The Relevance of Yoruba Medicine Men in Public Health Practice in Nigeria

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SHORTAGE of trained health manpower severely hampers the provision of health care in Nigeria. Adadevoh recognized this problem in rural health services in Nigeria (1):

Highly trained local medical personnel for executive duties, local facilities for trained medical personnel, the control of highly endemic diseases through mass treatment, the control of epidemics and adequate health education of the people at all community levels remain the problems of health delivery to our peoples. . . Present health concepts for the nation must still place emphasis on rural health and the delivery of health care to the mass of the population who for inadequate facilities cannot seek or get medical aid. Staff shortage and finance continue to embarrass the total executive of Nigerian Health Programmes.

At a time when all available manpower resources should be tapped and genuine teamwork prevail in health services, an unhealthy competition, coupled with fear and suspicion, exists between the native doctors, or medicine men, and the professional health workers who are Western trained. I propose to document the values and benefits that can be derived by adding the medicine men to the public health team in Nigeria. I recognize that there is risk in developing new staff and new staff patterns, but the risk is worth taking, as others facing manpower shortages have pointed out (2).

Reliable vital and health statistics for Nigeria are lacking at present. As a result, it is difficult to secure valid statistics on the number of pa-

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tients per physician in both urban and rural areas. According to Your Health, a quarterly publication of the Federal Ministry of Health of Nigeria, there were in 1968 about 2,000 physicians and nurses in the country (3). The World Health Organization put the ratio of physicians to patients at 1 to 33,000 in 1960 (4).

In the light of this situation, Western-trained health workers should seek to understand the knowledge and skills of the local or community medicine men among the Yorubas rather than treating them flippantly or as of no use in modern public health practice. Considering the realities of Nigeria's shortage of trained manpower, the government or health agencies also need not be oblivious of the traditional medicine men's capabilities.

Even where modern health facilities are accepted and accessible, the people persevere in their traditional beliefs and practices. Literate or unlettered, the people still commute freely between the homes of local medicine men and hospitals, clinics, dispensaries, and physicians' offices. This ambivalent attitude toward health care makes teamwork between the modern health workers and the traditional practitioners necessary and advisable.

As medical care and health services reach into remote areas of Nigeria, health workers, particularly physicians, nurses, dispensers, and midwives in rural areas, face problems more complex and demanding than the problems they encounter in the cities. A number of reasons

favor teamwork between the medicine men and professional health workers, particularly in rural areas where the native doctors are numerous.

Rural folk have poor or inadequate transportation, which limits their access to the limited health services that are provided for them. Cultural and language differences impede communication between the mass of health care recipients and health care implementors (this is also true in urban areas). There are many medicine men in every locality; in rural areas they form about 10 percent of the adult population and in urban areas, about 4 percent. As part and parcel of the community, they are unhampered by sociocultural, communication, and transportation barriers and therefore can reach the hardto-reach who need health services. If they are given relevant training, they can become effective paramedical personnel.

The Yorubas, among whom trained medicine men could work, form about 30 percent of Nigeria's population of approximately 62 million. The people of Western, Lagos, and Kwara States, three of the 12 in the Federation of Nigeria, are predominantly Yoruba. Other groups in Nigeria have their counterparts of the Yoruba native doctors who use similar methods and techniques in dealing with patients.

This paper is focused on the attitudes and behavior of Nigerian health workers, particularly most physicians trained in modern public health practice, and on the sociocultural, psychological, and medical activities of the traditional medicine men in public health. I use Yorubaland only as a paradigm of the possible use of medicine men as paramedical health care workers and health educators. I propose to examine the medicine men's methods and understandings in health practices in order to identify those which fit functionally into public health care and health education.

Traditional Medicine Men of the Yorubas

The traditional native doctors are of three categories—diviners, herbalists, and shrine priests.

