THE DEVELOPMENT OF NEIGHBORHOOD HEALTH SERVICES IN THE UNITED STATES

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HE modern conception of a health center visualizes a community agency engaged primarily in preventive medicine and public health education, centering in an organization of physicians, nurses, and other health and social workers, and volunteers. It aims to reach all people within a district who need the services, and to coordinate the health, and sometimes the medical, recreation, and social service activities. Such an institution is sometimes called a major health center, in contrast with the so-called minor health center, which may be a well-child health conference or a small district headquarters for one or more specialized health services. In either case the program is designed to supplement the services of private physicians.

A basic principle is the decentralization of public health work in order to bring it closer to the people. It is significant that official health departments in a number of cities and counties have already organized their resources on a neighborhood or district basis, cooperating with medical societies and nonofficial health and welfare agencies.

The functioning of various types of health centers can best be understood by describing a few in widely separated places which have been in operation for several years. But before doing so it may be of interest to trace the main influences which have shaped the present-day community health centers.

Influence of Settlements. The neighborhood health center is to some extent an outgrowth of the experience with what is known as a "settlement." The settlement house originated in England and the movement subsequently spread throughout the World.

Samuel A. Barnett (1844-1913) and his pupil, Arnold Toynbee ¹Professor of Public Health, Yale School of Medicine.

(1852-1882), considered the pioneer settlement worker, are intimately associated with the development of the first settlement, Toynbee Hall, opened in London on Christmas Eve, 1884, which became the source of inspiration and information for the subsequent settlements in Europe and in America.

The first American settlements developed in New York and Chicago. Stanton Coit, upon his return from London after three months of residence at Toynbee Hall settled in a tenement house on the East Side of New York to undertake neighborhood work. While Jane Addams was studying in Europe, she heard of the social advances in England and visited Toynbee Hall. Upon her return to the United States, she called forth the new spirit of human relations in Chicago, and under her leadership, Hull House was founded there in 1889.

Settlements were located in the poorer sections and in neighborhoods where a large proportion of the population were foreigners. The people of the community came to the settlement houses for information regarding various troubles. In some places the residents were trained in the care of illness, and such settlements soon became headquarters for aid in sickness. Furthermore, first-aid rooms were opened in some settlements.

When the settlements came into existence, district nursing was in its infancy.² The early work of Lillian Wald, as a nurse, and the immediate recognition of its relationship to other social adventures, carried on the settlement idea and led to the establishment of Henry Street Settlement in New York. Living in the midst of their service, as good neighbors and nurses, Miss Wald and her associates developed an immediate organic relationship to the community. They aimed to create service "on terms most considerate of dignity and independence of patients."³

²William Rathbone of Liverpool, England, organized a visiting nurse service in May, 1859, to provide service for the poor. In 1877, a visiting nurse service was established by the Women's Branch of the New York City Mission.

³Wald, Lillian D.: the house on henry street. New York, Henry Holt & Co., 1915.

The local office soon became the neighborhood center, with mothers' clubs, behavior classes, and a milk station. Preschool and maternity clinics and later the New York Kindergarten Association work were associated with the nursing center, while "first-aid room" care was included with tuberculosis service. The forty years of Henry Street experience advanced the understanding of district service, and the organization has joined in the health center programs later formulated.

Infant Welfare Stations. Pioneers in systematic improvement of infant feeding and infant hygiene about 1890 were Koplik in New York, Herrgott in Nancy, and Variot and Budin in Paris. Koplik, Herrgott, and Budin all emphasized the importance of breast feeding, and Budin called his center a "consultation des nourissons." Variot stressed the distribution of pure cows' milk. Gradually the movement for the reduction of infant mortality became educational, the prime task, as in tuberculosis, being to carry sanitary and hygienic knowledge into the individual home.

Assuming that disease and death among infants during the summer season were largely due to contaminated milk, Nathan Straus, a New York merchant, established, in 1893, the first chain of stations in this country in which pasteurized milk was distributed free when needed. The Henry Street nurses had shown the value of the milk station plan and had prepared individual formulae with the facilities available in the poorest homes. On the basis of results in New York City, Dr. George Goler, health officer of Rochester, in 1897, organized municipal milk stations there.

