The original documents are located in Box 57, folder "1976/03/22 - President" of the James M. Cannon Files at the Gerald R. Ford Presidential Library.

MEETING W/PRESIDENT
ON SWINE FEVER

11 a.m. Monday (30 min.)
March 22, 1976

Oval Office

1] What medical evidence convinces you this is necessary

2) How do we know vaccine works?

Will it cause problem

3) a) Dept - New implications - (+ if do / −)
b) if not managed well - ?

4) Will drug co perfect? / Can we wait until then?

5) Doctors?

A. Swine not problem but not an emergency.

B. Begin Public Education

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

SWINE INFLUENZA PROGRAM MEETING
Monday, March 22, 1976
11:00 to 11:30 a.m. (30 minutes)
Cabinet Room

From: James T. Lynn

I. PURPOSE

To discuss a possible Federal initiative to immunize all Americans against swine influenza.

II. BACKGROUND PARTICIPANTS AND PRESS PLAN

A. Background: HEW is concerned about a possible "outbreak" of swine influenza during the winter of 1976-1977 and recommends a $134 million Federal program to immunize every American. If this is to be done, drug companies must be given the go-ahead to produce the necessary vaccine within the next two weeks. The decision to give the go-ahead to vaccine manufacturers and to seek a 1976 budget supplemental is complicated by both uncertainties and its precedential implications.

-- Attachment A outlines some of the uncertainties within which this decision must be made.

-- Attachment B is an HEW memorandum on the subject.

B. Participants: Secretary Mathews; HEW Assistant Secretary Ted Cooper and his deputy, Jim Dickson; Richard Cheney, James Lynn, James Cannon and Paul O'Neill.

C. Press Plan: None

III. TALKING POINTS

A. Mr. Secretary, would you please start off by explaining:

1. What swine influenza is and how it can be distinguished from other types of flu in terms of its severity?

2. What is the probability of an occurrence of an epidemic in the winter of 1976-1977, given the 10-year cycle of epidemics, the last of which occurred in the 1968/1969 winter?

3. Why do we believe that the very same swine influenza virus that was recently identified in New Jersey will cause a nationwide epidemic this coming winter as opposed to say, a mutant form of this virus or another virus?

Attachment A

Uncertainties Surrounding a Federal Mass Swine Influenza Immunization Program

-- Scientifice Evidence on Likelihood and Success of Immunization: Person-to-person transmission of the swine virus has been proven in only one location, Fort Dix in New Jersey. Further scientific evidence on the probability of an occurrence of swine flu virus next year may or may not become available before the current flu season is over. HEW epidemiologists have stated that the probability is "unknown."

The swine virus is a different strain entirely from the flus of the past few years. The swine flu vaccine will have no effect whatever on preventing these more conventional flus. Moreover, there remains a possibility that mutated swine virus may occur -- against which the vaccine to be developed would not be effective.

-- Seriousness of Swine Influenza: The number of Americans that would be seriously ill or killed if an epidemic did occur may not be analogous to the 1919 experience of 500,000 deaths because of the absence in 1919 of antibiotics. We cannot be certain that there have been no person-to-person transmission of swine influenza since 1930.

-- Implications of a Federal Initiative: Will it be necessary to mount another massive Federal effort in each succeeding year (1) if the swine influenza epidemic does not occur in the winter of 1976/1977 or (2) in order to protect every American against mutating versions of swine virus?

-- Press Attention: The national press is already aware of a possible swine influenza occurence through weekly HEW press conferences on the flu morbidity.

-- Views of the Scientific Community: HEW is now in the process of trying to obtain consensus from all important members of the virology scientific community on the advisability of a nationwide immunization drive against the swine flu virus. Nevertheless, what is the contrary virology argument against the massive immunizations?

MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF THE ASSISTANT SECRETARY FOR HEALTH

TO : The Secretary
Through: ES_____ _____

DATE:

FROM : Assistant Secretary for Health

SUBJECT: Swine Influenza--ACTION

ISSUE

How should the Federal Government respond to the influenza problem caused by a new virus?

FACTS

1. In February 1976 a new strain of influenza virus, designated as influenza A/New Jersey/76 (HswlN1), was isolated from an outbreak of disease among recruits in training at Fort Dix, New Jersey.