Diviners. The Yoruba generic name for the diviners is "babalawo." Through "Ifa," the Yoruba oracle divinity, the diviners diagnose and counsel about the causes of ill health or

misfortune and then prescribe the necessary sacrifice. The causes may be supernatural or ritual, such as an offense to some divinity or the contravention of certain taboos; they may be natural or sociocultural, such as rudeness to an elderly person, stealing, backbiting, or contravention of some other social value. Any of these causes may be related to levels of well-being. The babalawo function within an ecological concept of health as far as the beliefs of their clients are concerned.

Herbalists. The Yorubas designate the herbalists "baba-ologun" or "adahunse." The herbalists cure and prevent illness or misfortune through the use of herbs, roots, barks, incantations, talismen, therapy, sacrifice, and immunization ("igbere"). They diagnose, counsel, prescribe, and treat.

Shrine priests. The priests are called "baba olorisa" or "onimale." They perform rituals related to health. For example, they offer sacrifices of appeasement or thanksgiving; the sacrifices may be performed in behalf of an individual person or the community. Particularly in times of national danger or disaster, such as pestilence or an epidemic (smallpox, for example), the priests are of socio-ritual significance.

Diviner-herbalists. One person may be both diviner and herbalist. Diviner-herbalists are variously designated "adahunse," "babalawo," "oni-Ifa," and "ologun." They treat the whole person.

In diagnosing, prescribing, and counseling, all the adahunse function within the psychological framework of their clients' beliefs and expectations. They display common sense, great eloquence, great boldness, generous sentiments, disinterested virtues, reverential faith, and sublime speculation (5,6)—all essential features of traditional medical practice. I do not deny that some quack native doctors play upon the intelligence of their clients, particularly in the urban areas where health care is becoming very much commercialized. I exclude the quacks from this discussion.

On the ecological relationships of culture, health, and disease, Mead described the method of knowing and treating the total personality to allay the patient's fear, anxiety, stress, and strain (7):

Local communities expect the practitioner to take a detailed and personal interest in the patient. He on his side considers it important to create an atmosphere of confidence and trust to allay the anxiety felt by the patient and his friends, and he establishes this atmosphere by an unhurried and patient question-and-answer process, as well as by the kind of inquiries he makes about the illness and its symptoms. Each symptom is considered and treated separately and not as a complex. Local practitioners are willing to be "called" and to visit the patient in his own home, surrounded by his relatives. Even more important, the local practitioner speaks to the patient and his relatives about the illness and treatment in language and concepts that are familiar to them, and that they can understand and gratefully accept.

In this way the medicine men have built up their system of folk medicines and traditional care for the sick and those affected by misfortune. They satisfy patients because they also invoke cultural supports, both religious and psychological, in curing and preventing disease and in restoring patients to correct balance with their total environment.

The adahunse "treat" mental illness, epilepsy, tetanus, cholera, lumbago, piles, intestinal worm diseases, smallpox, cough, craw-craw, yaws, leprosy, gonorrhea, and fevers of various types. They also set broken bones, perform massage, and engage in prenatal and postnatal care as well as in the care of infants' ailments (8-14).

Clients have trust and confidence in the adahunse because of the traditional authenticity of their work in the community. Psychologically, clients are inclined to obey the medicine men. They surrender themselves in empathic identification with the medicine men and achieve an emotional security that reduces the stress of ailments or misfortunes.

The medicine men are conscious of their responsibilities toward their clientele as well as of the need to protect and defend their profession. In modern times they have formed into a strong association (6). They are apprehensive of the incursion of Western-trained physicians, whom they view with suspicion as potential rivals. However, they take their profession seriously; the existence of modern health facilities has not eliminated them, crippled their practices, or driven them out of the local health market. The local medicine men and the Western-trained health professionals each continue to have their own clients in both rural and urban areas. My observation has been that the medicine men continue to command, as their clients a large number, if not the majority, of

the masses, particularly the expectant mothers, the very young, and the very old. Literacy has not significantly modified the attitudes of these clients toward adahunse.

