of the results obtained with inhibitors of DNA synthesis suggest that transfer is not dependent on DNA replication, the DNA transferred under conditions of inhibition has in no case been characterized. Consequently it is not yet certain whether or not that DNA is replicated. On the other hand, the various approaches used to characterize the DNA transferred under normal conditions have in general indicated that it does replicate before entering the recipient cell. In the case of transfer by Hfr cells, there is good evidence that the replication takes place simultaneously with transfer. Since this approach appears to us to be the most direct and reliable one, we believe that the basic characteristics of the transfer process are in accord with the model proposed by Jacob and Brenner. It does, however, remain to be proved that the observed replication of donor DNA is a *necessary* condition for transfer.

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Health, Education, and Welfare

Remarks on the Department by the new Secretary.

John W. Gardner

Three months ago President Johnson asked me to head up the Department of Health, Education, and Welfare. Probably very few people have an accurate knowledge of what that department is and does.

The Department is big, but not colossal. It employs about 90,000 people, as against 600,000 for the Post Office and more than a million civilian employees for the Defense Department. As a basis for comparison, AT&T and its affiliated companies employ 750,000, General Motors 660,000.

This year we will spend roughly $10 billion from general revenues and $20 billion from the Social Security trust funds. As in any insurance plan, Social Security benefits are paid out of funds that the beneficiaries originally paid in. The total annual expenditure of about $30 billion puts us far behind the Department of Defense, which will spend around $50 billion. (Although we rank a poor second in that comparison, we like to say, "We try harder.")

The Department is made up of eight major agencies—the Public Health Service, the Office of Education, the Food and Drug Administration, Social Security, the Welfare Administration, Vocational Rehabilitation, the Administration on Aging, and a new agency for Water Pollution Control.

Let me describe the work of some of these agencies.

In 1798 the young American nation undertook to provide medical services to merchant seamen in its busy ports—and that was the start of what is now the Public Health Service. Today the Service still provides direct medical care not only to American merchant seamen, but to American Indians and Alaska natives, Peace Corps volunteers and federal prison inmates.

It also maintains surveillance against contagious disease. The Communicable Disease Center in Atlanta is a command post of modern medical science,

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staffed around the clock by experts prepared to activate the best modern defenses against outbreaks of disease anywhere in the country. (Their intelligence teams have warned us, for example, that we can expect an upsurge of Asian flu this winter. And the word has gone out that flu shots are in order for high-risk groups.)

The Service also leads national efforts to reduce chronic diseases, helps build hospitals and other health facilities, works with universities to meet national health manpower needs, and safeguards our physical environment.

But by far the largest slice of the Public Health Service budget—more than half of its $2.3 billion this year—goes to the National Institutes of Health for the support of medical research. And the National Institutes of Health pass most of that money—about 80 percent of it—on to nonfederal research agencies.

Legislation passed this year assigns significant new tasks to the Service. The Heart Disease, Cancer and Stroke legislation requires it to develop new ways to bring to all parts of the country the best equipment and methods for treatment of those diseases.

The Food and Drug Administration is closely related to the Public Health Service in its concern for the health of the American people, but it makes no grants. It gives out nothing but approvals and disapprovals.

The scope of its regulatory responsibility is truly formidable: the safety of the food we eat; the safety and efficacy of all drugs, those on the market, those being tested, and hundreds of new ones being developed; the honesty of labeling; and the safety of cosmetics. The FDA has to vouch for them all.

It does this now with a staff of 4000 and a budget of $50 million. Ten years ago it had a staff of 829 and a budget of $5.5 million. In short, its growth has been explosive.

The FDA brings the Department more headlines than does any other part of the agency, but that is because it has an intrinsically controversial and dramatic job to do.

No other agency of the federal government has more extraordinary powers of search and seizure, more extraordinary power to intervene in the affairs of private citizens, especially if those citizens are engaged in the food or drug business. Its interventions often involve questions of life or death. If it wields its powers timidly or slothfully, the toll in human life and health may be great. If it wields its powers recklessly, it may violate our tradition of due process. It must weigh benefit against risk in thousands of decisions each year.

The Office of Education is another agency experiencing explosive growth. Its budget has doubled every year for the past 3 years and is now about $3 billion.

But even with all the landmark legislation passed by the 88th and 89th congresses, the federal government is still a relatively minor partner in education. As a nation we are spending close to $40 billion for education this year, with the states and local communities carrying the major share of that load.

The Office of Education spends its money in an intricate but healthy partnership with public and private schools, with state and local governments, with individuals and institutions. For the most part its money is seed money, sprinkled all about the educational landscape wherever the need exists.

Today, these $3 billion are going into education at every level, from preschool to postdoctoral. They are going into elementary and secondary schools. They are going into programs to teach welding to elevator operators displaced by push buttons, into programs to help young M.A.'s stay at their books until their doctorates are won. They have helped to send more than 740,000 young people to college. Better than 100,000 high school graduates failed to enter college last year, not because they lacked ability but because they lacked the means. The scholarship program of the new higher education act is designed to bring that figure down.

