No Longer Ignored, AIDS Funds Just Keep Growing

This year funding for AIDS will overrun the dollars spent on heart disease; some federal agencies now get almost half their budget in AIDS dollars; a plateau is in sight

AIDS IS FAST BECOMING the single largest program in the federal health bureaucracy. In the current fiscal year, federal spending for AIDS research and prevention will approach $1.3 billion and will for the first time overshadow the money spent on heart disease. Next year, money for AIDS will probably meet and perhaps even exceed government spending on cancer.

The ascendancy of AIDS to funding levels reached by heart disease and cancer, the nation's two leading causes of death, represents the culmination of a remarkable political process. Slowly, and then with growing urgency, Congress and the Reagan Administration have come to commit enormous resources to a disease that in the United States largely afflicts homosexual men and drug addicts. This commitment is remarkable and perhaps incongruous in view of the fact that Congress and the Administration often appear to be intolerant of these two groups. Indeed, Congress recently rejected legislation to protect carriers of the AIDS virus from discrimination for fear that the action could be interpreted as a gay rights bill (*Science*, 21 October, p. 367).

Whatever is driving the AIDS budget, be it compassion for the syndrome's sufferers, intense lobbying by gay activists, or fear that the human immunodeficiency virus will spread into the general population, the world has changed: AIDS is no longer an illness ignored.

While money for AIDS was sparse during the early, crucial years of the epidemic, the dollars are now flowing. The budget for the entire federal health bureaucracy has come to be expressed in terms of "AIDS" versus "non-AIDS" money. Funds earmarked for AIDS are currently supporting projects in every research institute in the Public Health Service. The missions of some federal agencies, in fact, have become synonymous with the epidemic, with as much as half of their budgets comprised of AIDS dollars.

Likewise, several major universities are getting big slices of the AIDS pie. Among the recipients at the top: the universities of California at Los Angeles, San Francisco, and Southern California, as well as Johns Hopkins, University of Miami, and Stanford.

In many ways, spending on AIDS in the late 1980s harks back to the period in the 1970s when funding for biomedical research exploded during the War on Cancer. "If you put the two sets of curves beside one another, they would be very parallel," says Peter Fischinger, the AIDS coordinator for the Public Health Service, and a veteran of the earlier war.

But even the funding surge for cancer cannot compare to the trajectory of AIDS spending. Unlike cancer dollars, AIDS funding started at zero in 1981. In 7 years, spending on the disease has doubled four times. It went up 90% last year. And 36% this year. Another substantial increase is expected in the coming fiscal cycle.

"AIDS has been one of the only things that Congress has been willing to bust the budget on," says James Bloom, assistant director for AIDS activities at Centers for Disease Control in Atlanta. In the last few years, even the Reagan Administration has been recommending significant increases for AIDS.

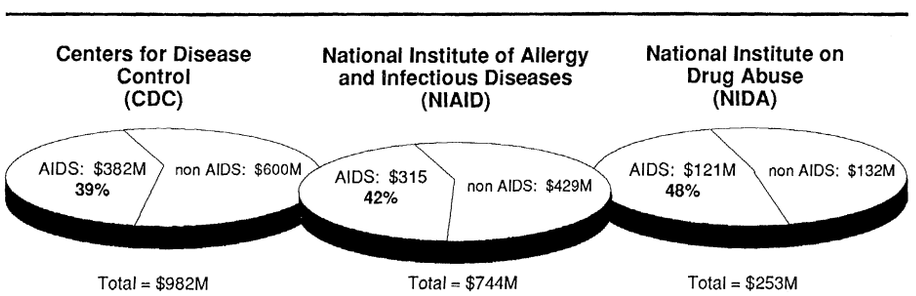
This tremendous growth in AIDS spending is even more impressive as it occurs at a time when money for other biomedical research and public health programs is tight. As funding for AIDS research continues to climb, other programs have been limited to small increases designed to simply keep up with inflation. For instance, the AIDS budget for the National Institutes of Health (NIH) went up about 80% last year and 30% this year, while dollars for NIH's non-AIDS programs rose about 5%.