Implications for Public Health Education

The objective of health education is to change attitudes and behavior and thereby to improve health; its focus is on people and their health actions. Health education is a process of creating particular cognitive, perceptive, behavioral, and motivational structures in the client. To be effective and lasting, change in health behavior must take into account the realities and the possibilities in each situation—the local culture, felt needs, interests, and resources in money and manpower.

The medicine men's knowledge of the culture and of people's needs and interests as generated by the local environment is particularly relevant when changes in health practices are sought. Consider the following attributes of the adahunse.

Social and ritual significance. The Yoruba masses view health as a complex, ecologically contained phenomenon, with natural, supernatural, ritual, and social causation. The medicine men, in one way or another, recognize this attitude and attempt to relieve their patients of anxiety, especially in the socio-ritual aspects of the patients' well being. Thus the medicine men have become socio-ritual figures who are respected and looked to as opinion leaders in their neighborhoods.

Cultural and personal proximity. The medicine men are close to their clients. Night and day they are ready to listen to their complaints and render timely help. Their proximity carries with it accessibility, availability, acceptability, and dependability.

Identification and sympathy. The medicine men genuinely identify with their patients through knowledge, understanding, and concern for health in all its ecological ramifications. They diagnose, prescribe, and counsel, and they also undertake the responsibility of carrying out prescriptions on behalf of patients, rather than engaging in referrals which the patients often cannot afford to pursue. The adahunse may even locate the patients' relatives and advise them about the best way to carry out a prescription.

They act promptly, carefully, emphatically, patiently, and with concern.

Counselor and mentor. The medicine men counsel as part of their healing armamentarium. They advise both the patient and his relatives in matters affecting health. The medicine men regard relatives as the best "reference group" to the patient because they can motivate the patient to follow the medicine men's prescriptions or advice. Invariably, most of the advice is followed, since the people regard the medicine men as mentors.

Familiarity with therapy. The medicine men use therapeutic devices which are consonant with the psychological temperament of their patients. The prescriptions are not altogether strange; they are day-to-day acts or foods or drinks, for example. The patient has no fear of taking or of doing what is not familiar and no dread of its consequences. The medicine men's prescriptions take cognizance of the clients' taboos and superstitions. Also, the medicine men use the language, dialect, or idiom of their clients. No interpreters are needed.

Fees. The fees are relatively small compared with the charges of the hospitals and Westerntrained physicans and, therefore, are an attractive alternative to expensive Western care. Thus many patients continue to visit both hospital clinics and the shrines of the babalawo-adahunse.

To summarize, there are seven reasons why the medicine men are relevant to the public health team.

- 1. They can fill the vacuum in health care created by the shortage of health manpower and the high cost of training modern health workers.
- 2. They have developed traditional skills in dispensing curative, preventive, and rehabilitative care.
- 3. In their treatment techniques they use an astute approach to human ecology and health.
- 4. They belong to the same culture as their patients, sharing common beliefs, values, and symbols of communication.
- 5. They are effective in some aspects of psychosomatic medicine and in the use of local herbs, roots, and barks for symptomatic treatment.
 - 6. They are unhampered by inadequate trans-

portation in rural areas and so can reach hardto-reach patients.

7. They have skills in interpersonal relations, including counseling with sympathy, identification, and concern.

Case for Partnership

Cooperation between the babalawo and the Western-trained professional health worker is logical. Each is a health agent working in his own way to improve the health of the people. Their goals are similar; their methods may differ.

On one hand, the Western-trained physician is much concerned with the scientific approach to the causes of sickness. He uses standard measures and modern tools in his prescriptions and treatment, but only a little general psychology to help him reach his client. On the other hand, the babalawo-adahunse, while not altogether destitute of the scientific approach to ill health, is hampered by an inability to explain the causes and treatment of sickness in scientific language. He has his own dosages which are familiar to people in the locality. To his medical and health knowledge and skills he adds a wealth of specific rather than general psychology when he deals with clients because he knows their needs, expectations, responses.

