

SUMMARY OF THE PURPOSE AND ORGANIZATION
of
THE AMERICAN HEART ASSOCIATION, Inc.

XVIII

THE HISTORY

Several years ago newspapers throughout the country amused themselves with jests about deaths from heart failure. They were not untimely for it was obvious to the layman that in the last analysis, the patient had died of heart failure. It was clear that if a man's heart stopped beating his life would cease, no matter what the underlying cause might be. This explanation is adequate for popular purposes but not as scientific analysis. It is, and always has been, quite unscientific for physicians, to give "heart failure" as a cause of death.

Many years ago, registrars refused to accept from physicians a death certificate in which "heart failure" was given as the cause. The registration of vital statistics is the firm basis on which the whole structure of sanitary science and practise must rest. In order to learn the laws of disease, to devise remedies and test them, we must have approximately accurate knowledge of the movement of population and of the cause of death.

Notwithstanding all this, the term "heart failure" has remained in medical parlance, where it has a perfectly good place, if its significance is understood. To the mind of the intelligent physician, this term never means death of the heart, that is too obvious, but it means that the heart is failing to do its work, and it is this, the cause, that we are most interested in.

In 1620 the study of cardiac disease was recognized by Bonetus. He collected observations on palpitation and cardiac pain during life associated with polypi in the heart, calculi in the myocardium, inflammation of the heart and aortic observation. His work inspired others, such as Morgagni, Vienssens, Lancisi, to observe abnormal heart conditions.

Morgagni recorded valvular lesions, noted dilatation and hyperthrophy and in some of his later work, outlined syphilitic lesions of the heart.

Laeunes in 1816 introduced the stethoscope, thereby paving the way for auscultation. By his knowledge of morbid anatomy he correlated the local lesions with the corresponding physical signs, thus advancing the anatomics-clinical method and the special pathology of the organs. The stethoscope, together with the pleximeter introduced by Piorry in 1828, laid the foundation for physical diagnosis.

During the latter half of the last century an exaggerated importance was attached to cardiac, and especially systolic murmurs, as evidence of heart disease. The traditional stress laid on the presence or absence of a murmur, as the criteria in determining whether the heart was or was not seriously affected, did not become fully discounted until after the world war, and then by the efforts of Dr. Mackenzie. Murmurs are only found to be significant when associated with other physical findings.

The clinical estimation of blood pressure by instrumental means was first attempted by Vierordt in 1855, by his invention of the sphygmograph. At first it was some what limited in its value, but later, improvements have thrown much light on hemodynamics.

Dr. Mackenzie in 1902, correlated the arterial and venous pulses with those of the heart, and proved many cardiac irregularities, distinguishing the unimportant, such as ex-trasystoles and sinus arrhythmia from those such as pulsus alternans pathognomic or grave organic disease of the heart muscle.

In 1903, William Einthoven, first described the string galvanometer, which later laid the foundation for human and experimental electro-cardiography, and the final analysis of the arrhythmias.

The effects of embolism, from the resulting lesions, studied by Virchow and Kirkes, led to the realization of end arteries in the kidney and brain on the one hand, and on the other hand, to the recognition of the peculiarities of the circulation in the spleen, lung, liver, the last two having nutrient arteries, (bronchial and hepatic) in addition to the vessels (pulmonary artery and portal vein) conveying blood to be modified in those viscera.

The belief that heart disease means sudden death, dates from the days when the physiology of the circulation and the symptomatology of its disorders were little understood. It continues today because of the conspicuous leadership of heart disease in the mortality rate and the publicity that is given to those dramatic deaths that occur when the individual is in apparently good health, the slowly unfolding, preceding processes being forgotten. Heart disease often casts its shadow before and advances so gradually that prevention, cure and control to some degree is usually possible. In the life of the cardiac, there is a time when proper action, opportunely taken, gives optimism to prognosis.

