aamc association of american medical colleges

AGENDA
FOR
COUNCIL OF DEANS

ADMINISTRATIVE BOARD
THURSDAY, JUNE 26, 1980
9 a.m. — 12:30 p.m.
INDEPENDENCE ROOM
WASHINGTON HILTON HOTEL
WASHINGTON, D.C.

Suite 200/One Dupont Circle, N.W./Washington, D.C. 20036/(202) 828-0400

FUTURE MEETING DATES

COD ADMINISTRATIVE BOARD
Executive Council ..... September 24-25, 1980

AAMC ANNUAL MEETING
Washington Hilton Hotel
Washington, D.C. ..... October 25-30, 1980

COUNCIL OF DEANS
ADMINISTRATIVE BOARD
June 26, 1980
9:00 a.m. - 12:30 p.m.
Independence Room
Washington Hilton Hotel

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ASSOCIATION OF AMERICAN MEDICAL COLLEGES

ADMINISTRATIVE BOARD OF THE COUNCIL OF DEANS

Minutes

Thursday, March 20, 1980
9:00 a.m. - 12:30 p.m.
Independence Room
Washington Hilton Hotel
Washington, D.C.

PRESENT

(Board members)

Steven C. Beering, M.D.
Stuart Bondurant, M.D.
John E. Chapman, M.D.
Neal L. Gault, Jr., M.D.
William H. Luginbuhl, M.D.
Allen W. Mathies, Jr., M.D.
Richard H. Moy, M.D.
Leonard M. Napolitano, Ph.D.

(Guests)

Anna Cherrie Epps, Ph.D.
Harriet Wheeler Faulkner
Julius R. Krevans, M.D.
Dan Miller
Edward J. Stemmler, M.D.

(Staff)

Janet Bickel
Robert Boerner
Judith Braslow
John A. D. Cooper, M.D.
Charles Fentress
Betty Greenhalgh
Paul Jolly, Ph.D.
Thomas J. Kennedy, Jr., M.D.
Joseph A. Keyes
Mary McGrane
Dario Prieto
James R. Schofield, M.D.
John F. Sherman, Ph.D.
Kathleen Turner
Marjorie P. Wilson, M.D.

I. Call to Order

The meeting was called to order at 9:05 a.m. Dr. Bondurant informed Board members that the Executive Council would meet prior to lunch in the Jefferson West Room for a discussion of health manpower legislation. This meeting was for the purpose of providing guidance to Dr. Stemmler's scheduled testimony on that subject later in the day.

II. Report of the Chairman

Dr. Bondurant gave a brief synopsis of several items. The Executive Committee had that morning approved a tentative budget for the AAMC for the coming year. The budget projected a 3.7% overall increase in expenditures as compared with the current year.

A joint meeting of the Executive Committees of the AAMC and the AAHC had been scheduled for April 18. Agenda items included a discussion of current activities of each organization identifying areas of mutual interest, consideration of possible joint activities such as a project on the shortage of nurses, the development of a more effective liaison between the two organizations, and student financial aid.

Dr. Bondurant then related his experience in meeting with the Society of Medical College Directors of Continuing Medical Education. Members of that group which consists of medical school associate deans conveyed to Dr. Bondurant their feeling that they had been inadequately integrated to the AAMC and that the deans were not sufficiently sensitive to their needs. It was pointed out that Continuing Medical Education is a section of the AAMC Group on Medical Education. This was the mechanism selected by the AAMC Executive Council several years ago to integrate CME into the AAMC. It was the consensus of the Board that the best approach to this problem would be to remain aware of its sensitivity and to consider possible solutions. On a tentative basis it was agreed that the COD might conduct a future spring meeting centered around the CME or jointly sponsor a session at the Annual Meeting with this group.

Dr. Bondurant had suggested to the Executive Committee that U.S. interests and medical education might both be enhanced by utilizing the capability of our medical education system to educate foreign students, preparing them to return to their native homeland to practice as physicians. The GSA group had responded negatively, basing its reservations on purely pragmatic grounds. This attitude did not dissuade the Executive Committee. Drs. Cooper and Sherman volunteered to discuss this with officials of various legislative and executive levels of government to see if there might be interest in pursuing such a plan.

Nathan Stark, Deputy Secretary, Department of Health and Human Services, was the invited guest of the Executive Committee meeting for dinner that evening. Because Dr. Bondurant was unable to attend, Dr. Beering would be representing the COD Board.

A final item was referred to the COD Board by the Executive Committee: what to do about AMA communications which imply that the House of Delegates is establishing medical policy for all of America. The Board decided after some discussion a response statement from the COD should be drafted by staff for consideration at the next Board meeting. *

III. Approval of Minutes

The minutes of the January 24, 1980, meeting of the Administrative Board were approved as submitted. At this time, the agenda was modified to accommodate guests who were to present reports to the Board.

* Appended to minutes

IV. Action Items

A. Proposed Plan for the Implementation of the Goals and Recommendations of the Report of the AAMC Task Force on Minority Student Opportunities in Medicine

Dr. Anna Epps, National Chairperson of the Group on Student Affairs Minority Affairs Section Coordinating Committee (GSA-MAS), presented this plan to the Board. The GSA-MAS developed the plan to implement the recommendations of the 1978 Task Force on Minority Student Opportunities in Medicine. The implementation plan is divided into four categories. Prematriculation, Matriculation, Graduate Medical Education, and Faculty Development. Specific goals for each category include: Prematriculation: to increase the pool of qualified racial minority applicants through skills development and counseling; Matriculation: to emphasize the importance of financial assistance for racial minority group students pursuing careers in medicine and to strengthen programs which support the normal progress and graduation of those students; Graduate Medical Education: to increase minorities in clerkships and on housestaffs; Faculty Development: increase the number of racial minority persons among basic science and clinical faculty as they play a large role in the recruitment of minority students.

Discussion by the Board centered on the prematriculation area. Members thought that the suggestions given for implementing those goals were not sufficiently inclusive. Dr. Moy stated that specific programs to work with underprivileged minority students at the high school and college level deserved more attention in the implementation plan. Those currently in place appeared to be very successful. Other Board members concurred and offered additional suggestions.

An additional concern among Board members was the suggestion in the report that the AAMC begin working with various sources to establish a mechanism for publishing an annual listing of third and fourth year racial minority medical students and houseofficers. Dr. Cooper explained that such a directory would cost approximately $62,000-$70,000 per year and questioned the usefulness of such a tool as well as whether or not the Association could financially support such an endeavor. Dr. Epps replied that the GSA-MAS was not necessarily asking AAMC to fund this project, but to assist in seeking funding. The consensus of the Board was that the idea of such a publication deserved further study and that no definite commitment to it should be made at this time.

B. Election of Institutional Members

ACTION

On motion, seconded, and carried, the Board endorsed the election of the following institutions to Full Institutional Membership in the AAMC:

Uniformed Services University
of the Health Sciences
School of Medicine

Wright State University
School of Medicine

C. Request for New and Developing Community Based Medical Schools Section Membership

After some discussion by the Board, it was decided that it was inappropriate for the University of Wyoming College of Human Medicine to become a member of the New and Developing Community Based Medical Schools Section but that the leadership of the Section could invite representatives of this school to meetings of that Section.

V. Discussion Items

A. Kennedy Health Manpower Bill

Dr. Kennedy provided the Board with a summary of developments regarding the recent health manpower bills under consideration. He requested the advice of the Board regarding student assistance provisions on which Dr. Ed Stemmler was to testify later that day. Dr. Stemmler's concern was with specific areas of the financial aid issue: whether or not it was to be the AAMC policy that medical students ought to borrow to finance their education; whether or not there was a way of guaranteeing access to funds on a needs basis until a student finishes residency; and whether or not high interest money should continue to be available regardless of the needs basis. Another question was whether or not the AAMC should cast its lot with higher education in the area of student assistance or continue to seek special provisions for the health profession.

Dr. Beering discussed similarities and differences between funding medical education and general education. Whereas there is a difference in that medical students are unable to get into work-study programs or get outside jobs, the similarities dominate. The Board thought that something would be lost by identifying solely with higher education and recommended the retention of separate and special treatment for the health professions.

Dr. Bondurant reminded the Board that this discussion would be continued prior to the luncheon so that other ideas and questions could be brought up then.

B. The LCGME: Its Development and Current Status

An extensive background paper on the LCGME and the current climate of controversy and disagreement was provided to the Board. The Board discussed these matters and concluded that the AAMC should continue its efforts to preserve, strengthen and improve the LCGME.

C. The Stabilization of Research Grant Support

The Board was in agreement with the background paper which concluded that the stabilization idea was superficially attractive but very dangerous in its approach which sacrificed many other valuable activities to the goal of maintaining a magic number of investigator initiated research projects. AAMC rejection of the approach should be sensitive to the claims that it was being responsive to our pleas for stability and consistency in federal programs and funding.

D. The Health Research Act of 1980 (H.R. 6522)

The Health Research Act of 1980 is a bill designed to revise Title IV of the Public Health Service Act. Included among the many provisions of the bill are (a) the proposal to establish limited authorities and expenditure ceilings for each of the Institutes; (b) the proposal to require peer review on a project by project basis for all intramural research; and (c) the proposal to establish an identical pattern of review for research contracts and for research grants.

At hearings on the bill, Dr. Robert Berliner testified on the Association's behalf. The testimony has been mailed to all Assembly members. The bill is currently in mark-up.

VI. New Business

A. Name Change of Group on Public Relations

The Group on Public Relations is considering changing its name to the Group on Public Affairs. Board members briefly discussed this and had no objections to such a change. The change will not become effective until the GPR Annual Business Meeting in October.

B. Ranking of Medical Schools in Private Practice Magazine

Private Practice magazine conducted a survey among the nation's medical school deans requesting that the deans rank the best and worst medical schools. A total of 44 deans or associate deans replied with the results being published in Private Practice. As a result, students, parents, and patients have been upset. Several medical schools have received inquiries relating to the study. The Board discussed how this issue should be approached and decided that a statement by the COD Board should be prepared rejecting the survey and giving positive support to the diversity of medical schools. The text of that statement follows:

The AAMC Council of Deans repudiates the concept, methodology and results of the ranking of medical schools conducted by the magazine Private Practice and reported in its March 1980 issue. The concept of identifying "the ten best and ten worst" of the nation's medical schools, all of which are accredited by the Liaison Committee on Medical Education, is both repugnant and mischievous. All provide quality education. Each is a complex institution with a variety of missions including different mixes of research, patient care, and community service. Any overall rating which fails to account for this complexity, and the diversity of objectives and the approaches used to accomplish them, is a gross distortion which does a disservice to the American public. Several fine institutions which are admirably serving locally and institutionally defined objectives are maligned by this exercise.