The adahunse's knowledge of the beliefs, values, and psychology of the people is an advantage which modern physicians and other health workers might try to use to promote health. Since most professional health workers have limited knowledge of the cultural factors likely to promote or inhibit health, they would do well to consider working in partnership with native doctors.

At present, fear and suspicion of the native doctors exists among the Western-trained health professionals because the traditional medicine men do not possess scientific knowledge and skills. The professionals also suspect that there are many quacks among the medicine men. However, they are not all quacks and even the quacks may be willing to learn proper methods.

Modern physicians, as well as other Westerntrained professionals, need to understand what is useful in the knowledge and skills of the traditional practitioners as well as in their ecological approach, an approach which encompasses both sociocultural and physical environments when seeking the causes of ill health.

The need for partnership between the traditional practitioners and Western-trained professionals is stressed by Spicer in a discussion of the problems of cross-cultural change. He realized that more delicacy is required in trying to change people's customs than in performing surgery, especially when an external agent of change is involved (15a):

The extension worker and public health nurse both attempt to alter traditional ways by demonstrating the advantages of the new. . . . They are working across certain barriers. These barriers are differing language, belief, and custom. Coming out of the world of the highly literate, the technologist has a way of talking, acting, and thinking which is ordinarily sharply different from that of the people among whom his work is cast. It is this throwing together of two different cultural backgrounds that gives rise to the special group of problems that confront workers in these fields.

These problems could be overcome if the professional health workers worked with and through local people who have a way of life similar to the groups they hope to reach. Indigenous agents, such as the adahunse, could be a powerful force in motivating health practices and in establishing a lasting change among the recipients of health care through constant contacts and consulting between the two groups.

Dooley used native agents in Laos. He worked through and with these aides whom he trained to perform health care services. He stated (16):

This idea of Asians helping Asians is much superior to Americans helping Asians. When the patient received medicine, he would turn to the Asian student (the dispenser) and say, "Cup chai." They knew the help was American but they were grateful to the Asian student too. My Asian students will be here all their lives. I will not. I dispensed nothing, the Asians did.

Similar use can be made of the adahunse by the modern professionals, providing that the training and trust exist for the two to work together. Dooley and his team used their Asian aides to perform such duties as dressing wounds, vaccinating, immunizing, and so forth. The native doctors can be trained to perform such tasks. Further, the psychological readiness of the target group in the presence of the familiar adahunse would be an incentive for patients to follow prescriptions.

It has been observed that communication with patients from some subgroups is more effective with peers or near peers of the patients

than with professionals. "The neighborhood worker," according to Clack and Wishik, "by using the vocabulary of the residents to explain public health services, is more able to overcome superstition and isolation and to stimulate community involvement in developing health programs to meet the neighborhood's needs" (2). Such workers can also tell professionals about otherwise unknown barriers to health services

It is fashionable nowadays for professional health workers to take the attitude that the target group resists change, especially when a health program fails. For example, when people fail to change a food habit, contrary to the health officer's anticipation, he charges that the people are rigidly conservative.

We health workers must realize that nothing is as permanent as change itself. Every culture changes continuously, although rates of change vary. Yet we often encounter people who vigorously resist change. Why? Change must not be haphazardly approached in any cultural setting, since all aspects of each culture are dynamically interrelated. To be explicit, whatever affects nutrition in health affects nutrition in its ecological dimensions of geography, culture, occupation, economy, education, and so forth. To this end, Spicer remarked, "Customs and beliefs are linked into a whole [so] that changes in one aspect of life will have repercussion on the other aspects" (15b). The adahunse may understand these complex relations when they concentrate on treating the whole personality of their patients.

On people's resistance to change, Spicer stated (15c):

Understanding that change is a process which people are undergoing all the time gives us a vantage point from which to view conscious efforts to alter culture. We begin to see resistance as a symptom of something wrong in the cross-cultural situation, perhaps of unsatisfactory relations between the worker and the people. Once resistance is seen as a symptom of special conditions rather than as a constant element, it becomes possible, through the study of cases in which resistance appears, to discover causes of success and failure.

