The Issues

IN CHRONIC DISEASE CONTROL

The State and Territorial Chronic Disease Program Directors organized as an association at their third biennial meeting held in Chicago, September 21–23, 1959, and affiliated with the Association of State and Territorial Health Officers.

"Health Department Leadership in Chronic Disease" was the theme of the meeting. Resolutions on chronic disease adopted by the association are briefed in this report, and two of the papers presented to the conference are summarized.

Officers elected for the current year are Dr. Lester Breslow, chief, division of chronic diseases, California State Department of Public Health, president; Dr. Harold S. Barrett, deputy commissioner and director of chronic disease control services, Connecticut State Department of Health, vice president; and Dr. Forest R. Brown, director, division of chronic disease control, Oklahoma State Department of Health, secretary-treasurer.

On the executive committee are Dr. Marian R. Stanford, director, chronic illness control, State Department of Health, Trenton, N.J.; Dr. Milton Feig, acting director, division of chronic diseases and aging, Wisconsin State Board of Health; Dr. J. L. Jones, head, chronic disease section, Washington State Department of Health; and ex officio, Dr. Frank W. Reynolds, formerly director, bureau of chronic diseases and geriatrics, New York State Department of Health, now associate professor of public health practice, University of Michigan School of Public Health.

Resolutions adopted by the newly formed Association of State and Territorial Chronic Disease Program Directors at their meeting last fall reveal an assessment of the current issues in chronic disease programs throughout the Nation. In each instance, the resolutions recommended actions to the parent organization, the Association of State and Territorial Health Officers.

Full-Time Leadership in Chronic Disease. Health officers should be urged to give full-time medical and public health leadership to chronic disease activities and establish appropriate organizational units in their health departments.

Diabetes. The Public Health Service should be requested to convene an expert committee to establish standards for screening and diagnostic followup in the early detection of diabetes. It was stated that full use of modern knowledge is not current practice in diabetes casefinding.

Nursing Homes. Delegation of responsibility for licensing and continuing supervision of nursing homes as a function of State departments of health was recommended.

Homemaker Service. State health officers should be requested to act with State welfare and other appropriate agencies to promote community homemaker services as a component of a full home care program.

White House Conference on Aging. There should be vigorous leadership by health officers to insure adequate emphasis on the health aspects of aging in the 1961 White House Conference and in all preceding local conferences.

Disability. Health officers should be urged

to assume leadership in developing programs in disability, including aid to disabled persons whose goals are less than employment, and in seeking Federal funds to implement programs with this objective.

Epidemiological Method. Health officers should be urged to promote further use of the epidemiological approach to chronic disease control.

Social Work, Social Science, and Behavioral Science. Encouragement should be given to the use by health departments of workers in the social sciences.

As a final formal action, the association approved the concept of Federal grants to local health agencies for chronic disease control activities. It recommended vigorous support of the new community cancer demonstration project grant program of the Public Health Service. It was suggested that health officers take the lead in seeking substantial additional Federal grants for other categories of chronic disease control and in developing plans for such a project grant program.

Caring for the Chronically Ill In Existing Facilities

It has been estimated that the minimum number of facilities needed for the care of the chronically ill and disabled is two beds per 1,000 population. If most States are like Michigan, it will, in all probability, be a long, long time before 15,000 beds for the chronically ill are available within their boundaries. Brick and mortar programs for care of this portion of our sick population are very important; nevertheless, we cannot afford to wait to take steps to improve and extend facilities for the care of this group until the ideal quota of beds and housing is reached. State and local governments should plan carefully and initiate programs so that each year brings progress in terms of better facilities. In the meantime, governmental agencies also should consider what physical facilities are available or can be adapted for care of the long-term patient.

Most chronically ill patients are admitted to a general hospital during the acute phase of their illness and they are not distinguished from other patients who are acutely ill. Rehabilitation services which should begin during this acute stage of illness or disability are not made available. Later no provision is made for transfer of the chronically ill to other facilities which supply the continued care and treatment they need.

