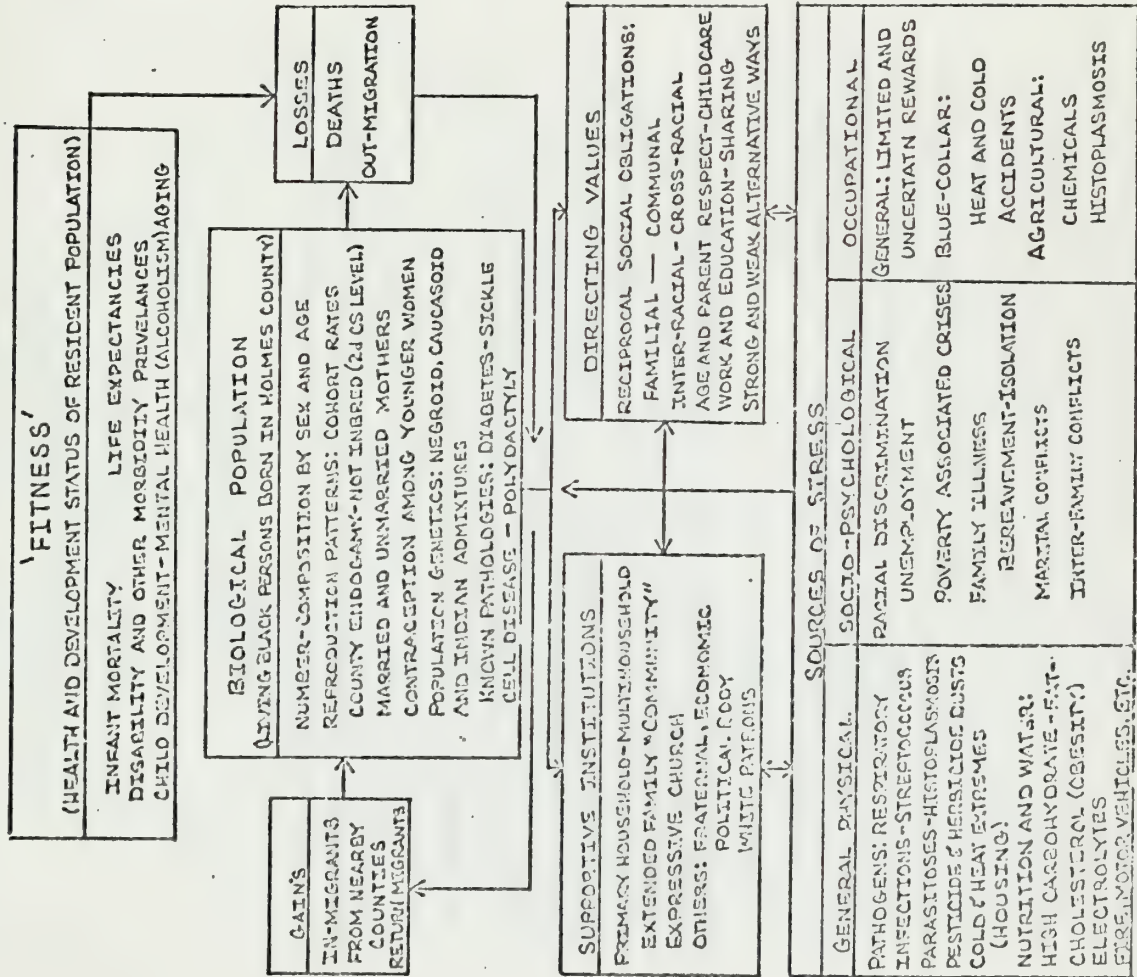


FIGURE 2 - INITIAL ECOLOGICAL MODEL FOR THE BLACK POPULATION OF HOLMES COUNTY, MISS.

Table 1 - Labor Force Status and Hypertension Among Persons of Working Age, Holmes County, Mississippi, 1972-73.

Category	N	Percent All Cases	Normo-tensive	Border-line	Hypertensive
All Persons	1592	100.0	34.0	21.7	44.3
Employed	469	29.5	34.8	23.7	41.6
"Too sick to work"	291	18.3	28.2	19.6	51.9
Retired	462	29.0	16.5	27.3	56.3
In School	200	12.6	73.5	11.0	15.5
Other	170	10.7	42.9	17.1	40.0
Men	629	100.0	33.5	21.5	45.0
Employed	245	39.0	33.1	24.5	42.4
"Too sick to work"	98	15.6	29.6	18.4	52.0
Retired	192	30.5	20.8	24.5	54.7
In School	80	12.7	66.3	11.3	22.5
Other	14	2.2	57.1	7.1	35.7
Women	963	100.0	34.3	21.8	43.9
Employed	224	23.3	36.6	22.8	40.6
"Too sick to work"	193	20.0	27.5	20.7	51.8
Retired	270	28.0	13.3	29.3	57.4
In School	120	12.5	78.3	10.8	10.8
Other	156	16.2	41.7	17.9	40.4

**COMMUNITY ORGANIZATIONS AND EFFECTIVE HEALTH RESEARCH:
OPERATIONALIZING THE PROGRAM**

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A description of the organization of the Holmes County (Miss.) Health Research Program, with detailed data on the Nutrition Survey, and a statement of the requirements for effective community control of research projects.

Goals of the Milton Olive III Memorial Corporation

In 1967, a Mississippi State Charter was granted to the Milton Olive III Memorial Corporation in Holmes County, Mississippi. This corporation, an organizational product of the Civil Rights Movement in the early 1960's, is a non-profit community corporation made up of representatives elected from the various Black communities and organizations in Holmes County. From the beginning the goals of the Corporation have been to better the economic, social, health, and educational status of all community residents through the use of science. These goals reflect the Corporation's concern for the overall well-being of every community resident and were established through the community's organizational and decision making channels taking place in numerous County-wide workshops and at local church services, prior to its formation.

Research Strategy of Initial Grant Proposal

When the organizational model of the Biosocial Assessment of a Population was presented in the County it was felt that the model was compatible with the community's goal of establishing a health care delivery system; the idea of accepting a research strategy was contingent upon the fact that research would fade into services. Then, with the assistance of Susan and Henry Lorenzi, Alexander and Demetri Shimkin and Adrian Ostfeld, M.D., a research proposal was submitted to the National Center for Health Services Research and Development in the Department of Health, Education, and Welfare. The initial grant proposal was designed to meet the local community's priorities. This gave a special character to the research strategy: instead of starting from a closed structure of studies or a fixed sequence of investigations the research plan was relatively open and exploratory. This was consistent with the community's desire to build, as far as possible, its own health care delivery system based on its own terms from the ground up, and to maximize scarce resources by finding out what were the critical problems locally and concentrating on them rather than on what outside experts might consider to be "health problems" in the abstract.

The initial priorities, as contained in the grant proposal, also reflect an exploratory research phase not ordinarily recognized. This was an ethnographic--or natural history--account of the major features of Holmes County life, drawn from direct observation and from the collection and analysis of published statistics. This rather informal and selective ethnography was done collectively with local people, by Civil Rights workers and by community organizers, as embedded in and necessary to their political work, but with professional guidance.