2. The virus is antigenically related to the influenza virus which has been implicated as the cause of the 1918-1919 pandemic which killed 450,000 people--more than 400 of every 100,000 Americans.

3. The entire U.S. population under the age of 50 is probably susceptible to this new strain.

4. Prior to 1930, this strain was the predominate cause of human influenza in the U.S. Since 1930, the virus has been limited to transmission among swine with only occasional transmission from swine to man--with no secondary person-to-person transmission.

5. In an average year, influenza causes about 17,000 deaths (9 per 100,000 population) and costs the nation approximately $500 million.

6. Severe epidemics, or pandemics, of influenza occur at approximately 10 year intervals. In 1968-69, influenza struck 20 percent of our population, causing more than 33,000 deaths (14 per 100,000) and cost an estimated $3.2 billion.

7. A vaccine to protect against swine influenza can be developed before the next flu season; however, the production of large quantities would require extraordinary efforts by drug manufacturers.

ASSUMPTIONS

1. Although there has been only one outbreak of A/swine influenza, person-to-person spread has been proven and additional outbreaks cannot be ruled out. Present evidence and past experience indicate a strong possibility that this country will experience widespread A/swine influenza in 1976-77. Swine flu represents a major antigenic shift from recent viruses and the population under 50 is almost universally susceptible. These are the ingredients for a pandemic.

2. Routine public health influenza recommendations (immunization of the population at high risk--elderly and chronically ill persons) would not forestall a flu pandemic. Routine actions would have to be supplemented.

3. The situation is one of "go or no go". If extraordinary measures are to be undertaken there is barely enough time to assure adequate vaccine production and to mobilize the nation's health care delivery system. Any extensive immunization program would have to be in full scale operation by the beginning of September and should not last beyond the end of November 1976. A decision must be made now.

4. There is no medical epidemiologic basis for excluding any part of the population--swine flu vaccine will be recommended for the total population except in individual cases. Similarly there is no public health or epidemiologic rationale for narrowing down the targeted population. Further, it is assumed that it would be socially and politically unacceptable to plan for less than 100 percent coverage. Therefore, it is assumed that any recommendations for action must be directed toward the goal of immunizing 213 million people in three months (September through November 1976). The nation has never attempted an immunization program of such scope and intensity.

5. A public health undertaking of this magnitude cannot succeed without Federal leadership, sponsorship, and some level of financial support.

6. The vaccine when purchased in large quantities will cost around 50 cents per dose. Nationally, the vaccine will cost in excess of $100 million. To this total must be added delivery costs, as well as costs related to surveillance and monitoring. Part, but not all, of the costs can be considered sunk costs, or as non-additive. Regardless of what strategy is adopted, it will be extremely difficult to estimate the amount of additional costs that will result from a crash influenza immunization program.

7. The Advisory Committee on Immunization Practices will recommend formally and publicly, the immunization of the total U.S. population against A/swine influenza.

8. Any recommended course of action, other than no action, must assure:

--that a supply of vaccine is produced which is adequate to immunize the whole population.

--that adequate supplies of vaccine are available as needed at health care delivery points.

--that the American people are made aware of the need for immunization against this flu virus.

--that the population systematically reach or be reached by the health system.

--that the Public Health Service maintain epidemiologic, laboratory, and immunization surveillance of the population for complications of vaccination, for influenza morbidity and mortality, and for vaccine effectiveness and efficacy.

--that the unique research opportunities be maximized.

--that evaluation of the effectiveness of the efforts is conducted.

ALTERNATIVE COURSES OF ACTION

1. No Action

An argument can be made for taking no extraordinary action beyond what would normally be recommended. To date there has been only one outbreak. The swine flu virus has been around, but has not caused a problem among humans since 1930.

Pro:

--The market place would prevail--private industry (drug manufacturers) would produce in accordance with its estimate of demand and the consumers would make their own decisions. Similarly, States would respond in accordance with their own sets of priorities.

--The "pandemic" might not occur and the Department would have avoided unnecessary health expenditures.

--Any real action would require direct Federal intervention which is contrary to current administration philosophy.

Con:

--Congress, the media, and the American people will expect some action.

--The Administration can tolerate unnecessary health expenditures better than unnecessary death and illness, particularly if a flu pandemic should occur.

