obvious targets for education campaigns, the committee also argues that efforts to reach the general population should be greatly stepped up—especially in the schools. "Sex education in the schools is no longer only advice about reproductive choice, but has now become advice about a life-or-death matter," the report says.

Shortly before the report was released, Surgeon General C. Everett Koop issued his own report on AIDS†. Written by Koop himself in clear, unambiguous prose, it contains much of the kind of information the committee says should be made generally available. Koop, who had been briefed on the Institute of Medicine study, said in a statement that "There is now no doubt that we need sex education in schools and that it include information on sexual practices that put our children at risk for AIDS." He suggested that such programs should be introduced as early as the third grade.

In other public health areas, the committee encourages voluntary testing for antibodies to the AIDS virus but argues against mandatory screening, either of the general population or members of high-risk groups. Mandatory screening, it says, "would be impossible to justify now on either ethical or practical grounds." Asked whether that recommendation applies to the controversial issue of testing for life insurance, Wolff acknowledged that the committee found that to be a "sticky issue." In general, he said the committee felt such testing could be discriminatory. However, the report deals with the matter by not addressing it directly.

As far as research is concerned, the committee notes that there have been impressive advances in understanding the cause and spread of the disease, but it is not sanguine about the near-term prospects of producing effective therapies or vaccines. It recommends a steady increase in federal funds from about $300 million appropriated by Congress for fiscal year 1987 to at least $1 billion a year by the early 1990's.

In addition to increased funding for basic research and targeted programs for vaccine development and drug testing, the committee argues for more support for high-containment facilities, efforts to expand animal resources and conserve chimpanzee stocks, social science and behavioral research, and epidemiologic studies. It also notes with some concern that the proportion of funds spent by the National Institutes of Health on investigator-initiated research on AIDS has declined recently. "A more balanced growth of support is needed to promote the involvement of the nonfederal basic research community," the report states. ■

COLIN NORMAN

†"Surgeon General's Report on Acquired Immune Deficiency Syndrome," available free of charge from: AIDS, P.O. Box 14252, Washington, D.C. 20044.

NIH Begins Year-Long 100th Birthday Party

NIH, which began in a one-room lab and $300 grant, celebrates centennial of biomedical research with a budget that tops $6 billion. The year's events will culminate in a grand ball in Washington

In 1887, a physician named Joseph J. Kinyoun received $300 from the federal government to establish a hygiene laboratory in an attic room at the Marine Hospital on Staten Island, thereby laying the groundwork for what was to become the National Institutes of Health.

One hundred years later, at a centennial ceremony on the institute's 300-acre campus in Bethesda, Maryland, Senator Lowell P. Weicker (R–CT) told assembled researchers that "What you do is the greatest of all activities of government," adding that the proper way to celebrate the NIH centennial is not with "fireworks or ceremonies" but with money. "Nothing reflects priorities as unerringly as the federal budget," Weicker observed. "I hope that the celebration will be one of dollars," he said to resounding applause.

With an increase of more than 15% in funds for fiscal year 1987, just begun, the NIH budget has climbed to an all-time high of $6.2 billion, thanks in large part to Weicker's own determined efforts to see that Congress provided substantially more than the $4.9 billion that the Reagan Administration sought. It's not a bad start.

Senator Weicker: *"Nothing reflects national priorities as unerringly as the budget. I hope the NIH centennial celebration will be one of dollars."*

"Many people who are reasonably well acquainted with the NIH find it hard to believe that we are approaching our 100th birthday," NIH director James B. Wyngaarden observed at the centennial opening. "Most would date our beginning as sometime around World War II."

However, the first 50 years of NIH were in many ways like the modern institutes, on a lesser scale. The work of Kinyoun, who is regarded as NIH's first director, recalls that from the very outset the link between basic research and medical needs was strong. When the government provided for the establishment of the Laboratory of Hygiene in 1887, cholera and other lethal infectious diseases were major threats to the public health. Kinyoun, fresh from Germany where he studied what was then modern bacteriology under the tutelage of Robert Koch, used his federal money for research that led him to discovery of the bacterium that causes cholera; as a result, he was widely credited with preventing major epidemics.

In 1891, Kinyoun's laboratory was moved from Staten Island to Washington, D.C., a move, Wyngaarden notes, that "underscored the status of the laboratory as a national resource." A decade later, its national role was further recognized when Congress appropriated what was probably

the first construction grant in 1901—$35,000 for a new building that was constructed at 25th and E Streets, N.W., only a couple of blocks from where the National Academy of Sciences stands today. During the following decades, the laboratory was noted for its successful research on disinfectants, pasteurization, and a range of infectious diseases including typhus, polio, measles, and leprosy.

Full congressional recognition of the importance of a national laboratory for biomedical research came in 1930 with passage of the Ransdell Act that renamed the hygiene lab the National Institute of Health. The move to its current location in Bethesda came in 1938 when what is now known as the James A. Shannon building (after NIH director from 1955 to 1968) was dedicated on land donated by a couple named Mr. and Mrs. Luke I. Wilson who gave the institute part of "Tree Tops," their estate. At ceremonies on campus in 1940, President Franklin D. Roosevelt praised NIH as a national resource that was vital to the United States and the world because "disease disregards state lines."