Organization of the Holmes County Health Research Program

The research grant was funded in April, 1969, and the Holmes County Health Research Program was founded. What was unique about this research proposal was that the Milton Olive III Memorial Corporation was the grantee with all operating responsibilities, including financial control. However, scientific responsibility was assigned by the granting agency to the University of Illinois, with Adrian Ostfeld, M.D. and Demetri Shimkin, Ph.D., serving as initial scientific advisers. At the same time, a local person, Mrs. Bernice Montgomery, rather than an established scientist, functioned as the Principal Investigator. The Program Director of the Holmes County Health Research Project, Mr. Eddie Logan, was also recruited from the local community. This role of the Milton Olive III Memorial Corporation as the grantee meant an unusually heavy load of responsibility for local leaders and personnel, especially in view of the fact that the Board members worked long hours without salaries. The success of the Holmes County Health Research Project was due to an operational design that centered on community control and accountability to the community at large.

Although some of the technical aspects of the research (especially research design, data analysis and report writing) were handled by a network of program consultants who worked closely with the Corporation Board and indigenous staff in defining and researching potential and specific health problems, the majority of research tasks at the site were performed by a staff of local community people. The network of professional, unpaid consultants drawn from several academic and medical institutions, especially the University of Illinois and Rush-Presbyterian St. Luke's Medical Center in Chicago, committed themselves to the goals of the Milton Olive III Memorial Corporation and the research protocols outlined in the grant proposal.

Although the implementation of such a complex research program did encounter some difficulties, our experience showed that community organizations, such as ours, can provide a setting for research applied to community needs more conducive to effective research than in ordinary ethnographic or applied settings. One example of the effectiveness of this community organizational model was the conduct and results of a nutritional assessment of the population.

Nutrition Survey

A nutrition survey was conducted in Holmes County in 1971 in order to ascertain the nutritional status of Holmes County residents and to correlate that status with disease prevalence. The actual assessment consisted of three interrelated components:

1. Dietary studies consisting of diet histories and a 24-hour food intake recall;
2. clinical examinations to determine evidence of nutritional deficiencies;
3. and, laboratory investigations to measure serum and urine vitamins, proteins, and lipids.

Also embedded into this nutritional assessment was a detailed investigation into the practice of geophagy, or "dirt-eating."

A weighted random sample of 500 Black households was selected as the study population. Notification was sent to each household chosen in the sample. Also, persons were contacted at local community meetings of the Freedom Democratic Party and at church services. Notices were also placed in local newspapers for two weeks prior to the survey.

The clinical and laboratory components of the survey were handled by a team of professionals; for an eleven day period, ten persons from the Department of Food Science at the University of Illinois, Urbana campus, and six persons from the Medical Center in Chicago, were in Holmes County. Harold Draper, Ph.D. and Kenrad Nelson, M.D. were the team leaders. During the survey period the team traveled to numerous temporary examination stations set up throughout the County. The local project staff handled the scheduling, organizing, and the transportation aspects of this component of the nutritional assessment. At the end of the eleven day period, a total of 1223 persons from 460 households had been examined. One problem encountered during this phase was that other people, outside of the designated sample population, heard about the free physical examinations and came into the temporary clinics: this was the opposite of the usually high refusal rate in most such studies. These people, including individuals from other counties, were given examinations, although the results of their tests were not included in the final scientific analyses.

After the clinical and laboratory assessment, the trained local staff entered the field to conduct the dietary survey. Six two-member teams of the local staff plus one consultant, Dennis Frate, conducted dietary studies on the 460 households which had participated in the first phase of the nutritional assessment.

A structured interview was conducted on one adult in each household to determine the sources of food consumed, the availability of refrigeration and cooking facilities, expenditures for foods, sources from which food was obtained, and an estimate of the frequency (per twenty-four hour period) with which various types of foods were served. Also, each team carried a set of food models to conduct the 24-hour food intake recall. The food models were replicas of common foods eaten; various sizes were used to estimate more accurately the amounts of nutrients consumed. This detailed recall also included information on the preparation of the meals; these data would be valuable when correlated with clinical and laboratory assessments.

This component of the nutritional assessment required sensitive and accurate measurements to insure reliability. The local staff handled these requirements competently, but after a two-week period another problem arose that needed immediate attention. At an interviewer-staff workshop called by the supervisor, Nadine Randle, and the on-site consultant, Dennis Frate, it was learned that the dietary survey was taking up to three and one-half hours per household to conduct. Fatigue in both the respondent and the interviewer had become a critical question. Also, because so much time was being taken up in the morning and afternoon, numerous negative comments were being heard throughout the community.

After this problem was discussed at the staff meeting, Ms. Randle and Mr. Frate met with Mr. Eddie Logan, the Program Director. Mr. Logan called Edward Eckenfels, a program consultant skilled in questionnaire formulation. Mr. Eckenfels came immediately to the County from Chicago. He first met with Mr. Logan, Ms. Randle, and Mr. Frate and then with the staff. Specific recommendations were discussed and were taken before an emergency meeting of the Corporation's Executive Board for their approval. The alterations approved included: shortening the diet history questionnaire, giving the 24-hour food intake recall to only one-half of the households, and assigning interviewing schedules to evening and weekend time slots to accommodate the respondents. This effectively reduced the interviewing time to an average of one and one-half hours per household. No further negative comments were received from the community and the staff, having been sensitized to the feelings of the community residents, functioned much more effectively.

The problems encountered in this study illustrate how community accountability must be contended with at all times. Our feedback mechanism contributed to the success of this component of the nutritional assessment. The overall success of this study as part of the total effort of the Health Research Project would not have been possible without three interrelated features inherent in this community organization: the research was recognized by the Black public as an integral feature of the community's health improvement goals; the design utilized the community-control, professional-consultant model; and all researches were open and responsive to accountability to the community at large.

Requirements for Effective Community Control of Research Projects

Specifically, we feel that a community corporation as a grantee can effectively handle large and complex research and service tasks provided that technical backing from a competent scientific facility is continuously available. The specific functions carried out by those engaged in the operational linkage between the community and supporting scientists must be able to modify their perceptions of tasks and priorities as the community's capabilities grow. For example, the focal concerns in our effort changed from basic organization and primary scientific training in the first few months to advanced laboratory training and workshops in computer techniques at later stages. Nevertheless, the predominant and essential element of an effective relationship between scientists and a cooperating community is the maintenance of continuing, sensitive contacts responsive to field emergencies so that the real needs of the program are met as they arise.

**RECRUITING, HIRING AND TRAINING OF THE LOCAL STAFF:
A COMBINED EFFORT**

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and

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A description and evaluation of personnel procedures and effectiveness of the local staff of the Holmes County (Miss.) Health Research Project.