The Board also recommended that AMCAS and pre-medical advisors be notified of the Board's position on this survey.

C. AAMC Resolution on Equal Opportunity

Dr. Krevans had a concern with the language of this resolution but because of the time constraint, it was delayed until the Executive Council meeting later in the day.

VII. Adjournment

The meeting adjourned at 12:20 pm.

COD BOARD RESOLUTION ON A COMMUNICATION FROM THE AMA STUDENT BUSINESS SECTION

The chairperson of the AMA Student Business Section recently communicated with various officials of each U.S. medical school forwarding a "policy statement" adopted by the AMA House of Delegates "to clarify and protect the rights of medical students." To preclude the possibility that this action be misinterpreted, the Administrative Board of the Council of Deans adopted the following clarifying statement.

While it is confident that each medical school welcomes the advice of concerned individuals and organizations, particularly those with such longstanding interest in medical education as the AMA and its associated student group, the Council of Deans of the Association of American Medical Colleges states unequivocally for the record that academic policy and procedure are uniquely the province of each institution's internal governance process which is both responsible and accountable for its decisions. External evaluation of the adequacy of the academic program is accomplished through periodic review by the Liaison Committee on Medical Education; legal redress is available for violations of students' rights. The deans of U.S. medical schools do not recognize statements of "policy" of external organizations, which purport to govern matters of institutional responsibility, as binding on their institutions.

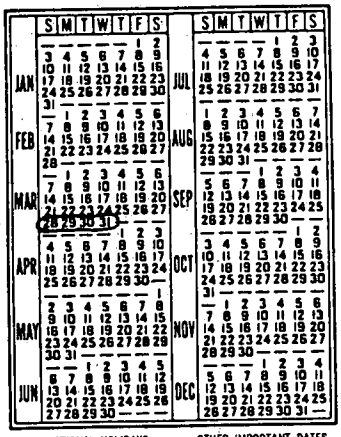
PROPOSED DATES AND SITES FOR THE 1982 COD SPRING MEETING

On the basis of an examination of holidays and already scheduled meetings which might conflict with the 1982 COD Spring Meeting, the staff proposes that the Board approve the following dates:

Sunday, March 28 - Wednesday, March 31

SCHEDULE OF 1982 MEETINGS

COD Ad Board/Executive Council	March 18 or 25
Am. College of Surgeons	March 21-25
Passover	April 8-15
Easter	April 11
LCME	April 14-15
FASEB	April 15-23
Am. College of Physicians	April 19-22
Am. Ass. of Neurological Surgeons	April 25-29
National Academy of Sciences	April 26-28
AFCR, ASCI, AAP	May 8-10
Pediatric Research	May 11-14
Am. Soc. of Internal Medicine	May 13-16



With the above set of dates in mind, we have begun making inquiries for an appropriate site for our 1982 Spring Meeting. Thus far we have concentrated on East Coast resorts and have compiled the data which follows. We are asking the Board for comments on whether or not we are moving in the right direction and for suggestions on preferred locations or specific facilities.

NAME AND LOCATION	FEATURES	COMMENTS
Grenelefe Golf & Tennis Resort Cypress Gardens, Florida	Condo villa type of resort; 2 golf courses, 4 pools, 13 tennis courts; 45 minutes from Orlando International Airport with hotel van transportation to and from for $30/person/round trip 1981 Rates -- $70 Single room $82 Deluxe room with kitchenette $95 1-bedroom suite	HOLDING ROOMS ON A TENTATIVE BASIS
Sea Pines Plantation Hilton Head Island, South Carolina	5,000 acre resort; 3 golf courses, 72 tennis courts, 14 pools, 5 miles of beaches; 1 hour drive from Savannah Airport with airport van available at a cost of $15/person/each way 1981 Rates -- $90 Single or Double	DATES ARE AVAILABLE ON A SECOND OPTION
Hyatt on Hilton Head Island Hilton Head South Carolina	2 golf courses, 25 tennis courts, 1 pool, 3 miles of beaches; 1 hour drive from Savannah Airport with limo service available for $15/person/each way 1981 Rates -- $75 Sunset Single or Double $90 Ocean Single or Double	HOLDING ROOMS ON A TENTATIVE BASIS
The Greenbrier White Sulphur Springs West Virginia		DATES UNAVAILABLE
Kiawah Island Inn & Resort Charleston, South Carolina	In process of checking on availability	

POSSIBLE MEETING WITH
NATIONAL COMMISSION ON RESEARCH

Background

Over the past several years, the relationship between the Federal government and the research universities has become increasingly adversarial. Persons both within the government agencies that fund research and within the universities that receive some of those monies have become concerned about the effects of the deterioration of the relationship. Government involvement in the support of research at these academic institutions has increased, as have the paperwork, regulations, and accountability.

In an attempt to solve problems inherent in the government funding mechanisms and to improve the understanding between government agencies and universities involved in research, the National Commission on Research was founded in the latter half of 1978 by the Association of American Universities, the National Academy of Sciences, the American Council on Education, the National Association of State Universities and Land-Grant Colleges, and several other organizations. The Commission is funded through grants from several foundations. It works independently of its founders to examine the process by which the Federal government supports academic research and to propose changes designed to improve that process.

Thirteen leaders with backgrounds in education, business, and government have accepted appointments as unpaid Commissioners and faced the challenge of accomplishing the above goals in a relatively short period of time, with a target date of June, 1980. William H. Sewell, professor of sociology at the University of Wisconsin, serves as Chairman; and Cornelius J. Pings, Vice Provost and Dean of Graduate Studies at the California Institute of Technology, serves as Director.

Subcommittees were appointed to investigate each of the basic issues and to draft position papers for discussion by the entire Commission.

The Commission is now publishing and disseminating a series of position papers reporting on the conclusions from the investigations. The Titles of Reports now published or in process include:

Accountability:	Restoring the Quality of the Partnership (Published March, 1980)
Review Processes:	Assessing the Quality of Research Proposals (In Press)
Funding Mechanisms:	Balancing Objectives and Resources in University Research (In Press)

Industry-University-Government Relationships (In preparation)

Scientific Personnel (Contemplated)

Question:

The Commission has asked for an opportunity to meet with leaders of the AAMC. Does the COD Administrative Board wish to meet with Dr. Pings, other staff of the Commission and the CAS Administrative Board on Wednesday, September 24 (evening) or Thursday, September 25 (morning)?

NATIONAL HEALTH INSURANCE AND ITS IMPLICATIONS FOR ACADEMIC HEALTH CENTERS

Presented to

The Association of American University Presidents

Washington, D.C.

April 21, 1980

by

John W. Colloton

Director, University of Iowa Hospitals and Clinics
and Assistant to the University President for Health Services

and

Chairman, Council of Teaching Hospitals,
Association of American Medical Colleges

(Submitted for publication. Not for quotation or distribution except to AAU member universities for internal use.)

Introduction

I am pleased to have this opportunity to discuss with your Association some of the present challenges to our university academic health centers arising from the changing financial and political climate in this nation. Health care is being scrutinized to an unprecedented degree and a wide variety of concepts and proposals designed to change the financing and delivery of patient care are being espoused and implemented. One focus of these proposals has been the continuing debate relating to national health insurance. A full review of the potential impact of national health insurance on academic health centers requires an analysis not only of the financing of health services, but also proposals to reorganize health care delivery, the impact of present and proposed regulatory initiatives, quality of care issues, health planning implications, and a host of others. To narrow the issues somewhat, Chancellor Danforth has asked that I focus on specific areas of particular interest to University Presidents.

Therefore, in today's remarks I will briefly outline the history of federal involvement in health care issues; second, present an overview of current national health insurance proposals focusing particularly on evolving competitive models; third, examine the potential effect of these proposals on academic health centers; and finally, discuss some initiatives academic health centers should be taking to substantiate, communicate, and preserve their unique central role in any future health care system that evolves.

Historical Perspective

The federal involvement in health care began in 1798 with passage of the Marine Hospital Service Act, the precursor of the Public Health Service. The initial effort toward a nationwide governmental health insurance program was the pre-World War I campaign of the American Association for Labor Legislation

which unsuccessfully advocated state government sponsored health insurance. Then in 1932 the Committee on the Costs of Medical Care, another voluntary body, published a report which proposed a national health insurance program. A similar program, proposed by President Franklin Roosevelt's cabinet-level Committee on Economic Security, was ignored by the Congress. Instead, the federal-state partnership in health was expanded in 1935 through the Social Security Act's formula grant programs for maternal and child health and crippled children's services.

President Truman, during the late 1940's, outlined a national health program in a succession of health messages, but few members of the Congress accepted the idea seriously. The growth in private insurance coverage, especially employer-financed coverage during World War II, had extended benefits to a large proportion of the population reducing the need for a national program providing coverage for all. However, concern for the elderly and the poor not covered by these plans led Congress in 1960 to enact the Kerr-Mills bill which provided matching grants-in-aid to states for the medically indigent aged and culminated in the passage of Medicare and Medicaid in 1965 under the stewardship of President Lyndon Johnson.

Present Environment in the United States

Although Medicare and Medicaid were considered forerunners of national health insurance at the time of their enactment, they have led some authorities to conclude that another massive infusion of federal funds into the health care system, in the absence of restructuring or reform, will only accelerate the rise in health care costs. The Congress, disappointed with the behavior of the health industry under intense regulation, is now turning to new approaches with a strong orientation to marketplace incentives and eventual curtailment of the severe

regulatory environment now prevailing. This approach, together with the acknowledged diversity and complexity of the health system, has resulted in recent legislative proposals that are more conservative in nature than any proposed during the past decade.

In contrast with traditional conclusions regarding the incompatibility of the health system and marketplace economics, some academic and congressional authorities are now of the opinion that the delivery of health services is not "unique" and that normal supply, demand, investment, choice, and efficiency characteristics of the marketplace can be made to apply. This may be partly true. However, underlying the competitive marketplace approaches is the assumption that hospitals provide a relatively standardized product which is identifiable in terms of cost and quality. This assumption raises several questions for the nation's teaching hospitals which have multiple products benefiting not only the individual patient, but society as a whole. Because these activities result in higher costs, presently financed through patient care revenues, price competition could jeopardize the future capacity of teaching hospitals to meet their multiple responsibilities, including medical education, new technology testing, clinical research, significant charity care, specialized services, and extensive ambulatory care programs operating on a subsidized basis. An underlying theme of this paper is that academic health centers must secure special attention and consideration in any program of marketplace competition or other form of national health insurance. The diverse and conflicting models of national health insurance engaging congressional attention make it essential that the unique characteristics and responsibilities of academic health centers be recognized and that a strategy be developed that will ensure the future viability of these national resources.