The late Sir William Osler said, "It is to be remembered that syphilis is common in the community and there are probably more families with a leutic, than a tubercular taint". We know that syphilis is a preventable disease, and that its effect upon the heart may be acute or chronic and its progress insidious. The parasite attacks the heart muscle and more particularly the aorta and aortic valve.

In order to discover whether present-day medical research is being carried out and in the best way, we must consider what has been done in the past. Many notable advances, had been made in many fields, before the middle of the last century. About this time, the period of introduction of systematic study, first of physiology and then of pathology, that the study of medicine can be said to have achieved a definite and scientific direction; and if further, we inquire into the manner in which this knowledge is to be acquired we will speedily realize that with the methods of investigation hitherto pursued, it is impossible that it can have been acquired. A good example to illustrate this point would be the extremely common disease of the mitral valves which results in stenosis. This disease has been universally recognized for over fifty years. It has been the subject of investigation by numerous physicians; it has been lectured upon and written about, until nearly all physicians feel that all the information to be had from investigations has been acquired. Nevertheless, there is not to be found in medical literature the history of one single individual carried on from time to the attack of rheumatic fever which started the valve disease, up to the time of death and containing a record and due appreciation of the changes which took place. To complete such records, may demand the observation of individuals for twenty or thirty years.

Heart disease has become a greater cause of death than tuberculosis. In New York for ten years it has been responsible for two hundred deaths in every one hundred thousand of the population.

It is not a rapidly fatal condition as many people suppose, but one which usually means years of suffering and disability. Most of the sudden deaths occur in old people. Even when the end is unexpected, premonitory signs have frequently been present, waiting for recognition. The economic waste from heart disease in the United States is tremendous and therefore the great problem of prevention, early diagnosis and relief appeals not only to physicians but to the general public.

The stress of modern life will continue to tax the circulatory system and old age will probably close in many instances with coronary disease, but this result can be greatly delayed by proper living and freedom from infections in early life. The greatest hope is for the children. Much has been written about treatment, but more must be said and written about prevention. One of the largest fields today for preventive medicine is the instruction of the public in the importance of thoroughly understanding the cause of infectious diseases which involve the heart.

It is clear that prophylaxis and the recognition of potential heart disease come first by the recognition of foci of infection and the removal of such as diseased tonsils, the care and possible extraction of carious teeth and the use of the X-Ray.

ORGANIZATION, PURPOSE OR OBJECTS, FINANCIAL AND OTHER SUPPORT.

It is fairly well established that there are three common types of heart disease; rheumatic, syphilitic and arteriosclerotic. We are approaching a knowledge of rheumatic heart disease caused by diseases of childhood, focal infection of teeth, tonsils, sinuses or elsewhere; we know definitely the cause of the syphilitic, but we know nothing of the cause or causes of that form of heart disease which is conveniently described as arteriosclerotic heart disease.

Curves of mortality statistics show that there is a continuous increase in the number of deaths due to heart disease. To approach the problem of prevention it is first necessary to have a comprehensive knowledge of the incidence of heart disease, that is, an understanding of the size of the problem, second, a knowledge of the causes, more particularly the common causes, if any, and third, a knowledge of the natural history of the different types of heart disease.

Considerable knowledge is available at the present time concerning the immediate relief of the symptoms produced by heart disease, as is demonstrated daily in clinics and practise. But what is known of the end results of treatment, of cardiac vocational guidance and careful social service follow up, is very little. Certainly much is yet to be learned, and heart disease has become a definite part of the public health program.

The pioneer organization in this field of public health work began in 1915 in New York City, and was called the Association for the Prevention and Relief of Heart Disease. It became nation-wide through distribution of information on heart disease both for the professional and the general public. This grew into a new movement for surveys and social experiments resulting in the organization of The American Heart Association which was incorporated under the laws of the State of New York in May 1924. The purpose of this association is the promotion of heart work on a national scale; to coordinate all activities bearing on the heart problem, to develop new lines of research, to collect and distribute information, to further public health and industrial education and to develop a sound public opinion as to the true meaning and seriousness of the problem.