--In all likelihood, Congress will act on its own initiative.

2. Minimum Response

Under this option there would be a limited Federal role with primary reliance on delivery systems now in place and on spontaneous, non-governmental action.

a. The Federal Government would advise the drug industry to develop and produce A/swine vaccine sufficient to immunize the general population. The Federal Government would underwrite this effort by promising to purchase vaccine for the 58 million Federal beneficiaries.

b. A nationwide public awareness program would be undertaken to serve as general backdrop for local programs.

c. The Public Health Service would stimulate community programs sponsored by local organizations (medical societies, associations, industries, etc.)

d. The Center for Disease Control would maintain epidemiologic and laboratory surveillance of the population.

e. The National Institutes of Health would conduct studies and investigations, particularly on new and improved vaccines.

Pro:

--The approach is characterized by high visability, minimum Federal intervention, and diffused liability and responsibility. It is a partnership with the private sector that relies on Federal stimulation of nongovernmental action.

--The burden on the Federal budget would be minimal. Assuming purchase of vaccines for 58 million beneficiaries, plus additional costs related to c., d., and e., above the total new obligational authority requirement would not exceed $40 million ($32 million for vaccine; plus 8 million for surveillance, monitoring, evaluation, and research).

--Success would depend upon widespread voluntary action--in terms of individual choice to seek immunization and in terms of voluntary community programs not unlike the polio programs of the past.

Con:

--There is little assurance that vaccine manufacturers will undertake the massive production effort that would be required to assure availability of vaccine for the entire nation.

--There would be no control over the distribution of vaccines to the extent that they are available; the poor, the near poor, and the aging usually get left out. Even under routine flu recommendations in which the elderly are a primary target, only about half the high risk population gets immunized against flu.

--Probably only about half the population would get immunized.

3. Government Program

This alternative is based on virtually total government responsibility for the nationwide immunization program.

a. The Federal Government would advise vaccine manufacturers to embark on full scale production of vaccine with the expectation of Federal purchase of up to 200 million doses.

b. The Public Health Service, through the CDC would purchase the vaccines for distribution to State Health Departments.

c. In each State the health department would organize and carry out an immunization program designed to reach 100 percent of the State's population. Vaccine would be available only through programs carried out under the aegis of the State health department (or the Federal Government for direct Federal beneficiaries).

d. Primary reliance would be placed on systematic, planned delivery of vaccine in such a way as to make maximum use of intensive, high volume immunization techniques and procedures--particularly the use of jet-injector guns.

e. In addition to a general nationwide awareness program, intensive promotion and outreach activities would be carried out at the local level. Maximum use would be made of temporary employment of unemployed workers, high school and college students, housewives, and retired people as outreach workers and for jobs requiring no special health skills.

f. The Center for Disease Control would maintain epidemiologic and laboratory surveillance of the population.

g. The National Institutes of Health would conduct studies and investigations, particularly on new and improved vaccines.

h. The program would be evaluated to assess the effectiveness of the effort in reducing influenza associated morbidity, hospitalization, and mortality in a pandemic period.

Pro:

—Under this alternative adequate availability of vaccine would be closest to certainty, and the vaccine would be distributed throughout the nation most equitably.

—There would be greater certainty of participation of all States as well as a predictably more uniform level of intensity across the nation.

—Accessibility to immunization services would not depend upon economic status.

—This approach would provide the framework for better planning - for example, the use of travelling immunization teams which could take the vaccine to the people; and greater use of the jet injector, and other mass immunization techniques.

—The Federal and State governments traditionally have been responsible for the control of communicable diseases; therefore, the strategy relies upon government action in an area of public health where the States are strong and where basic operating mechanisms exist.

Con:

—This alternative would be very costly and given the timing, the magnitude of the problem, and the status of State fiscal health, the costs would have to be borne by the Federal Government. The impact on the Federal budget would be an increase of $190 million in new obligational authority.

—The approach is inefficient to the extent that it fails to take advantage of the private sector health delivery system, placing too much reliance on public clinics and government action.