The residents of various settlement houses in the United States were greatly influenced by these achievements and many opened similar milk stations. But it was not enough to distribute milk; it was also necessary to teach people how to use it

⁴Koplik: The History of the First Milk Depot or Gouttes de Lait with Consultations in America. *Journal of the American Medical Association*, October, 1931, xiv, No. 9, p. 1574; and Van Ingen, P.: in Historical Volume, A HALF CENTURY OF PUBLIC HEALTH. New York, American Public Health Association, 1921, p. 290.

properly. The settlement nurse, as at Henry Street, began to visit homes to show mothers how to prepare the feedings and how to care for the babies' food in general. A baby clinic was established at Greenwich Home, New York, in the summer of 1903. Two years later, in 1905, infant-saving campaigns on a city-wide scale were organized in Chicago by the Northwestern University Settlement, the Chicago Relief and Aid Society, and others.

In 1902, the Milk Fund Association of Cleveland instituted a plan whereby only babies brought to the central station and examined by physicians were given milk according to the formula prescribed. The physician not only examined the child but advised the mother on hygienic matters. Thus settlement milk stations and clinics became centers of constructive hygiene.

Later, attention was given to prenatal and obstetrical care. In 1905, G. S. White, the head of the Union Settlement of New York, started an investigation of the services of midwives. This study was conducted under the auspices of the Public Health Committe of the Neighborhood Workers' Association, of which Miss Wald was chairman. In 1907, on the initiative of this Association, a law was passed in New York City to regulate the practice of midwifery by the City Health Department.

Neighborhood health services in the settlement were mostly preventive and educational, although some settlements maintained diagnostic and treatment clinics. Exhibits were given on various subjects, such as the protection and handling of food in markets and in the homes, baby clinic service, proper clothing and bedding for children. Small instruction groups were organized to supplement exhibits, dealing with first aid and care of the sick, personal and family hygiene.

There were many centers which seemed to mark a transition stage from the earlier settlement idea to a health center program. The Irene Kaufman Settlement Health Center in Pittsburgh resembles a settlement in some respects; it houses several agencies: an open-air school for anemic, undernourished, and tuberculosis contact children; a district milk station, nurses for bedside nursing care, a district clinic of the Pittsburgh Maternity Dispensary offering prenatal, delivery, and post-partum, care, and maintains a day nursery.⁵

Experiences from settlement work are useful in the planning of district health administration. Robert A. Woods, in his book THE NEIGHBORHOOD IN NATION-BUILDING issues a note of caution:

"The local health center gathers under one head a group of services which in greater or less degree have been undertaken in the past by the settlement. In all their technical phases the settlement clearly and unquestionably must be ready to pass them over to the health center. It is, however, equally clear—and this the promoters of the health centers do not always appreciate—that all the values of acquaintance and influence which the settlement has in its various organizations—must continue to be of indispensable importance to any sort of comprehensive local health campaign."

In order that a district health center may function with high efficiency, it should bring together both health and welfare agencies. The problem of disease prevention is closely linked with social service, especially among families of low economic level, and the health and welfare workers may aid each other in the solution of their inter-related tasks. A health center of this type may be regarded as the latest development of the original infant welfare or milk stations. As visualized here, the health center is the focal point of modern district health administration.

Growth of the Health Center Movement. As methods of controlling tuberculosis and infant mortality became effective,

⁵Grateful acknowledgment is made of suggestions received from Abraham J. Levy, M.D., Dr. P.H., who assembled historical data for a dissertation in candidacy for the Dr. P.H. degree at Yale in 1931 on the subject of "The Health Center as a Community Health Service Unit."

⁶Woods, Robert A.: The Neighborhood in Nation-Building. Boston & New York, Houghton Mifflin Company, 1923, p. 279.

those in charge began to explore means of application to reach the greatest possible number of persons, and the health center plan in modified form was formulated. Another approach came through the efforts to coordinate the many specialized health and welfare services which have shown a marked development in the past quarter of a century. Davis points out that during the formative period, from 1910 to 1915, the effort to relate services to a definite population or district began to take practical shape. In Pittsburgh, the tuberculosis workers started significant activities; and in Cincinnati, a health center program was likewise begun by the tuberculosis workers. In New York, in the child health field, a program was started by the New York Milk Committee; in Milwaukee, in the same field by the city administration; and in Philadelphia, also by child health workers. The coordination idea began to find local expression during the same period. In Boston, the Maverick Dispensary developed gradually into a coordinating center for a number of health activities in East Boston, but without coherent central organization.