Various estimates indicate that twenty million Americans have no health insurance, either public or private, and that an additional ten percent of the

population has inadequate coverage.[1,2] Together, these two groups include about twenty percent of the United States' population. Any effort to fund expanded coverage for these citizens will impose an additional tax burden on the remaining eighty percent. During a period of inflation and economic stagnation, the prospect of placing further tax burdens on the population is obviously less likely than during a period of steady growth. However, it is clear that attention will continue to be focused on present gaps in coverage and that pressures will continue for control and reallocation of dollars to accommodate the underserved.

Most national health insurance proposals currently before the United States Congress address the issue of increased entitlement to provide benefits to those citizens not now adequately covered. This increased entitlement will undoubtedly increase health care costs. Each proposal thus represents a balancing of increased entitlements and benefits to those presently not covered with the attendant problems of financing and cost containment. Representative David A. Stockman (R-Mich.) recently made a forthright statement on the linkage of these issues when he said, "I think we are simply out of our minds as a Congress, as federal policymakers, if we plunge into National Health Insurance in the sense of further expansion of demand and entitlements before we make any real, appreciable progress on the cost containment side of the ledger."[3] Representative Stockman is convinced that fundamental reappraisals of our basic ideas about health care markets and the dynamics of growth in hospital costs are required, underscoring the need to expand discussion of national health insurance in order to prevent a hasty advance into what could become a national health quagmire.

There are in this nation proponents of national health insurance who support increased doses of federal regulation throughout the health care system, while there are others, such as Dr. Alain Enthoven of Stanford University and

Dr. Paul Ellwood of Interstudy who prefer the creation of "constructive competition" as an alternative. Considering the size and complexity of the health field and the number of talented academicians and analysts working in the field, the volume of analyses and alternative proposals which has emanated from within the system has been meager. A small group of individuals has done almost all of the work and is receiving a great deal of attention with respect to competitive proposals. There is a critical need for more ideas from within the health care field. As Moscato has recently indicated, "...even with the national congressional capacity for research and analysis, new ideas must come from the health community before these can be encouraged or required by law."[4]

General Implications for Academic Health Centers

"National Health Insurance," in all its proposed forms, presents a serious challenge to academic health centers. Expansion of the proportion of patients and financing sponsored by the federal government will intensify present constrictive forces arising from federal financing. Since a host of academic health center programs are heavily dependent on cash flow arising from patient service functions, they will be imperiled in the reformulation of patient care financing under national health insurance. Further restructuring of the health care delivery system will introduce new complexities which we cannot predict. However, one should consider what is at risk.

Academic health centers contribute substantially to the health care needs of the American people. In fact, the 323 non-federal short-term teaching hospitals comprising the Council of Teaching Hospitals of the Association of American Medical Colleges constitute only five percent[5] of all United States hospitals but they:

a) admit approximately 20 percent of patients hospitalized in the United States,[6]

b) accommodate 31 percent of hospital ambulatory patients,[7]

c) operate more than half of the burn care units of our nation,[8]

d) supply 44 percent of organ transplant services,[9]

e) provide 40 percent of open heart surgical services, and[10]

f) operate more than one-third of the nation's newborn intensive care units.11

Health science educational programs dependent upon these hospitals involve more than 600 health science colleges providing instruction to more than 215,000 students in medicine, dentistry, nursing, pharmacy and public health, in addition to 56,000 resident physicians in specialty training and an array of allied health trainees. The 30 teaching hospitals owned by member universities of the AAU currently provide the training environment for approximately 47 percent of all undergraduate medical students[12] and 21 percent of all resident physicians[13] in the United States.

Supporting these programs in AAU health centers is an annual cash flow from patient care services of $2.5 billion dollars, composed of $2.2 billion[14] of hospital revenues and $314 million[15] of medical service revenues, based on 1978 data. This was approximately 23 percent of total revenues of all AAU members which own teaching hospitals. The comparable cash flow figures for all 113 medical schools and 323 non-federal affiliated teaching hospitals are $14.5 billion for hospitals and $514 million for medical services. A profile of present dollars flowing into AAU universities as reimbursement for health care services is set forth in Table I. Table II profiles health education colleges and student enrollment of AAU members. These two tables show the magnitude of dollars and societal resources in AAU academic health centers which will be at risk in the creation of mechanisms for financing national health insurance.

TABLE I

ANALYSIS OF ASSOCIATION OF AMERICAN UNIVERSITY BUDGETS
TOTAL UNIVERSITY BUDGETS VS. HEALTH CARE EARNINGS ELEMENTS
Fiscal Year 1978
(000 Omitted)

A.A.U. MEMBER	Total University Budget	UNIVERSITY-OWNED TEACHING HOSPITAL BUDGET Total	% of U. Budget	
Members Owning University Hospital:				
Duke University	$ 196,074	$ 101,517	51.8%	
Indiana University	413,047	58,614	14.2	
New York University	325,050	75,399	23.3	
Ohio State University	383,227	82,420	21.5	
Pennsylvania State University	337,013	33,982	10.1	
Stanford University	369,871	95,179	25.7	
University of California (Los Angeles)	475,871	106,990	22.5	
University of California System	1,108,270	273,421	24.7	
University of Chicago	478,914	110,683	23.1	
University of Colorado	241,395	44,483	18.4	
University of Illinois	527,210	73,656	14.0	
University of Iowa	241,950	83,369	34.5	
University of Kansas	177,127	84,391	47.6	
University of Maryland	367,336	82,880	22.6	
University of Michigan	474,975	108,970	22.9	
University of Minnesota	545,857	89,096	16.3	
University of Missouri	308,955	45,021	14.6	
University of Nebraska	224,777	29,806	13.3	
University of North Carolina	632,951	75,219	11.9	
University of Oregon	160,701	65,277	40.6	
University of Pennsylvania	324,041	119,327	36.8	
University of Rochester	209,765	85,159	40.6	
University of Texas	743,667	65,670	8.8	
University of Virginia	203,570	55,297	27.2	
University of Washington	330,017	65,338	19.8	
University of Wisconsin	751,644	47,661	6.3	
Vanderbilt University	142,262	58,515	41.1	
Subtotal	$(10,695,537)	$(2,217,840)	(20.7%)	
Medical Service Plan Revenues			(2.1%)	$(222,428)
Members Not Owning University Hospital:				
Brown University	$ 66,893			
California Institute of Technology	330,760			
Case Western Reserve University	95,360			
Catholic University of America	34,101			
Clark University	15,895			
Columbia University	290,782			
Cornell University	297,028			
Harvard University	308,300			
Iowa State University	190,375			
Johns Hopkins University	291,105			
Massachusetts Institute of Technology	320,437			
McGill University	N.A.			
Michigan State University	289,217			
Northwestern University	159,468			
Princeton University	152,746			
Purdue University	222,696			
Syracuse University	123,173			
Tulane University	92,620			
University of California (Berkeley)	279,986			
University of Pittsburgh	202,447			
University of Southern California	223,060			
University of Toronto	N.A.			
Washington University	155,425			
Yale University	216,493			
Subtotal	4,358,367			
Medical Service Plan Revenues			(2.1%)	$(91,506)
GRAND TOTAL	$ 15,053,904			
Total Medical Service Plan Revenues			(2.1%)	$(313,934)

Sources: COTH Survey of University Owned Teaching Hospitals' Financial and General Operating Data (Fiscal Year Ending 1978). H.E.G.I.S. Survey-National Center for Education Statistics, Department of Health Education and Welfare.

TABLE II

ANALYSIS OF ACADEMIC HEALTH CENTER COLLEGES AND ENROLLMENT
ASSOCIATION OF AMERICAN UNIVERSITIES VS. TOTAL UNITED STATES

1979

Health College	Colleges: No. of Colleges in U.S.	Colleges: No. of Colleges in AAU: Total	Colleges: No. of Colleges in AAU: % of U.S. Total	Student Enrollment (Undergraduate ONLY): No. Enrolled in U.S.	Student Enrollment (Undergraduate ONLY): No. Enrolled in AAU: Total	Student Enrollment (Undergraduate ONLY): No. Enrolled in AAU: % of U.S. Total
Medicine.....	113	48	42.5%	61,886	28,819	46.6%
Dentistry.....	59	26	44.1%	21,930	11,455	52.2%
Nursing.....	348	50	14.4%	98,596	17,280	17.5%
Pharmacy.....	71	19	26.8%	23,078	6,145	26.6%
Public Health.....	20	14	70.0%	7,586	6,409	84.5%

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Teaching Hospital Medical Residencies	Residencies: No. in U.S.	Residencies: No. in AAU Hospitals: Total	Residencies: No. in AAU Hospitals: % of U.S. Total	Residents in Training: No. of Residents in U.S.	Residents in Training: No. in AAU Hospitals: Total	Residents in Training: No. in AAU Hospitals: % of U.S. Total
	4,630	664	14.3%	56,184	11,601	20.6%

Sources: 1979-80 AAMC Directory of American Medical Education; 1979 American Dental Directory; State-Approved Schools of Nursing - R.N., 1979; Colleges of Pharmacy - Accredited Degree Programs, July 1, 1979; American Journal of Public Health, April, 1979, Vol. 69, No. 4.; 1979-80 Directory of Residency Training Programs.

In meeting their patient care responsibilities, academic health centers are confronted by a plethora of regulations from federal and state levels designed to monitor financing and delivery of patient care services. While the exact cost is not known, some studies have suggested that as much as 20 to 25 percent of hospital costs are incurred for activities mandated by governmental regulations.[16] This regulatory burden will presumably increase should a federal health care financing program be enacted. However, a competitive approach could reduce the amount of financial regulation at the expense of increased regulation in other areas.

National Health Insurance Options

Having reviewed the historical context of national health insurance proposals and the external forces affecting academic health centers, let us now move to some of the national health insurance and related proposals. While the proposals may be categorized in a variety of ways, I will focus on two: the scope of coverage and the various cost containment mechanisms being advocated.

The two basic approaches to scope of coverage are comprehensive coverage for all citizens and, secondly, incremental expansions of coverage over a period of years. Senator Kennedy (D-Mass.) and Representative Waxman (D-Cal.) have introduced the most widely discussed comprehensive bill (The Health Care for All Americans Act), which mandates broad health benefits for the entire population. The incremental proposals concentrate on (1) catastrophic illness coverage; (2) expansion of the number of persons eligible for categorical programs designed for the aged, poor, mothers and children; and (3) broadening of the services provided under existing categorical programs, such as Medicaid. An example of an incremental approach is the Administration's bill which consolidates Medicare and most of Medicaid into a federal program entitled "Healthcare," mandates employer coverage

of employees, and assures coverage of catastrophic expenses for all. Another example of an incremental approach is Senator Long's (D-La.) bill which provides catastrophic coverage for all citizens and expands Medicaid coverage. Incremental expansions are proposed for various reasons. Some proponents feel the present health system is successfully delivering quality care to most Americans and limited changes would fill perceived gaps. Others are actually proponents of comprehensive federal coverage, but feel an incremental approach is all that is politically possible and financially feasible at this time.