The constitution which was adopted provided that the interest and support of local centers might be secured by providing for the enrollment of their members, as voting members, in the National Association by payment of a nominal fee. It was the earnest desire of the association that it might rapidly extend its work to all parts of the country. In May 1925 organizations had already been established in 47 cities and 23 states were definitely affiliated with the American Heart Association.

In 1929 we find in Iowa a post graduate course for heart and lung diseases for practising physicians and a bill has been introduced in the legislature providing for state aid to local school districts; under the provisions of this bill there will be made possible special school facilities, special classes, home instruction and transportation for handicapped children. This will include provision for some cardiac children.

The Maine Public Health Association contemplated a more comprehensive program for heart clinics during the year 1929, to be held in conjunction with the tuberculosis clinics. These clinics with a limited number of patients, would be diagnostic only and patients were to be referred by their family physician for examinations.

Statistics show that heart disease now leads as the cause of death, taking the place of tuberculosis. The leading scientists and physicians in the country believe that the application of the same methods as those used in the control of tuberculosis directed toward the prevention of heart disease will secure similar results. This belief is based partly on the fact that there is a great deal of similarity both in the cause and the treatment. Reduction of infections and habits that lead to heart disease can be accomplished by education and public interest such as has been provided in other fields of preventive medicine.

Besides guarding children from infectious diseases and removing seats of infection, the important item of program for the prevention of heart disease is periodic medical examinations. The cure rests largely with the patient although a careful diagnosis by a competent physician is essential. No panacea can be found to prevent or cure heart disease. It depends upon the character of the individual. Not so much what is done for the patient as what he does for himself will bring down the death rate from heart disease and add to the span of life.

Heart disease is a complicated process. The heart mechanism includes many functions and many tissues, any or all of which may become involved. Because of this, we deal with multiplicity of types, each presenting different symptoms, different treatment, and a greatly varied prognosis. The approach, therefore, is difficult and the problem most intangible for general widespread propaganda. There is still much knowledge desired regarding its many phases and vicissitudes. And last, but not least, we are not alone hopeful, but convinced that certain types of heart disease are preventable. Our interest in the cardiac problem should come through the morbidity statistics rather than those based on mortality and we must seek to aid the cardiac cripple whose very existence is an economic loss and a depressing family burden.

Michigan has outlined a definite educational program for 1929, a committee was selected to prepare and publish weekly non technical articles entitled "Heart to Heart Talks" to be published in one or more daily papers in Detroit. The Heart Committee of the Tuberculosis and Health Society of Detroit and Wayne Counties continue to finance convalescent care of indigent persons with heart disease, and welfare workers are provided for some of the heart clinics for follow up work.

The Heart Committee of the North Carolina Tuberculosis Association has arranged with the Extension Department of the State Sanatorium for a careful examination of all patients in its clinics.

The work in Pittsburgh is a definite part of the activity of the Allegheny County Medical Association. A special Commission for the Prevention and Relief of Heart Disease has been appointed; there are representatives of every hospital on this commission which is subdivided into committees on research and scientific work, education, cardiac clinics, schools, institutional care, and industrial work.

The Philadelphia Health Council has organized an employment bureau for Heart, and arrested cases of tuberculosis. The Consulting Heart Board to the Los Angeles City Board of Education has adopted a standardized card and special instructions to school principals and teachers regarding the care and handling of all school children who are affected by heart disease. The Parent-Teacher Federation has donated a cardiograph and the Board of Education has assigned a nurse and a clerk to assist the Heart Committee in its work.

In California The Heart Committee for the present is a part of the State Tuberculosis Association. Later, possibly a change will be made to include other health agencies. Its purpose is to furnish an educational publicity campaign through the state and local committees, and to develop regular clinic service for pre-school children, school children and adults; to encourage recognition and study of heart disease in industries, to stimulate complete records in all cases and encourage reports on end results and assist in summer camp activities for children with heart disease.