Boston. The philosophy of the health center movement in Boston is discussed by Charles Wilinsky as follows:8

"... Gaps in the programs, duplication and consequent waste, frequent inefficiencies and misunderstandings, could not help but lead to the conclusion that there was a great need for better coordination and correlation, more efficient organization, and more harmonious understanding between those agencies concerned with the public health and with the amelioration of human suffering.

"It has been well said that the fault of public health administration in large cities particularly was due to the fact that it was too far removed from the people it attempted to serve. . . .

⁷Davis, Michael M.: clinics, hospitals and health centers. New York and London, Harper & Brothers, 1927.

⁸THE HEALTH UNITS OF BOSTON, 1924-1933. City of Boston Printing Department, 1933.

"To remedy this situation in Boston... the Blossom Street Health Unit was opened in 1916 under the direction of the Boston Department of Health. The objective . . . was the establishment, for a definite unit of population, of a local physical headquarters for the agencies engaged in health and welfare service."

The materializing of the program was made possible by a fund left by George Robert White. In the selection of location for a chain of units the leading factors considered were the character and economic level of the population, the health problems of the neighborhood and the need for certain health services. The first health unit, in the North End of the City, was turned over to the health department in 1924. Almost three million dollars have been expended for land, buildings, and the complete equipment of health units established through assistance of the White Fund. An eighth unit was provided entirely by the City, which is also responsible for the maintenance of the other units.

The buildings, quite uniform in construction, are several stories in height, built of brick, on spacious lots of land. A basement contains the heating and other maintenance services, showers for the workers, locker rooms, and lavatories. There is a completely equipped cafeteria.

The administrative offices and clinical services are on the first floor and a spacious lobby is utilized as a waiting room. There are ample facilities for the prenatal, child hygiene, tuberculosis, and other clinical services. A complete X-ray equipment is on this floor, adjacent to the examining rooms of the physicians.

The second floor is occupied by the Community Health Association, the Overseers of Public Welfare, the Family Welfare Society, the Catholic Charitable Bureau, and the Associated Jewish Philanthropies. There is also a large auditorium on this floor.

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On the third floor are the headquarters of other participant agencies, rest rooms, et cetera. The roof, covered by "vita glass," is completely furnished and equipped as a solarium. Small chairs, tables, and cots for the use of small children are supplemented by sandpits, gymnasium apparatus, and other equipment for organized play.

During the building, development, and extension of the health units and their program, the work had the substantial backing and cooperation of the Boston Health League and the Boston Council of Social Agencies. This was of inestimable value in obtaining the essential support of individual citizens, leaders of the medical profession, and influential civic groups.

New York. In New York City, many factors led to the adoption of localized health service. The city stretches thirty-six miles from north to south, and over sixteen miles from east to west, covering an area of over three hundred square miles. The resident population of the five boroughs is over seven million (1934) with a yearly increase of some 125,000. In addition, some two million people come to the City daily from surrounding areas for business or pleasure. There are about a million and a quarter school children. Nearly every nationality, as well as a wide range of economic and social level, is represented, special racial groups often being concentrated.

From the viewpoint of medical problems and resources, there are 125,000 cases of communicable diseases reported annually, with an attack rate for the common diseases varying in normal years from 895 per 100,000 in one section to 2,550 in another district. Within the City are 150 hospitals and 1,600 various kinds of clinic services for the care of the sick and for the promotion of health. There are five county medical societies, the Academy of Medicine, and district dental societies. The Wel-

⁹This outline is based on an historical review prepared by Savel Zimand, administrative director, Bellevue-Yorkville Health Demonstration, and reports of the Committee on Neighborhood Health Development.

fare Council has a membership of 800 health and welfare agencies performing 927 separate services.