All incremental and comprehensive approaches include mechanisms designed to contain costs in order to minimize the additional cost of expanding the scope of coverage. There are three basic approaches to such cost containment goals: direct price and cost regulation; reliance on the National Voluntary Effort Program of hospitals, physicians, and other health professionals; and promotion of competition within the health care system.

The direct price and cost regulation approach includes such proposals as a national limit on health care expenditures to be allocated among the states, hospital revenue increase caps, limitations on all allowable costs, and nationalization of the ownership and operation of the health care system. In each, the federal government would assume responsibility for directly limiting health care expenditures, while in some cases, permitting state or local administration of the health care system.

The second approach is continued reliance on the national Voluntary Effort of hospitals, physicians, and other health professionals to contain costs. Most authorities agree that the Voluntary Effort has been effective during the past two and one half years.

The third approach to cost containment is to promote direct price competition among hospitals, doctors, and other health care providers. Because this model is now receiving dramatically increased congressional attention due to the growing

anti-regulation sentiment in this country, I will outline some of its features and implications. In general, competition is being approached on two distinct levels.

The first level being proposed would occur at the time the consumer obtains health insurance by mandating a choice of options among health insurance plans or Health Maintenance Organizations (HMO's) with various levels of benefits. It is theorized that individuals will opt for lower cost plans in making their selection. As a byproduct of this competition, it is further theorized that health insurance companies and HMO's will be motivated to shop for the least expensive providers and enter into exclusive contractual arrangements with hospitals and physicians, promoting direct price competition among hospitals and physicians.

The second level would occur at the time the consumer obtains health services through the use of out-of-pocket payments designed to make the consumer more cost conscious and, in turn, to lodge that sensitivity with physicians, hospitals, and other providers. Cost-sharing features are also designed to reduce consumer demand in general.

There are several competitive plans being espoused, but most embrace the following general principles based on the work of Enthoven, Ellwood, McClure, and others:

1) First, the employee is in effect given a fixed sum of dollars by the employer so that he may choose among health insurance plans or enroll in a Health Maintenance Organization. Enthoven has proposed that indigent citizens be provided with a direct voucher subsidy permitting them to directly purchase one of the approved health insurance or HMO packages, but none of the legislative proposals have adopted this feature.

2) Second, employees would have to select one of the insurance plans, but could choose between comprehensive coverage, a lesser coverage plan, or an HMO type plan. In most approaches, only health insurance plans or HMO's approved by the federal government would be allowed to compete.

3) If the employee chooses a plan that provides services for less money than the amount provided by the employer or the government, the consumer would receive the remainder as cash income - a reward for diligence in the medical marketplace.

Some hospitals are eagerly embracing the competitive option as a way to avoid direct price and cost regulation. All of the competitive proposals are based upon the principle that competition among health care insurance plans will force insurers to become more prudent buyers, thereby limiting the number of providers from which their enrollees may receive covered care. It is theorized that this will increase competition among health care providers seeking authorization to provide care and receive reimbursement from insurance plans. Some insurance plans will seek contractual relations with hospitals and doctors. Other plans, including most HMO's, will directly provide primary health care through their own staff and facilities, and, in some cases, even directly provide specialty care. On the other hand, some hospitals are already directly sponsoring health care plans, usually HMO's. In some areas, especially in rural states, there are a limited number of providers, so the expected competition among providers may not materialize. In urban areas with multiple providers, some competition is already occurring. Thus, there is a potential for a very complex intermingled environment. All hospitals, especially university teaching hospitals, should carefully examine the new competitive proposals to understand their full implications. While the competitive proposals have some highly positive features, they are certainly not a panacea

and include several pitfalls which must be avoided through careful planning and communication with congressmen and others, if we are not to weaken the very underpinning of our academic health centers.

Some of the possible outcomes of the enactment of a competitive health insurance plan approach in this country include the following.

First, it will lead toward the evolution of our health system into a set of explicitly competing organized systems, forcing physicians and hospitals to compete on the basis of price or to convince patients that higher charges are justified by other factors.

Second, some proposals would limit the total governmental investment in health care to a federally determined per capita allotment, terminating the open-ended commitment of Medicare and Medicaid to meeting citizens' needs. However, it would avoid establishing an arbitrary limit on aggregate health expenditures by permitting citizens to spend after-tax dollars for additional health care insurance and/or services. Thus, government could control its expenditures without mandating reduced services for all.

Third, competition among insurance companies and HMO's will support attempts to impose controls on physician fees and hospital charges. Some of the proposals explicitly require participating physicians and hospitals to agree to government fee schedules and reimbursement rates; most, however, rely on market forces to mitigate fee and rate increases by not permitting participation of those who do not cooperate.

Fourth, in addition to individuals choosing less comprehensive systems, some health care insurance plans and providers may be motivated to reduce the scope, timeliness, and quality of their coverage and services in response to financial incentives and constraints. This is a risk of the growing concentration on economics. It is possible that competition may move us too far

from the focus on providing an adequate level and quality of service, especially for patients afflicted with complex diseases. If this occurs, we can anticipate increased regulation of the quality of care to offset economic disincentives included in various plans. Competition is largely a substitute for price and cost regulation, not for other forms of regulation.

Fifth, competitive proposals risk the reversal of the trend away from a two-class system of access to care. These risks are mitigated in some of the proposals by requiring all qualified plans to cover a minimum acceptable mix of services.

Sixth, significant disruption may be anticipated in the administration and the delivery of health care when 150 million Americans are injected into the medical marketplace personally searching for, seeking to understand, choosing, and binding themselves to a particular delivery and payment plan. Other longer term disruptions will be manifested as the health care system adjusts to competitive features.

Seventh, competitive models could weaken the ability of academic health centers to meet their broad responsibilities to the entire health system in a host of ways described in the next section of this paper.

Specific Implications for Academic Health Centers Arising from Competitive Models

The competitive proposals present threats to the mission of academic health centers in three areas: patient referral patterns, financing, and retention of quality patient care for our nation's citizens. Erosion in any of these areas will detract from the sophisticated teaching setting essential to prepare the doctors of tomorrow.

Fortunately, academic health centers still have time in which to address these issues. HMO's currently encompass only 4% of our nation's population.[17]

Despite these relatively small numbers, it must be recognized that competitive plans are expanding rapidly and their advocates intend to promote substantial growth in the period immediately ahead. Whether they will succeed is open to conjecture, but there is little question that these plans now have added momentum. Therefore, it is essential that the issues described below, of relevance both to academic health centers and the entire health delivery system, be addressed now while these plans are in an early stage of development and experimentation.

Patient Referral Patterns

Most academic health centers depend on the constant flow of referred patients in order to render specialized services economically, provide the clinical base for broad teaching and research programs, and remain attractive to health science faculty. Thus, academic health centers and their teaching hospitals must be concerned with the implications of competitive models which, through financial disincentives, constrain community-level physicians from establishing referral relationships with tertiary care centers.

Will patients continue to be referred to university tertiary teaching hospitals or will they be shifted to advanced secondary-level hospitals and investor-owned institutions which are less expensive because they avoid many of the additional costs tertiary teaching hospitals cannot avoid? There is the risk that hospitals which concentrate on the high volume, less complicated specialty services will succeed in markets based on price competition at the expense of academic health center teaching hospitals. Another force working toward a shift in referral patterns is the development of multi-hospital systems which promote patient referral patterns within discrete networks.

There is a significant risk that insurers and HMO's, which contract with community physicians and hospitals, will not be willing to establish adequate

referral arrangements with high cost tertiary care centers to avail beneficiaries of their specialty services. As a result, patients may be retained in the home community or referred to non-academic health centers for specialty care. Such an eventuality would erode the critical mass of patients, comprehensive services, and faculty and staff necessary to preserve quality services, education and research in our nation's academic health centers. Competitive plans and HMO's could eliminate a portion of this conflict by avoiding contractual provisions which place community physicians at financial risk in making a clinical judgment regarding the need for consultative referral. Optimally, such decisions should be made in a pure clinical context.

Financial Implications

The financial problem becomes clear when we recognize that an underlying goal of many national health insurance proponents is to gain governmental control over the total flow of dollars to the health care system. In this manner, government hopes to constrict the present pattern of payment to hospitals and physicians to free funds in order to embrace those with inadequate health insurance coverage. Many national health insurance proposals are attempts to redistribute income and services in this nation by offering an additional health care entitlement to these citizens without increasing the present 9.5 percent of our gross national product devoted to health care.[18] The competitive approach is being espoused by some in an attempt to achieve this objective with a minimum of direct federal regulatory involvement.

The following comments and questions are raised to explore further some of the major financial issues concerning the multiple contributions of teaching hospitals.

The first and one of the most significant issues relates to how educational costs would be accommodated. The costs of residency training programs in teaching hospitals are now financed through general hospital operating revenues. The costs of these programs including instruction is at least $1.5 billion[19] and is currently recognized as a legitimate hospital cost in third-party reimbursement formulae. In a competitive environment, these costs would obviously put teaching hospitals at a price disadvantage. Several theoretical alternatives for financing graduate medical education were recently explored by the "Task Force on Graduate Medical Education" of the Association of American Medical Colleges (AAMC), which concluded that none is likely to effectively replace funding through teaching hospital service reimbursement.[20] The alternatives explored include the following:

1) To finance graduate medical education from a separate governmental, tax-supported fund. The magnitude of such a fund, the complexities of its management and disbursements, and recent experience with medical school capitation support make this alternative an unrealistic option for long-term financing.

2) To transfer the obligation for financing graduate medical education to medical schools. Since medical schools would be able to finance such education only through appropriated tax dollars or philantrophy (without relying on professional fee income), this alternative would severely tax their already tight budgetary situation.

3) To utilize revenue generated by teaching physicians from professional fees. Reliance on professional fees could discourage patient admissions by some private practitioners who hold appointments on the staffs of teaching hospitals and could promote fee increases necessary to offset the costs of graduate medical education. Additionally, as a practical matter, the mix of

income sources for most teaching hospital staffs would make implementation of this apparently simple policy impossible.

4) To have residents pay for their own graduate medical education. Such a policy would directly conflict with efforts to encourage students without financial means to enter medicine by increasing the burden of indebtedness, which must be repaid following completion of residency training. It could also reduce the quality of future practice as physicians who cannot afford to finish residency training opt to begin their practice earlier.