--While this approach would undoubtedly result in a higher percentage of the population being immunized than would be the case with the Minimum Response strategy (alternative 2), it is unlikely that the public sector could achieve uniform high levels of protection. Although socioeconomic barriers to immunization services would be virtually eliminated, breakdowns would occur because the program is beyond the scope of official agencies.

--A totally "public" program is contrary to the spirit and custom of health care delivery in this country and should only be considered if it is clearly the most effective approach.

4. Combined Approach

A program based on this strategy would take advantage of the strengths and resources of both the public and private sectors. Successful immunization of our population in three months' time can be accomplished only in this manner in this country. In essence, the plan would rely on: the Federal Government for its technical leadership and coordination, and its purchase power; State health agencies for their experience in conducting immunization programs and as logical distribution centers for vaccine; and on the private sector for its medical and other resources which must be mobilized.

a. The Federal Government would advise vaccine manufacturers to embark on full scale production of enough vaccine to immunize the American people. The Public Health Service would contract for 200 million doses of vaccine which would be made available at no cost through State health agencies.

b. State health agencies would develop plans to immunize the people in their States through a combination of official and voluntary action - travelling immunization teams, community programs, private physician practices, as examples.

c. The strategy would be to tailor the approach to the situation or opportunity--using mass immunization techniques where appropriate, but also using delivery points already in place such as: physicians' offices, health department clinics, community health centers--any place with the competence to perform immunization services.

d. Awareness campaigns would be carried out at the local level against a broader, generalized nationwide effort. Use would be made of unemployed workers, students, etc., for certain jobs.

e. The Center for Disease Control would maintain epidemiologic and laboratory surveillance of the population.

f. The National Institutes of Health would conduct studies and investigations of vaccine effectiveness and efficacy.

g. The program would be evaluated to assess the effectiveness of the effort in reducing influenza associated morbidity, hospitalization, and mortality in a pandemic period.

Pro:

--Under this alternative adequate availability of vaccine would be closest to certainty, and the vaccine would be distributed throughout the nation most equitably.

--There would be greater certainty of participation of all States as well as a predictably more uniform level of intensity across the nation.

--Accessibility to immunization services would not depend upon socioeconomic factors.

--Making use of all delivery points better assures that the vaccine will get to more people.

--The approach provides the framework for planning and expands the scope of resources which can be applied.

--Undertaking the program in this manner provides a practical, contemporary example of government, industry, and private citizens cooperating to serve a common cause--an ideal way to celebrate the nation's 200th birthday.

Con:

--This strategy would require substantial Federal expenditures. A supplemental request of approximately $134 million would be needed.

--Under this alternative there is the greatest possibility of some people being needlessly reimmunized.

DISCUSSION

Any of the courses of action would raise budgetary and authorization questions and these will be discussed later. More important is the question of what the Federal Government is willing to invest if some action is deemed necessary to avert a possible influenza pandemic. We have not undertaken a health program of this scope and intensity before in our history. There are no precedents, nor mechanisms in place that are suited

to an endeavor of this magnitude. Given this situation, can we afford the administrative and programmatic inflexibility that would result from normal considerations about duplicative costs, third party reimbursements, and Federal-State or public-private relationships and responsibilities? The magnitude of the challenge suggests that the Department must either be willing to take extraordinary steps or be willing to accept an approach to the problem that cannot succeed.

It is recommended that the Department, through the Public Health Service and the Center for Disease Control, undertake an influenza immunization campaign as outlined in alternative 4, Combined Approach. This alternative best satisfies all of the minimum program requirements outlined earlier and more importantly, it is the most likely to succeed--more people would be protected.

The question of legislative authorization is not entirely clear. It would appear that Section 311 a. of the Public Health Service Act contains adequate authority to implement the recommended program. If 311 a. cannot be used, then it will be necessary to seek "point of order" authority in the supplemental appropriation act. It is anticipated that Congress would be receptive to "point of order" language in this instance.

It will be necessary to seek a supplemental appropriation so that all parties can begin to mobilize for the big push in the fall. It will also be necessary for the funds to be available until expended because the program, although time-limited, falls into fiscal year 1976, the transition quarter, and fiscal year 1977. In general terms the request would be for approximately $134 million made up as follows:

Immunization Programs (vaccines, supplies, temporary personnel, awareness)	$126 million
Surveillance and Research	8 million

RECOMMENDATION

It is recommended that the Secretary adopt alternative 4 as the Department's strategy and that the Public Health Service be given responsibility for the program and be directed to begin immediate implementation.