As the local general hospital is considered more and more as a community health center, the ideal solution to the problem of giving hospital care to long-term patients would be to extend and coordinate the facilities and services of the general hospital, through the construction of a chronic disease annex or a county medical care facility adjacent to and obtaining most of its services from the general hospital.

An independent chronic disease hospital should be considered necessary only when there is no practical way to provide long-term care in a general hospital, either physically or administratively.

Rather than wait until these highly desirable facilities can be provided, however, immediate needs in the treatment of the chronically ill should be met by using fully all services and physical plant areas now available in existing facilities. Consideration should be given to:

- Conversion of a former unit of a general hospital, such as a discontinued nurses' residence or excess bed capacity, to a chronic disease unit or skilled nursing home.
- Greater use of county medical care facilities, through the extension of additional services offered to patients.
- Conversion of tuberculosis sanatoriums with excess beds to a chronic disease hospital or skilled nursing home.
- Development of a closer relationship between hospitals and nursing homes, and upgrading the level of care in nursing homes by supplying nursing and medical supervision or consultation in the same manner as some hospital personnel are overseeing the operation of small community health centers.

Based on a paper by John A. Cowan, M.D., director, division of tuberculosis and adult health, Michigan Department of Health, Lansing.

• Greater use of diagnostic facilities in hospitals by supplying outpatient services for the chronically ill, ambulatory patient.

• Development of home care programs through the coordinated efforts and facilities of all local agencies, voluntary, private, and tax-supported.

Transition in Michigan's Sanatoriums

In Michigan in June 1959 there were 19 State-approved tuberculosis sanatoriums with a total capacity of 4,188 beds. As in most other States, the bed needs for tuberculosis are declining. Changes and improvements in the treatment of tuberculosis have brought us toward much shorter periods of hospitalization than was true a few years ago. This, as well as the lower incidence of tuberculosis, has lessened the need for beds for the hospital care of the tuberculous.

As a result, many tuberculosis hospitals have only a small fraction of their beds filled, per diem costs have skyrocketed, and it has become a prerequisite to economic survival to plan for other uses of their excess beds, or of the entire institution.

In 1957, Michigan passed the following legislation concerning county tuberculosis hospitals: "The board of trustees, with the approval of the board of supervisors, may in its discretion admit patients to said hospital for the treatment of diseases other than tuberculosis under such terms and conditions as prescribed by said board of trustees and approved by the State health commissioner. Persons . . . suspected or afflicted with tuberculosis and requiring hospitalization in the hospital or sanatorium shall be given priority of admittance."

Since 1950, 11 tuberculosis hospitals approved by the State have closed. Of the 15 county sanatoriums now in operation, 7 have converted their facility to admit chronic disease patients under the 1957 legislation. Although tuberculosis sanatoriums in general are far from ideal chronic disease hospital facilities, they can be adapted to become fairly satisfactory institutions with certain modifications in physical organization and in the type of staff. Evaluation of the use of these facilities for the care and treatment of the chronically ill should be made on an individual basis.

Advantages

The medical, nursing, and other staff of tuberculosis hospitals understand the problems of the long-term patient. The tuberculosis patient today, in most instances, is aged, with other chronic illnesses that must be treated simultaneously. Those who realize the difficulties encountered by the staff in most general hospitals dealing with long-term patients already know that familiarity with care of the long-term patient is a distinct advantage.

Existing services, such as occupational therapy, dietary, X-ray, laboratory, medical, and nursing services, can extend to the nontuberculosis unit. On the other hand, social service, physiotherapy, and other special services required for care of the nontuberculous will also improve the care of tuberculous patients.

With the disease declining in emphasis, it is difficult to recruit good medical, nursing, and ancillary personnel for a tuberculosis hospital. Chronic disease care is a rapidly expanding field and is more attractive to hospital personnel.

Proration of the expense of administration, housekeeping, maintenance, utilities, and the like results in a reduction of the per diem costs of the tuberculosis unit as well as the chronic disease unit, because of better use of facilities.