While these data reflect conditions of 1934, those confronting public health authorities twenty years earlier were similar. The magnitude of the problem and the fact that local conditions must necessarily be considered in rendering effective health work then, as now, suggested localized administration as the answer to the question of how the Health Department could make its work more concrete to the people of the City. Thus, in September, 1914, the Department of Health, under Dr. S. S. Goldwater, then Health Commissioner, formulated a plan "to test the value of local administration of the functions of the Health Department." In January, 1915, the Health Department opened Health District No. 1 on the lower east side of Manhattan, to serve a population of 30,000, chiefly of Russian and Austrian nativity. This experiment proved so satisfactory that it was extended by Dr. Haven Emerson (Health Commissioner from 1915-1917) to the Borough of Queens, where four health districts were opened during 1916. These health district offices, while cooperating with the voluntary health and social agencies, were essentially branches of the health department.10

Dr. Emerson, in the Health Department report of 1915, describing Health District No. 1, states:

"It was designated as an experimental district. First, to demonstrate the feasibility of combining the Health Department functions of the district under the direction of a local Health Officer; and second, to cultivate among the people of the district a cooperative spirit for the improvement of their health and sanitary conditions."

In 1916 there was created within the department a Division

¹⁰See New York City, Department of Health Annual Reports for 1915, 1916, and 1917; also Monograph No. 11 on Health District No. 1 by Dr. Alfred E. Shipley, published by the Health Department in 1915.

of Health Districts, under the Deputy Commissioner of Health. As the work advanced, it soon became apparent that a "complete public health program necessitated exercise of all health department functions in a given neighborhood."

A change in the city government interrupted the development of this project, although the experience was useful in demonstrating the values of district health administration. Health centers and health demonstrations were established during the war and post-war period, which paved the way for subsequent activities of far-reaching significance. For thirteen years, twenty-one cooperating public and voluntary agencies worked in East Harlem from a central building to coordinate and improve health and social service, and the center was officially transferred to the Health Department in 1934.

The Bellevue-Yorkville Health Demonstration, under Health Department leadership and financed by the Milbank Memorial Fund and the Health Department, combined an experiment in metropolitan health administration with health services of eighty-five official and voluntary agencies. The activities were formally taken over by the Health Department in 1934.

In 1929, Dr. Shirley W. Wynne, then Health Commissioner, appointed the Committee on Neighborhood Health Development, composed of representatives of health, medical, and welfare organizations, to advise regarding the further development of health centers. This committee outlined a plan of procedure for district health service in areas of about 200,000 population. Since that time the Committee has been active in the preparation of morbidity and mortality data, the study of district problems, and the furtherance of neighborhood health center plans.

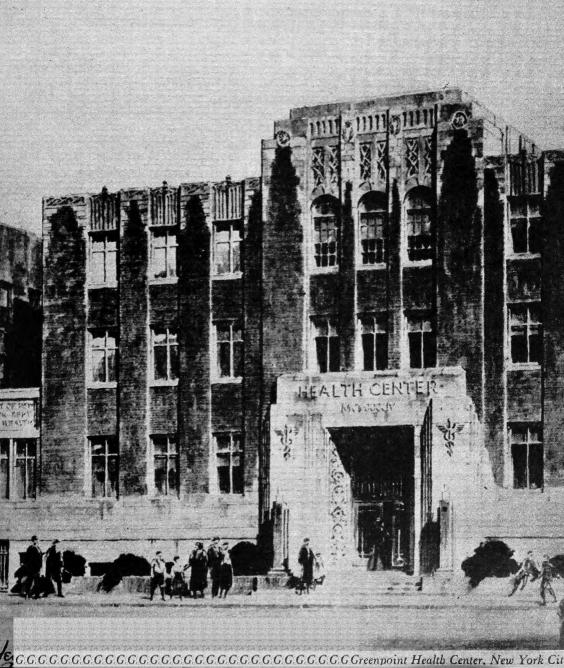
In 1934, Dr. John L. Rice, the Commissioner of Health,

¹¹1916, Bowling Green Neighborhood Association; 1918, Mulberry Health Center (A.I.C.P.); 1920, Judson Health Center; 1921, East Harlem Health Center; 1926, Bellevue-Yorkville Health Demonstration.