In summary, the AAMC study concluded there is no practical alternative to the present practice of supporting residency training through hospital patient care dollars. Nor, in the opinion of the Association, is there any good reason to look for other alternatives because the present approach, in fact, spreads the burden equitably across the population. The report stated this conclusion as follows: "Patients benefit from the services they receive as residents participate in their care in teaching hospitals, and 94% of all hospital revenues are now derived from third-party insurers. These insurers ... diffuse the educational costs throughout the population through their premium charges or taxation. These insurers have a social obligation to support graduate medical education, for the education and training of future practitioners is an essential investment by the public provided through private health insurance and government programs. This investment ensures that the medical care needs of future generations are met."[21]

The second financial implication involves the cost of developing and implementing innovative procedures and technology designed to enhance patient care. Some current hospital reimbursement formulae provide a component for "growth and development" to encourage this innovation. It is not clear how these working

capital requirements which are crucial to fulfilling the mission of tertiary teaching hospitals would be met under a competitive national health insurance program. Nor is it clear how services provided with innovative equipment would be compensated during the initial testing phases because health care insurers frequently exclude such procedures from coverage in their effort to minimize costs.

The third issue is the threat to biomedical research conducted within academic health centers. Some clinical research is indirectly supported by patient care earnings which would no longer be available due to competitive forces. However, the greater threat is that if other cost containment efforts fail, the government would be tempted to finance new service entitlements of any national health insurance program by reallocating monies now committed to research. In addition, pressure may grow for shifting some of the remaining money allocated to biomedical research from the clinical research areas in which academic health centers have excelled to the study of health education and prevention in the hope of developing ways to reduce the need for and utilization of health services. While patient care, health education and prevention are important goals, we must continue to foster the long-range importance of biomedical research, not only to patient care advances, but also to cost containment.

A fourth issue concerns charity costs. Most teaching hospitals have large-scale charity programs and will continue to care for those patients "falling between the cracks" of a national health insurance program. It is not clear how such charity care could be continued when institutions that avoid such care are at a competitive advantage. Some hospitals may have no choice but to continue charity care because they are providing it under federal and state mandates. However, this will not assure the needed charity care over the long run, for it will only lead to bankruptcy and closure, unless the costs are accommodated in some fashion.

A fifth issue is whether high cost, low volume specialized service could continue to be provided. Such services have historically been centralized in tertiary hospitals. It is unlikely that competitors would choose to provide these services. However, there is also a question whether teaching hospitals would be able to continue to provide them. Price competition could preclude cross-subsidization within teaching hospital pricing that have made these services possible. High prices resulting from elimination of the subsidy could lead insurance plans to exclude such services from coverage, forcing teaching hospitals to either end the services or develop a separate program to finance them.

A sixth issue is whether specialized ambulatory care could continue to be provided in teaching hospitals. Presently extensive ambulatory care deficits are being underwritten by a portion of inpatient charges. These deficits are over and above charity costs and arise from the reduced volume of patients who can be accommodated in clinics associated with teaching, the costs of which are not directly covered by either third parties or patients. Again, it is not clear how clinic-based care and the associated educational programs can continue if teaching hospitals are forced into direct price competition with hospitals that do not provide these heavily subsidized ambulatory programs.

It is important to recognize that many of the functions of teaching hospitals are performed simultaneously and that the resulting costs of individual responsibilities could be separated only through extensive studies that would ultimately have to be based on somewhat arbitrary criteria. Thus, it would be extremely difficult to identify and quantify the costs for these individual responsibilities even if other sources of funding could be found. It is not merely a matter of accounting transfers!

In addition to these problems arising from the multiple responsibilities of teaching hospitals, I would like to mention two other financial concerns emanating from the competitive approach: reduced professional fee payment

for teaching physicians and the risk of further costly regulation if the competitive approach fails to live up to expectations.

Professional fee payments for physician services may also be affected by the establishment of a national health insurance program. Either the competitive environment or direct economic regulation could reduce physician income earned through professional fees. This reduction would affect teaching physicians before private practitioners because of the relative ease with which the government can regulate fees emanating from institutions. Coupled with possible reductions in patient referrals, this loss could further jeopardize faculty practice plans which are now heavily relied upon to support medical education programs and to meet physician income levels essential to retention of excellent faculties. The differential impact on the teaching hospital environment would create incentives for physicians and dentists to leave academia in favor of private practice or to convert practice plans into more private practice oriented models, thereby curtailing their availability for academic program support. Unless the practice plans' losses could be replaced through general appropriation, endowment or other support, universities would be confronted with the difficult job of reallocating general university dollars to the extent they decide to sustain health education programs at present levels.

If a competitive approach is adopted and fails to live up to public or provider expectations, we may be confronted with the worst of both worlds: competition and regulation. As pressures inevitably mount to hold down the cost of any national health insurance program, the federal government may pursue adoption of revenue "caps" that would nullify any success we may have in modifying and accommodating the competitive approaches. Thus, we must remain diligent in our cost control efforts and creative in preserving multiple sources of funding. However, to the extent these efforts fail, it may become necessary for universities to redistribute university-wide funding allocations to support teaching hospital

educational functions, support a higher percentage of medical faculty salaries, and perpetuate clinical research programs so that the academic health center can successfully compete with non-teaching community hospitals for patient referrals necessary to fulfill the university's educational mission.

Quality of Care

The patient referral and financial implications of a competitive approach to national health insurance could also adversely affect the quality of care delivered by the entire health care system. It is generally recognized that the quality of the nation's health care system has been anchored by its "core" university tertiary-level teaching hospitals delivering highly specialized patient care in support of the entire system. The teaching hospitals in academic health centers also serve as the clinical base for the discovery, delivery and dissemination of new knowledge and services; replenishment of community-based health professionals; and provision of the environment for extensive continuing education that enables practicing professionals to maintain "state of the art" knowledge. A reduction in the ability of teaching hospitals to finance these functions could, accordingly, erode the quality of the entire system. In addition, a reduction in the number and types of patients referred to teaching hospitals could not only reduce the access of patients with complex and expensive diseases to the appropriate level of care, but could also limit the opportunities of health science students to gain the broad clinical exposure necessary to quality health education.

In addition to threatening the ability of teaching hospitals to support quality care, a competitive system would challenge the traditional emphasis on providing the best care available by shifting the focus to cost. Health professionals and hospitals are already becoming increasingly sensitized to cost, so the shift has already begun. However, there is a danger that compe-

tition may move us too far in that direction, so that quality of care is sacrificed.

Quality differences are difficult to communicate to the average consumer, causing disproportionate consideration to be given to the cost of services. This facilitates the development of plans which are competitively priced, but do not assure access to tertiary level care. If the services in university teaching hospitals are either directly or indirectly excluded from the competitive plans, it will have a significant negative impact on academic health centers and, over time, on the aggregate health status of our citizens.

The concentration on economics in any competitive financing structure would eventually lead to a focus on quality control. The public will demand service and the government will expect a return on its investment in the form of increased health status for its citizens. Unfortunately, this return is difficult to quantify with existing measures of quality and health status. Therefore, it is imperative for academic health centers, with the full support of their parent universities, to pursue a position of leadership in the evaluation and preservation of high quality health services to patients, regardless of the health system changes mandated in any national health insurance program.

Representation of Educational Interests

Two major national associations are at the forefront of representing educational interests in the formulation of national health insurance - the Association of American Medical Colleges (AAMC) and the American Hospital Association. The primary responsibility has been carried by the AAMC through a number of initiatives.

First, the Association has adopted a policy statement on national health insurance supporting an expansion and improvement of both private and public health insurance embracing the following three features:

a) an expansion and upgrading of the Medicaid program through broader eligibility of low-income citizens and a national standardization in scope of benefits,

b) provision of incentives for employers to make catastrophic health insurance coverage more widely available, and

c) formation of an independent certifying body or commission composed of insurers, providers, and consumers to set minimum standards for basic health insurance benefit packages.

In addition, the AAMC supports the appropriate use of cost-sharing mechanisms such as deductibles, coinsurance or copayments; fair and reasonable reimbursement for teaching physicians and institutional providers; and continuance of financing graduate medical education through patient service charges of teaching hospitals.[22]

The AAMC is currently examining the emerging competitive models through an Ad Hoc Committee charged with determing whether the missions of academic health centers can be properly accommodated under a competitive plan of national health insurance and, if so, how. Upon completion of its review, the committee will submit recommendations on Association policy relating to competition.

To monitor and plan for patient case mix reimbursement schemes which may be integrated into present or future governmental reimbursement policy, the AAMC has also established an Ad Hoc Committee on the "Distinctive Characteristics and Related Costs of Teaching Hospitals." Case mix reimbursement is a new mechanism which attempts to relate hospital payment to patient disease complexity. This committee, with support from the AAMC-Council of Teaching Hospital (COTH) staff members, is actively maintaining liaison with and monitoring the activities of case mix researchers throughout the nation. Educational workshops for COTH members are planned to discuss and evaluate case mix issues and their possible implications for academic health centers. Additionally, any proposals of the Health Care Financing Administration for a case mix reimbursement program

under Medicare will be tested through the research initiatives of the AAMC and its constituent hospitals. The Ad Hoc Committee will also undertake a comprehensive study to quantify the characteristics and costs of teaching hospitals, which will serve to document the unique contributions to society of teaching hospitals and evaluate their special resource requirements to meet present and future missions.

Finally the AAMC has provided testimony to the Congress on a host of legislative issues affecting academic health centers. In March, 1980, the Association presented testimony to the Subcommittee on Health of the Senate Committee on Finance which conveyed concerns about the potential negative impact of one of the competitive proposals, the "Health Incentives Reform Act" (S.1968).

The American Hospital Association (AHA) is unique among other health associations in recognizing the detrimental effect of price competition on academic healt centers. AHA's president, John Alexander MacMahon, recently stated in testimony to the Subcommittee on Health of the House Committee on Ways and Means that:

> Another issue which warrants further examination is the impact of price competition for certain types of providers. Specifically, we are concerned about the effect of price competition on institutions with major commitments to medical education and research which are usually financed in part with patient care revenues. Such institutions necessarily incur higher costs in the provision of services related to the expenses of these activities. Training of health personnel and research are essential activities. Therefore, unless and until other sources of support are available, provision must be made for these institutions so that they are not disadvantaged in a competitive environment because of their commitment to these programs.23

The AHA favors a phased national health insurance program which will assure access to health care coverage for all citizens within a service delivery and financing structure which is pluralistic in nature and supported by the best elements of the private health insurance system. The federal

role would be one of coordination and standard-setting rather than as a centralized, monolithic structure. Additionally, the AHA recommends that the program be phased to assure that benefits and services are provided in a realistic manner with available resources.[24]

At the opposite end of the continuum, the American Public Health Association (APHA) supports the implementation of a comprehensive national health insurance program leading to a National Health Service, administered by government and financed through a combination of special health service taxes on employers and employees and general tax revenues.[25] No assessment is made by the APHA, however, of the impact of a national health insurance proposal on the academic health center, although it recommends a "regional organization of hospitals."