Disadvantages

Unfortunately, some local practicing physicians in general hospitals tend to refer to the chronic disease hospital patients whom they do not wish to treat, patients that no one else wants. Many of these patients are very ill and some of them moribund at the time of admission to the hospital.

There is always the possibility that, under these circumstances, medical and nursing staffs will become so concerned with emergency problems that the tuberculosis patient will be neglected. As an illustration, the death rate of nontuberculous patients in two specific sanatoriums has averaged from 20 to 40 percent in

comparison with the rate of 2 to 2½ percent in general hospitals. The medical and nursing duties for these dying patients are not only mandatory, but time consuming. Also, when treating these two types of patients at the same facility, tuberculous and nontuberculous, the problem of cross-infection must be considered at all times. Although this problem is serious, it is by no means insurmountable, however, and practical solutions have been found.

Local welfare departments may transfer postoperative and other acutely ill patients from the high-cost general hospital to the low-cost chronic disease hospital prematurely. These patients, when admitted to the chronic disease unit, require a disproportionately large degree of medical and nursing staff time, which greatly increases the cost of the care.

Factors in Transition Planning

There is need for a plan for progressive treatment of the chronically ill or disabled patient from the acute stage to the maximum point of rehabilitation potential, which may mean self-sufficiency, self-care, or partial care in a foster home, or other care, using whatever services or facilities may be available.

Admission and discharge policies should include a decision that only those patients should be admitted who will benefit from active medical care; specific planning of the level of patient care; and a clearly defined discharge policy if the chronic disease hospital is not to become purely a domiciliary facility. Personnel must be available in the area to meet the need for medical, nursing, and ancillary services. Medical specialty services on a consultation basis should also be available, plus the physiotherapist and occupational therapist, social worker, and adequate nursing personnel. The full-time medical staff must be adequate, qualitatively and quantitatively, since experience has shown that the private attending physician seldom visits the patient; thus medical supervision becomes the full-time responsibility of the staff.

Planning the layout of the physical plant must permit proper separation of tuberculosis and nontuberculosis areas, and the complete cutoff necessary to alleviate the possibility of cross-infection.

A final factor in planning is the potential home care services for the patient after he is ready for discharge to his home or foster home.

An Example in Saginaw

The Saginaw County Hospital was planned initially solely for the care of tuberculosis patients. At a later date its services were expanded to include the care of patients with chronic diseases. Between 1950 and 1954, the capacity of the hospital was expanded to 250 beds to meet the critical shortage of beds for the care of tuberculosis patients. Shortly after the latter addition was completed, the need for beds for tuberculosis patients declined.

While the situation in this particular area was not as critical as in some others, it became evident that consideration would need to be given to eventual conversion of some of the facility to the care of other types of patients. In 1957, after passage of permissive legislation by the State which allowed use of existing beds in tuberculosis hospitals for the care of nontuberculosis patients, application was made to the State health commissioner for approval of a plan for this purpose.

There are three general hospitals and a county infirmary within the city of Saginaw, in addition to the Saginaw County Hospital. There was a definite need in the community for a chronic disease unit. It was believed by many local physicians that this unit should either be attached or adjacent to one of the general hospitals. However, public approval of bond issues for this purpose was refused a number of times. Finally, the county board of supervisors granted approval to construct a chronic disease unit for the care of county welfare patients, as an addition to the Saginaw County Hospital Annex, the former convalescent unit for tuberculosis patients. The new addition, at a cost of $115,000 plus $35,000 to make alterations to the old annex, made the total conversion cost $150,000.

The capacity of the unit is 50 beds. The first floor has a day room, lobby, administrative office, diet kitchen, and eight rooms for patients, three of which are security rooms for the temporary retention of the emotionally disturbed. The ground floor includes the department of physical medicine and a multipurpose room

which serves as a recreation room and chapel. The balance of the ground floor is used completely for the rehabilitation of patients. There are facilities for both physical and occupational therapy, together with facilities used in teaching patients to be self-sufficient upon return to their homes. This section also has access to a park area for patients.

