Health Programs: Slum Children Suffer Because of Low Funding

The day before President Nixon dramatically seized personal command of the Administration's proposed $334-million-per-year war against cancer, a group of Federal employees issued a statement criticizing the Administration's inattention to other health programs where fewer dollars would definitely save lives now.

The group, known as Health Employees for Change, consists of some 100 physicians and other health workers in the Department of Health, Education, and Welfare. They were upset because the Administration had requested funds for neither the Lead-Based Paint Poisoning Prevention Act nor the Emergency Health Personnel Act, both passed by Congress late in 1970. A third program, Federal aid for vaccinations, has also been the subject of a controversy, particularly since Public Health Service officials have called attention to an outbreak of diphtheria, a huge measles epidemic, and the possibility of a polio epidemic this summer.

The legislative history of all three programs is similar. In each case, Congress enacted the measure and authorized money; and, in spite of Administration opposition to the programs, Nixon signed each measure into law. All three programs were then ignored in the Administration's budget for fiscal year 1971. Since the employees issued their statement, however, the Administration has asked for money for all three programs for fiscal 1972. Nevertheless, the low levels of funding requested and the delays in the requests still leave questions about the Administration's health priorities.

Unlike cancer, which affects people of all socioeconomic backgrounds, lead poisoning has become an exclusive disease of the urban slums. The victims are children from 1 to 6 years old (the majority of cancer victims are over 40) who ingest bits of lead-based paint or plaster that crumble off the inside walls of old, dilapidated houses or apartments (*Science*, 5 September 1969). As the children eat the lead, soluble forms of the metal accumulate in the soft tissues of their bodies, resulting in high concentrations of lead in the blood. External symptoms of the disease range from listlessness to convulsions; complications include mental retardation, cerebral palsy, behavioral disorders, kidney disease, blindness, and even death.

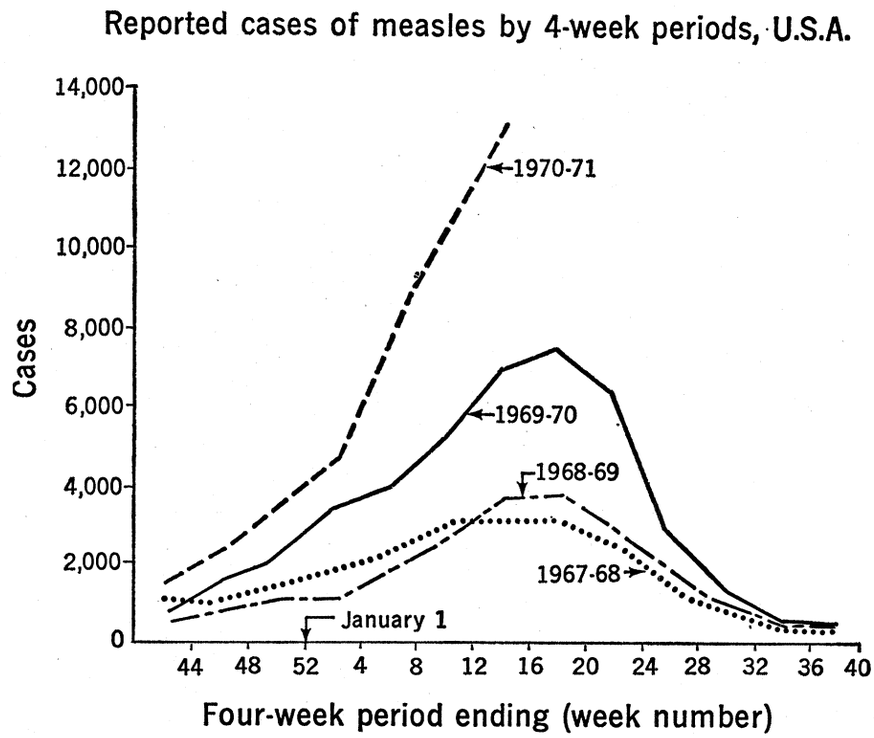
Since lead often accumulates slowly over a period of months, a child can carry dangerously high levels of lead without exhibiting any external symptoms. A recent HEW report estimated that lead poisoning affects 400,000 children annually and causes 200 deaths. Of those 400,000, the report said that 16,000 require treatment, 3200 incur moderate to severe brain damage, and 800 children receive brain damage severe enough to require care for the remainder of their lives. Lead poisoning thus kills and cripples more children than did polio before the advent of the Salk vaccine.