In almost every state we see the active cooperation of all public and private agencies which can be of assistance in the solution of every angle of this vast problem. In the earlier stages of the work main dependence was placed on physicians who recognized the limitations of the knowledge of the causes and life history of heart disease and assisted by adding to their knowledge of better methods for the prevention of heart disease as well as improved ways for the care of those with damaged hearts.

The majority of heart organizations have been started by private funds later being accepted under public administration, community chest or in conjunction with the tuberculosis associations which are often supported by the sale of Christmas seals. The American Red Cross has sponsored drives in a number of local communities, while others are partly supported by private funds being subsidized by public funds. The Metropolitan Life Insurance Company has made surveys and furnished statistics on heart disease and have been instrumental in interesting the public in this problem through distribution of literature.

The American Heart Association was started by a group of fifty physicians at the invitation of leaders in the study and control of the heart problem throughout the United States and Canada, meeting at an informal luncheon at St. Louis, Missouri, on May 24th, 1922, when a committee was selected to organize an association of national scope.

III.

PROGRAMS

The American Heart Association while still comparatively young as association go, has a comprehensive program in operation throughout the United States. Their program may be divided into two main parts;

1. Study of the problem of heart disease with emphasis on causative factors and their prevention.
2. Care of the cardiac patient from the medical and social viewpoint.

Stupendous as the job is, the American Heart Association has been able to profit by the successful experience of the Tuberculosis Association and in a very general way follows the pattern of this association. This relationship is a natural one in that many of the cardiovascular diseases closely resemble tuberculosis in the early stages and patients appeal to the tuberculosis specialists and clinics and are thus secured for treatment.

Under study and preventive measures we can list:

1. The accumulation and analysis of statistics concerned with the morbidity and mortality of heart disease.
2. The standardization of diagnosis, treatment and nomenclature.
3. Various social and medical surveys which have been mapped out to extend over a period of 30 years. These surveys aim to consider all factors which may be concerned in the production of heart disease, such as the role of infections, economic and social status, living habits and age.
4. Public education by means of:
 - Pamphlets and publications
 - Newspapers and periodicals
 - Radio
 - Films, either moving pictures or still
 - Posters
 - Talks and the propaganda continuously carried on by health workers physicians and nurses.
5. The establishment of heart committees in each city, county and state.
6. The establishment of facilities for the periodic health examination for every member of the community; the education of the public in the importance of this measure, uniformity of school examinations.

From this bare outline it can be seen what a full and all inclusive program of study and prevention the American Heart Association has undertaken. But this part of the program is only half of their task. They have undertaken to secure adequate medical care for all existing cases of heart disease throughout the land. The means for accomplishing this are several, the most important ones follows:

1. Through the local medical associations the cooperation of the practicing physician is secured in combating this evil.
2. The establishment of special cardiac clinics, either independently or in hospitals.
3. Securing adequate institutional facilities for the acute, chronic and convalescent homes.
4. Fostering the establishment of convalescent homes.
5. Fostering rehabilitation programs for the handicapped cardiac adult.
6. Fostering the establishment of special classes and open air schools for the cardiac child.
7. Use of general and special agencies for the benefit of the cardiac case.

THE STATUS OF THE WORK AT THE PRESENT TIME.

2% of the population of the United States suffers from organic heart disease. In round numbers this means that more than 2,000,000 persons are ill at any given time from this cause. The fact that heart disease has passed all other causes of death has aroused students of matters pertaining to the health and welfare of communities to institute an intensive campaign against this "Captain of the Hosts of Death".

The present status of the heart situation has its dark and bright side. The fact that heart disease tops the entire list of the causes of death, the fact that 2% of the population are afflicted and that the gross total of both deaths and cases has been increasing each year constitutes the dark side.

On the other hand we can view with satisfaction and admiration the plans and accomplishments of the American Heart Association. In the large centers of population in the East the full program of the Association is in operation.

