

PAST AND FUTURE

—The Conquest of Disease

Less than two centuries ago, a single man, Edward Jenner, ended the scourge of smallpox in a giant stride—vaccination—that opened an entirely new frontier against disease. And toward the end of the century that followed, one genius of research after another appeared, and one disease after another was conquered—malaria in 1880, tetanus in 1889, diphtheria in 1890, yellow fever in 1899. The medical conquests of the twentieth century have become steadily more complex. Each one has seemed to demand more time, more money, more dedicated men than before—diabetes in 1922, pernicious anemia in 1926, pneumonia in 1941, poliomyelitis in 1955.

Government agencies, voluntary foundations, hospitals and universities, medical associations, and private industry have combined their massive forces in a research attack on cancer that is the greatest and costliest undertaking in medical history. Two million Americans take part in the research, public education, and service programs of the American Cancer Society, a nationwide voluntary organization founded almost half-a-century ago to fight cancer. Today, its publicly supported programs of grants and fellowships devoted to research and teaching penetrate almost every area of the cancer problem.

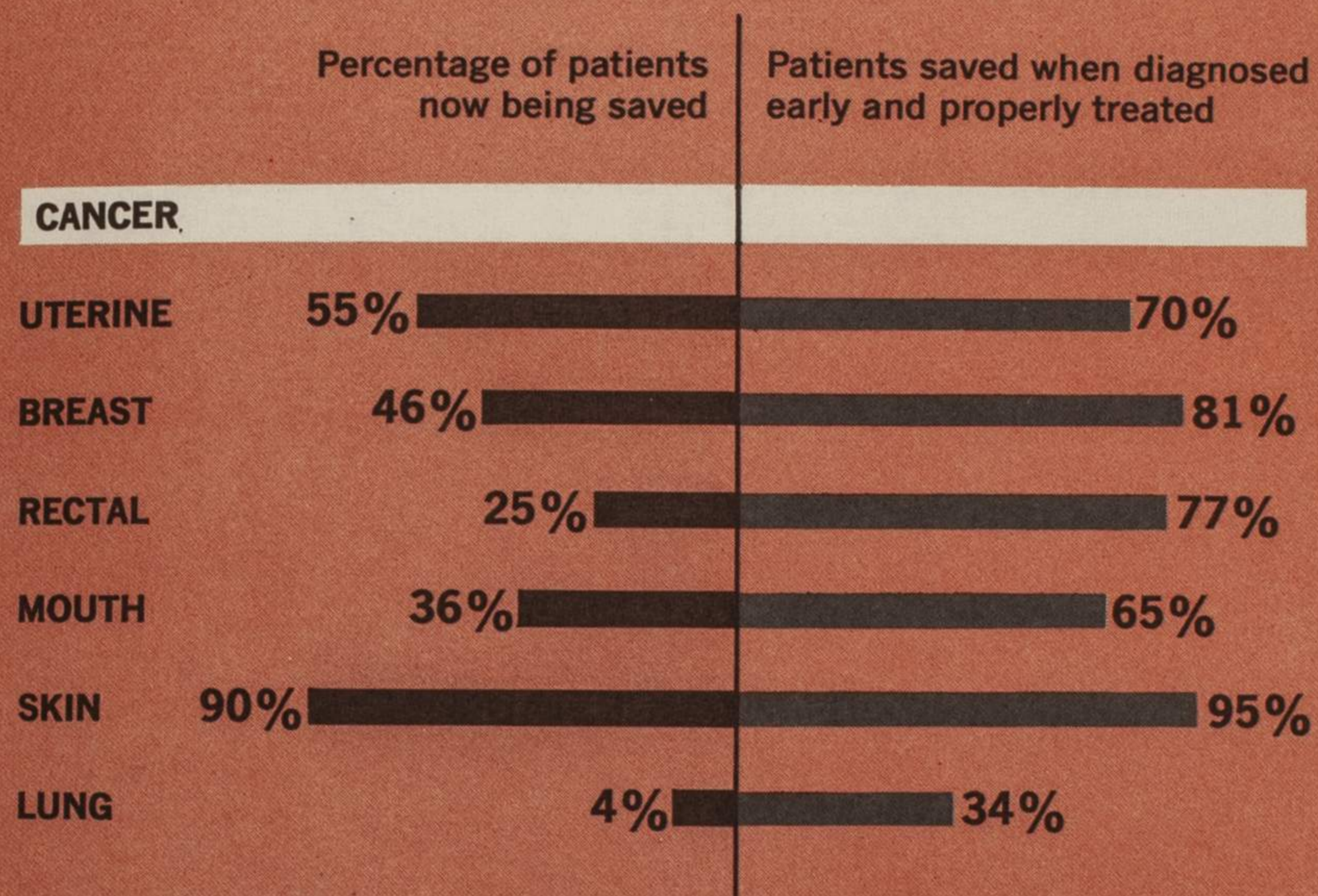
In specific areas of research, the resources of the federal government are brought to bear through the National Institutes of Health. A broad research program in chemotherapy, or treatment of the disease by drugs, is now being carried on by the National Cancer Institute, with its own hospital and clinical research center at Bethesda, Maryland. Government funds also assist private industry with research in this field. Compounds at the rate of 50,000 a year are being tested for their effectiveness against various cancers. Almost no branch of modern science is ignored in the cancer battle, and no possibility overlooked. Researchers have already identified viruses responsible for bringing about many plant and animal tumors. There is a possibility of similar cancer prevention in humans. Basic research aims at understanding the functions of the cell itself.

Meanwhile, the two known effective treatments for cancer—surgery and radiation—are constantly being improved with new knowledge and techniques. New drugs for preventing infections, new techniques for preventing shock, and better understanding of the body's chemical balance are making surgery safer and more effec-

WHAT YOU DON'T KNOW... CAN HURT YOU

Your part in cancer control starts with you. No matter how well you feel, take time out, once a year, for a thorough medical checkup.

Every fourth cancer death is a needless death. The present cure rate of one in three could be raised to one in two. There is still no known cure for advanced cancer, after the malignant cells have spread throughout the body. But the needless deaths can be eliminated by detection and proper treatment in the early stages.



(Estimates based on reports to the Third National Cancer Conference that included comprehensive data from the Connecticut State Department of Health, as well as the records of many hospitals, clinics, and other medical sources. The figures are believed to be sound estimates for most of the United States).

tive. Through the development of new instruments and better methods of application, radiation treatment is being improved. The use of radioactive isotopes helps in treating some cancers and locating others for treatment.

And finally, don't be fooled by "secret cures." There aren't any for cancer, and anyone who tells you he has one is wasting your precious time—time that could mean the difference between an early cure and none.