Recruiting and Hiring Procedures

After the grant was officially funded in April, 1969, the Milton Olive III Memorial Corporation put into operation its full community network in order to reach as many potential applicants as possible to fill the local staff. The Milton Olive III Memorial Corporation is a chartered, non-profit organization made up of broad representation from the various local Black communities. The Corporation is dedicated to improving the health, education and economic welfare of the people of Holmes County through the development and control of programs. It consists of a Board of Directors and working committees including a seven member Executive Committee. Mr. Samuel Friar served as president from 1968 until his untimely death early this year. Mr. Friar has been succeeded as president by Mr. James Anderson.

To make sure that residents in all areas of the County had an opportunity to apply for these positions, the Corporation used the local media, political meetings, church services, community gatherings and face to face contact to publicize them. The newspaper advertisement, which ran for a period of one week, gave a brief description of the project, its duration and the types of positions to be filled. The same information was broadcast over the local radio station.

Applicants were asked to submit a brief statement telling their reasons for wanting to work for the project and listing their educational attainment, job experience, sex, age and the usual background information. There were 30 positions to be filled, consisting of a program director and two supervisors at the top, with the rest of the work force being made up essentially of three separate staffs - health technicians, survey interviewers and clerical personnel. To be considered as a candidate for the health research project, an individual had to: be in good health; be available for full-time, permanent work as long as the project was operating; possess a driver's license and have access to an automobile; be able to read and write; know the geography of the County; and be able to communicate with local people.

Over 200 applications were received and reviewed by a screening committee that had been set up by the Board. About 75 of the original applicants were asked to come before the screening committee for personal interviews.

Looking at the recruitment and hiring phases from a personal point of view, I [E. W. Logan] had heard about the project on the radio; read about it in the newspaper; and discussed it at my local Freedom Democratic Party meetings. On one occasion, I was approached by some of the Board members who suggested that I apply for the position of project director, which I did. I was not really very satisfied with being a school teacher at that time, because I felt that the curriculum was not meeting the needs of the children. I was looking for something that would challenge me, and I viewed the position as an opportunity for me to get involved in a job that would have some real meaning.

I remember going before the review committee for an interview. All of the applicants in the final running for the various jobs referred to it as "taking the hot seat." There were about a dozen members, seated in a circle, and the person being interviewed occupied a seat in the middle. They grilled me for over an hour, asking me questions like, "Do you think you will be able to communicate with grass-roots people?"; "What kind of community activities have you been involved in?"; "Will you be able to take out-of-town trips, and if necessary, would you be able to stay away from home for long periods?"; "Before the week was over I was informed that I had the job of program director."

Formation of the Staff

I held a master's degree in science education and at that time was serving as head of the science department of the high school in Durant, Mississippi. Both the health and interviewer supervisors were women who held bachelor's degrees in biology and sociology respectively. Eighty-five percent of the remaining staff personnel had a high school diploma. Several members had had valuable practical experience, for example, one woman had been in the medical corps during World War II, and two other women were local midwives who had many years of experience. Four of the young people hired had received technical training at the University of Illinois in the summer of 1968. The entire staff ranged from ages 19 to 65, the majority being in their late twenties or early thirties. There were seven men and twenty-three women.

I think the consultants were quite satisfied with the staff as a whole. Although predominantly female, it was a fairly representative slice of the Black community, an accomplishment the screening committee could be proud of. Whereas a person's political involvement worked in their favor when it came to be considered for hiring, such factors as education and experience played an important part in the final selection. I think it is important to point out that the local community representatives simply did not have the expertise required for selecting members for the more technical jobs. Once a person met the basic criteria that had been established, the screening committee relied on such qualities as willingness to learn, commitment to the goals of the project and the eagerness to accept the challenge of the

new job. If the local people are to do the work, then professionals must trust the local community's judgment about who should fill the jobs.

When the staff gathered for the first time, there was a feeling of great excitement. There was almost a "revival" atmosphere in those early orientation sessions. Staff morale was exceptionally high at the start of the training, and there were some obvious reasons for that: they had obtained steady employment at a very good salary, by community standards; the goals of the project had come out of the Civil Rights Movement the Black community was so deeply committed to; and they were going to be given a chance to prove they could do the job.

Training Periods

Looking back over training during the five years the Health Research Project has been in operation, I could say there were actually three major training periods: the initial training which took almost six months; the particular training that was needed for each investigation; and the special training that was necessary in order to undertake the hypertension program - where the emphasis was on providing health services.

The first responsibility of the consultants during this initial training phase was to teach specific skills to the director and supervisors, who, in turn, would teach these skills to the rest of the staff. Most of the health training was done by Dr. Kenrad Nelson; Edward J. Eckenfels taught survey interviewing skills. Moreover, the Board members believed that certain community residents with knowledge about particular institutions, localities or activities should be used in the early training sessions as local experts. The training was divided into roughly three stages of about two months each. In the first stage the staff was more or less involved in "self-trainings," relying on the supervisors, and the local people. We explored the meaning and use of such concepts as scientific method, health care and the terminology that would be used in the research. In the second stage, we started to concentrate on learning the particular skills and techniques that would be needed in each research area, such as the techniques of interviewing and methods of survey research. The third stage was devoted to a thorough and complete understanding of the formal protocols to be used in each phase of the data collection, such as those used in the design of the household and population censuses.

The consultants trained the supervisory personnel both on-site and at their own institutions, and they systematically visited the County to monitor the training effort and to offer strong support to the supervisors when the situation required it. The consultants also required training. Most of this training was done by Henry Lorenzi, the chief community advisor, a nuclear physicist by education, who has spent over five years living and working in the County as an organizer for the Black community. In these sessions, major approaches to communicating with poor, rural Blacks were discussed, including avoiding jargon; staying away from abstractions; watching out for the possibility of being condescending, even unintentionally; and, above all else, not monopolizing the conversation, that is, learning to be a listener, a particularly difficult expectation for professionals. Overall,

I think the consultants were highly successful when it came to training the local staff. I think the biggest problem we had with the consultants had to do with the specific protocols that were designed for the various studies. Some consultants were not very realistic about what was actually required of the staff when it came to the amount and quality of data to be collected.

Household and Population Censuses

The most difficult undertakings, in terms of the entire project, were the household and population censuses of the entire Black community. The County is well over 700 square miles, and there are areas where the only access is by dirt roads and trails. Before we were able to interview even one person, we had to find every Black household in the County and plot it on a map, and this wasn't easy. You had to be able to read maps and this was a skill that had to be taught to most of the staff.

Preparation for the Hypertension Program

Probably the most satisfying training had to do with the preparation of the staff for the hypertension program. I call this training satisfactory because everyone was excited about the prospects of performing a real health service for the community. Every aspect of that program had some relationship to health care. It ranged from taking a person's blood pressure in his home to performing an ECG on a patient in our clinic. The staff took the training very seriously since they knew they were going to be dealing directly with people who needed medical care.