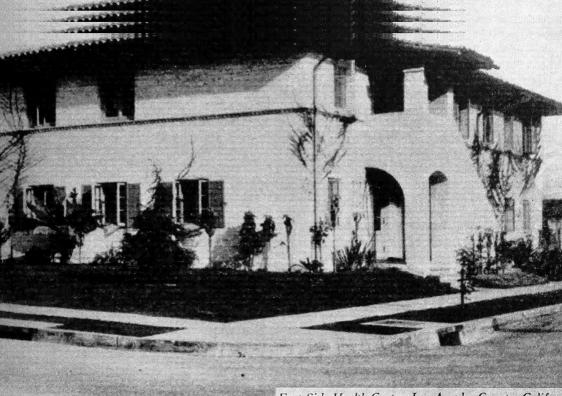
established a Bureau of District Health Administration with a full-time director, and appointed seven full-time district health officers. At his request, the Committee also appointed a subcommittee of physicians to cooperate in the project.

Meanwhile, a building program was planned by the City with the assistance of the Federal Public Works Administration. Mayor LaGuardia pushed forward the City's request to the Federal Public Works Administration concerning new health center structures with the result that by the fall of 1934 funds for the building of seven health center buildings had been granted by the Federal Public Works Administration. The program calls for gradual extension to provide buildings for each district of the City in need of such facilities.

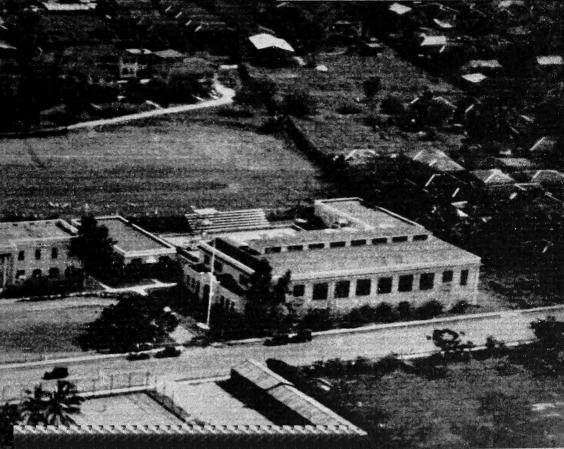
Los Angeles County. During these years, there was an important development of district health administration and of health centers for counties, the most extensive of these programs occurring in Los Angeles County. Following the organization of the county health department to serve the unincorporated areas in 1915, plans were formulated to provide: (a) for the consolidation of the functions of health department work of municipalities with the County; (b) for a decentralization of the public health functions by the formation of districts, each to comprise several cities and the surrounding unincorporated territory, and (c) for cooperative relationship with school districts leading to the joint employment of nurses, dentists, and physicians. Steps were taken as early as 1919, under the leadership of Dr. J. L. Pomerov, County Health Officer, to establish district health centers in this county of 4,000 square miles, and the first district office was opened in the city of Pomona. One small center was located in an unincorporated area at Duarte near Monrovia, where the County erected a building of four rooms for work among Mexicans and Negroes. Another four-room frame building was established as a health center for the Mexican settlement at Los Nietos, near Whittier in 1921. This was







East Side Health Center, Los Angeles County, Californ





followed the next year by one at Belvedere Gardens. Centers were also established in two localities to care primarily for industrial problems. The health center plan was adopted as a policy by the County in 1924. Today some thirty-five cities in Los Angeles County have jointly organized their public health work with the county government.

The first large health center was completed at San Fernando in 1926, at a cost of about \$54,000. Seven major health centers have since been erected, besides several smaller ones, those of more recent construction costing around \$100,000 each. The County paid for the buildings, but in most instances the local community provided the land. This county health center plan provides for the decentralization of the County Outdoor Relief Department, having to do with the care of the indigent and dependent persons in their homes, since the district staffs of this department are housed in the health center buildings. In order to meet the many medical and medical-social problems encountered, a medical advisory board, appointed by the County Board of Supervisors, considers problems related to local medical clinics and hospital staffs of the health centers. Each of the major health centers has a medical social service worker on the staff of the Health Department, who maintains liaison between the Health Department, the Relief Department, and various medical and social service institutions and organizations. The larger health centers originally provided through the Health Department plan for emergency care and dispensary type of treatment, but, due largely to the complaints of physicians that the clinics were rendering care which should be handled by private physicians, this work has now been largely turned over to the county general hospital and the Welfare Department.