Using opinion leaders in the community, such as the adahunse, is to acknowledge the realities of cultural factors in health education. Cassel, in describing a health program among Zulus in Africa, declared that "a thorough understanding of local ways and values and the importance of fitting new ideas into the existing cultural framework of the people were shown to be essential if lasting results were to be achieved" (18).

The cognition and perception of the adahunse enable them to function freely among most of their own people, probably more so than those professional health workers who have made fantastic progress in studying their target group's culture. One principle of health education, according to Nyswander, is that "the perceptions of those who are to be taught furnish important data to be used in program planning" (19).

Well-conducted teamwork with the adahunse participating could result in a wealth of information about the cultural bases and realities of health in a community; it will particularly encourage free and purposive research into native psychology. Collaboration could also lead to the collection and classification of local medicinal plants if the native doctors helped and served as resource persons.

I suggest that government and health agencies consider encouraging collaboration of the local medicine men in health programs aimed at changing the health behavior or attitudes of target groups. Government may consider budgeting for serious research in the environmental factors of health and medicine in Nigeria. The shortage of health manpower and the shortage of money are strong arguments for the effective utilization of the native doctors.

Altough the Universities of Ibadan and Lagos include tropical medicine in their curriculums, there is little evidence of involvement of the native doctors. However, the success or failure of "tropical medicine" will largely depend on how much partnership exists between the native doctors and the modern doctors in many tropical countries.

The modern physicians and the native doctors could view their medical and health activities as complementary rather than contradictory. Such an attitude could discourage the tendency toward unhealthy competition, which is likely to increase patients' anxiety, stress, and strain. The physician and the native doctor must respect the knowledge, skills, and competencies of each other and function in a partnership that reflects a division of labor,

specialization, and a unity of purpose aimed at improving the health attitudes and behaviors of the people through modern medical and health technology.

As sociopsychologists unique in their localities, the adahunse can implement the modern concept of health as total physical, mental, and social well-being and not the mere absence of illness and disability. While not scientifically oriented in the technical sense, the adahunse are nonetheless functional to the best of their ability in their health promoting and improving activities. Their shortcomings, if they are thus considered, should not make us oblivious of their other contributions to the total well-being of their clients. Scientifically oriented physicians can still learn from these people.

Suggested Lines of Action

Following are some of the ways that those engaged in modern medical and health practices could involve the adahunse to help solve health problems. This involvement can be effected by the government and by the universities, through medical schools, schools of public health, and schools of education.

- 1. Systematically and scientifically investigate human ecology and health in all parts of Nigeria to enable physicians and other modern health professionals to learn more about the variables other than the biological ones which are the major preoccupations of traditional medical practice in Nigeria. That is, try to determine how the total well-being of people is affected by their constant interaction with the physical, biological, and social environments.
- 2. Learn the local health idioms, dialects, and slang to improve communication between the patient and physician and other health professionals. Miscommunication can breed misdiagnosis and result in futile medication. The local medicine men know the terms people use to describe particular parts of the body or disease or illness. For example, a Yoruba woman may complain of pain in her buttocks but mean a pain in the vagina. The medicine man will know that she is using more modest language for such a culturally important, not to be carelessly mentioned part of the body.
- 3. Study the local medicines used by the adahunse by working with and through them; ren-

ovate and modernize the information from such study through scientific findings and technology, for example, by providing measures for doses. This undertaking will require allocation of funds, perhaps by government.

