

Heart Disease at Mid-Century

By PAUL D. WHITE, M.D.

IN THIS YEAR, still in the middle of the twentieth century, our hearts control much of our destiny. Diseases of the heart and arteries are responsible for a very large percentage of the illnesses and deaths in this country, even among children and young and middle-aged adults.

Despite the slowness with which we are moving in our efforts to meet this challenge, really great progress has been accomplished in several directions:

Cardiovascular syphilis has been almost wiped out as a result of the remarkably successful campaign for the prevention and early recognition and treatment of syphilis itself and the introduction of the antibiotics, especially penicillin. Once cardiovascular syphilis made up nearly 25 percent of all cases of heart disease; now it is well under 1 percent.

Rheumatic heart disease, at one time the most common type of all, is on the wane. In New England 30 years ago, it led all the other kinds of heart disease in prevalence. Now it is a poor third. This reduction is associated with

several factors, notably (*a*) the improvement in living conditions and (*b*) preventive measures to control infection by the hemolytic streptococcus, largely responsible for this type of heart disease.

Another advance of importance, achieved through remarkable development in surgery and splendid teamwork between physician and surgeon, is the rescue of a great many patients, thousands and thousands, afflicted with severe mitral stenosis. It is to be hoped that, with the reduction of rheumatic heart disease, much less need will exist in the future for this magnificent surgery of today.

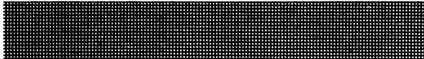
Subacute bacterial endocarditis, formerly called malignant because it killed almost 99 percent of all patients, is now not only curable in about 75 to 80 percent, but can probably be prevented in many patients by the use of antibiotics. Moreover, as we reduce the incidence of rheumatic and congenital heart disease, subacute bacterial endocarditis will decline.

Other infections responsible for serious heart diseases in the past also are becoming scarce. Included among them is diphtheria, which used to be fatal in many patients because of its effect on the heart.

Chronic constrictive pericarditis, once incurable, is clinically reversible now in more than half the patients by the use of surgical techniques developed in the past 25 years. Its fundamental cause, tuberculosis of the pericardium, should be, along with tuberculosis in general, steadily on the road to oblivion so that in another generation there should be little or no demand for such surgery.

Dr. White is emeritus clinical professor of medicine, Harvard University Medical School. He is also executive director of the National Advisory Heart Council and president of the International Society of Cardiology. The accompanying comments were presented at the American Heart Association's dinner for opening the National 1956 Heart Fund Campaign, January 31, in Chicago.

Ten leading causes of death, 1955

Death rate	Estimated rates per 100,000 population		Percent of total
352.0		Diseases of heart	37.9
147.6		Malignant neoplasms	15.9
106.6		Vascular lesions of CNS	11.5
55.6		Accidents	6.0
39.8		Certain diseases of early infancy	4.3
27.5		Pneumonia (except of newborn) and influenza	3.0
19.4		General arteriosclerosis	2.1
15.2		Diabetes mellitus	1.6
11.9		Congenital malformations	1.3
10.8		Cirrhosis of liver	1.2

Source: National Office of Vital Statistics, Public Health Service, Monthly Vital Statistics Report, vol. 4, No. 13, May 28, 1956

Thyrotoxicosis used to be the cause of heart disease in an occasional patient. Now, as a result of early recognition and much more satisfactory treatment of thyrotoxicosis, heart disease from this cause is rare.

Cor pulmonale, both acute and chronic, is on the wane as a result of the lower incidence of pulmonary embolism and the control of dusty air, indoors and out. How much harm smog may be doing is not known.

Even one of the more prevalent and serious kinds of heart disease, hypertensive heart disease, is now beginning to yield to treatment. The vigorous attack made on hypertension in the last two decades through surgery, diet, and the use of drugs has been extremely helpful.

Problems for the Future

We haven't done much about the most important heart disease of all, namely, coronary heart disease, except that we can recognize it more readily than we used to, we know a little more about its course, and we can treat it more intelligently.

Congenital heart disease also remains as a great problem for the future. We have learned little about it, and we cannot prevent it. We know that it can be caused by german measles in the mother during the first 3 months of pregnancy, but there are certainly other factors and causes not yet discovered. The one bright spot with respect to congenital defects is that a number of them can be corrected, in whole or in

part, by surgery. This in itself is, of course, no small achievement.

Thus, progress against heart disease is still far from its goal: prevention of new cases and adequate treatment of heart disease where it exists. The major cardiac problems are congenital defects, high blood pressure, and coronary heart disease. I think, too, we must take cognizance of the problem of apoplexy, or to use the longer term, cerebral vascular disease, which afflicts so many people with or even without high blood pressure. Also, there is much to be done about the prevention of disease of the larger arteries, the aorta and the blood vessels of the legs in particular. Arteriosclerotic disease of the kidney is still another problem that needs much further study for the sake of prevention, recognition, and treatment. We have found that it tends to be one of the great hazards of old age. Perhaps with its control, healthy old age can be prolonged.

The need for applying, to the best of our ability, the knowledge we already have, in private practice and in community programs, deserves special attention. For example, it is known that the great majority of cardiac patients not only can work but should work. Physical exercise and mental activity are two of the best therapeutic measures for patients with heart disease. Like persons who are crip-

pled in other parts of their bodies, cardiac patients perform some of the best work in the world.

In the study of heart disease, the epidemiological approach offers opportunities not otherwise available. This approach needs to be used more extensively, not only in our own country but world wide. The study of the prevalence of the various kinds of heart disease in different groups and communities here and in foreign lands can be valuable both for the people of other countries and for those in this country. International teams should cooperate in the study of heart disease so that the situations in one country can be compared with those in another.

Heart programs are among the most important health campaigns ever planned. Though we may be not one-third of the way toward the maximum achievement, the years ahead are filled with promise. We can protect the hearts of the young and the middle-aged with something much more substantial than the casual advice to "take it easy," even if that is good advice, which it may not always be. If we pursue these programs with vigor, 10 years from now, I venture, we shall have remarkably reduced heart disease in the young and middle-aged throughout the world.

Staff College Course for Nurses

The fourth Federal Civil Defense Administration Staff College course for nurses is scheduled to be given at the FCDA National Headquarters, Battle Creek, Mich., September 24-28, 1956.

Special emphasis will be given to educational and training programs for nurses in civil defense.

Priority for enrollment will be given to nurses associated with schools of nursing, inservice training programs of hospitals, industry, schools, public health agencies, nursing organizations, and State or local civil defense offices. There is no tuition fee.

Nurses may obtain application forms from their local or State civil defense office, or by writing to the Staff College, National Headquarters, Federal Civil Defense Administration, Battle Creek, Mich.