Consultant physiatrists from the University of Michigan meet with the hospital medical and paramedical staff every 2 weeks to review progress of patients and to evaluate rehabilitation potential of new patients.

Although at first there were a few misunderstandings with the local medical profession about the use of the facility, this problem was solved through close liaison with the geriatrics committee of the county medical society. The chronic disease unit is administered as a part of the hospital, but admissions are authorized by the welfare board; the board of supervisors set a policy of admitting only indigent patients. Private physicians are permitted to treat their own indigent patients, receiving fees for their services from the welfare department. However, this procedure is infrequent, most of the patients being treated by the full-time hospital staff. Medical specialty consultants in Saginaw are available when needed.

There is a great deal of public sentiment in favor of admission of private pay patients but as yet the policy has not been changed.

All facilities of the hospital are available to the chronic disease unit.

Chronic disease services are more expensive than tuberculosis services. It requires one employee per patient to provide nursing, rehabilitation, and housekeeping services. Under certain circumstances, the ratio of employees to patients may go even higher. If laboratory, X-ray, kitchen, and maintenance services are included, the total ratio is 1.5 employees per patient. The total cost including all services in this facility is $15 per day.

A great many patients have been admitted who have little or no rehabilitation potential. The admission policies are weak since admission and selection of patients is decided by the welfare board and not by the hospital director. Due to the high cost of care in general hospitals, postoperative patients requiring active medical service are often sent to the chronic disease unit without proper consideration of the main objective of the unit, rehabilitation.

With the support of the county medical society, arrangements have been made for outpatient service to ex-patients so that their progress can be evaluated by the medical and paramedical personnel. With the support of a Michigan Department of Health grant, the rehabilitation center is used also as a focal point for instruction and training of patients and is an integral part of an organized home care program to which many of the patients are discharged.

Comparative Costs

The average per diem cost of 23 representative general hospitals in Michigan as of December 1958 was $34.08, as computed by the Michigan Hospital Association. One of the northern counties in our State has an agreement with a large local general hospital to pay a flat rate of $25.86 for the county's indigent patients. This county has recently constructed a new medical care facility as an annex to the general hospital. The estimated average cost in this institution will be $8.90 when the institution reaches its capacity of 90 patients. It should be emphasized that this cost includes only ordinary medical, laboratory, X-ray, physiotherapy, and similar services. It can be seen readily that the cost of caring for such patients will be considerably reduced as soon as they can be transferred from the general hospital to the medical care facility.

The State social welfare department reports that average per diem costs in a medical care facility range from $5 to $12.50, depending primarily on the geographic area of the State where the facility is located and the type of care offered. The average cost in 1958 for all medical care facilities in Michigan was $7.28, excluding depreciation. Most of these facilities would compare with a skilled nursing home with respect to services. A few facilities have physical and occupational therapy in addition to ordinary services.

As of this date, the average per diem costs of chronic disease units operated in cooperation with tuberculosis sanatoriums are:

Chronic disease unit	*Per diem cost*
Sunshine Hospital, Grand Rapids	$17.73
Saginaw County Hospital, Saginaw	15.00
American Legion Hospital, Battle Creek	14.74

These costs approximate 50 percent of local general hospital costs.

A recent survey in the State revealed the following costs in nursing homes of the skilled category:

Nursing homes	*Per diem cost*
40-bed home (all private patients)	$8.11
41-bed home (⅔ private, ⅓ public aid)	5.71
86-bed home (¾ private, ¼ public aid)	7.25
75-bed home (⅔ private, ⅓ public aid)	5.55

Conclusion

It is generally agreed that patients with long-term illness and disability usually can be given the best care in chronic disease hospitals or annexes attached or immediately adjacent to general hospitals. However, this ideal situation appears unattainable in most areas within the foreseeable future.

Most States have facilities, such as portions of general hospitals, nursing homes, or tuberculosis hospitals, that can be converted and used eventually as institutions for the care of the chronically ill under most circumstances, if the institutions are located in an area where medical specialty services and trained staff are available.