Theodore Cooper, M.D.

CONCURRENCES

C, Young: Concur_____ Nonconcur_____ Date_____
See tab_____

Prepared by: CDC, SENCER, 3/13/76, (404) 633-3311, x3291

THE WHITE HOUSE

WASHINGTON

March 22, 1976

MEMORANDUM FOR: JIM CANNON

FROM: SARAH MASSENGALE

SUBJECT: Administration position on health manpower

Federal programs providing assistance for the training of physicians and most other health professionals have been without authorizing legislation since 6/30/74, and are currently operating under continuing resolution funds.

In March 1975, the Administration proposed legislation (S.996) to shift the emphasis of Federal assistance to aiding students rather than institutions, and to address the problem of physician distribution through use of flexible special project authorities.

On 9/6/75 the capitation and certain other provisions of the Administration's proposal were modified in testimony. As modified, the Administration proposal (draft bill submitted to Congress on 11/21/75 and introduced as S. 2748 on 12/5/75) would:

-- continue Federal capitation support only for those medical, osteopathic, and dental (MOD) schools agreeing to address certain national priorities i.e., maldistribution of physicians, supply of primary health care skills. Phaseout within 3 years of capitation for all other schools (i.e., veterinary medicine, optometry, pharmacy (VOP) would continue to be proposed. Capitation support would be reduced to $1500 annually.)

-- consolidate existing health scholarship programs (public health, NHSC, physician shortage area scholarships) into a single program. Students receiving scholarships would be required to agree to a 2-year service commitment or to pay back the scholarship amount in lieu of service.

The Administration proposal would still:

-- provide a single authorization for special project grants to replace multiple categorical authorities, and

-- establish a new program of National Priority Incentive Awards to assist the schools to encourage residents to enter the field of primary health care.

The Administration's proposal would authorize $307 million annually for FY 1976 and FY 1977.

STATUS: HEW testified on 2/20/75 before the House Health Subcte, and on 9/16/75 before the Senate Health Subcte in favor of modified Administration proposal.

7/11	House passed H.R. 5546, amended (296-59).
7/31 to 11/24	Senate Health Subcte held hearings on various days on S. 989, S. 990, S. 991, S. 996, H.R. 5546, and the Administration proposal.
2/22/76	Senate Health Subcte scheduled to begin mark up of a health manpower bill.

PROVISIONS: S. 989 (Kennedy proposal), S. 991 (Roy proposal) and S. 992 (American Association of Medical College bill) were introduced by Senator Kennedy early in 1975. All three bills are resubmissions of 93rd Congress proposals.

The Kennedy and AAMC bills would extend and markedly increase capitation grants to all health professions schools ($3250 per medical student v. $1500 currently). The Kennedy bill, unlike the AAMC bill, would require schools to give assurances that all their students will serve for 2 years in medically underserved or shortage areas. The Roy bill would provide Federal support directly to students instead of directly to schools by eliminating capitation altogether and replacing it with a substantially expanded National Health Service Corps (NHSC) Scholarship program.

All three bills authorize special project categorical grants, but emphasize different areas of support through such grants. All also extend the appropriation authorizations for the NHSC and the NHSC Scholarship programs at levels substantially higher than those proposed by the Administration.

H.R. 5546 as passed by the House would continue capitation awards ($2100 per student) as the principal vehicle of Federal assistance to health professions schools, but would require service commitments from students or, alternatively, the payback of capitation support.

H.R. 5546 also would authorize special projects as separate categorical programs, would provide student assistance through loans, public health traineeships and National Health Service Corps Scholarships, and would extend and expand the NHSC.

ADMINISTRATION POSITION AND OBJECTIONS: S. 989, 991, 992 and H.R. 5546 are objectionable because (1) they continue inequitable forms of Federal subsidy for non-critical health professions schools (e.g. veterinary medicine, optometry, pharmacy) (2) they propose to continue various categorical grant programs, and (3) the funding levels are excessive. While H.R. 5546 is closer to the Administration proposal in its approach than the Senate bills, it contains, nevertheless, several objectionable provisions, i.e., extension of construction authority capitation for all health professions schools, various reports to Congress, and specific categories of project grants and contracts.

tion, responsibility for the health care of Coast Guard personnel will be transferred to the Department of Transportation, and the Department of Justice will begin a gradual assumption of responsibility for providing health care to Federal prisoners.