Other professional and educational health associations have developed policy positions on national health insurance. However, none specifically addresses the impact of a national health insurance program on patient care, research and teaching programs in academic health centers.[26,27,28,29,30] It is incumbent upon all associations in the health field, as well as influential educational associations like the Association of American Universities, to formulate positions supportive of continued excellence in our academic health centers under any national health insurance program that might be enacted.

Planning at the Academic Health Center Level

The planning response of the academic health center to these issues has already commenced in some universities. Farsighted university administrators, teaching hospital directors and deans of medicine with clinical faculties are preparing for the challenges ahead by pursuing a number of planning initiatives.

A. Quality and Availability of Health Care

The first of these is the maintenance of quality of health services provided in our academic health centers and throughout the entire system in the face of

revenue constraints. Government has relied on regional Professional Standards Review Organizations (PSRO's) for review of utilization and quality of health services. Due to financial and other constraints, PSRO's have, since their inception in 1972, emphasized the more cost-oriented utilization issues as opposed to the difficult questions of clinical quality assurance. It is necessary for academic health centers to take the lead in developing workable measures and mechanisms to assure the latter. Academic health centers should also lead in evaluating the effect on quality of patient care arising from the various changes in the financing and style of clinical practice being espoused.

The academic health center has become the apex of a naturally stratified health care delivery system which, in many states, predates and is now the model sought in the health planning efforts of this nation. The National Health Planning and Resources Development Act recognized the desirability of this stratification. Two of the Act's goals are aimed at developing resources for various levels of care on a geographically integrated basis and assuring coordination of institutional health services. The Planning Act was recently modified to add the potentially conflicting goal of competition to the goal of planning coordination. A prime example of the type of conflict that could arise would be the tendency to proliferate tertiary-level specialty services at the local community level in order to provide them directly through HMO's or other competitive plans. It is necessary for academic health centers to assume leadership in assisting planners to arrive at an appropriate balance between coordination and competition which will accommodate the multiple missions of academic health centers and preserve the quality of patient care for all.

B. Patient Case Mix Studies

Another initiative of academic health centers is development of a methodology for determining teaching hospital patient case mix for use in coping with future hospital reimbursement policies. As mentioned earlier, the federal government,

through the Health Care Financing Administration (HCFA), has initiated several studies to evaluate hospital case mix. These projects are designed to group diagnoses in order to portray variances in treatment patterns among hospitals, such as differences in length of stay and the intensity of services being rendered, as a basis for limiting reimbursement by government and other third-party payors. One example is the "Diagnostic Related Grouping Methodology" developed at Yale University. Most authorities predict it will be several years before accurate case mix measures can be developed, but there is a risk one of the earlier measures will be prematurely adopted. Since university teaching hospitals care for the patients with the most complex conditions, it is crucial that the complexity and intensity of their services be accurately reflected in case mix measures and associated reimbursement. Only if this is done will the financial integrity of teaching hospitals be maintained under case mix reimbursement.

To address this problem, university hospitals must begin to evaluate the impact of case mix measures on their operations, participate in research to evaluate these measures, and take an active role in influencing how they are used, in order to avoid unnecessarily restrictive reimbursement programs. However, because teaching hospital charges presently bear the costs of extensive educational, research, new technology, and charity programs, as well as ambulatory care deficits, use of accurate case mix factors will not eliminate the need of teaching hospitals for further attention and consideration under price competitive types of national health insurance.

C. Section 223: Medicare Law Amendments of 1972

A related issue is Section 223 of the Medicare Amendments of 1972, which led to the imposition of a maximum allowable per diem cost for services defined as "routine services." Hospitals are classified into groups by bed size and location (urban and rural) and limits are calculated for each group based on the costs of the hospitals in the group. Over the past several years, modifi-

cations in these limitations have resulted in increasingly restrictive Medicare and Medicaid reimbursements. Major teaching hospitals have been especially hard hit by this regulation. Approximately 50% or $84 million of the $174 million savings to the Medicare program arising from the 1980 fiscal year curtailment is expected to be absorbed by such hospitals.[31] The recent HCFA proposal to add an "educational cost adjustment" may mitigate some of this effect in the 1981 fiscal year. However, HCFA is currently considering other reimbursement restrictions, such as per admission cost maximums, limits on all inpatient charges including ancillary services, and adjustments in limits for individual hospitals based on case mix.

Institutional planning related to these regulations has been limited to determining if the university hospital was properly classified and reviewing the hospital's cost allocation methodology. The latter review assists in assuring that excessive costs are not being allocated to "routine service" cost centers in order to minimize costs subject to the limits set under the regulatory formula. Future planning efforts must focus on the appropriateness of case mix data currently being supplied to the government through Medicare claims and other sources to assure its accuracy and completeness. If patient case mix is not accurately reflected in HCFA's reimbursement program for a given teaching hospital, the hospital's cash flow from the Medicare and Medicaid programs will be adversely affected.

D. Cost Per Patient Day Ranges

The disparity in comparative costs per patient day among teaching hospitals is also significant. The most recent (1978) data for university-owned teaching hospitals (See Table III) shows a range from $123 to $559 with the median approximating $276.[32] These costs were derived from Medicare cost reports and thus should represent a consistent methodology for calculating per diem costs. While variable staffing ratios, scope and size of educational programs,

differential salary scales, and patient case mix partially explain these per diem variances, they do not fully account for the differences involved. Accordingly, the figures indicate a need for academic health centers to sponsor detailed analyses of the comparative data to determine areas that demand management attention prior to the arrival of more controlled or price competitive payment under national health insurance or other regulatory initiatives.

Table III

UNIVERSITY-OWNED TEACHING HOSPITALS
COST PER PATIENT DAY FOR INPATIENT SERVICES IN 1978

Cost Per Day for Inpatient Services	Number of University-Owned Teaching Hospitals
$123-149	1
150-199	5
200-249	13
250-299	27
300-349	9
350-399	4
400-449	2
450-499	1
500-559	1

Median: $276

Source: Medicare Data, 1978.

E. State University-Owned Teaching Hospital Study

Another issue which directly impacts on future planning in academic health centers is the need to eliminate the present obscurity in many universities of mission, authority, accountability, and effective operating organization in the teaching hospital. Operating a hospital enterprise within the complexities of a university academic milieu is a challenge far too many universities further compound by not recognizing that a hospital is not a university and that different managerial problems, standards, and external accountabilities must prevail.

As previously indicated, the financial constraints within which university hospitals operate are becoming increasingly restrictive. There is a growing potential for a competitive model of national health insurance which would place the teaching hospital in a weakened position. An intimate relationship of the university hospital to external groups such as health planning agencies, referring physicians and their patients, community hospitals, government and third-party payors is becoming crucial to the survival of the academic health center we know today.

Universities must recognize that teaching hospitals are now at a crossroads of success and survival or failure and erosion. The university teaching hospital can no longer be viewed as a "laboratory" of the health sciences colleges, but rather it must be recognized as an enterprise providing high-quality patient care with education as a byproduct of these responsibilities. If university hospitals are to compete successfully in our changing health care system, while maintaining their educational mission, they must continue to offer the public a unique service of the highest quality. Perpetuation of long waiting times in ambulatory clinics, impersonal service, inferior communication with referring physicians, and outmoded facilities prevalent in many of our university hospitals, if uncorrected, will contribute to deterioration of their competitiveness. In some of our academic health centers, all of these features of teaching hospital management are now in need of review and refinement. If teaching hospitals are to retain their tertiary care role, attract the patient referrals essential for health science education and research, retain high-quality faculty, and concomitantly maintain a sound financial base, vigorous remedial action must be initiated.

To the end of conceptualizing solutions to these problems in state university-owned hospitals, the AAMC is presently reviewing a request to sponsor formal study of these issues. It is hoped that a multi-disciplinary steering committee

composed of university hospital directors, deans of medicine, and representatives of the Association of Academic Health Centers and the Association of American Universities will participate in this study.

F. Experimentation with New Forms of Health Education Modeling

Another element of academic health center operations which will require greater future attention from university and academic health center administrators is the funding of training for new health professional roles. Increasing cost containment initiatives, third-party resistance to reimbursing for educational costs reflected in patient charges, and a growing interest in competitive or other models of national health insurance will place pressure on academic health centers to limit experimentation with new forms of health education. Prior to nationwide or even limited implementation of a new health education program, evaluations should be conducted in a small number of academic health centers to assess the cost effectiveness of the program's future product.

G. Multi-Hospital Systems

Multi-hospital systems present an added challenge for the academic health center by providing, as they do, not only centralized corporate management and other support service, but also broad clinical specialty expertise. While multi-hospital systems are in an early state of development, they can potentially pose significant threats to continuation of established teaching hospital patient referral patterns. As they develop a stronger clinical, financial and political base with which to compete with academic health centers, the potential exists for diversion of significant numbers of patients into their own networks. If this occurs, the broad array of disease entities necessary to health science education will no longer be present in the teaching hospital, which will have its patient mix focused on tertiary level care to the detriment of a comprehensive educational experience for all health science students. Accordingly, university administrators should closely monitor developments in the multi-

hospital movement to determine if avenues of alignment with such systems are appropriate and beneficial to the goals of the academic health center.

H. Broadened Orientation of University-Federal Government Liaison Efforts

The federal government is closely linking the educational side of the health professions with health service responsibilities of the academic health center. For example, the Health Professions Educational Assistance Act ties the capitation funding of medical schools to the size and types of residency programs in teaching hospitals, thereby aligning health science education with federal patient care goals. Accordingly, congressional and federal agency liaison staff of universities must be given increasingly broader information and background regarding the health service sector of the academic health center, as well as the educational sphere, in order to represent the needs of the total center within the changing structure and goals of the federal government.

Projected Nature and Timing of National Health Insurance in the U.S.

You do not need a Washington insider to tell you that passage of any legislation this year that will create increases in the federal budget or increases in taxes is unlikely. It is also probably safe to assume that Congressional efforts to trim government spending will be an objective that will be with us for much of the 1980's.

Most of the Congress perceives the Senate Finance Committee to be the key committee for national health insurance. Its chairman, Senator Russell Long, has long been an advocate of catastrophic insurance and appears to be the individual best able to negotiate the political compromises needed to send an acceptable bill to the full Senate. Senator Long is in a particularly significant position because his committee is responsible for tax policy as well as program implementation. At this time, his tax compromise appears to favor added excise taxes on tobacco and alcohol products, rather than general or payroll tax increases.