General Evaluation

As far as the recruiting went, I would say it was magnificent. For any new programs I would use essentially the same process. The Corporation was able to disseminate information about the goals of the project throughout the entire community. It utilized the total involvement of the community network to get this done. Considering everything, the hiring procedures were quite effective. We were able to select a group of individuals who were pretty much representative of the Black community. Since the consultants were pleased with the staff that had been selected, working relations between the community representatives and the outside professionals got off to a good start. And, most importantly, a local staff was put together in a short period of time, demonstrating to the entire community that the project was a reality.

The greatest shortcoming with the hiring process was the lack of specific job descriptions. This, in turn, had an effect on training people in relation to job expectations. In the future, I think all of the consultants should have written job descriptions as well. There needs to be a more clearly defined structure of how the consultants need to be related to each other and, as a group, to the project and the Board. A chief consultant must be assigned and given the authority to run the show from the professional side of the program. I am confident such a system can be worked out since we have been very close to it in the recent past.

When it comes to training, I think we did a more than adequate job considering everything. The period of so-called self-training was good because it allowed the staff to participate in their own education. Sensitizing the consultants to the needs of the local staff certainly helped them better understand what kinds of role they were to play not only in the training but throughout the duration of the program. Having the consultants first train the supervisors worked out very well. Besides preparing them for the training of the staff, it made the supervisors feel like they were colleagues of the professionals. Nevertheless, in future undertakings, there needs to be more careful evaluation at the end of each training period. This policy must be built into the design of each phase of the program.

Finally, when it comes to managing and administering a community action program, the Director must have some basic understanding about the structure of the organization. In other words, you have to know how each person fits into the total system. And you have to make sure everyone knows who he or she is accountable to. As far as I am concerned, this is one of the basic principles for maintaining staff morale. Looking back, I have to admit there has been some peaks and valleys in staff morale, but I think the staff is proud of what we have accomplished. I know I am.

**THE ENDEMIC NATURE OF HYPERTENSION AND THE PILOT PROGRAM
FOR COMMUNITY CONTROL: FROM RESEARCH TO SERVICE**

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and

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The authors detail the history of the pilot program on hypertension, its preliminary concepts and initiation, and the implications of its results for a successful community-control program.

Establishment of Pilot Program on Hypertension

The pilot program for the community control of hypertension that was established near the end of the third year of the project constituted a critical decision on resource allocations in the Holmes County Health Research Program. That effort had, from the beginning, been committed to the development of services, not only as valid benefits to a cooperating community, but also as fundamental prospective experiments in social adaptation. But efforts to gain funding for service components were unsuccessful; the only prospect was to use the limited available resources for both services and research, intensifying the personal commitment of unpaid consultants and improving facilities as might become feasible.

The choice of hypertension as the focus of action was based on the high prevalence and serious prognosis of the disease in this population, and on joint judgments by scientists and the community, of potentially effective action. It involved careful consideration. It would become the last major undertaking of the original project, and because it was considered to be a necessary link in the transition from baseline data collection to the institution of a health services program, it required the combining of health-care delivery and research that had so far not been attempted. It required a centrally located clinic, physicians and a well-trained staff, door-to-door screening, transportation for participants, systematic followup, and a low cost supply of drugs. Furthermore, it required rigorous evaluation if it was to be used as a basis for proposing a full-scale program to normalize blood pressure among the larger segment of the Black population.

Requirements for Establishment of Pilot Program

The first and clearest requirement to be met was the need for a clinic facility. A large concrete block building, over 3,000 square feet, located in Lexington, the most central urban community, was renovated to serve as the clinic site. The kitchen area was converted into a laboratory and the remaining space was divided into a waiting room, three examination rooms and an area for offices and record storage. A portable EKG, laboratory equipment and necessary medical supplies were purchased.

In attempting to deal with our second obstacle, lack of physician support, we set up exploratory meetings with local physicians that finally proved unsuccessful. Next we tried to get assistance from the Mississippi Regional Medical Program to support a full-time physician and nurse and finance a training program for ancillary personnel. The professional staff of the Mississippi Regional Medical Program expressed approval of our design, and the final proposal received their highest technical rating. Unfortunately, the Regional Advisory Group, consisting of state-wide representatives from local communities and agencies, rejected it. Nevertheless, we were able to gain valuable support and referral possibilities from Dr. Herbert Langford and the University of Mississippi College of Medicine.

Initiation of the Pilot Program

Time came; we had to do it ourselves. We had to go ahead with the pilot program to see what could be accomplished using only the two consulting physicians with the assistance of medical students whenever they were available. Since the two physicians lived in Chicago, the best arrangement that could be made was for them to alternate a one-day clinic twice a month; the medical students would be available primarily during the summer. Obviously, this was less than adequate but we had no alternative. The local staff, that had performed so magnificently as data collectors, was retrained as ancillary health personnel, to take blood pressures, to perform simple diagnostic procedures, and to maintain the patient record system. They were called upon to screen the community for hypertensives, to provide transportation to and from the clinic and to supervise the drug regimen.

The remaining problem that had to be resolved before initiating the pilot project was the high cost of long-term drug therapy, especially for a project so near the end of its funding. In short, we had to get our hands on a good supply of free drugs if we expected to achieve even temporary treatment and control. To this end we approached a large drug firm in Chicago. In the final negotiations, it was a simple and straightforward trade-off between the community and the drug firm. The drug firm was interested in performing a double-blind study comparing two drug combinations; we needed a large supply of free drugs. The community accepted the drug trials because those individuals who were selected for the study would never go without treatment. Because of the shortage of physician time in the clinic and the need to adhere to a strict protocol, the drug study proved to be impossible to follow and had to be dropped after six months of operation. Fortunately, under these circumstances the drug company was willing to forego the study but to continue the supply of drugs, and we commend them for it.

The pilot program lasted about 17 months, from April, 1972, to August, 1973, during which Drs. Kenrad Nelson and James Schoenberger made 34 trips to Holmes County, with additional time also given by Mr. David Shumway, an advanced medical student at the University of Illinois. The detailed results of that undertaking have been reported elsewhere. Here is a brief summary of some of what was done:

1. A crude but adequate clinic facility was created where none existed before.
2. An indigenous staff with limited education and experience was trained as field screeners, health technicians and record managers.

3. Mass community screening yielded over 4,000 blood pressure readings from people of all ages in a door-to-door survey. This full-scale effort confirmed the grave findings on the prevalence and intensity of hypertension indicated by our earlier Nutrition Survey (Fig. 1), and predicted by the high frequencies of disability recorded in our initial Population Census.
4. The results of the community screening uncovered a high number of juveniles with elevated blood pressures. While there was a strong direct relationship of age to mean systolic blood pressures, significant differentials also became evident. Particularly at risk are heads of households and their spouses (Fig. 2); in-migrants from surrounding localities to Holmes County; and Delta as opposed to Hill residents (Fig. 3). The first two factors are likely to be of socio-psychological origin and the third of physical derivation. One lead to etiology could be hyperendemic nephritis-associated streptococcus infections.
5. A total of 561 persons were seen at the clinic, of whom over 400 were diagnosed as definite hypertensives. Clinical examinations confirmed the severity of the disease among these people (e.g., over 60% had diastolic readings of 105 or greater; two-thirds had grade one to four retinopathy; and over half had a significant EKG abnormality.)
6. Because of a combination of factors, e.g., severity of condition, eligibility for Medicaid or Medicare, or desire to remain with their family physicians, about 170 individuals were referred elsewhere on completion of diagnostic evaluation. Of the remaining 240 or so patients, 133 had two or more follow-up visits (Fig. 4).
7. At the termination of the program 108 patients originally put on treatment were seen for a final evaluation. A total of 35, or almost one-third, had been normalized. Moreover, 56% (28 of 50 patients who said they were currently taking their medication) were under control. Figure 5 graphically shows the essentials of these results.