It differs from both cancer and polio in an important respect. "In the history of modern medicine," wrote Jane Lin-Fu of the Public Health Service in the journal *Children*, "few childhood diseases occupy a position as unique as lead poisoning. It is a preventable disease."

Treatment involves identifying children with high levels of lead in their blood, deleading the victims with chelating agents, and, most important of all, eliminating the lead-based paint from the child's environment. Total eradication of the disease would mean renovating some 7 million units of dilapidated urban housing that are painted with lead-based paint.

In spite of a growing awareness of the problem of lead poisoning, little federal money has been available either to treat it or to eliminate it. Some cities, notably Chicago, New York, and Philadelphia, are operating programs aimed at preventing lead poisoning. But because of limited local resources, these programs, which rely mostly on blood tests of children from high-risk areas as a means of controlling the disease, are clearly inadequate.

The Lead-Based Paint Poisoning Prevention Act authorized $30 million for a 2-year program of grants to U.S. cities for prevention programs, a survey of the full extent of the problem, and research into more efficient means



Evidence of the current epidemic of measles can be clearly seen in this chart, taken from *Morbidity and Mortality Reports* (published by the Center for Disease Control), 24 April 1971. Large-scale vaccination programs against measles were begun in 1966.

for the removal of old paint. But neither the 1971 budget nor the President's health message mentioned lead poisoning. Finally, after prodding by Representative William F. Ryan (D–N.Y.), who sponsored the legislation along with several other members of Congress, HEW officials announced that they would amend the 1972 budget to include $2 million for lead poisoning prevention. Additional money for the program may come from Congress, however. The Senate Health Appropriations Subcommittee, chaired by Senator Warren G. Magnuson (D–Wash.), added $5 million to the Second Supplemental Appropriations Bill for 1971. The House Health Appropriations Subcommittee, chaired by Representative Daniel Flood (D–Pa.), tends, however, to follow Administration requests more closely, and they refused to tack on any additional funds. A compromise regarding this extra money will be hammered out by a conference committee, but, even if Congress appropriated some additional funds for the prevention of lead poisoning, the Administration might not spend them.

To understand how far the Administration's $2 million request would go toward eradicating lead poisoning, it

Nixon Embraces Principle of Separate Cancer Authority,

Even though the campaign to establish a highly visible and massively funded National Cancer Authority reached new levels of confusion last week, one thing became perfectly clear. Both financially and politically, cancer research will dominate biomedical science for some time to come.

When President Nixon, conjuring up the ghosts of John Foster Dulles, Senator Robert A. Taft, and his own beloved Aunt Elizabeth, told White House reporters that he would take personal charge of the campaign against cancer, the supporters of the separate authority thought they had won total victory. Whereas in his 18 February health message to Congress, Nixon said that his Cancer Conquest Program would be run from the Office of the Director of the National Institutes of Health, in his 11 May announcement he said he would "ask Congress to give the cancer-cure program independent budgetary status and make its director directly responsible to the President." Thus the program would only nominally remain in the NIH. It would incorporate virtually all of the recommendations which were made by last year's National Panel of Consultants on the Conquest of Cancer and which were proposed by Senator Edward M. Kennedy (D–Mass.) in his bill (S.34) to establish a separate NASA-like cancer authority. Coming as it did just hours before Kennedy's Senate Health Subcommittee was to vote on S.34, the Nixon announcement appeared as a major concession to the powerful alliance of philanthropist Mary Lasker's health lobbyists and the American Cancer Society's influential Republicans, which has successfully engineered the current stampede to spend more money on cancer research.

On close examination of the actual bill embodying the President's new cancer program (S.1828), introduced 11 May by Senator Peter H. Dominick, (R–Colo.), the backers of the separate authority found, however, that they still had some bones to pick. Specifically they protested that the legislation made no mention of a separate budget authority for cancer and that it contained a provision that the President could delegate his direct control over the cancer program to the Secretary of Health, Education, and Welfare. Administration spokesmen claim that these are trivial points since the President can make anything he wants into a separate budget item and delegate any authority. Nevertheless, the Laskerites are still pushing to have all of their scheme for the administration and funding of cancer research locked into the law of the land. And they will continue to keep the full force of their political clout behind the Kennedy bill.