Although the average tuberculosis hospital is by no means ideal as a chronic disease unit, it can be an acceptable substitute until such time as specially built chronic disease hospitals can be financed and constructed.

The Geriatric Program In Santa Cruz, Calif.

As a means of improving the health status and good health potential of recipients of old age security payments in Santa Cruz, Calif., a physical screening program has been in operation since September 1955. It is a voluntary program which retains the traditional association of private physician and patient, permitting personal preference to be the determining factor in the patient's selection of physician and hospital, when required. The objective is to encourage early diagnosis and treatment, thus reducing long-term institutional care.

Based on a paper by Russell S. Ferguson, M.D., health officer, Santa Cruz County, Calif.

Santa Cruz County is situated on the coast adjacent to the San Francisco Bay area. It comprises about 400 square miles between the coastal range of mountains and the Pacific Ocean. The population is approximately 75,000; of these, 1 in every 7 is over 65 years of age, about 10,000 persons. From 1955 through 1959, a little over one-third of these 10,000, or an average monthly caseload of 3,416, were recipients of old age security. In 1955, women outnumbered men two to one and the median age for men was 76, for women 75. The median age to receive OAS was 68.

Of 58 counties in California, 38 maintain a full-time health department and Santa Cruz is one of these. The primary public health center is located in the city of Santa Cruz, the county seat, and a secondary office supplying all services is maintained in Watsonville at the southern end of the county, 18 miles away. There is no regular transportation in the county, which poses a problem in the administration of any public health program but especially one dealing with the aged.

Early in 1955, the Santa Cruz Health Department sought the cooperation of the county welfare department in an effort to ascertain what could be accomplished to improve the health status of OAS recipients. At the same time, we sought, if possible, means to reduce costs by introducing a program designed to accomplish early diagnosis and immediate treatment, thereby maintaining the recipient in sufficiently good health so that long-term institutional care might be greatly reduced.

Following this initial inquiry into the problem, the California State Department of Public Health, specifically Dr. Lester Breslow, chief of the bureau of chronic diseases, was requested to make a study of the health status of OAS recipients in Santa Cruz County. This study indicated that a two-pronged attack, with a physical screening program on a voluntary

basis, and second, with an effort to mobilize every available financial and community resource to insure immediate and complete treatment, might accomplish the desired results.

From September 1955 until September 1956, the screening program was confined to new recipients who had been processed by the welfare department in the Santa Cruz area. In October 1956, the program was expanded to include recipients previously on the rolls, and a second clinic was opened in Watsonville for OAS recipients in that area. Through August 1959, 1,501 physical examinations had been given, nearly one-half the average enrollment of 3,416 OAS recipients in the county.

Each examination consists of a careful history and a physical examination which includes a chest X-ray, electrocardiographic examination, and routine and special laboratory studies, augmented by a complete dental examination and measurement of eye tension for glaucoma. Each examination takes one-half hour.

The geriatric clinic is staffed by a physician who conducts the history-taking and physical examination, a public health dentist, public health nurse, and a social worker. Laboratory, X-ray, and electrocardiographic technicians are available for the three clinics held each week. In addition, a radiologist and internist from the county medical society read the X-ray films and electrocardiograms.

Dr. Elbert T. Rulison, although retired, serves voluntarily and without reimbursement as our physician. The county health department supplies the public health dentist, public health nurse, social worker, and technicians. The radiologist and internist may be said to contribute their services, since they receive only a very small honorarium.

A report of the results of the examination is sent by mail directly to the physician named by the recipient and includes a copy of the electrocardiograph, laboratory, and X-ray reports. Subsequently, the public health nursing service follows through to assure that the recipients are receiving medical care.

The so-called ineligible spouse, ineligible only because of being under the age of 65, constitutes a medical liability if neglected. The inclusion of these "ineligible" spouses in the program is provided under the regulations of the California State Department of Public Welfare. If they live to the age of eligibility, they become OAS recipients in any case, and it is considered more economical to safeguard their health at this juncture, by screening them for physical defects along with their eligible spouses.