Legislation is being proposed to transfer St. Elizabeths Hospital from the Federal Government to the District of Columbia in a few years. The legislation will authorize funds in 1977 for renovation and new construction at the hospital in order to obtain accreditation before the transfer occurs. The Federal Government will continue for several years to subsidize the operating costs of the hospital and will reimburse the District fully for the treatment of Federal beneficiaries. Over 85% of the inpatient population at the hospital is composed of District residents, and virtually all of its outpatient activity is devoted to District residents.

Outlays for the National Health Service Corps (NHSC) will total $17 million. The NHSC program demonstrates ways in which physicians and other health professionals can be attracted and retained in critical health manpower shortage areas. The number of NHSC health professionals will increase from 551 in 1976 to 676 in 1977.

Health research and education.—Programs for health research and education include support for research, as well as training and education of health care personnel.

Health research.—Outlays for research will be $2.2 billion in 1977. Current levels of effort will be maintained in major research areas such as cancer and heart disease. Support for emerging research fields—such as immunology, aging, and the effects of the environment upon health—will grow.

Health education and training.—In 1977, total outlays for training health professionals will be $594 million. This decline from 1975 and 1976 levels reflects the reduced need for Federal subsidies for such training. Major increases in the number of graduates of U.S. health professions schools to meet future needs are already assured. For example, between 1969 and 1976, medical school enrollments have grown from 35,833 to an estimated 56,200, and the annual number of graduates has increased from 8,059 to an estimated 13,500—increases of 57% and 68% respectively.

Proposed legislation for health professions training will provide grants to schools of $1,500 per medical, dental, and osteopathy

student in return for the schools' commitment to meet conditions designed to improve geographic and specialty distribution of health personnel. Future direct Federal assistance to new students will be limited to scholarships that require a public service commitment. Health professions schools may retain repayments of previous Federal contributions to student loan funds in order to form a pool of funds for loans to students not wishing to make service commitments. The legislation also provides support for special training projects in areas of concern such as family medicine. Existing law requires an evaluation of the need for additional Federal subsidies for training researchers. Pending this analysis, new funds for training researchers will be limited to individual postdoctoral fellowship awards.

Prevention and control of health problems.—Outlays for prevention and control of health problems will be $936 million in 1977.

Outlays of $497 million are being requested for consumer safety. Priority will be placed on the safety of drugs, medical devices, foods, and consumer products.

Outlays of $180 million are proposed for preventive health services, the control of communicable diseases, and the improvement of clinical laboratories. Grant programs for control of disease, such as venereal disease and rat control, will be consolidated under the new Financial Assistance for Health Care Act.

Federal support for occupational safety and health programs will increase $13 million to a total of $259 million in 1977. The Department of Labor will increase emphasis on health hazards without diminishing attention to safety. It will provide a better balance of regulation and enforcement with consultation, education, and voluntary compliance. Emphasis on helping employers provide a safe workplace and on improving the quality of inspections will also be increased.

Health planning and construction.—Grants for health planning and medical facilities construction are among those to be included in the new Financial Assistance for Health Care Act. This will encourage States to evaluate these activities against competing priorities for health spending and to link them to the objective of providing health services for the low-income population.

Special Analysis K, "Federal Health Programs," in the Special Analyses volume of the budget discusses all Federal activities related to health, including those outside this function such as health programs for military personnel and veterans.

Federal outlays for health research have risen over the past decade, from $1,369 million in 1967 to $3,074 million in 1977. The Federal Government currently funds almost 60% of all biomedical research in this country.

The National Institutes of Health (NIH), within the Department of Health, Education, and Welfare, is the largest Federal biomedical research agency, and will administer 64% of the total Federal health research funds in 1977. NIH conducts an extensive research program in its own laboratories and clinical facilities, in addition to its research grant and contract activities. The Department of Health, Education, and Welfare also conducts and sponsors substance abuse and health services research to improve the organization, delivery, quality, and financing of health care.