A Political Move

These slight discrepancies between what the President said and what was written into the Administration bill may, in fact, be a political maneuver aimed at breaking up the alliance behind the Kennedy bill. According to one White House adviser, Administration officials hoped that, as Nixon's cure cancer program moved closer to that recommended by the Panel of Consultants, the Republican members of the panel would side with the Administration, leaving only Mary Lasker and her allies behind the Kennedy bill. But if that was the strategy, so far it hasn't worked.

Benno Schmidt, managing partner of the New York investment firm, J. H. Whitney and Company, and chairman of the Panel of Consultants told *Science* that while "The President went a long way toward voicing the same recommendations as the panel, the (Administration's) legislation falls short of the President's statement."

"It is still my belief that S.34 with some minor amendments represents the best means of achieving the goals of the Panel of Consultants," he said.

Another voice of Republican dissent came from panel member Elmer Bobst, chairman of Warner Lambert, International, and a long-time friend and financial supporter of Nixon. The Administration bill violates a "clear, concise understanding I had with the President," Bobst was quoted as saying in *Drug Research Reports*. Bobst's dissent is particularly significant because he played a special role in impressing the recommendations of the Panel on the Administration.

In a letter to Lane W. Adams, executive vice president of the American Cancer Society, Bobst said that he had "made it a point to orient the President and two of his aides as to the reasons behind our Panel's overwhelming desire to have him authorize a special authority."

Bobst then went on in the letter to spell out his idea of what the separate cancer authority should be like. "I think everyone with any knowledge in the respective fields is aware of the fact that in the development of atomic power and in the outer space program, there was a wonderful control and a most highly business-like type of approach. It is my thinking that we must strive to bring business-like methods into the fight against cancer."

The new director of the cancer authority, said Bobst, would be "a highly qualified scientist who has

should be noted that the budget for New York City's existing prevention program is $2.4 million per year. Calling the level of the Administration's request "outrageous," Vincent Gynee, director of the New York program, said that New York could easily use the $2 million just to improve its own program.

But New York is not the only city that could use money for a prevention program. According to an official of HEW's Bureau of Community Environmental Management, which was delegated responsibility for the program, HEW has already received formal and informal requests from cities for grants totaling over $50 million. "For $2 million," he said, "we could support programs in three or four cities, consisting mostly of screening with a limited amount of follow-up." But he added that "We're not yet sure that we could do anything useful at all for less than $3 million."

Charles Miller, deputy assistant secretary for Budget at HEW, said in an interview with *Science*, "Fifty million dollars sounds like an awful lot. You have to remember that these programs take time to get going."

Predictably, Ryan is unhappy with the amount of money that the Admin-

But Original Proponents Say They Are Not Yet Convinced

proved himself to be a first-class administrator possessing, we hope, a proper business acumen. It is probable that the panel would agree to engage the present Director of the [cancer] Institute (Carl Baker) in the capacity of a deputy administrator."

Bobst said that his answer to the fears expressed by many university heads that they will be "cut off from the very sizable grants that they have been receiving through the years from NIH" is "that, maybe to some extent, their thoughts are well founded.

"For it will be the aim of the special authority," he continued, "to see that 100 cents out of every dollar will actually go into well-directed cancer research. I feel rather certain that an all-too-high percentage of the money made by grants for cancer research went into projects that were rather far-fetched in respect to their closeness to cancer. In other words, medical education and basic research are extremely important, but, in my opinion, money that is appropriated for cancer research should go 100 percent for the purpose indicated."

Other hints concerning the nature of the new cancer program came from testimony given 26 April before a House Appropriations subcommittee by Surgeon General Jesse Steinfeld, NIH director Robert Q. Marston, and Carl Baker, director of the National Cancer Institute. Throughout the testimony, phrases like "coordinated programmatic R. & D. efforts," "coordinated task force type approaches," and "multidisciplinary centers" appeared again and again.

Said Steinfeld, "To undertake now a major expansion of cancer research with the intention of expansion to even higher levels as warranted throughout the present decade will require the development of a managerial capability for program planning, direction, and execution on a scale unprecedented in biomedical science."

According to the testimony of NCI's Baker, the additional $100 million requested by Nixon for the cancer program would be distributed as follows: planning, renovation, and construction of centers, $16 million; increased operational cost of cancer research centers, $18 million; training of scientists, program managers, and technicians, $2 million; etiology (especially virus cancer, chemical carcinogenesis), $20 million; treatment of cancer, mainly chemotherapy, $19 million; fundamental research, task forces, and program planning, $25 million. Baker said that only $10 million of the additional $100 million would be distributed as research grants.