The health center offers diagnosis and preventive treatment of tuberculosis, syphilis and gonorrhea, dental treatment, prenatal, infant and preschool health conferences, and public health laboratory service. The health department staff of the area, including nurses and inspectors, work out from these head-quarters. A central division of accounts maintains control of expenditures and this work is correlated with the division of records. A distribution of costs is made monthly by districts and by functions. Other notable county health center programs which might be described if space permitted, include those of Alameda County and of San Joaquin County, California.

The New Haven Experiment. For three years, beginning July, 1920, the "New Haven Health Center Demonstration" was under a unified management with a board of control of twenty-one members who were representatives from a number of organizations, primarily the City Department of Health, the Visiting Nurses' Association, the New Haven Medical Association, and the local chapter of the American Red Cross. The Board of Aldermen, the Board of Finance, and citizens at large were also represented. The organization was thus of a representative though not a federate character. The director who was responsible to the board of control had no administrative authority over the personnel of the Health Department or the Visiting Nurses' Association working in or from the center. However, the organization of the board was such as to coordinate the general policies of these agencies.

The services rendered by the center during the demonstration period, to a population largely foreign, were preventive. Continuous and ingenious efforts to encourage annual physical examinations had comparatively small results. However, there was some success in giving such special services as vaccination and diphtheria protection among children. During the three years the visits to the center averaged 4,300 per year in a population of about 25,000. These were made by individuals constituting nearly 25 per cent of the district, and about 85 per cent of all the families in this district had some member visit the center. However, the inspection and examination of nearly

6,000 school children, the stimulation of well-baby programs, and the home nursing services were even more important. The center was the base of an experiment in generalized nursing undertaken by the Visiting Nurses' Association, and this experience led to the generalization of all visiting nurse service in the City. At the close of the demonstration period, a portion of the health center work was continued by the Health Department.

Efforts by the center to develop active participation by the citizens of the locality were relatively unsuccessful. This fact, together with the lack of success in developing service at the center, illustrates the necessity of offering a kind of service that a district wants as well as needs, at least to the extent, as Michael Davis says, of evoking sufficient initial response from the population to establish satisfactory contacts leading to continuous and growing relations. On the other hand, the accomplishments of the health center staff in the field, the development of generalized nursing, and the demonstration to city authorities of the need for more aggressive health work in the City were beneficial results.

SPECIAL TYPES OF DISTRICT HEALTH CENTERS

Honolulu. Although serving the entire City, the Palama Settlement in Honolulu illustrates a type of center somewhat broader in scope than usual, but providing a valuable correlating force and service agency. Besides medical, nursing, and dental services, excellent recreation opportunities are offered. Founded in 1896 as an institution for religious worship, this institution has gradually expanded its program to provide an efficient health and welfare center, including treatment clinics. For several years Palama has maintained the principal outpatient service of the City, as well as prenatal, infant, and preschool conferences. A large athletic field, a swimming pool, a gymnasium, tennis courts, and a recreation center form parts

of the program, which emphasizes positive health. This work is closely correlated with the activities of the Board of Health, the Department of Public Instruction, and various welfare agencies; it is partially supported by public funds, but largely by voluntary agencies. A voluntary agency is responsible for administration.

Buffalo. Meanwhile, in 1912, Buffalo began what later developed into an extensive hospital and health center program. At that time, under the jurisdiction of the Department of Health, a hospital for acute communicable diseases, thirteen well-baby milk stations and two dental clinics for school children were set up. Shortly thereafter there was added hospital and dispensary service for patients suffering from tuberculosis, mental diseases, venereal disease, and alcohol and drug addiction. City or district physicians formerly connected with the Poor Department were transferred to Health Department supervision. Eventually five dispensaries for the reception and treatment of all diseases were organized. The districts which these served were correlated with existing Charity Organization Society tracts.

