In other universities the situation is not quite so gloomy, and examples can be found of useful cooperation between the government and the universities. The Catholic University of Chile, for example, has been commissioned by the Transport Ministry to do a study of transport in the Chilean South, down near the southern tip of the continent. This contract, worth about $15,000, came about simply because the new head of the planning department at the ministry, Gabriel Rodriguez, had previously been a teacher at the university and knew the people there.

Unfortunately such contracts seem the exception rather than the rule. In the short term, at least, the Chilean universities offer few hopes of producing a coordinated science policy to assist in Chile's development. There are two possible alternatives—the government's own laboratories and that old standby, international technical assistance. The role they can play will be discussed in a subsequent article.—NIGEL HAWKES

A British science journalist who now works for the Daily Telegraph *magazine, Nigel Hawkes recently spent several weeks in Chile.*

Community Mental Health Centers: Storefront Therapy and More

Community mental health centers have been subjected to a good deal of criticism (*Science*, 10 December), both for failing to fulfill the rosy promises made at their inception and for stepping outside of traditional concepts of professionalism in attempting to fulfill them. Bernard Holland of Emory University, a member of the National Mental Health Advisory Board, thinks the movement has serious organizational problems, but argues that, in an experimental program such as this, "you're lucky if anyone does a hell of a lot in less than 5 years."

Science visited two relatively new centers in Atlanta that, in their vastly differing ways, seem to have discovered successful modes of operation.

The 16-month-old South Central Community Mental Health Center, which caters to a mostly poor and black population, had its genesis in an Office of Economic Opportunity (OEO) neighborhood health center that opened in 1966. Originally funded through OEO to serve only one-third of the present catchment area, it is now administered by the county health department through Emory University. It remains organically related to the OEO center, and its main building, a remodeled church wing, is across the street. Money was obtained from NIMH (National Institute of Mental Health) for staffing; support also comes from a large number of public and private sources, including federal Model Cities funds.

In addition to the administrative center, which will soon house a day hospitalization program, there are five satellites spread through the catchment area of 80,000 people. Between 1200 and 1500 patients are seen each month. Each satellite has the part-time services of a psychiatrist, a psychologist, and mental retardation workers, as well as the full-time services of a social worker, a mental health technician, and two assistants, drawn from the community and trained at the center.

Alcoholics are referred to a center-operated halfway house in the neighborhood (the county's 8-day detoxification program is useless to most alcoholics, since a 48-hour drying-out period is required before admittance). The center has no drug-treatment facilities, but hopes to develop a comprehensive treatment program with assistance from the state's newly established narcotics treatment program.

Services Tailor-Made

According to psychiatrist Peter Bourne, planner and initiator of the center, "The specific intent of the original design was to allow each center to respond to the highly localized needs of subcommunities." As a result, he says, it has been more successful than most centers in making itself an indispensable part of the community.

The mental health outposts are widely known throughout their neighborhoods because of the variety of activities they promote and the outreach work done by their staffs, including home-visiting and the seeking out of troubled people who have been brought to their attention by friends or other agencies. The satellites have casual and friendly atmospheres. Neighbors drop in frequently to chat with staff members. Each outpost has a particular orientation, which is determined by the character of the community it serves. One devotes a great deal of time to children's services; another, a storefront near the local pusher's haven, sees a large number of drug addicts.

Staff members are involved in a variety of "preventive" activities aimed at helping people overcome their sense of powerlessness. One psychologist is planning to conduct a course teaching residents how to organize themselves politically: "the system has been using them all these years—now they have to learn how to use the system." Another satellite, housed in a stuffy ground-floor apartment of a public housing development, is trying to promote a sense of community through such neighborhood projects as a weekly ice cream sale and the establishment of a cooperative food store where residents can buy fresh vegetables wholesale. A citizen's police patrol is also being planned.

The treatment of individual problems, however, is still paramount. One storefront social worker told this story of community psychiatry in action. A man came in, obviously incapacitated by depression. A year before, he had witnessed a violent quarrel between two men, in which one had been severely beaten. The assailant dropped out of sight and the victim accused the patient of the crime. The latter spent 9 months in jail and was only released when the victim finally came forth to unburden his conscience. On regaining his freedom, the patient found he had lost his job, had a criminal record, and had

been robbed of $400 worth of new furniture during his absence from home.

The center is providing weekly therapy for the man; it is also trying to locate a new job for him and is attempting to stave off his creditors until he gets on his feet.

Another multidimensional case involved a woman whose alcoholic husband died of cirrhosis of the liver. She was left with five children, one severely retarded. She had to quit her job to care for the children, and she got so depressed and anxious that she couldn't eat or sleep by the time the center stepped in. The staff put her on antidepressant medication, helped her apply for welfare and food stamps, and found an institution for the retarded child and day-care centers for the others so that she could get a job—which she did.