Acceptance

Acceptance of the program among new recipients in the Santa Cruz area during the first year of operation was 72 percent. In 1958, the rate of acceptance for new recipients throughout the county had declined to 57.3 percent.

A major factor in this decline was the passage of the State medical care program in October 1957. California established its medical care program after passage in 1956 of amendments to the public assistance titles of the Social Security Act. These amendments provided that the Federal Government would match, on a 50-50 basis, State expenditures on vendor payments in behalf of public assistance recipients needing medical care up to a maximum determined by multiplying $6 per month times the number of adults and $3 per month times the number of children.

Other factors limiting the acceptance rate are the lack of transportation mentioned previously, the more or less rapid turnover of workers in the welfare department, and our own limitations in time and personnel. I am not at all sure, however, that we should seek a much higher rate of acceptance; our ability to give each recipient ample time for thorough study might be curtailed as a result.

Financial Resources and Cost Comparisons

The cost of each examination as determined by the field auditor in the State controller's office was $25.28 for the fiscal year 1957–58. In fiscal year 1958–59, it was a few cents higher, due to increases in the cost of services. It must be noted that if a physician had to be employed by the clinic, the cost would be at least $5 more per examination.

The State department of social welfare advised us officially early in the program that

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the cost of the screening examinations would be a proper charge against the welfare department's administrative fund. This fund is one-half Federal and one-half county money. Thus one-half of the cost of the screening program is obtained from Federal funds.

The county board of supervisors approved $12,000 in the budget of the health department to assist in the treatment phase of the program, since it was realized that, in addition to the basic grant and excess income of the recipients, funds were required to supply medical services for conditions disclosed by the physical examination, when the recipient was unable to pay.

In the first year of operation, health department funds were used to supply care by a physician, through home and office visits, and drugs. With the passage of the State medical care program in 1957, the department switched its emphasis to surgical and dental services excluded from the State program. In addition, hearing aids, eye glasses, and other prosthetic devices were supplied. These services are given to any OAS recipient or ineligible spouse, whether he attends the geriatric clinic or not. The cost of these services in fiscal year 1958–59 equaled approximately the $12,000 budgeted for treatment services by the health department.

The per capita cost of providing surgery, dental care, and ancillary services for the entire average roll of 3,416 recipients was 16 cents per recipient per month in 1958 and 21 cents per recipient per month in the first 6 months of 1959. Under the program, 21 surgeons have performed 37 major operations and 6 minor procedures. As might be anticipated, cataracts and genitourinary conditions lead the list of operations.

Not less than $25,000 per month is expended on long-term institutional care for OAS recipients in Santa Cruz County. In contrast to these figures, of 664 recipients examined in the geriatric clinic prior to December 1957 for whom complete records are available, only 17 have ever been in a boarding or nursing home in the past 40 months. The total time in such homes was 174½ months; the total cost was $19,966. This is over $5,000 less than the cost of the entire OAS enrollment for 1 month alone.

Eleven ineligible spouses were examined at our clinic prior to 1957, and a total of $1,650.41 was spent for home and office visits by physicians, and for drugs, surgery, dentures, and appliances. Of these, five spouses have since become eligible recipients under the OAS program and have entered the roll in good health.

Conclusions

We conclude that some important results have been achieved in Santa Cruz County as the result of our approach to the problem of the aged. First, an increased interest by the individual in maintaining his own health was achieved by the examination and immediate referral to the physician of his choice. Second, we have been able to mobilize financial and community resources, thus making it possible for the vendors of medical, dental, and ancillary services to assist the OAS recipients in maintaining good health status. Third, we have been able to restore these people to the dignity of private patients in private hospitals for surgical care, resulting in impressive savings to the county. And finally, we are convinced that these services can be given at exceedingly low cost, contributing to the prevention of long-term illness requiring institutional care and to the prevention of blindness.