- 4. Conduct research on the healing, prevention, and rehabilitation techniques of the adahunse to discover what can be beneficially adapted to modern health services and practices. Rapport and trust must be established between the adahunse and the health professionals before such research could be fruitful.
- 5. Work with and through the most reputable adahunse in the locality and other local lay influentials in special health projects, such as eradication of yellow fever and campaigns against communicable diseases or for mass immunization.
- 6. Employ adahunse in health departments and medical schools with whom physicians and medical students can identify and work. Together they could realistically confront environmental health problems. Most of these problems are known to the adahunse, although they may not be able to explain them in scientific terms. The adahunse can act as interpreters, therapists, and advisers in research and diagnosis; they can also serve in general referrals of patients from the physicians.
- 7. Under government auspices, form a Nigerian or regional council of health workers—involving physicians, nurses, adahunse, health educators and social workers—to discuss periodically possible solutions to health problems. This organization will encourage mutual trust and regard between the adahunse, the clinically oriented health workers, and others working on community health problems.

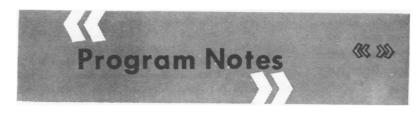
REFERENCES

- (1) Adadevoh, B. K.: Rural health in Nigeria. J Nigeria Med Assoc 5: 37-38, January 1969.
- (2) Clack, F. B., and Wishik, C. S.: New staff for public health. Public Health Rep 83: 150-154, February 1968.
- (3) Editorial comment! Your Health (Federal Ministry of Health, Nigeria) 1: 3, September 1968.

- (4) World Health Organization: World health directory of medical schools. Geneva, 1963, p. 339.
- (5) Lambo, T. A.: African traditional beliefs: Concept of health and medical practice. Ibadan University Press, Ibadan, Nigeria, 1963.
- (6) Prince, R.: Some notes on Yoruba native doctors and their management of mental illness. Paper presented at the First Pan-African Psychiatric Conference, Aro-Abeokuta, Nigeria, 1960.
- (7) Mead, M.: Culture, health, and disease. Tavistock Publications, Ltd., London, 1966, p. 21.
- (8) Odumoso, J.: Iwe Orisirisi egbogi ti ile Yoruba [A book of the various medicines of Yorubaland]. James Townsend and Sons, London, 1906.
- (9) Idowu Adigboluja, C. A.: The African family physician. Ola-Oluwa Press, Lagos, Nigeria, 1946.
- (10) Olarerin, O. F.: The African physician. Awarunmagbeje Institute, Ibadan, Nigeria, 1938.
- (11) Fasina: Iwe egbogi ajebidan: Ekun-dayo [A book of the most effective medicines: comfort replaces discomfort]. Asaya Printing Press, Ibadan, Nigeria, 1950.
- (12) Amaku, E. A.: Itoju awon omo owo [Care of the infants]. C. M. S. Press, Lagos, Nigeria. Undated.
- (13) Okunade, E. A.: Egbogi iwosan fun itoju okunrin ati obirin [Medicines for curing men and women patients]. Lisabi Press, Ibadan, Nigeria, 1934.
- (14) Okunade, E. A.: Onisegun ile fun orisirisi arun [Household physician for various diseases]. Ilare Press, Ibadan, Nigeria. Undated.
- (15) Spicer, E. H., editor: Human problems in technological change. Russell Sage Foundation, New York, 1953; (a) p. 15; (b) p. 17; (c) p. 18.
- (16) Dooley, T. A.: The night they burned the mountain. Farrar, Straus & Company, New York, 1960, pp. 66-67.
- (17) Domke, H. R., and Coffey, G.: The neighborhood-based public health worker: Additional man-power for community health services. Amer J Public Health 56: 603-608, April 1966.
- (18) Cassel, J.: A comprehensive health program among South African Zulus, Part I. Reeducating the community. Case I. In Health, culture and community, edited by B. D. Paul. Russell Sage Foundation, New York, 1955, p. 40.
- (19) Nyswander, D. B.: Education for health: Some principles and their application. Paper presented at the Health Education Conference, Chapel Hill, N.C., 1956, p. 3.

Tearsheet Requests

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Men Rejected for Medical Cause

Colorado's health referral service for men rejected by the Armed Forces for medical reasons formerly operated on a Federal grant, but the grant was not renewed. In contrast to many other States, plans have been made to continue the program.