Crisis Care

The South Central center also has a steadily growing clientele with problems requiring immediate intervention. Says Jennie Williams, a black psychiatric nurse whose sparkle and efficiency have made her known throughout the community, "Society has taught blacks to tolerate a great deal more deviance than would be acceptable in a white community." Now that the center is becoming known, a lot of people are turning up who would fear presenting themselves at a hospital's clinical atmosphere. Says one member of the combination OEO-mental health board: "Lots of people you thought were all right, then you see them come into the center." One case, of a patient who will be totted up in the annual report to funding agencies as "self-referred," is the man who strode in wielding an ax, followed by terrified members of his family.

Indeed, treatment of the casual "middle-class" neurosis would be something of a luxury in this milieu. One satellite social worker estimates, "99 percent of the people who come in here are either alcoholic, schizophrenic, or former mental hospital patients."

Despite the radical nature of the demands made on them, staff members seem to feel that they, unlike most other workers in federally sponsored programs, have found a way to deliver the goods. Directorship of the center has been turned over by Bourne, a white doctor, to Barbara King, a black minister and social worker. The community board is getting increasingly sure of itself. An additional satellite is being planned, and arrangements have been made for a neighboring college to conduct a 2-year training program for mental health technicians.

A serene and opulent-looking contrast to the South Central center may be found on the outskirts of Atlanta on the verdant grounds of the spanking new Northside Hospital. The Northside Community Mental Health Center, which is physically attached to the hospital, serves a catchment area of 180,000 people, most of whom, except for the citizens of a poor rural county, are relatively affluent. The center smacks not at all of the scruffy atmosphere usually associated with a headquarters for public health, and for those not intimidated by the highly polished atmosphere, treatment should be a delight. The center, which opened in July 1970, has not as yet set up any outposts. Its director, psychiatrist Charles Edwards, points out that the hospital's remoteness is not a great problem, because Altanta's miserable public transportation system forces even the poorest fringe-dweller to be a car owner.

The Northside center has 27 inpatient beds for mental patients, contrasted with the six beds that the South Central center has reserved at Grady, the inner-city hospital. Northside has no NIMH staffing money and is successfully balancing its budget with patients' fees—which, based on the patient's ability to pay, range from zero to $35 an hour—and money from the county hospital authority. The 24-hour emergency care is supplied by the hospital's emergency room, and other hospital resources are readily available.

Edwards points out that he has a beautiful system operating: most patients are patients of doctors attached to the hospital, so there is an easy back-and-forth referral between medical and mental services. Further, he says, the private psychiatrists in the area, originally fearful that the center would rob them of business, have actually found it to be a boon—the center refers to them patients who are able to pay full fees for private therapy. Edwards says about 18 percent of his patients are medically indigent, although another source says NIMH earlier turned them down for a staffing grant because they were turning indigent patients over to Grady. Edwards is fond of pointing out that, no matter what the socioeconomic levels of various populations, their rates of social deviance remain about the same. Desertion in the inner city, for example, is translated into divorce in the suburbs. Thus at Northside, alcoholism persists as the number one mental health problem, and drug addiction (mostly among anti-Establishment teen-agers) is so serious that Northside, too, is planning a drug treatment program in collaboration with the state program.

Both centers rely heavily on the use of paraprofessionals who are drawn from their respective communities and are trained by the center's staffs. In the inner city, they include anyone from teen-aged dropouts on up; at Northside they include psychology majors from neighboring colleges and residents who suffer from what Edwards calls "housewife disease."

The future of a relatively self-sufficient center such as Northside will probably not be drastically affected by changes in the public health delivery system. For the movement as a whole, though, as one NIMH official says, "The day of reckoning is at hand." Despite the fact that 20 percent of the nation's population is now in catchment areas, the program is still an experimental one and still on the defensive. Little federal money will be available henceforth for construction, and competition for staffing funds is getting stiffer.

Future Directions

What next? For one thing, there is a good deal of potential in future relationships with health maintenance organizations (HMO's), President Nixon's device for improving the nation's health care delivery. Although specific legislation covering HMO financing has now been passed, many HMO's are in planning stages throughout the country. The HMO concept provides for salaried groups of doctors to supply comprehensive medical and preventive services to an enrolled population (whose optimum size is gauged at between 8,000 and 40,000) for a fixed yearly fee. One idea is that a community mental health center could enter into a contract with an HMO to provide outpatient mental services.

As the federal government struggles into new forms of health delivery, the people out in the field are already advancing ideas on the proper evolutionary path for mental health centers.

Peter Bourne, among others, believes that the centers program as now defined is on its way out and that the centers

should supply the nuclei for future regional, comprehensive, health and social service systems.

Pedro Ruiz, director of the Lincoln Hospital Center, says that Lincoln is moving in this direction. It not only already has a well-developed set of social service programs, such as vocational rehabilitation and a pediatric collective, it also has all the medical connections to qualify as an HMO. "In 2 years," he says, "we hope to be functioning as a community health center."