When it became evident that the majority of those individuals found to have high blood pressure on initial screening could not be examined and treated at the clinic, the field staff encouraged them to seek health care elsewhere. Of over 500 individuals contacted, about 60% had already sought medical care on their own initiative, but 93% said they would use our clinic if a full-scale program was funded.

Termination interviews were conducted on about three-quarters of our treatment group. They were extremely pleased with the type of care they had received at our clinic. Although they especially emphasized the excellent treatment they had received from the two physicians and the medical students, they were also quite satisfied with the performance of the local staff. Moreover, these respondents were very knowledgeable about the severity of hypertension and its possible consequences. Their answers indicated a clear understanding of the necessity of maintaining the regimen, the dangers of the

illness, and the importance of diet control, rest and avoidance of stress. Finally, many of these patients reported a general attitude of an improved state of well-being as a direct result of their care.

Implications of Results of the Pilot Program

What are the implications of the outcomes from the pilot program to control hypertension? To begin with, we feel confident that given the proper resources: a carefully articulated partnership of on-site medical personnel, community participants and supporters, and back-up hospital facilities for complicated cases, the normalization of most blood pressures in this community can be accomplished. Since the object of the pilot program was to lay the groundwork for a full-scale community control program, we feel that the likelihood of success has been demonstrated. We hope, should funding for our work be gained, to establish clearly the limits of what can be done in such community control of hypertension, particularly as an alternative offering greater access to patients and perhaps lower costs than conventional means.

What can be accomplished on the most fundamental level, however, as demonstrated by the overall work of the Holmes County Project, is a concerted effort to understand the nature of the problems of human health in a systematic and sequential way and to use that understanding as a basis for action. The community's response to their epidemic of hypertension is a good example of the type of intervention that is needed to combat chronic disease.

In essence, we feel that real and lasting changes in health involves three social levels, and three modes of combined scientific and community action. All must be part of the design.

We must deal with the needs of the individual patient with his family, and community, and with the institution that can provide health-care skills. Treating a particular individual is more than simply writing a prescription. It requires counseling, educating and helping the patient in a successful adaptation. Community screening on a door-to-door basis not only identifies those who need help; it sets the stage for community-wide approaches to public health and preventive medicine. High skills are needed at all times; with poor and often very sick people, the moral responsibility for avoiding errors of diagnosis and treatment is especially acute.

And this is why research needs to be an integral part of the health effort; the stakes are too great and the resources always too sparse for guesswork. That research can, we have found, be done with competence by persons drawn from an impoverished community, provided that essential understanding is gained, that scientific guidance is continuous, and that decisions and evaluations are joint products of an alliance of scientists and users.

In all of this, the problems of management are of utmost importance. It is only this way that research and services can come to grips with the level of responding to individual need. And that requires, particularly for poor people, a human involvement throughout every clinical act.

We, of course, have far to go. In etiology, in primary prevention, in the dissemination of our results we have great tasks ahead. We hope that the resources will come to implement these tasks.

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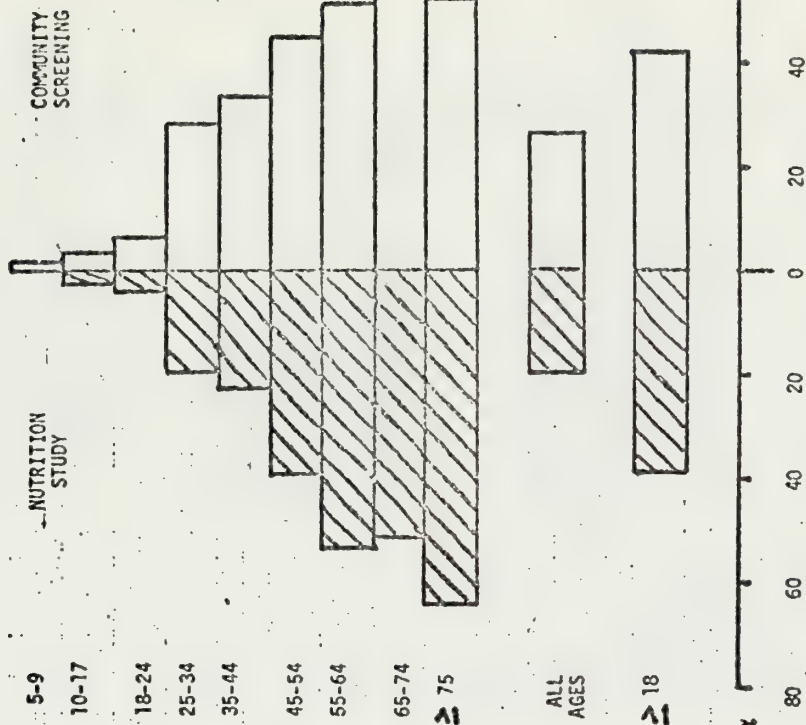


FIGURE 1 A comparison of the prevalence of definite hypertension found in the Nutrition Study and Community Screening by Age Groups, Holmes County Health Research Project.

FIGURE 3 Effect of living in the Delta or Hill on mean diastolic blood pressures: Holmes County, Miss.