The program is rapidly spreading throughout the United States. Certainly every health worker, social worker and interested citizen has a clear understanding of the problem, its magnitude and the means at hand for its solution. As before, in the case of the fight against tuberculosis the concerted attack of an intelligent group has yielded early and concrete benefits. It is now definitely recognized that cardiac disease can be prevented, can be treated and that certain cases under supervision can live a full or only partially restricted life. The words heart disease no longer mean a death warrant in the ears of the public.

Through a better understanding on the part of physicians of what constitutes heart disease, the differentiation between serious conditions and those of a relatively benign character have already removed the shadow of fear from thousands of persons who formerly thought that their heart might cease to function at any moment. In published material less emphasis is being laid upon the degenerative cardiac diseases, where little remedy or hope can be offered. Rather stress is being laid on the infectious causes particularly rheumatism, syphilis, and the getting rid of focal infections.

The segregation of cardiac children with difficulties in classes and schools especially adapted to their limited capacity has made possible the normal mental adjustment on the part of these children to their environment. This has prevented the production of hosts of "psychological cripples".

One of the pressing needs of the present which has only been partially met is the securing of a normal social and economic place for the handicapped cardiac case after he leaves the special school, or in the case of the adult, the hospital.

Medical Social Workers are concentrating on:

1. Cardiac education for both patient and family.
2. Helping the patient who has heart disease but refuses to limit the physical activities.
3. The patient who has only a slight or potential heart disease and has an exaggerated notion of his condition.
4. The need for clinical supervision and follow up work.
5. Watchfulness for the necessity of return to the hospital because of failure or activity.
6. Adjusting the patient to home, employment, or school.

7. Placement of children with cardiac difficulties in good foster homes near a special class if their own home conditions are unsuitable.
8. Securing country vacations for children with heart disease every summer.

It is gratifying to see that the West is falling into line and keeping up with the program. In San Francisco a cardiac clinic was started in March 1929, under the auspices of the Federation of University Women, the San Francisco Tuberculosis Association and the San Francisco Health Department. Doctors give their services, the University Women supply clinic space and a social worker while the Health Department furnishes public health nurses. An average of 130 patients are examined each month and the interest and results are most encouraging.

When the consciences of the highest types of our citizens are awakened to such need we may be almost sure of progress in such a movement which will affect the health and happiness of so many.

IV.

ACCOMPLISHMENT IN HEART DISEASE CONTROL.

In citing the accomplishments in heart disease control a review of the important heart diseases, their causes and treatment may give us a better understanding.

ENDOCARDITIS: types, rheumatic and bacterial.

The rheumatic type is caused by rheumatism, is seldom fatal in acute stages but in healing process causes deformity of valves which in later years results in various forms of chronic valvular disease. Treatment: early recognition of the rheumatism with supervision to minimize the extension of the lesion.

The bacterial type generally develops in a heart with chronic cardiac valvular disease, lesions of the rheumatic type forming a large percentage of the cases. A large percentage is caused by the streptococcus viridans and less frequently by the gonococcus. The mortality is high and a patient rarely survives beyond the subacute stage. Treatment: since the causative factor is the streptococcus, prompt care should be taken of infected teeth, tonsils and other local areas of infection.

MYOCARDITIS: is a circulatory disturbance associated with acute infectious diseases and indicates inflammatory changes in the heart muscle. The mortality is 50 to 100%. Acute cardiac failure in diphtheria is quite frequent. The chronic type is most frequent in adults. The cause is not known but usually develops after the age of 40 years and has an absence of rheumatic history. Oedema is an outstanding symptom.

CHRONIC CARDIAC VALVULAR DISEASE is a chronic rheumatic heart disease. A large percentage of the patients are children and the causes of the lesions are due to rheumatic fever or chorea. The prevention hinges almost entirely on the ability to prevent rheumatic fever or when it occurs to limit the damage.

PERICARDITIS: types, rheumatic and idiopathic, and occurs more frequently in children and young adults.