An agreement was reached between the department of health and the division of rehabilitation of the department of social services to continue serving the men in need of rehabilitation. The program is to be funded mutually; the former staff has been retained and a counselor added from the division of rehabilitation.

Colorado was the first State to offer statewide referral services for men rejected by the Armed Forces. From initiation of the project on November 1, 1964, approximately 5,366 men have been referred to private physicians, vocational rehabilitation, or nonprivate resources.—Colorado's Health, July-August 1969.

Anti-Rat Sterilizing Agent

Post mortem examinations of male rats treated with a chemical sterility agent under laboratory-controlled conditions showed the agent to be effective in 70 percent; further impairment of fertility in the remaining 30 percent was also considered probable. The New York State Department Of Public Health's rat control laboratory in Troy performed the examinations.

The rat sterilization project is part of a \$4.5 million emergency rat control program announced for the State by Governor Nelson A. Rockefeller in July 1967. The project is based on experiments that Dr. Sheldon Segal and Dr. Harry Rudel of the biochemical division of the Population Council conducted on the inhibition of the fertility of male and female rats through use of the compound mestranol. The cor-

responding phase of the control program is concerned with elimination of rat harborage and of their sources of food and water.—New York State Department of Health Bulletin, Vol. 22, No. 14, June 9, 1969.

Free Toothbrushing Kits

Each child in Scotland entering school in the fall of 1969 was scheduled to receive a free toothbrushing kit from the Government. The kit contains a toothbrush, toothpaste, and a plastic beaker. Parents are to receive a letter on the care of chilren's teeth.

Children will have an opportunity to become members of the "Happy Smile Club." If they successfully complete a course in regular brushing, they will receive a "Happy Smile" badge.

After the project has been in operation for several months, a survey will be taken to judge its effectiveness in improving children's dental care. This Week in Public Health (Massachusetts Department of Public Health), Aug. 4, 1969.

Treatment of Wastewater

A chemical-physical process of wastewater treatment, developed by New York University researchers, is to be tested for 3 months at the sewage treatment plant of New Rochelle, N.Y. The process converts wastewater into reusable higher quality water at a cost described as less than present processes. Ecolotech Research, Inc., of New York City, has been awarded the contract for the design, construction, and operation of the prototype wastewater treatment plant.

After the New Rochelle test period, the pilot plant will be moved to Waterford in Saratoga County, where a full-scale chemical-physical waste treatment plant is expected to be built. The effluent from the proposed plant is scheduled for possible use by the Mohawk Paper Mill in Waterford.

According to Dr. Hollis S. Ingraham, the State health commissioner, the increased demand for high-quality water is becoming more pronounced, not only for domestic use, but also for recreational, industrial, and commerical supplies. The chemical-physical process requires only two steps to remove substantially all the organic material present in wastewater, in contrast to conventional treatment processes in which costly tertiary treatment is required.

Genetic Information Center

A genetic information center has been established at the Connecticut State Department of Health in Hartford to provide a common source of up-to-date technical information for physicians and other family counselors. A practitioner will be able to obtain information at the center on the mode of inheritance of a genetic condition and learn where to obtain specialized laboratory services.

Small County With Big Goal

Custer County in the State of Colorado has only 1,300 residents, and 56 percent of them have poverty-level incomes. Yet, early in 1969, the people in it formed the Custer County Medical Foundation and launched a drive to collect \$5,000 in matching funds by July 1 for a community health center. The total estimated cost of the proposed center is \$18,000.

The \$5,000 goal was surpassed in May.

For the past 5 years there has been only one practicing physician in Custer County, Dr. Karen Dolby, who serves also as county coroner, school physician, and acting health officer. In emergencies, a registered nurse and a licensed practical nurse assist her.—Colorado's Health, July—August 1969.

Items for this page: Health departments, health agencies, and others are invited to share their program successes with others by contributing items for brief mention on this page. Flag them for "Program Notes" and address as indicated in masthead.