Stanley Matek, executive director of the Milwaukee County Mental Health Planning Committee, believes it is time for all centers to move beyond an exclusive mental health orientation. They are "doomed," he believes, if mental health services (which, if left to themselves, are unlikely to become self-supporting) remain a separate system. "Mental health in our society will never come from mental health systems. It will come from our educational systems, our family developments, our recreational patterns, our employment practices, and our media communications."

He believes mental health centers must undergo a two-stage expansion—first to include outposts of all other social services, such as welfare, family planning, and legal aid, and later to be merged with health care, to produce, finally, an "HMO plus."

Bourne has gone so far as to recommend a state health plan for Georgia that would incorporate many of these concepts. First, he wants to take mental health care out of the state health department and make it a separate department. He then proposes that an overall human resources agency be created to fuse the activities of the two departments. With this setup, he believes, the state would be in a better position to carry the centers to their next stage of evolution. Neither the 75,000 to 200,000 catchment areas nor a full range of services is appropriate to all populations. Nor is a full-fledged center for each of Georgia's 33 catchment areas economically feasible. Rather, he proposes that there be some "primary" centers to provide a full repertoire of health and social services, as well as "secondary" centers that may offer only one or two services, such as outpatient treatment and aftercare.

Such a rearrangement would be a daring step for any state, let alone Georgia, whose latest mental health budget of $93 million allots only $3 million for the centers. (Pennsylvania, by contrast, puts $40 million of its $70 million mental health budget into them.) This sort of reorganization might alleviate some of the difficulties of centers in rural areas, where services are dissipated by vast distances, lack of transportation, and the fact that circuit-riding psychiatrists and psychologists have to spend much time on the road.

Although fusion of services is the ultimate objective, some proponents of the mental health centers are wary of being prematurely pushed in with medical services. In their experiences, such a link-up invariably results in the mental component's getting short shrift. As Mike Gorman, Washington lobbyist and chief booster for community mental health centers, declares: "We have built a better mousetrap. We know how to deliver services." Now, to neighborhood health centers and HMO's, "we say to hell with you, because we've built the best mousetrap in the world."

Reimbursement Problems

But the major flaw in the mousetrap —inadequate financing mechanisms— remains. There is widespread agreement that the refusal of most insurance plans to supply coverage for outpatient mental care is a serious and potentially deadly drawback. Gorman says commercial insurance carriers see such coverage as a Pandora's box that would lead to uncontrollable insurance demands, despite numerous studies which show that it is cheaper to provide outpatient care and thereby avoid hospitalization costs. Bill Goldman, a prominent member of the National Council of Community Mental Health Centers (a lobby group made up of center directors), points out that health insurance for federal employees functions well, despite the fact that it is one of the nation's most advanced examples of psychiatric outpatient coverage. Irving Chase, president-elect of the National Association for Mental Health, said recently in testimony before the House Ways and Means Committee that two studies of prepaid group practice plans showed that those people who had received outpatient psychiatric therapy showed a reduction of 30 percent in their use of physicians' services and laboratory and x-ray procedures. They also showed a "significant decrease" in the most expensive drain on insurance resources—hospitalization.

This evidence notwithstanding, the outlook for ambulatory mental care in the national health insurance plans now before Congress is grim: of dozens of bills floating about, only one—sponsored by Senator Edward Kennedy—provides for this kind of coverage.

Next to money is the question of staffing. As one former director of a large urban center points out, an increase in involvement with a community usually means a weakening of ties with hospitals and universities, which are the sources of well-trained staff. If a center is to give first-rate care, he says, it must have ready access to first-rate talent. People who have not had training in community psychiatry will not be drawn to community mental health centers, or if they are, they are likely to approach their job with a naive missionary zeal that is as much of an aggravation as a help to a community. Without professional backup of high quality, says this psychiatrist, centers will stagnate and become just another "second-rate social agency," no matter how much they involve the community in care and decision-making. In his view, the only way to avoid this is for community psychiatry to become a much more important part of university and medical school curricula than it is now.

The American landscape is littered with the hulks of federal social programs—launched amid noisy trumpetry from on high—which have subsequently been dismembered, truncated for lack of funds, or strangled by the problems they set out to conquer.

Community mental health centers were launched on a tide of high hopes and good intentions. They have unquestionably been of service to the public, although statistically speaking their single sure accomplishment has been the reduction of mental hospital admittances in certain regions. The program will have fulfilled its federal mandate if it succeeds in shifting the locus for public mental health care from the hospital to the community. The most significant question, though, is whether the program can achieve its self-ordained mission of becoming a cogent force for the democratization of all health and human services.—CONSTANCE HOLDEN

Erratum: In the report "Neuronal Soma and Whole Neuroglia of Rat Brain: A New Isolation Technique" by W. T. Norton and S. E. Podulso [**167**, 1144 (1970)], sentence 2, paragraph 3, column 1, p. 1144, should read: "The brains are trimmed of cerebellum and chopped fine (approximately 1 mm^3) in an ice-cold medium consisting of 5 percent glucose, 5 percent fructose, and 1 percent bovine serum albumin (*14*) in 10 m*M* KH_2PO_4-NaOH buffer (*p*H 6.0)."