Table K–12. FEDERAL OUTLAYS FOR HEALTH RESEARCH AND RESEARCH FACILITIES

(In millions of dollars)

	Outlays			
	1975 actual	1976 estimate	TQ estimate	1977 estimate
Cancer	499	572	128	666
Cardiovascular	266	286	62	311
Mental health	110	127	26	113
Neurological and visual	155	174	50	188
Population and family planning	58	73	18	65
Environmental health	300	408	122	528
Aging	53	49	13	63
Metabolic diseases	137	197	32	188
Child health	72	105	25	96
Infectious diseases	130	153	57	160
Pulmonary	48	53	12	56
Dental	42	46	10	57
Health services research and development	79	65	32	51
Other research and development	507	519	123	507
Research facilities	80	36	5	26
Total	2,539	2,862	716	3,074

Other Federal agencies support and conduct health research in support of their program missions. The three largest are the Energy Research and Development Administration, the Department of Defense, and the Veterans Administration. Together, these agencies account for 15% of all Federal biomedical research expenditures.

Training and education.—Over 40% of the revenues of the Nation's medical schools are derived from Federal grants or contracts. Table K–13 shows the Federal funds provided to medical schools from selected agencies. These outlays do not include payments for medical services from medicare and medicaid.

Table K–13. FEDERAL FUNDS TO MEDICAL SCHOOLS

(In millions of dollars)

Agency	Outlays			
	1975 actual	1976 estimate	TQ estimate	1977 estimate
Department of Health, Education, and Welfare	1,191	1,213	216	1,242
Research and development	(808)	(884)	(125)	(909)
Education and training	(283)	(263)	(73)	(234)
Construction	(100)	(66)	(18)	(99)
Department of Defense	13	23	9	58
Education and training	(11)	(16)	(8)	(19)
Veterans Administration:				
Education and training	4	37	8	35
National Aeronautics and Space Administration:				
Research and development	4	4	1	4
Energy Research and Development Administration:				
Research and development	13	14	3	16
Other agencies:				
Research and development	10	12	2	11
Total	1,235	1,304	239	1,365
Research and development	(837)	(915)	(131)	(941)
Education and training	(298)	(316)	(89)	(288)
Construction	(100)	(72)	(18)	(137)

The Federal Government will spend a total of $1,217 million in 1977 for health training and education, as shown in table K–14. The principal programs of direct support for health professions schools, which are administered by HEW, include:

- institutional operating cost support grants tied to conditions designed to improve geographic and specialty distribution of health professionals;
- special projects to demonstrate educational reforms and innovations in such areas as improving access to health professions education for the disadvantaged, developing new types of health workers, stimulating the practice of family medicine, and integrating medical education with health care delivery in medical scarcity areas.

Table K–14. FEDERALLY AIDED HEALTH TRAINING AND EDUCATION

(In millions of dollars)

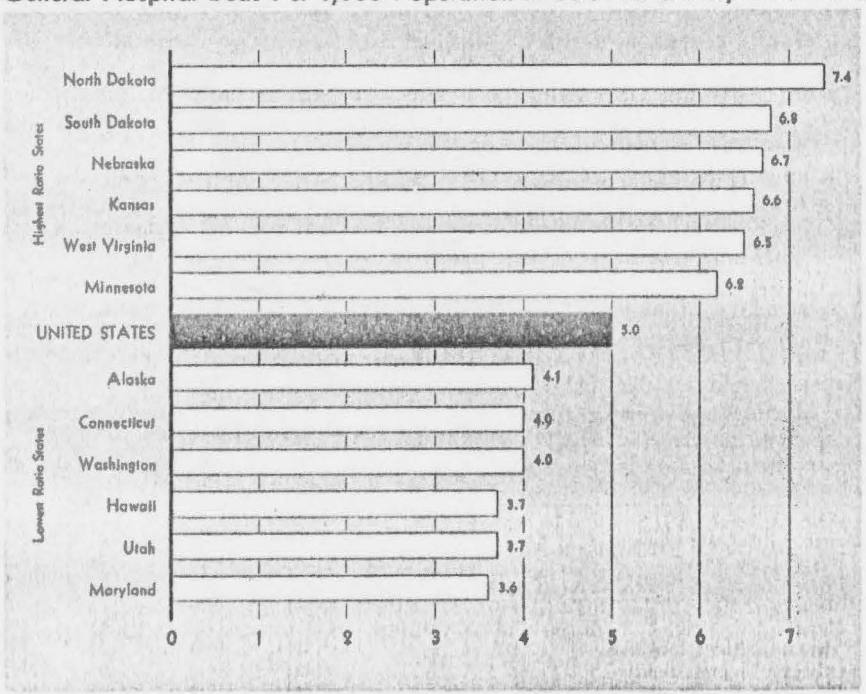
	Outlays			
	1975 actual	1976 estimate	TQ estimate	1977 estimate
Degree or certificate training	1,186	1,278	272	1,035
Research personnel	(114)	(112)	(14)	(90)
Physicians	(491)	(560)	(127)	(485)
Dentists	(86)	(96)	(25)	(74)
Nurses	(155)	(144)	(38)	(104)
Mental health professionals	(51)	(44)	(7)	(24)
Other health professionals	(145)	(161)	(26)	(114)
Paramedical personnel	(144)	(161)	(35)	(144)