It is worthy of note that more committee time has been spent on extensions of benefits than on the taxes required to pay for them.

How these differences of opinion will be resolved is difficult to predict, but it is clear that external factors, such as the state of the economy, will play a key role. As long as the inflation forecast for the nation remains bleak, congressional enthusiasm for new programs will be dampened and attention will be focused on legislation that will decrease rather than increase the size of existing programs.

As my historical review indicated, national health insurance seems to be an issue that periodically waxes and wanes, but never gains quite enough momentum to be enacted. This past year was no different. Last spring, there were even some suggestions that a fairly comprehensive plan might be adopted. Last fall, it appeared that catastrophic insurance might be accepted. This spring, we are not close to either of these approaches. If the circumstances are right, Congress may move quickly next year, but it would not surprise me if this latest cycle of activity has run its course.

There are, however, two developments which might alter congressional interest in national health insurance. First, if the Federal Reserve Board's tight money policy and the Carter administration's balanced budget dramatically increase unemployment, large numbers of presently insured persons will lose their employer provided health insurance coverage. With large numbers of newly unemployed eligible for Medicaid, state expenditures for health care will grow while revenues are decreasing. This will lead states to join employee groups seeking relief. When this combination arose in the mid-70's, there was a movement to have the federal government underwrite coverage for the unemployed and their families as the initial step in implementing national health insurance and, in part, to remove financial pressure from the states. In the early 80's, this problem and a proposed Federal solution may once again arise. A second development on

the immediate horizon is a congressionally mandated study of the Social Security system being conducted by the National Commission on Social Security. While the Commission's preliminary report has received limited circulation, the final report, due in January, 1981, is intended to make recommendations on the long-range future of the Social Security program. Because of the significance of health expenditures among the aged, the disabled, and the poor, the Commission's report is to address publicly financed health care. Certainly the recommendation it will make on the future role of Social Security will influence, and perhaps dramatically alter, the national health insurance debate.

It is apparent that we hear less talk today about health care as a right for all Americans and more discussion about protection of citizens from catastrophic financial expense, and then only if additional savings in present health care expenditures can be achieved. It is not evident where these savings can be found. As a result, I would speculate that Senator Kennedy's legislation, or any other proposal that mandates comprehensive health insurance benefits, clearly will not be passed in the foreseeable future. Catastrophic health insurance is the only form of national health insurance that will receive serious consideration, but Congress is not willing to act on even a catastrophic bill this year. There is a possibility that catastrophic national health insurance may pass next year, particularly if there are some assurances that cost containment measures, whether mandatory or induced through competition, will offset the additional federal expenditures created by catastrophic coverage. But even Senator Long appears to see the need for new excise taxes on cigarettes and alcoholic beverages to support catastrophic insurance and this may delay the enactment of any legislation in 1981 or the years immediately beyond.

Concluding Statement

While I have outlined a host of substantial challenges facing academic health centers in the years ahead, I would hope that none of you conclude that operating an academic health center is a "price too high to pay" for your respective universities. These centers, which are of critical importance to society as a whole, have been built through huge investments in capital and human resources, particularly over the past several decades, and now represent tremendous national resources. Speaking from the perspective of one functioning within a university academic health center, I will close with the following thought: If we are to meet the challenges ahead, we must have the thorough understanding and vigorous support of University Presidents in order to succeed. For this reason, I am especially grateful for the opportunity to share these thoughts with you this afternoon. I hope they have been helpful. Thank you.

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[4]John J. Moscato, "Federal Health Legislation: Overview and Assessment," in Health Management for Tomorrow, ed. by Samuel Levey and Thomas McCarthy (Philadelphia: J. B. Lippincott Co., 1980), p. 35.

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DISPOSAL OF RADIOACTIVE WASTES FROM BIOMEDICAL INSTITUTIONS

The following position paper is self-explanatory. The effort which generated it, however, came from an increasing awareness in early 1980 that (1) the disposal sites were likely to close again, (2) the Federal agencies were unable to initiate a policy which would address and solve the problems of biomedical institutions in a timely fashion, and (3) the formation by President Carter of a new Radiation Policy Council seemed to augur well for the success of an effort initiated by the private sector. We were encouraged in this activity by Dr. Gilbert Omenn, late of the Office of Science and Technology Policy, Executive Office of the President.

The position paper is presented for the Administrative Board's information, discussion and comment.

May 2, 1980

RADIOACTIVE WASTES FROM BIOMEDICAL INSTITUTIONS

BACKGROUND

Among the most significant blessings of the peaceful atom are remarkable advances in biomedical research and the care of patients which have been made possible by the use of radionuclides. For example, biomedical researchers are now able to follow the most complex metabolic processes of the body by the use of very small or "tracer" amounts of isotopes; in medical diagnosis abnormal areas of the heart can be "lighted up" after heart attacks by the intravenous injection of technetium or thallium isotopes of high specific activiity but very short (hours) half-life; hormones can be detected in miniscule amounts by radio-immunoassay, thyroid and bone diseases can be detected; cancers can be treated more effectively by implantable radiation sources or by the cobalt source for high intensity, narrow beam irradiation——the list of "miraculous" benefits is very long and growing.

But, for the past two years, these benefits have been threatened by public conerns about the safety of radioactive wastes of all sorts. The risks of biomedical uses of radioactive materials are extraordinarily low but because the public is not well informed about such matters the biomedical uses of radioisotopes for research and patient care are now caught up in public debate about nuclear power and nuclear weapons.

One aspect of this debate has led to the closing of the disposal sites for low-level radioactive wastes. A lecture delivered at the 5th Congress of the International Radiation Protection Association, Jerusalem, in March 1980 stated, in part:

> *"The low-level radioactive waste burial grounds in the United States have been closed or have operated at reduced capacity for many months, much to the inconvenience of biomedical institutions that are prevented by federal and state*

regulations from disposing of such wastes by other means. Most of the radioactivity in the wastes produced by these institutions is due to two nuclides, tritium and carbon-14, which are largely contained in plastic vials used in liquid scintillation counters.

Tritium and ^{14}C are both produced naturally by cosmic-ray interactions with the atmosphere. Tritium is produced at an annual rate of 1.9 [million] curies (Ci), leading to a steady-state environmental inventory of 34 [million] Ci. Carbon-14 is produced at an annual rate of about 38,000 Ci, which because of its long life results in a global accumulation of 315 [million] Ci. Humans have always been exposed to the radiations from these nuclides, but they are both soft beta emitters and the annual dose we receive is only 0.001 mrem from ^{3}H and 0.7 mrem from ^{14}C. The combined dose from the huge accumulation of these nuclides is thus about 0.5 percent of the 130 mrem to which the average person is exposed from all natural sources. Tritium and ^{14}C were also dispersed into the environment when nuclear weapons were tested in the atmosphere; by 1972, an estimated 5.8 [million] Ci of ^{14}C and 4.5 [billion] Ci of ^{3}H were added to the atmosphere in this way.

Compared to these quantities, the amounts of ^{14}C and ^{3}H present in the wastes from clinics and laboratories are miniscule. An estimated 2,390 facilities in the United States used one or both of these nuclides in 1978 and shipped a total of 720 Ci of ^{3}H and 221 Ci of ^{14}C to waste burial grounds. (1) (Emphasis added.)"

In other words cosmic rays each year add more than 2,600 times more tritium (^{3}H) and more than 170 times more carbon-14 to the atmosphere than were present in wastes from all hospitals and research laboratories.

Prominent scientists have made similar public statements regarding the relatively low hazards of radioactive wastes generated from the Nation's hospitals, biomedical research laboratories and university non-biological research activities (2). Particularly important in this regard is the report "Institutional Radioactive Wastes---1977" prepared by the Radiation Safety Office of the University of Maryland at Baltimore for the Nuclear Regulatory Commission (NRC) in October, 1979 (3). This report identified three institutional "wastestreams": medical, bioresearch and non-bioresearch. A survey was conducted with the following results:

> *"A followup survey to the 1975 institutional radioactive waste study was conducted to obtain data for the calendar year 1977. The survey population of large medical and academic licensees shipped an estimated 7,771 m^3 of low level waste for burial in 1977. Approximately 7% of the waste volume was ascribed to purely medical sources, 79% to sources conducting biological research and 14% to other academic sources. The estimated total activity shipped by the population in 1977 was 1,688 Ci, of which 81% was ^3H. Approximately 540 Ci of ^3H was shipped as depleted tritium targets for neutron generators. Much of the rest was in the form of labeled compounds or labeling reagents used in biological research. The fastest growing waste form produced by the population is waste liquid scintillation vials which have undergone a 60% increase in volume since 1975. The waste volume produced by the population appears to be increasing linearly, at approximately the same rate as low level radioactive wastes in general." (3)*

A Working group was assembled under the auspices of the Association of American Medical Colleges (AAMC), the National Association of State Universities and Land Grant Colleges (NASULGC) and the Association of American Universities (AAU) to examine the situation and to propose

a solution to the problem of disposal of radioactive wastes now facing the hospitals and biomedical research institutions. The Working Group agreed that radioactive isotopes used in these institutions were generally at very low levels in both absolute and relative terms but that chemicals were also involved which posed, in some instances, a potentially greater waste hazard than the radionuclides themselves.

The Group accepted the terms relating to institutions and wastestreams as defined in the Maryland Report to the NRC (see Appendix A). The Group further noted that Department of Transportation (DOT) regulations (4) define "radioactive materials" as any substance containing more than 2.5 nanocuries (2.5×10^{-9} Ci) per gram.

The Working Group suggested that it is both convenient and sensible to divide radioactive nuclides used now and in the future in medical and bioresearch institutions into two groups:

A) Long-lived radionuclides--(i.e. half-lives longer than 3 years)---principally tritium (^{3}H) and carbon-14 (^{14}C), and

B) Short-lived radionuclides---(half-lives shorter than 3 years)---including chiefly ^{32}P, ^{57}Co, ^{67}Ga, ^{99M}Tc, ^{99}Mo, ^{111}In, ^{125}I, ^{131}I, ^{127}Xe, ^{133}Xe and ^{201}Th.

A third group of radionuclides also is found in hospitals and research institutions. These are the radiation generators and sources used principally for medical therapy. These sources generate high energy rays or particles but are usually re-cycled and do not form a significant institutional radiation waste problem. Some implantable "seeds" and source targets do become wastes each year but this a very small disposal problem.

The Working Group noted that present NRC regulations permit the disposal through sanitary sewers of water soluble radioactive materials which are not otherwise hazardous (5). Dilution and flushing down the drain is permitted so long as the concentration of radioactivity in the effluent does not exceed the amounts shown in Table 1, for example, for water soluble ^{3}H and ^{14}C compounds.