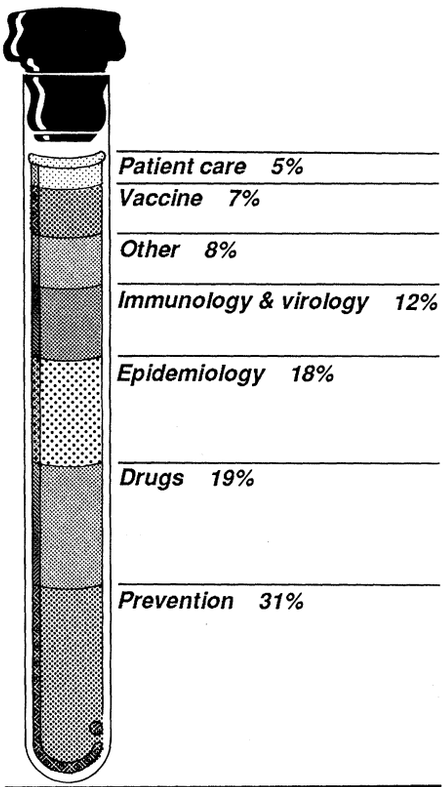
AIDS dollars at the Public Health Service support both bench science and prevention programs. Of the $1.3 billion in the PHS coffers in fiscal 1989, about two thirds ($860 million) will go to research, and will cover not only the study of the virus and its impact on the immune system, but the cost of clinical trials for AIDS drugs and vaccines, as well as tracking the epidemic's course. The remaining third of the AIDS budget ($440 million) will go toward information campaigns and prevention projects, which will attempt to accomplish the very difficult job of altering people's sexual and drug-using behaviors. This sum also includes about $100 million for testing and counseling services.

Of the $1.3 billion for AIDS, NIH gets the lion's share: $607 million, which is about 8% of NIH's total budget. AIDS money is now all over NIH. Some examples: $3.5 million to the National Institute of Dental Research, which is looking at the oral infections associated with AIDS; $450,000 to the National Institute on Aging, which goes to support the work of an intramural program in clinical immunology; $43 million to the Division of Research Services to provide and care for monkeys and chimps; and $124 million for National Cancer Institute, of which about $8 million goes to support AIDS research in the laboratory headed by Robert Gallo. (Concerned the figure might be "misinterpreted," Gallo vigorously points out that the lab's entire $11-million budget supports the work of seven senior investigators and includes salaries and indirect costs.)

By far, though, the biggest consumer of AIDS dollars at NIH is the National Institute of Allergry and Infectious Diseases (NIAID). Because of the AIDS epidemic, NIAID has gone from being one of the smaller institutes on the Bethesda campus to the third largest. And NIAID is fast gaining on the heart and cancer institutes. In the current fiscal year, 42% of NIAID's $744-million budget is AIDS money. Next year, AIDS is expected to account for half of NIAID's budget, as the costs of developing AIDS drugs and a vaccine continue to soar.

Off the NIH campus, AIDS money is largely responsible for the phenomenal resurrection of the Centers for Disease Control





Public Health Service (PHS)
Total AIDS Spending — $1.3 B

(CDC), which during the AIDS epidemic has gone from an often ignored agency to one of the most visible in the federal government. CDC now spends more than a third of its $982-million budget on AIDS activities, which include monitoring the pace and size of the epidemic as well as trying to alter its course through education and prevention projects. Such massive public education campaigns are completely new to CDC.

AIDS funding is also giving a shot in the arm to the Alcohol, Drug Abuse, and Mental Health Administration. In the most dramatic instance, AIDS is bringing new life to the National Institute on Drug Abuse (NIDA), whose budget was partially dismantled by the Reagan Administration in the early 1980s, when funding for drug treatment and prevention went directly to the states in the form of greatly reduced block grants. This year, NIDA will spend almost half of its $253-million budget on AIDS, with some $92 million going to big-ticket demonstration projects designed to slow the spread of the AIDS virus among the country's 1.2 million intravenous drug abusers.

The Food and Drug Administration is also beginning to see the kind of money that advocates of AIDS patients have been pushing for. The AIDS budget for FDA is $71 million this year, up from $25 million last year. Most of the funds are directed at expediting review of drugs, though the total includes $23 million for a new facility for AIDS-related activities.