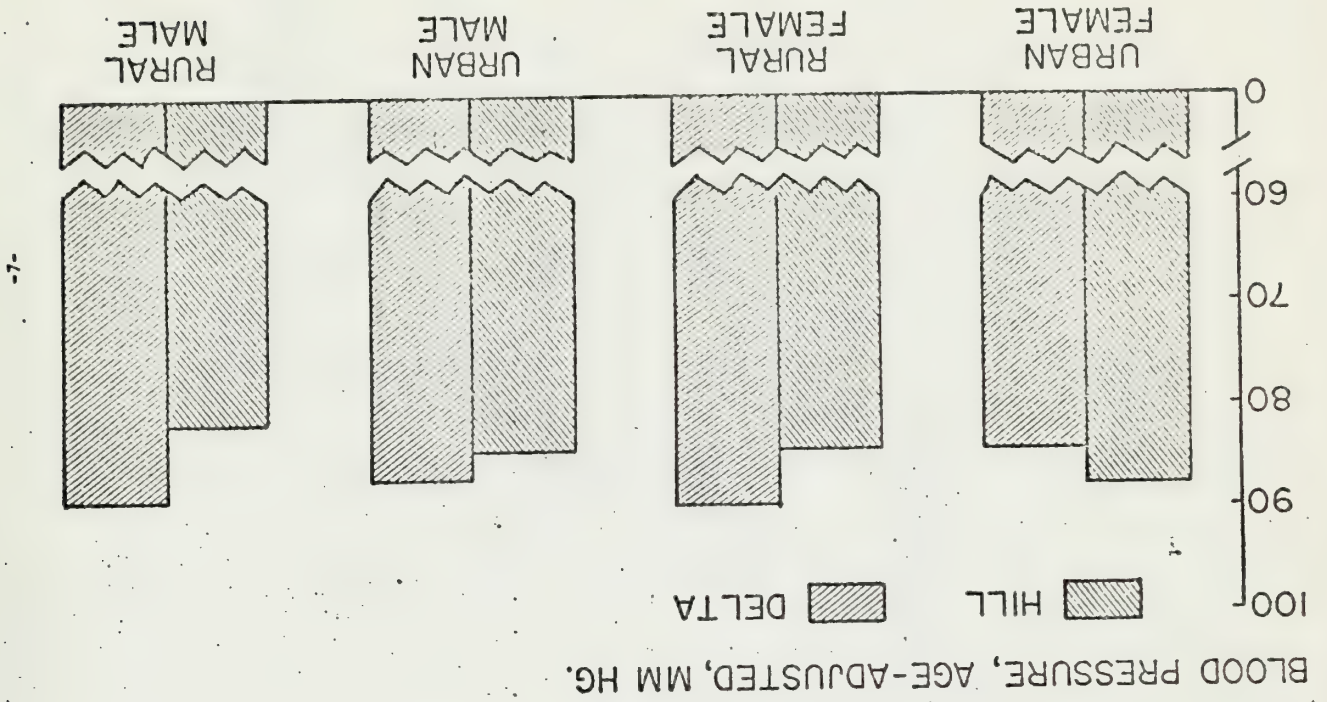
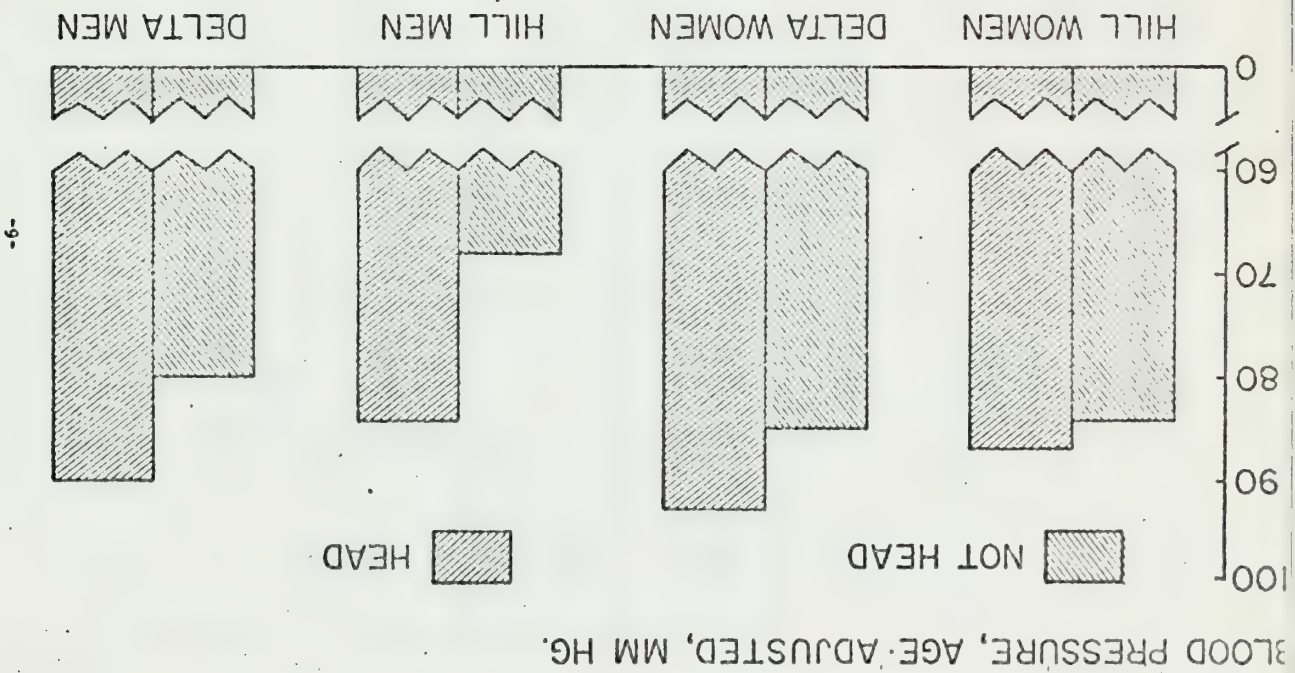


FIGURE 2 Head of household status and mean diastolic blood pressure, age 18 and over: Holmes County, Miss.



	CONTROLLED	HYPERTENSION
N	35	73
%	32.4	67.6
INITIAL BP		
SYSTOLIC	171.9	181.1
DIASTOLIC	106.3	110.4
LAST BP		
SYSTOLIC	141.5	174.1
DIASTOLIC	83.9	106.6

FIGURE 5 Diagnosed definite hypertensive patients evaluated at program termination (N = 106).

	CONTROLLED		HYPERTENSIVE	
	MALE	FEMALE	MALE	FEMALE
SEX				
N	17	11	5	17
%	34	22	10	34
INITIAL BP				
SYSTOLIC	167.2	172.2	179.0	181.3
DIASTOLIC	104.7	105.5	108.8	116.6
LAST BP				
SYSTOLIC	142.1	140.6	170.4	167.5
DIASTOLIC	88.8	88.4	106.0	105.5

FIGURE 4 Patients having more than two clinic visits and currently taking medication (N = 50).

THE HOLMES COUNTY HEALTH RESEARCH PROJECT:
COMMUNITY CONTROL AND THE POLITICS OF DATA

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The author discusses three major uses: clinical, management and research-- for data collected for the program, as well as the organizational constraints on data analysis, past and present.

Introduction

The Holmes County Health Research Project has generated vast quantities of biological and social data over its five years of operation. The unusual characteristics of this project, its origin in and control by the community, and its goal of community service through scientific research, have led us to conclude that data analysis is often too important to be left solely to the analyst. One of the most important ingredients for a good working relationship is truth, and the truth is that the Holmes County Health Research Project has multiple, and sometimes conflicting, goals. People with hypertension want their disease controlled and want good medical care; health workers want well-maintained, complete clinical records, without having to spend vast amounts of time in record keeping; community leaders want an effective program not beset by internal strife or rumors of mismanagement; members of the community want jobs from the project; and scientific researchers want an opportunity to do good research which will advance science and their careers. All of these goals must be accomplished with limited resources of time, money, and effort. The project's data base is directly relevant to the accomplishment of many of these goals.

This paper defines three major ways in which the project uses its data base. It then outlines some constraints on the process of data collection, reduction, and analysis. Finally, it discusses the project's organization and operation in their past, present, and probable future forms in order to relate the process of data collection, reduction, and analysis to the accomplishment of the project's multiple goals.