In the rheumatic type, like in other rheumatic lesions of the heart, the acute stage is not serious but the chronic decompensation is of serious import.

It may also be caused by an extension of a bacterial inflammatory process from other lesions or a part of a general septicemia. Chronic pericarditis with effusion is generally due to tuberculosis and otherwise is the resolution of the acute type. The adhesions formed with neighboring tissues often produce mechanical restrictions which may become serious.

The idiopathic type shows no signs of rheumatic or other inflammatory conditions accompanying it. There is no underlying chronic disease and the prognosis is good.

SYPHILIS OF THE AORTA is not uncommon and is associated with syphilis in the secondary and earlier tertiary stages. There is a positive Wasserman in 80% of the cases.

Aortitis and aortic insufficiency may be caused by other infectious agents but this is not frequent.

ANTINA PECTORIS is caused by a defective coronary circulation usually manifesting itself by characteristic severe spasmodic pain. Attacks are often brought on by an increase in circulatory activity and the treatment is medical. It may occur at any age but is most common in patients after 45 years of age.

CARDIAC INFARCTION is a disease of adults over 30 years of age but mostly between the ages of 50 and 70 years. Death may occur suddenly or after a few hours depending on the amount of the blocked area. The common cause is thrombosis, secondary to a local disease of the coronary artery. Syphilis and infections are sometimes the cause.

CARDIAC DISTURBANCE OF THYROID DISEASE is generally recognized as that cardiac disturbance associated with hyperthyroidism and exophthalmic goitre. The early recognition of hyperthyroidism and treatment is important. After the heart has been damaged by the toxins of this disease, alleviation and restriction of the lesion is all that can be hoped for.

ARRHYTHMIA, certain forms may occur with or without other cardiac diseases. It is rarely a serious handicap but is annoying and occasionally hinders cardiac function. It may be due to fatigue, the using of stimulants, or may occur during convalescence from infectious diseases.

HEART BLOCK is found in older patients and is caused by myocarditis or cardio-sclerosis, which in turn is due to infectious diseases especially rheumatism and less frequently diphtheria.

CARDIAC NEUROSIS is a condition in which many of the symptoms of cardiac disease are felt without there being any physical evidence of organic insufficiency. Other more common terms are, irritable heart and cardiac instability. The only cardiac symptom not appearing is oedema. This type of ailment makes up a considerable portion of a physician's patients. It often follows infectious diseases, the patient lacking physical strength and nervous stability. Dr. Henry Christian of New York thinks best to regard these patients as definitely subnormal in nervous stability. The majority of patients are young adults and some children. The general condition of these patients should be built up, any foci of infection removed and an understanding explanation given them by the physician.

CONGENITAL HEART: types, those showing cyanosis and those without cyanosis except as a terminal symptom. It is due to some faulty development. In the first type, the child may grow up with no apparent evidence of a handicap while in the cyanotic type the prognosis is poor, the termination coming usually with some intercurrent infection. It is important to know the physical limitations of persons with congenital hearts and educate them to remain within those limits. Children with congenital lesions should have periodic examinations and should be protected from infections as much as possible.

Heart disease mortality statistics of the United States Registration area by Jessamine Whitney and published by the American Heart Association in May 1927 gives the following data. Mortality from heart disease causes 15% of all deaths every year. Classifying according to age groups, the proportion is least at the ages of 20 to 24 and highest at the ages of 75 to 79. The percentage of deaths in the age group 10 to 14 is over 11%. The fact that heart disease takes a higher proportion at that age than any other up to 40 years, indicates the work to be done in prevention among children. Endocarditis and myocarditis constitute the

the greatest proportion of deaths in the age group under 5 years and is still an important cause between the ages of 5 and 14.