A program of national health service scholarships—funded at a level of $35 million in 1977—will support approximately 4,600 medical, osteopathic, and dental students in return for periods of service to meet public needs. This program helps to meet student financial needs, as well as Federal requirements for health professionals to staff programs such as the Indian Health Service. It also addresses the problem of geographic maldistribution of health personnel by placing physicians and dentists as private practitioners in provider scarcity areas or through such Federal programs as the National Health Service Corps.

The National Health Service Corps seeks to demonstrate the ability of health care provider shortage areas to support health personnel. The program will locate 676 health professionals in underserved areas in 1977.

Construction of health care facilities.—The Nation is well supplied in the aggregate with medical facilities. Chart K–15 suggests that the less populous States are relatively well endowed with hospital beds in contrast to the distribution of health professionals. This geographic distribution of hospital beds reflects in part the impact of over 30 years of Federal hospital construction assistance through the Hill-Burton program. Under its statutory formula, which favored the less populous and poorer areas, the Hill-Burton program allocated more than $4.4 billion in grants to the States.

General Hospital Beds Per 1,000 Population in Selected States, 1974 K-15



The basic goal of the Hill-Burton program—to improve the supply of health facilities in shortage areas—has been largely accomplished. Hill-Burton program expenditures have declined from 13% of the total $1.5 billion national medical facility construction expenditures in 1963 to 2.4% of the total estimated $4.6 billion construction expenditures in 1975. The vast majority of medical facility construction is now financed through long-term debt service of loans from the private capital markets.

Depreciation costs and debt servicing are legitimate expenses included in reimbursements from health insurance. In the 6 years from 1969 to 1975, for instance, the percentage of private nonprofit hospital construction being financed by debt service increased from 40% to 60%. This trend offsets reductions in the share of construction costs borne by government, philanthropy, and the hospitals themselves through depreciation funds.

Federal programs for the construction of health care facilities include the support of both community facilities to serve the general public, and facilities operated by Federal agencies for special beneficiary groups. In 1977, Federal outlays for the construction of health care facilities, including environmental health facilities, are estimated at $1,300 million.

Table K–16. HOSPITAL AND HEALTH FACILITY CONSTRUCTION

(In millions of dollars)

	Outlays			
	1975 actual	1976 estimate	TQ estimate	1977 estimate
Federally supported construction:				
Hospitals, new	55	60	12	21
Hospitals, modernized and replaced	91	109	11	85
Long-term care facilities	23	21	7	15
Research facilities	80	36	5	26
Environmental health facilities	159	159	50	244
Ambulatory care facilities	53	52	13	34
Health professions educational facilities	174	129	5	111
Other facilities	34	49	11	47
Total, federally supported	669	615	115	582
Federal hospitals and health facilities:				
Hospitals, new	51	95	3	34
Hospitals, modernized and replaced	159	267	80	529
Long-term care facilities	8	8	2	11
Research facilities	15	29	8	37
Environmental health facilities	39	46	11	36
Ambulatory care facilities	6	5	17	22
Other facilities	3	16	2	57
Total, Federal	281	467	125	727
Total, construction	949	1,082	240	1,309