Uses for Data

There are three major uses for data collected over the course of the project: clinical, management, and research. Each of these uses has a major constituency on the project, but none of these uses is primary for all project members.

Clinical uses. A major source of data is the patient's clinical record, whose primary use is to allow the physician to manage the individual's case. The chief constituency for the clinical use of research data is the physician and his or her assistants, who are interested in reading reliable, up-to-date, and lucid information; but who often seem to have somewhat less interest

in writing reliable, lucid, and up-to-date information. It is important to maintain the good will of those who create and maintain clinical records, for without their active support, much valuable data may never be collected.

This is especially true in the case of data which is not directly relevant to the clinical task. The physician and assistants may be enthusiastic about taking clinically relevant kinds of information, and may be willing to modify their usual procedures to conform to a project data standard, but may be anything from indifferent to positively embarrassed about gathering data on behalf of a research scientist. The data analyst has a constant task of maintaining the support and cooperation of the clinical staff in order to maintain standardized methods of collecting clinical data, and to ensure the continued collection of data which is not of direct clinical relevance.

Management uses. A second constituency for data is made up of the project managers and the community corporation's board of directors. Management must be concerned with the program's current efficiency and effectiveness as well as with the potential market for the program's services, and with its ability to meet community needs. Management's uses for data bridge traditional academic areas. The program's internal efficiency and effectiveness may be determined using methods from organization theory, while the program's potential market may be determined from an epidemiological viewpoint.

Management may be hampered by its relative isolation from the data collection and analysis effort. The managers are not clinicians, and thus do not take a direct part in the data collection. They are not scientists and thus do not take a direct part in the data's reduction and analysis. However, without management participation in the data analysis process, the program may become seriously out of adjustment with its environment.

It is therefore necessary to keep the program management involved in the data analysis process, even where such involvement seems superfluous to the everyday operation of the clinic or field research facility. Otherwise, management may not be able to ask the proper kinds of questions of the data when decisions must be made, and data analysts may not be able to provide the kinds of information necessary to answer management's questions.

Research uses. A third, and least directly relevant, use for data is the generation of relatively basic scientific knowledge. Problems of coordination may arise because the research plan requires the clinician to collect troublesome and seemingly irrelevant kinds of data. The research scientist may not be on-site to support his or her own interest, and thus may be seriously disappointed or hindered by sparse or inaccurate data. Conversely, a scientist functioning as a data analyst may go off on his own track without regard for the more immediate interests of the manager and the clinician. Without attention to multiple goals and interests, clinicians and scientists might collect data solely for their own uses, leaving management with little or no input into the data analysis process.

Coordination between clinicians, management, and scientists is especially important in the Holmes County Health Research Project because the

analysis is carried far from the County. At present, we have had some instances of lack of coordination in data analysis, but the geographic separation between workers in Holmes County and in Illinois has given rise to no serious conflicts.

Thus each of the three major uses of data has a constituency drawn from the six groups involved in the project: physicians, patients, project workers, managers, the Corporation board of directors, and the research scientists.

Organizational Constraints on Data Analysis

Aside from the constraints imposed by the human condition, i.e., limited amounts of time and money, several features of the Holmes County Health Research Project serve to constrain the data collection and analysis process. First, the ultimate responsibility for the project rests with the community rather than the researchers. The data analyst must therefore be ready at all times to explain his or her actions to a group of laymen. So far, we have had no problems of accountability to the community. The Board has endorsed procedures such as the randomization of experimental treatments and the collection of data involving extensive amounts of respondent time. However, the requirements imposed by community control have served not only to promote a general awareness of accountability in the analysis staff, but have also served to keep our documentation more current than might otherwise be the case.

A second constraint is imposed by the community's economic state, and by the lack of access to technical support and repair services. Despite advances in computing technology, the initial stages of data reduction--i.e., questionnaire construction and administration, data collation and analysis, and keypunching, or data-entry--require vast amounts of hand labor. It might be possible to reduce the amount of handwork required, either by shipping paper forms to Illinois for editing and entry, or by installing relatively sophisticated equipment in Holmes County. We have chosen a deliberately labor- rather than machine-intensive strategy.

First, it seems wrong for us to deny local residents the opportunity to obtain jobs by installing equipment which, at Holmes County labor rates, is neither faster nor cheaper than hand work. Second, machinery always breaks down when one needs it most, and it would be difficult to obtain repair services for complicated equipment. Thus, our original coding and editing of data will continue to be done largely on-site and by hand. As automatic equipment becomes cheaper and more reliable, we will investigate the possibility of augmenting our workers in the field with on-site data processing equipment.

A third constraint is imposed by the geographic separation between those who collect and those who analyze the data. At present there is much communication by telephone and letter, as well as a fair degree of visiting among the staff. In the future, we will also use computer networking to exchange messages and documents, in a system combining elements of correspondence, scholarly publication, and ham radio.

Organizational Adaptation to Constraints

The past. During the five years of the Holmes County Health Research Project, the major focus of activity was in Lexington and in Holmes County. The emphasis was primarily on collecting rather than reducing or analyzing data. While some data were taken to Chicago and analyzed at the University of Illinois Medical Center, no overall plan coordinated the various scientific and clinical data analysis efforts. Although much research was accomplished, it appears that there was also some duplication of effort in the reduction of data and their preparation for analysis.

A consequence of the early lack of coordination, which was primarily caused by failures in funding, was that it required more than a year of effort to clean and integrate data collected over the three years into a series of coherent files. Much of this effort duplicated earlier work performed in support of single analyses, and would have been unnecessary had there been an overall analysis plan with adequate funding.

From the point of view of the politics of data, the Holmes County Health Research Project was satisfying its clinical and management constituencies, but was somewhat short in its support of its research constituency. Given its resource position, this was in accord with real priorities.

Present organization. At present, the data analysis effort is centered in Urbana, and is satisfying primarily the needs of the scientific constituency. Since no patients are presently being treated, there is no clinical constituency. The primary management implications of the data were realized early, and resulted in the establishment of a hypertension control effort, rather than some other health program.

Our greatest need, at present, is to develop the data's scientific potential, since they constitute one of the largest available sources of information on hypertension in a poor Black community. Several papers and monographs, concerning the epidemiology and treatment of hypertension in the community, are presently in progress or in press.

Even though the analysis is carried out primarily in Illinois, there is still a problem of geographic separation between the analysis group in Urbana and the medical consultants in Chicago. Computer networking has been very helpful in allowing us to overcome problems of scheduling and distance. The computers at Urbana and at the University of Illinois Medical Center in Chicago are connected by a permanent high speed telephone line. It is possible to run analyses on either machine or to print the results of an analysis run at one machine at the other site. We usually run on the Medical Center machine, since it has fewer users, printing duplicate copies of tables in Chicago and Urbana.

It should also be noted that both the scientific consultants and the Corporation Board are aware of the political implications of the present research effort. Only by publishing high quality research can the project gain the reputation which will allow it to accomplish its health and social aims.