The NIH as we know it today began to take shape, as Wyngaarden notes, after the Second World War, "when the Office of Scientific Research and Development, going out of existence, turned over funds to be used as grants to complete some 250 research projects in progress at universities, medical schools, and pharmaceutical companies." The decision to transfer those grants to NIH "established extramural grants as a powerful mechanism for the support of such research." Last year, the extramural system funded more than 20,000 grants.

The proliferation of NIH institutes, largely in response to hope that disease-oriented research would result in useful therapies, began in 1944 when Congress created the National Cancer Institute. The National Institute of Mental Health came along 2 years later, followed by the heart and dental institutes in 1948, resulting in the formal designation of the National Institutes of Health. The newest of what are now 12 institutes is the National Institute of Arthritis, Musculoskeletal, and Skin Diseases (known on campus as skin and bones). The arthritis institute came into being last year after a protracted battle over the creation of yet another institute to give political visibility to a special disease.

Wyngaarden with Roy Vagelos, *who calls NIH the "ultimate alma mater."*

Although the modern NIH traces its roots to the end of World War II, its transformation into an institution that leads the world in biomedical research occurred during the 13-year Shannon era. Then, NIH was especially blessed by congressional largesse, thanks to his good and persuasive relations with the late Representative John Fogarty (D–NY) and the late Senator Lister Hill (D–AL). In Shannon's first year (fiscal 1956), the NIH budget was $80 million; when he retired in 1969, it was $1.4 billion—a 17-fold increase. The billion dollar mark was reached in 1965 when, NIH associate director Storm Whaley recounts, "Dr. Shannon urged unflagging accountability in his classic understatement 'You can't spend a billion dollars a year casually.'"

The Shannon years were the years that biomedical research in the United States enjoyed its greatest flowering. And they were the years when most of today's leaders in medicine and research were personally benefitting as they began their careers in an era when there was money enough to support all good ideas and the paradigm of the researcher/physician gained hold. Among the many now prominent men who trained at NIH during those golden days is Roy Vagelos, chairman of the board of Merck & Company. Representing industry at the centennial ceremony (academia was represented by Harvard medical dean Daniel Tosteson), Vagelos praised NIH as the "ultimate alma mater."

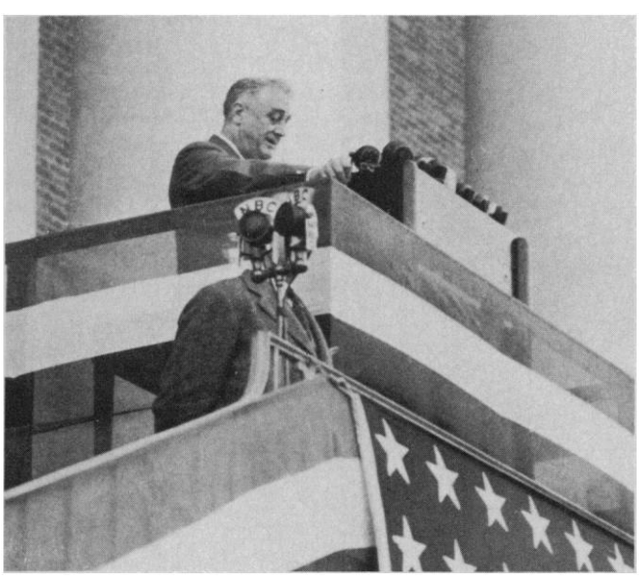
Indeed, next October NIH, in the best college tradition, is planning a bang-up reunion of its alumni,* who will be invited for a long weekend that will include what has been described as an "orgy of seminars" and a grand ball at the old Pension Building in Washington. Vagelos and and centennial chairman Donald S. Fredrickson, a former NIH director who is now president of the Howard Hughes Medical Institute, joined forces to raise private funds for the 100th birthday events. At a dinner at the Sky Club in New York one night recently, $3.6 million was secured from 14 drug companies, including Merck, and from Hughes. Subsequent donations bring the total centennial fund to more than $4 million.

In addition to the ball and seminars (one day will be at the Kennedy Center), other centennial projects include a four-part series for public television on landmarks in biomedical research that will be ready next fall, and a competition that will bring one high school student from every state to Washington for several days of activities both at NIH and on Capitol Hill.

"The centennial," says Wyngaarden, "gives NIH an opportunity to remind a public that has forgotten or never knew what the world was like before the advances of modern medicine, and to tell them how far we have to go." ■

BARBARA J. CULLITON

Next, a close look at the NIH budget for fiscal year 1987.



Franklin Roosevelt at NIH in 1940: *"Disease disregards state lines."*

*Alumni who have not heard from NIH recently but would like to receive a notice of the reunion should write the Centennial Office, NIH, Bethesda, MD, 20892.