The trend of heart disease is upward but on analyzing according to age groups the increase has occurred at the age of 65 and over. There has been a decline of 24% of heart disease under 5 years and a still greater decline of 32% between the ages of 5 and 9. Between 10 and 14 years the decline was 18%. These declines may be the result of intensive health work with infants, preschool and school children. From 25 to 44 years of age there has been a decrease of 9% in the last 10 years, between 45 and 64 years of age an increase of 3% and at 65 years and over there was an increase of 18%.

Although mortality statistics show a decrease of deaths during the earlier years of life, morbidity statistics are not available because heart disease is not a reportable disease. Also, methods of heart examinations have not been standardized. Nevertheless, different studies have estimated that of the 2% of the population in the United States estimated to have damaged hearts, 90% are due to preventable diseases. The disability and economic loss of a community through heart disease is great.

Cures in the main are impossible but a diseased heart can be made to function with a far greater degree of efficiency under proper regime. It is quite evident that certain types can be prevented. In considering prevention, the child is the chief consideration.

Most studies so far indicate approximately 1.5% of children attending public schools have some form of heart disease. The known diseases affecting the heart are rheumatism, chorea, scarlet fever, diphtheria and possibly whooping cough. Rheumatism is by far the greatest predisposing factor of heart disease. Approximately 75% of the children having arthritic rheumatism develop cardiac lesions. Following chorea about 30 to 50% develop cardiac lesions. Early recognition and proper treatment of rheumatic fever is of great importance.

The theory in regard to the prevention of rheumatism outweighs the present knowledge. Rheumatism is considered an infectious disease caused by certain streptococci which invade the body through the throat, tonsils or other foci of infection. Early detection and care is essential. Any joint discomfort of a child should be considered rheumatism until proven otherwise. Growing pains occur frequently and may have serious significance. Any emotional change in a child should be a warning of a possible oncoming of chorea. The weight curve of a child is of value. Weight loss should not be ignored.

Environmental and climatic conditions are considered predisposing factors. There has been no extensive tytrout but climatic conditions appear to influence the incidence of rheumatic fever especially where there is much dampness. Harrison and Levine's figures show that there is about one tenth less incidence of rheumatism in New Orleans where the climate is warm and dry than in Boston where it is cold and damp.

Faulty diet with resulting poor nutrition is also an important contributing factor which is not altogether confined to the poorer economic classes. There is a question of contagion since in a recent study, 8% of the people exposed in family groups have some form of rheumatism. The home environment may be the true explanation but contagion may be a possibility.

Intelligent care and guidance of rheumatism shows a lessened number of heart lesions following as shown by the smaller number of heart diseases allied to rheumatism occurring in private practice groups as compared to dispensary groups who do not have the careful supervision.

Routine removal of tonsils is not advocated. Tonsillectomies on a large scale in school children at Rochester New York, appears not to have decreased the incidence of rheumatism after 5 years as contrasted to those not operated on. The percent being 8 and 10 for the 2 groups. Tonsillectomy has not materially decreased the incidence or recurrence of rheumatic attacks. Their removal is indicated if they are definitely diseased or when there is a history of repeated attacks. The removal of any foci of infection such as adenoids, teeth, etc. is advocated.

In summarizing, some of the important accomplishments in the control of heart disease are:

1. The early recognition and proper treatment of rheumatism.
2. Physical examinations of school children on entrance to school, after the return from illness and at regular intervals during school life.
3. Periodic medical examination and adequate follow up work of persons having heart lesions.
4. The maintenance of a properly balanced life guarded against excessive strain and protected from infections.
5. The keeping of the body in general good health, physically and mentally.
6. Climatic treatment appears worthy of trial.
7. Special stress is placed upon the teaching the patient his limitations, the promoting of his physical capacity to his limit and the building up of a proper mental attitude with regard to his condition.
8. Intensive studies over an extended period of time are being made to obtain knowledge of the control of rheumatism, syphilis, thyrotixin and cardiovascular diseases in relation to the so called generative types of heart diseases.
9. Research work in the study of the normal and abnormal conditions of the heart is continually being carried on on the part of the medical profession.