Future organization. Our future plans call for a much more balanced and coordinated relationship between the three data constituencies and the three sites. Our chief innovation for bringing the clinical and research constituencies into balance will be the implementation of a dual staff at the clinic. The medical director's opposite number will be a Ph.D. bio-statistician, who will direct the data collection and analysis effort. This senior scientist will be able to help the clinical staff collect better data at the same time as he looks after the interests of the research constituency.

The interests of management will be served by the presence of a program evaluation and organizational effectiveness measurement effort. Management will still not be guaranteed a direct interaction with the data collection and analysis process, but will at least be receiving fairly regular reports on the state of the organization and its environment.

We hope to resolve some of the difficulties of operating at three separated sites by extending the computer network to the County in the form of a terminal and data communication line. Simple and reliable terminals are available which will allow workers in Holmes County to run analyses for themselves, and to send store-and-forward messages to Urbana and Chicago.

Conclusions

The reduction and analysis of data is often regarded as one of the most technically demanding and arduous parts of the research process. Successful data analysis in a large project requires both technical and social sophistication in order to be effective. Many projects defer their analysis planning until long after the data collection effort is underway. Often the analysis function is severely underbudgeted in comparison to other parts of a large program.

Once problems of data reduction and analysis are realized, it is usually possible to find the technology to solve them. However, one of the most important things for the scientist or clinician to realize is that the politics of data are real. If not dealt with, they can undermine the research effort. Once it is acknowledged that there are legitimate competing interests in the data, it is possible to design an organization and an analysis plan which will meet most of these interests.

Our five years of operation have demonstrated to us the frustrations, the achievements, and the fun of dealing with the politics of data.

Anderson, James

INTEGRATION OF HEALTH RESEARCH AND SERVICES: WHAT THE FUTURE HOLDS

James A. Anderson, President
Milton Olive III Memorial Corporation
Lexington, Mississippi

An evaluation of both the successes attained and the problems encountered, and a statement on desirable future research and services.

Evaluation of the Health Research Project: Successes and Problems

In looking back over the last four to five years, I have to come to the conclusion that the health research project was a success. I think it was successful because we all worked very hard to make it successful. The only way you accomplish anything is by hard work and I think we have done a lot of hard work. The Board, the Program Director and his staff, and the consultants worked together--and team work is what really counts. It was not only being able to do the work, but it was being able to understand each other and use each other's ideas. It was being able to put our ideas together.

Let me talk about this as a Board member and as president of the Corporation. First of all, it is not easy being a member of a community organization in a community like Holmes County, Mississippi. In fact, it is very hard. Holmes County is very large and people have to travel long distances to get to meetings. You get no pay for this, and most of us have worked very hard all day so we are pretty tired by the time we get to the meeting. Sometimes the meetings last three to four hours because there are so many problems to solve and everyone is given a chance to participate. But the hardest thing of all for the president is that you have to think in terms of what is good for the community and the Corporation, and that comes above everything, including friendship. You have to be able to put your mind to this. You have to know what you have to do and do it.

Working closely with the consultants has been a new experience for all of us. A few consultants didn't work out too well, but, in general, I like working with them, and I think most of the Board members do too. The consultants understand research and health care, and we, as non-professionals, need their knowledge and skills. I know a lot of Black communities are suspicious of consultants, especially White ones--afraid they are going to take them over or rip them off.

We knew we needed help and we were hoping that we could get that help. The needs in this County for poor people, starting with health, housing, jobs and lack of money and food, are so great that to pretend that we did not need help was not looking at the situation very realistically. And because we were organized and had representation from the community we were sure we would get the right kind of people to be our professional consultants. And we were right. The consultants and the community people have learned to understand each other. The consultants have given us guidance in planning and development that has been very helpful, and they have been available when we needed them.

As a Black man, living in a poor, Black community, I am convinced that the health research project has helped us know our needs better and has given us some idea about how to meet those needs. Many of the people that I know who were treated at our clinic for hypertension are worried about whether we will be able to keep this kind of program because they realize they have received good care there and they know that the clinic was the result of our efforts. A lot of people are grateful just to know they have hypertension and they wouldn't have known this if we hadn't gone out and taken their blood pressures and told them about it.

The project was a great opportunity for the local people who worked on it, and they benefited from it in many ways. They got a good salary, which is rare for a Black without formal education in Mississippi; they learned new skills, which is something you can't take away from them even if you take the program away; and they had the satisfaction of knowing they helped others. I really think it gave a lot of the people who worked in this project a sense of development, a sense of growth. It made them feel they were very adequate people; they could do things; they could learn things. This is a benefit they will have all their lives.

I don't want to leave you with the impression that everything was rosy, because it wasn't. Much of what we have learned in the past five years about keeping community control of a project like this has been through the mistakes we have made. For one thing, the Board, as representatives of the community, has to be kept informed of everything that is going on. By everything I mean we have to know exactly how the consultants plan to conduct a particular program, what the staff will be doing, and, most importantly, how the community feels about it. We have to be able to listen to each other and put our ideas together. This is when we were most successful in the past and I am sure it holds for the future as well.

One of the problems we suffered from in the past is lack of integration between our programs. During the course of the health research project, another Corporation clinic was opened for the purpose of giving more complete and comprehensive health care to the community. Unfortunately, we tried to keep that operation separate from the health research project. In our minds, we saw the one program as health care and the other program as health research. What made matters even worse was that we kept referring to the health research project as research even after it became a clinic to treat people with high blood pressure. We have finally realized that this is a very narrow way of looking at things and we will never be able to deliver good health services to our people under that kind of an approach. We now view both programs as part of the same health care system, consisting of a family clinic and a hypertension clinic.

Future Problems and Plans

Unfortunately the family clinic has gone through some hard times and it has to be revitalized just like the hypertension clinic has to be revitalized. The consultants can play an important role by helping us find sources of funding and preparing grant proposals. I am hoping, and looking forward to working together in a new, more organized way. Our hopes are to be able to have one large health center on the Hill, where the Corporation owns some land, where

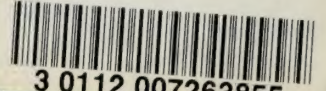
we would have a clinic for dealing with hypertension and a clinic for family medicine. Then we will be able to deal with most of our health problems in one facility without having to refer people to other places. And I hope we will be able to do more research on hypertension to find out what causes it among our people and why so many of them have it. The health research project has proven to the Black people of Holmes County that research can work for community improvement if it answers questions and solves problems.

We hope that what we are able to accomplish in Holmes County will serve as a model for other poor, rural communities across this country. We hope to have the eyes of the nation looking on Holmes County as one of the greatest counties in the state of Mississippi or in the United States.

Finally, I would just like to thank everyone here who has worked so hard for our community. I would like to thank all of the consultants for their cooperation, their patience and their humility, and Mrs. Montgomery for her courage and leadership, and Mr. Logan and his staff for their hard work. And to thank everyone who feels our needs and looks our way.

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