New cancer research centers, according to Baker, will be "geographically distributed throughout the United States" and built with 75 percent federal funds and 25 percent outside funds. He described these new centers as "comphrehensive cancer research centers: cancer chemotherapy research centers; and specialized cancer research centers such as radiation treatment centers, chemical causation, and prevention research centers."

Chemotherapy and Aerospace Scientists

The Administration spokemen indicated that the oft-criticized chemotherapy screening program will be increased from the present rate of 15,000 new chemicals screened per year to a new level of 50,000 per year "to insure an increased supply of drugs entering clinical trials beyond the current level of six per year." They also said that under the new program some people out of work from the aerospace industry might be trained to take part in the cure cancer campaign. Asked about what function these people might serve, Steinfeld replied, "one of the things we don't have is a very good communication system, in terms of research findings being communicated very rapidly to other researchers. We have a great informal one, but not a good formal one."

Now that the Administration position has essentially merged with S.34, those who opposed a massive assault on cancer, particularly through a separate authority, have nowhere to turn. But Senator Gaylord Nelson (D–Wis.) may have come to the rescue. As a compromise, Nelson has offered an amendment to S.34 which would take not just cancer research, but all of the NIH, out of HEW. Thus the NIH would have the status of an independent agency such as NASA or the AEC. Under the Nelson amendment, which so far has attracted the support of some other Health Subcommittee members including Senator Alan Cranston (D–Calif.) and Senator Richard Schweiker (R–Pa.) cancer would still have an elite status. The director of the cancer institute would be a deputy director of the NIH. But other maladies, such as heart disease, could easily be elevated in the future to similar status.

Although the idea of an independent NIH has been around for some time, it has never been formally proposed before. So far the response from both the Administration and the supporters of the separate authority has been lukewarm. But the idea is privately very appealing to the current leadership of the NIH. And it might attract more support in the weeks to come.

—R.J.B.

NEWS & NOTES

● **TEAMS GET MAJOR SCIENCE AWARD**: Three research teams, two from the United States and one from Canada, have been awarded the Rumford Premium of the American Academy of Arts and Sciences for their work in long-baseline interferometry, a new technique used by astronomers to determine the structure of quasars and other radio sources in outer space.

The academy announced that this presentation of the Rumford prize, which was established in 1796, marks the first time that a major scientific award has gone to teams rather than to individual researchers. According to the Academy, the prize committee sought to acknowledge the fact that major scientific advancements can no longer, as a rule, be ascribed to single individuals, and that among researchers engaged in essentially simultaneous work chronological priority is not as important as it was once thought to be. Those honored are a team from the Massachusetts Institute of Technology, a combined group from Cornell University and the National Radio Astronomy Observatory, and a group dominated by the Canadian National Research Council.

● **FDA PLANS DRUG STUDY**: The Food and Drug Administration (FDA) has announced it will soon award a contract for the development of a pilot system for the collection and analysis of information on adverse drug reactions. The initial plan calls for the detailed monitoring of two medical environments: the inpatient hospital ward and a "controlled outpatient-inpatient total medical care system." The latter would involve a stable population, such as that enrolled in the Kaiser-Permanente plan, in which individual medical histories could be closely followed over extended periods of time. The object of the program is to develop a national drug-experience reporting system in which perhaps 50 hospitals and an undetermined number of total-care networks would be under contract to report all suspected adverse reactions in such a way that complete and comparable data can be produced.

The FDA has long been collecting this type of information from doctors, patients, and drug firms (required by law to report adverse reactions), but the data from these sources tend to be spotty, sporadic, and unverifiable.

istration has allocated to the program he sponsored. "The failure of the Administration to adequately fund this program," he told *Science*, "reflects a complete disregard for the lives of thousands of children in this country."

Another bill that was passed by Congress, signed by the President without comment, and then left unfunded for 1971 was the Emergency Health Personnel Act, sponsored by Magnuson. The law expands the Public Health Service to allow young doctors and other health professionals to practice medicine in rural, inner-city, and other areas short of medical services, as an alternative to military service.

The Health Employees for Change called the Act "flexible enough to be implemented in an exciting way that can deal not only with the maldistribution problem, but also problems like the dearth of health systems, irrelevant health education, definition of roles and responsibilities of personnel, better ways of financing health care, and so on."