Two of the Office's new responsibilities are especially momentous: its obligation under the Civil Rights Act to help speed racial integration, and the job of putting close to a billion dollars to work this year in the nation's poorest schools.

Social Security and Welfare

Our largest constituent agency is Social Security, and it is also our major direct service program. It has been called, with probable truth, the largest insurance agency in the world. Almost half of HEW's employees work for the Social Security Administration.

Twenty-one million people get social security benefits today—more than a tenth of the population. They are widows, children, and disabled workers, as well as older people.

I recently visited the headquarters of Social Security, where records of the earnings of 160 million people are kept with the help of electronic computers, and I learned that 272 people on the lists have the name John W. Gardner. That fact can't be of as much concern to you as it is to me. Fortunately, it doesn't worry the computers at all.

The Social Security Administration has been handed a gargantuan new job this year. It has primary responsibility for the Medicare program. Like Social Security itself, Medicare is an insurance program. People in their working years buy the health insurance that will take care of them in their later years.

The Welfare Administration was set up 3 years ago to bring under one administrative umbrella the programs of the Department that deal primarily with poor people or groups with special problems: children, juvenile delinquents, Cuban refugees, the blind, the needy aged, and so on. The rearrangement was the direct result of the 1962 public welfare legislation which said, in effect, that handing out relief checks was not enough. It set a new direction for public welfare. It called for a totally new emphasis on building the individual's capacity to support himself.

This was a major change in public social policy—the first in a generation. It meant bringing people a combination of services: health, literacy, education, work experience and job training, homemaker services, day-care centers for children, counseling on money management, and so on. It meant picking up people who were down and giving them whatever was needed to get them back on their feet as effectively functioning citizens.

We have a precedent in the Department for this kind of constructive approach. The Vocational Rehabilitation Administration has been working along this line since 1920—with shining results. Working with state agencies, it gives to seriously disabled people whatever is necessary in the way of therapy and training to put them back on the job.

This is the principle now being applied throughout the country in President Johnson's war on poverty. The

idea is to give people the means to be self-reliant—the skills, the health, the know-how—in the expectation that they will respond.

There are some, of course, who can't respond. They are too old, too young, too sick, too disabled. Among the 7 million people receiving federal-state public assistance, there are 3½ million needy children, 2 million older people—average age 76—and half a million permanently disabled adults.

Ninety-six percent of the funds of the Welfare Administration go directly to the states.

The Department's Mission

So much for description of the Department. I shall close by trying to answer a few questions that are frequently asked me.

Should the Department of Health, Education, and Welfare be broken up? The answer is no. Is it just a collection of unrelated agencies? The answer is no. Does it have a distinctive mission? The answer is yes.

Its mission is to concern itself with people, and with the conditions of life that prevent them from realizing their full potential.

Other federal agencies are also concerned with society's well-being, but their focus is different: The departments of Agriculture, Labor, and Commerce are concerned with broad occupational groups and their special problems; Interior concentrates on natural resources; the State Department on foreign affairs; the Treasury on finances; Justice on the law; and our newest cabinet agency on problems of housing and cities.

It is HEW's particular responsibility to look at national problems from the point of view of people—whether farmers or industrialists, mechanics or doctors. It is concerned with the young who need to be educated and the elderly who need to be cared for. It is concerned with the environmental hazards that surround them and the diseases that bring them down.

Whatever the problem—poverty, disease, ignorance, the breakdown of family life, the needs of the aged, juvenile delinquency—whatever it is that makes a person less than he could be is a matter of concern to HEW. And we pursue that concern in collaboration with virtually the whole range of nonfederal agencies, public and private.

The whole movement of events in recent years has been *not* toward the separation but toward the interweaving of the Department's various objectives. With the enactment of the Medicare legislation, health and social security are inextricably linked. It is impossible to conceive of a modern welfare program without a strong educational component. Programs concerned with juvenile delinquency, mental retardation, and aging cut across the old categories. An adequate attack on poverty defies bureaucratic boundary lines.

Now let me answer one final question frequently asked me. Why did I take this job? The question is asked in a hundred ways and deserves a hundred different answers. But a friend asked it recently in a way that I'd like to try to answer now. He said, "You've always spoken and written in behalf of the individual. How did you ever wander into that great bureaucratic beehive down there?"

I'd simply say that the question reflects a curious view of individuals and institutions, a curious view of how the individual is to be served and saved. Ours is a big and complex society, and its needs—including the needs of individuals—are going to be served by big and complex institutions, whether government agencies or corporations or universities.

The native canniness of the individual is not equal to the task of judging the safety and efficacy of a new drug. In a day when many people live 30 years past retirement, the frugality of the individual may not be equal to the requirements of self-support in old age. In the modern world the individual must be served by institutions. And they had better be institutions designed to preserve his dignity and autonomy. I like to think that the Department of Health, Education, and Welfare is well fitted to strive toward that goal.

President Johnson's phrase, the Great Society, is a way of describing our aspirations. The institutions of the Great Society have to be equal to that vision. I can't think of anything I'd rather be doing than helping to make them so.