In 1917, a public general hospital was opened under the jurisdiction of the Board of Managers, pursuant to the provisions of the General Municipal Law, State of New York, and supported out of the municipal tax rate. ¹² To this organization were transferred all hospital, dispensary, and home service curative agencies formerly conducted by the Department of Health. The Department of Health maintains the usual preventive services, while the Buffalo City Hospital is responsible for all curative features.

Baltimore. The most recent district health program is that of Baltimore. In the summer of 1932 there were brought to completion plans, initiated about eleven years before by Dr. William H. Welch, whereby the sixth and seventh wards of the

¹²Four branch dispensaries are also maintained for first-aid and trivial ailments. A complete diagnostic and treatment service is furnished by a paid medical staff organization centering around the hospital and the University of Buffalo Schools of Medicine and Dentistry.

City were combined into one unit of public health administration. This area has been designated as the Eastern Health District. In this plan the City Health Department participates to the extent of personnel and expenses normally incident to operation in the sixth and seventh wards; the Visiting Nursing Association and the Babies' Milk Fund Association, including the McElderry House project, participate on the same basis, and the School of Hygiene and Public Health of Johns Hopkins University supplies certain professional and clerical personnel, quarters, and incidental expenses up to \$25,000 per annum, the money being granted by the Rockefeller Foundation.

The Eastern Health District is approximately a square mile in area and contains some 60,000 people. There are about 15,000 families in some 13,000 dwellings. The Negro population is 21 per cent as compared with 18 per cent for the City as a whole. Ward Seven has 26 per cent Negroes and Ward Six 15 per cent. Economically the area presents a fair cross-section of the City. In the past there have been but few extremes of wealth or poverty. In general, the residents would be classed as people with moderate or small incomes, though relatively a high per cent own their own homes. The foreign-born population is 13 per cent; 24 per cent are of foreign or mixed parentage and 42 per cent of native-white parentage.

Headquarters for the district were established September 15, 1932. The organization consists of a full-time medical health officer, one supervisor and two assistant supervisors of public health nursing service, eight staff nurses from the City Health Department (seven from the Bureau of Public Health Nursing and one from the Bureau of Child Welfare), four staff nurses from the Babies' Milk Fund Association, two staff nurses from the Instructive Visiting Nursing Association, two part-time health officers, the equivalent of the time of two sanitary inspectors, four part-time pediatricians, a bacteriologist and technician, two clerk-stenographers, and the necessary janitor and

messenger service, and occasional special and consultation service from the various interested public health agencies. Of this development, the Commissioner of Health writes as follows:

"The District offers the City Health Department a number of advantages. It is a field wherein new methods of procedure may be put into operation and tested under close supervision. Such new administrative methods as prove desirable for the Department as a whole can be incorporated into departmental procedure. Again, the District offers to the City Health Department a field where new and inexperienced personnel may be trained. A certain percentage of the new or junior personnel who come to the Department through routine channels may be inexperienced in public health procedures though they have, of course, the necessary basic professional training. Such personnel can be placed in the Eastern Health District on somewhat of an apprentice basis and there, where facilities have been specially provided for teaching, the period of training can be appreciably shortened."

Another function which the district will serve is in intensive study of public health problems. Certain of these studies are continuously carried on by the Health Department, but still others will be possible in the district. With the affiliation of the School of Hygiene and Public Health, many of these problems can be given intensive and continuing study with resulting benefit to the City.

While the types of health centers and the scope of district health administration vary, there has been considerable development and experimentation in twenty-five years from which general principles and useful methods have evolved. The White House Conference on Child Health and Protection sub-committee on Health Centers of the Committee on Medical Service obtained information in 1930 regarding 1,511 major and minor health centers distributed throughout the country. Eighty per cent of these centers were established since 1910. Of the total number, 725 were directed by nonofficial agencies; 729 by

county or municipal departments of health; and a small number by the American Red Cross, various hospitals, child health organizations, case-working agencies, tuberculosis associations, and the like. In nearly half of these centers, the principal source of support was public funds, the remainder being received through community chests, or from private or voluntary funds.