Congress authorized $10 million for the Act in 1971 and $20 million in 1972. The Administration has recently requested $10 million for 1972. Howard Hilton, director of the Field Service Office for HEW's Community Health Services, told *Science* that $10 million should put about 660 physicians, dentists, and other health personnel in the field. The physicians and other health personnel will all be salaried and work in some sort of group structure. "The potential number of physicians that could be placed by this program would be limited only by the available manpower," said Hilton. He added that over 100 communities have already put in requests for physicians, while many medical students have written to express interest in the program. The Emergency Health Personnel Act, like the bill on lead poisoning, might be embellished with additional funds from Congress, particularly since its sponsor chairs the Senate Health Appropriations Subcommittee.

In 1962 Congress passed the Vaccination Assistance Act. And using funds provided by that Act, local authorities have immunized millions of children against a variety of diseases, including measles, diphtheria, and polio. But that Act expired 30 June 1969, and funds for immunizations have been scarce ever since. As a result, levels of immunized children have steadily fallen. The 1970 Immunization Survey, conducted by the Bureau of the Census and the Center for Disease Control (CDC), showed that the levels of children vaccinated against measles had fallen to 57.2 percent nationally and 41.1 percent in central-city poverty areas. The figures for polio were 65.9 percent nationally and 50.9 percent in the ghettos. One result of this drop in the number of immunized children has been a measles epidemic (see chart). Several outbreaks of diphtheria have also occurred this year. "The reason for these epidemics," Phil Landrigan of CDC's Immunization Branch told *Science*, "is money. Almost all of these cases have been in children who did not receive the proper immunizations."

As for polio, Landrigan said, "The number of cases has not yet started to rise, but polio is a summer disease. We're worried that the immunization levels have fallen so low that we could have some outbreaks of polio, particularly in the central cities."

A possible relief for the financial difficulties of the immunization programs came when Congress passed the Communicable Disease Amendments in October 1970. Intended as an extension of the Vaccination Assistance Act, the amendments authorized $75 million in fiscal 1971 for vaccinations and $90 million in fiscal 1972. Except for $2 million for tuberculosis in the 1971 budget, the Administration ignored these programs in its budget resquests. Part of the Administration's refusal to fund these programs stems from a policy of channeling assistance into comprehensive programs that allow the cities and states more latitude in spending the money. But little money has been available in the comprehensive programs for vaccinations. And the money that has been available was restricted by a decision of HEW to pay for vaccinations for German measles (rubella).

This policy has, however, recently been reversed. According to HEW officials, the fiscal 1972 budget includes $13 million for immunizations with $3 million specifically earmarked for measles. "On the promise of these funds, we've already gone to the manufacturers for vaccine production contracts," said Harold Muldin, Deputy Chief for Immunization at CDC. "Our chances of reversing the current trends in immunization levels are quite good." Muldin emphasized, however, that there was still danger ahead in future years if more money was not appropriated for vaccines.

The three health programs men-

NAS Foreign Associates

At their annual meeting last month, the National Academy of Sciences elected ten scientists as foreign associates of the Academy. Election as a foreign associate is one of the highest honors that can be bestowed by the NAS on a scientist who is not a citizen of the United States. This election brings the number of foreign associates to 117.

The new foreign associates are:

Aage N. Bohr, Niels Bohr Institute, Copenhagen, Denmark

Donald E. Broadbent, Medical Research Council, Cambridge, England

Augusto Gansser, Geologisches Institute, Zurich, Switzerland

Dorothy C. Hodgkin, Chemical Crystallography Laboratory, Oxford, England

Aharon Katzir-Katchalsky, Weizmann Institute of Science, Rehovot, Israel

Vladimir I. Keilis-Borok, Academy of Sciences, Moscow, U.S.S.R.

Frantisek Sorm, Institute of Organic Chemistry and Biochemistry, Prague, Czechoslovakia

Bengt Strömgren, University of Copenhagen, Copenhagen, Denmark

Armen L. Takhtadzhyan, Komarov Botanical Institute, Leningrad, U.S.S.R.

Sir Vincent B. Wigglesworth, Cambridge University, Cambridge, England

tioned above are among the many that critics of the Nixon Administration see as lacking proper funding. But these three programs, particularly the lead-poisoning prevention and the immunizations fall into the category of disease prevention rather than treatment. In his health message to Congress 18 February, President Nixon said, "If more of our resources were invested in preventing sickness and accidents, fewer would have to be spent on costly cures. If we gave more attention to treating illness in its early stages, then we would be less troubled by acute disease. In short, we should build a true 'health' system—not a 'sickness' system alone."