Another indication of the ascendancy of AIDS is the number of employees allotted to the various research institutes. For example, for non-AIDS work, NIH has lost almost 1100 employees since 1984. At the same time, the number of employees engaged in AIDS work has increased by more than 400 to 580 workers or their full-time equivalents.

With funding for other programs relatively flat, and with more researchers hustling for the same dollars, the growth in AIDS spending is certainly affecting the research agendas of scientists inside and outside the government. Many scientists who were slow to enter the field are now flocking in, encouraged by an accelerated system for awarding AIDS grants and a slight edge that continues to make it a bit easier to get funding for AIDS research than for non-AIDS research.

For instance, in 1987, the most recent year in which data are available, NIAID not only supported a greater percentage of AIDS versus non-AIDS grants, but the institute also funded research proposals that received significantly lower scores. The institute paid for grants with priority scores as "low" as 218 for AIDS, as compared to a cutoff of 152 for non-AIDS. (In rating grant proposals, as in golf, the lower the score, the better the proposal). NIAID officials, however, note that each year, competition for AIDS dollars is becoming more heated.

With such rapid increases in funding, are the dollars exceeding the ability of researchers to design novel and valuable experiments? It is a question often asked.

"It's like all programs that grow rapidly, of course there's some redundance, there's some mediocrity. That's inevitable. But it gets filtered out," says Gallo. "When a field suddenly grows, this always happens. There's some junk."

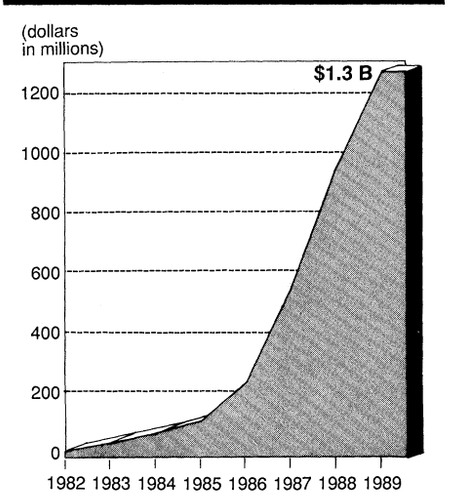
Gallo and other investigators inside and outside the government's AIDS program do not think quality is truly suffering. "I think we're still at the point where we're buying good science," says David Korn, dean of the Stanford School of Medicine and an adviser to the cancer institute.

A few years ago, science observers were concerned that so much of the AIDS money was going out in the form of research and development contracts, rather than investigator-initiated grants. This funding pattern, which is similar to that of the war on cancer, meant that the government was essentially determining the direction of the research. In 1986, for example, R&D contracts absorbed over 50% of NIH's AIDS budget, while research grants only took 19% of the budget. This is slowly changing. During the current fiscal year, R&D contracts are predicted to absorb about one-third of the AIDS budget at NIH, while research grants will increase to about 40%. The rest of the money will go to intramural research at NIH.

One of the reasons why AIDS may be able to absorb such steep increases in funding is the fact that the research cuts such a wide swath across so many disciplines. "AIDS touches on an awful lot of the fundamental questions of biology," says June Osborn of the University of Michigan School of Public Health.

Osborn and others add that money spent on AIDS research is a particularly good investment, since the study of the immune system and the development of targeted antiviral drugs will have applications to other disease entities. "There are plenty of payoffs," says Howard Temin of the University of Wisconsin. "The immune system is the same no matter what virus is attacking it."

Funding for AIDS
at the Public Health Service — $1.3 B



Still, the budget for AIDS research is probably approaching the point where it will begin to level off. "Any reasonable person looking at this growth would have to assume that it couldn't continue," says Fischinger. Anthony Fauci, director of NIAID and head of the new Office of AIDS Research at NIH, sees a plateau sometime in 1992 or 1993 for funds allocated strictly to research, unless a major breakthrough occurs in vaccine development. Funds for prevention and patient care, however, may continue to grow long past the point where the research dollars slow down.

■ WILLIAM BOOTH