—ROBERT J. BAZELL

APPOINTMENTS

Paul F. Sharp, president, Drake University, to president, University of Oklahoma. . . . **Gilbert C. Fite**, research professor of history, University of Oklahoma, to president, Eastern Illinois University. . . . **Arthur G. Hansen**, president, Georgia Institute of Technology, to president, Purdue University. . . . **John P. Schaefer**, dean, College of Liberal Arts, University of Arizona, to president of the university. . . . **Albert H. Bowker**, chancellor, City University of New York, to chancellor, University of California, Berkeley. . . . **Stephen J. Lukasik**, deputy director, Advanced Research Projects Agency, Department of Defense, appointed director. . . . **David G. Elsass**, professor of education, Bowling Green State University, to dean of education at the university. . . . **Frank T. H. Rhodes**, professor of geology, University of Michigan, to dean, College of Literature, Science and the Arts at the university. . . . **Henry I. Kohn**, professor of radiation biology, Harvard University, to director, Center for Human Genetics at the university. . . . **Ruth F. Weiner**, assistant professor of chemistry, Temple Buell College, to chairman, chemistry department, Florida International University. . . . **Norbert B. Enzer**, professor of psychiatry and pediatrics, Louisiana State University School of Medicine, to head, psychiatry and biobehavioral sciences department at the university. . . . At Trinity College, **Henry A. DePhillips, Jr.**, associate professor of chemistry, to chairman, chemistry department; **August E. Sapega**, acting chairman, engineering department, elevated to chairman; and **Charles R. Miller**, acting chairman, physics department, elevated to chairman. . . . **Ronald G. Evens**, assistant professor of radiology, Washington University School of Medicine, to head, radiology department at the university. . . . **William G. Van der Kloot**, chairman, physiology and biophysics department, New York University School of Medicine, to chairman, physiology and biophysics department, Health Sciences Center, State University of New York, Stony Brook. . . . **Vaughn M. Bryant, Jr.**, professor of anthropology, Washington State University, to chairman, anthropology department, Texas A & M. . . . **Edward C. McDonagh**, chairman, sociology department, University of Alabama, to chairman, sociology department, Ohio State University. . . . **Franklin P. Kilpatrick**, dean, College of Graduate Studies, University of Delaware, to dean, College of Social and Behavioral Sciences, Ohio State University. . . . **Robert L. Evans**, associate professor of medicine, University of Maryland Medical School, to first dean of the Rockford School of Medicine, University of Illinois. . . . **Michael Collins**, Assistant Secretary of State for public affairs, to director, National Air and Space Museum, Smithsonian Institution. . . . **Edward D. Coppola**, associate professor of surgery, Hahnemann College and Hospital, to chairman, surgery department, Michigan State University. . . . **Oscar Sugar**, professor of neurosurgery, University of Illinois, to head, neurosurgery department, Abraham Lincoln School of Medicine, University of Illinois, Medical Center Campus. . . . **C. Lawson Crowe**, dean, Graduate School, University of Colorado, appointed vice president for research at the university. . . . **John W. Ward**, professor of history and American studies, Amherst College, to president of the college. . . . **M. Cecil Mackey**, executive vice president, Florida State University, to president, University of South Florida.

RECENT DEATHS

Kenneth A. Baker, 64; former professor of psychology, Ohio State University; 15 April.

Nikolai P. Barabashov, 77; retired president, University of Kharkov, U.S.S.R.; 29 April.

George J. Dudycha, 67; professor emeritus of psychology, Wittenburg University; 23 April.

Connie M. Guion, 88; professor emeritus of clinical medicine, Cornell University Medical College; 29 April.

Elliot Hochstein, 62; clinical professor of medicine, Cornell University Medical College; 2 May.

Stephen P. Jewett, 87; founder, psychiatry department, New York Medical College; 26 April.

Charles L. McGuinness, 57; chief, ground water branch, U.S. Geological Survey; 25 April.

Jack Schultz, 66; professor of medical genetics, University of Pennsylvania; 29 April.

Donald D. Van Slyke, 88; senior scientist, emeritus, Brookhaven National Laboratory; 4 May.