TABLE 1

NRC RADIATION PROTECTION STANDARDS
PERMISSIBLE SANITARY SEWER EFFLUENT LEVELS

	Concentration in Water above Natural Background Radioactivity in Ci per ml. for	
Isotope	40 hour week	168 hour week
Carbon-14(^{14}C)	$2x10^{-8}$	$8x10^{-10}$
Tritium (^{3}H)	$1x10^{-7}$	$2x10^{-9}$

Similar amounts of radionuclides may be discharged by incineration into the air. The total amount of radioactivity which may be disposed of through sanitary sewers in one year, however, is limited to one Curie of total radioactivity per institution per year. This limitation was derived arbitarily on the grounds of previous experience. The total permitted to be disposed of nationally through sanitary sewers is determined by the number of institutions rather than by more rational safety considerations. The Working Group proposed that annual institutional limits be raised while adhering to present NRC standards for effluent levels. Experience shows (3) that even if annual institutional limits for sewer disposal were raised to 5 Curies of tritium and 1 Curie of carbon-14 the national burden would be unchanged and the average per institution would be unchanged. Human safety would be unaffected. What would be changed would be the necessity to ship large volumes long distances.

The Working Group noted that bioresearch wastes are usually products of "tracer" diagnostic or research studies and are thus diluted below permissible effluent levels during the course of the studies in a large proportion of situations. Thus, present NRC standards permit the disposition of much of the radioactive waste generated by the three biomedical wastestreams. It was recognized, however, that a few experimental situations, do not conform to this general pattern of dilution. In addition, many tritium or carbon-14 wastes are insoluble in water or are potentially chemically hazardous.

The Working Group also was informed of the proposal now being considered by the State of Washington (5) and some Federal agencies to set a "de minimus" level of radioactivity for these long-lived nuclides which would be both "safe" (within reasonable limits) and practical. Washington State House Bill No. 1963 contains the following definition:

> (9) *"Diminimus [sic] quantities of waste" means material which is considered waste and which contains radioactive material either intrinsically or as contamination, but at such levels that controlled and direct disposal into solid waste disposal sites does not constitute a public health hazard. Such waste shall be restricted to radioactive materials which: (a) Decay with a half life of less than three years; or (b) contain Hydrogen-3 or Carbon-14; and (c) have an average concentration per package unit that does not exceed 0.1 UCi/gram (micro-Curie) or 0.1 Ci/M^3 (Curie per cubic meter).*

Wastes containing radioactivity below this "de minimus" level would be permitted to be transported on state highways without special license, buried in ordinary landfill sites or stored in hazardous chemical areas without the necessity of obtaining special licenses for handling radioactivity. The proposed Washington

State standard is forty times present DOT levels on a unit package basis but is approximately equal to present NRC air and water effluent permissive standards. Adoption of such a law in all state jurisdictions and/or as a national standard would eliminate the necessity to transport almost all long-lived radionuclides to the Nevada, Washington and South Carolina waste disposal sites.

Wastes containing short-lived nuclides, tritium and carbon-14 in "de minimus" quantities can be disposed of safely in most cases by the same procedures that are applicable to non-radioactive wastes. The disposal of radioactive organic wastes and particularly of the increasing volume of scintillation vials containing toluene and other potentially hazardous chemicals is a special problem. As a recent Science editorial noted:

> *"Subject only to limitations imposed by characteristics other than their radioactivity, they can be flushed into sewers, put into trash bins, or incinerated. If the incinerator is well designed and operated, the risk to the nearby public will be of no consequence. If the ^{14}C and ^{3}H used in 1978-by all biomedical institutions in the United States were to be discharged by the incinerator stack of a single institution, the dose to the public would meet existing standards within a few tens of meters from the point of release to the atmosphere.*
>
> *The rules of the regulatory agencies permit application for a permit to incinerate, but the institutions have not taken advantage of this option because it would be difficult to obtain public acceptance of the practice. The institutions have instead opted to accept the burden of unnecessary record-keeping and inspection procedures, as well as the expense of shipping their wastes to distant burial grounds. These have now been denied to them for reasons related more to unrealistic fears than to justifiable concerns."*

An important consideration in dealing with the problem of radioactive waste disposal is the education of the public and of institutional officials: *"Radioactivity continues to present formidable barriers to its understanding of the subject. It is not unusual for discussions of waste disposal to involve units as small as picocuries (10^{-12} Ci) and as large as hundreds of megacuries. This is a range of 20 orders of magnitude, a spread of values totally without precedent insofar as the public and most scientists are concerned. Members of the public and their elected officials may not understand the enormous difference between picocuries and megacuries (1)."*

Another important consideration is the cost aspect. As fuel costs escalate institutional administrators are becoming increasingly aware of the cost of trucking wastes to distant landfill sites. In such circumstances incinerators become increasingly cost-effective.

Even if "de minimus" levels were adopted the problem of disposal of "short-lived" radionuclides would reamin. However, in the opinion of the Working Group, the problem could be very much ameliorated or eliminated by on-site storage in a secure, placarded area for the appropriate time sufficient to assure adequate decay. Such areas are generally available now in hospitals and research institutions and are usually 12x20 foot basement rooms with cinderblock walls. Contaminated materials should be monitored after storage and decayed materials below the "de minimus" level can be removed to routine waste disposal without danger. As was pointed out in the discussion of incineration above, education of public and institutional officials to the realistic hazards to be expected and the need for intelligent sorting of wastes are essential.

There is a special problem for hospital and research laboratories that require constant supplies of radioisotopes for diagnosis, therapy and research. A relatively small number of radiopharmaceutical and chemical manufacturers produce these radioisotopes. The manufacturing processes employed generate relatively large volumes of radioactive waste at much higher levels than those encountered at the biomedical research institutions and hospitals. These manufacturing wastes cannot be disposed of through sewers, by incineration or by local burial. Unlike nuclear power plants, biopharmaceutical manufacturers have only very limited storage areas for waste products, therefore, a small but steady stream of wastes must flow from the manufacturers to the three national low-level waste disposal sites if the essential diagnostic and therapeutic short-lived isotopes are to be available for patient care and, to a lesser extent, for research. The volume of waste generated from this manufacturing process is not large when viewed in the context of the capacity of the disposal sites but is overwhelming when compared to the manufacturing plant's storage capacity. The flow of radioisotopes needed for critical medical diagnosis, treatment and research could be shut down in a matter of weeks if the national disposal sites were closed.

RECOMMENDATIONS

Recommendation I: Hospitals, bioresearch and non-bioresearch institutions should take increasing responsibility for the intelligent, safe, local management of radioactive wastes by:

a) sorting short-lived from long-lived radionuclides,
b) storing and holding short-lived nuclides until these have decayed to levels which would permit their safe disposal (see below),
c) sorting long-lived isotopes by level of activity and by class as to aqueous or organic liquids or solids, and
d) exploring new methods of disposal appropriate to the institutional setting (e.g., incineration, local landfill).

Recommendation II: The Nuclear Regulatory Commission should continue its present policy with regard to air and aqueous disposal effluent levels for radionuclides but should permit each institution to dispose of a maximum of 5.0 Curie for ^{3}H and 1.0 Curie for ^{14}C compounds annually (over and above the present 1.0 Curie annual total for all other nuclides). All other Federal agencies should observe the NRC standards.

Recommendation III: A "de minimus" level of radioactive waste should be defined by the Nuclear Regulatory Commission (and observed by the Department of Transportation, the Environmental Protection Agency, other Federal agencies and states which have agreements with these agencies) so that wastes containing less than 0.1 micro Curie per gram or milliliter can be incinerated and/or transported and/or buried or stored locally without special regulation other than that required by the non-radioactive hazards of the waste.

Recommendation IV: Wastes containing "de minimus" levels of radionuclides may contain hazardous chemicals with toxic or carcinogenic potential and must be handled as such. Complete combustion is recommended as the most promising means of disposal of the scintillation fluid now being generated in increasing amounts.

Recommendation V: Wastes generated by biomedical isotope and radiopharmaceutical manufacturers should receive priority and preferential access to national waste disposal sites. (This recommendation is needed as explained in the text, because of the special problems encountered by manufacturers of critically needed diagnostic agents.)

REFERENCES

1. Eisenbud, M. Science, Vol. 207, No. 4437, March 21, 1980.

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3. Beck, T. J., Cooley, L. R. and MacCampbell, M. R. Institutional Radioactive Wastes—1977. US NRC Pub NUREG/CR-1137, Washington, D.C.

4. U. S. Department of Transportation. Title 49, Code of Federal Regulations, Transportation. Part 173, Shippers-General Requirements for Shipments and Packaging; Sub part H., Poisonous Materials, Etiological Agents, and Radioactive Materials; Definitions and Preparation, Washington, D.C.

5. U. S. Nuclear Regulatory Commission, 1979. Title 10, Code of Federal Regulations, Part 20, Standards for Protection Against Radiation. Washington, D.C.

6. Washington State House of Representatives, Bill No. 1963, January 22, 1980, Olympia, Washington.

GLOSSARY

BIORESEARCH WASTESTREAM - One of three wastestreams identified for analytical purposes in the 1977 institutional radioactive waste study. This wastestream is characterized by waste resulting from the non human use of radioactive materials in biochemical, biophysical, and physiological investigations using radiolabeled tracer techniques.

COLLEGE - The term used by the authors when referring to any four-year college or university.

ENTITY - The term used by the authors to distinguish reference to a hospital, medschool, or college from an institution, which may include more than one of these.

INSTITUTION - The term used by the authors referring to an administrative facility. An institution may be a single entity (e.g. a hospital) or it may include more than one entity (e.g. a hospital and a medical school).

MEDICAL WASTESTREAM - One of three wastestreams identified for analytical purposes in the 1977 institutional radioactive waste survey. This wastestream is characterized by waste produced from the use of radioactive materials for *in vivo* diagnosis, therapy, and research; and from *in vitro* use such as routine clinical assays.

NON BIORESEARCH WASTESTREAM - One of three wastestreams identified for analytical purposes in the 1977 institutional radioactive waste study. This wastestream is characterized by waste resulting from the use of radioactive materials in investigations of non life sciences such as physics, inorganic chemistry, materials analysis, geology, etc.; and including production of activation products with charged particle accelerators or research nuclear reactors.

RADWASTE - radioactive waste.

SEALED SOURCE - Radioactive materials permanently sealed, encapsulated or affixed (e.g. electroplated) in a nondispersible form.

WASTESTREAM - A general category of use of radioactive materials which results in continuous or regular discharge of radioactive materials into the environment.

REVIEW OF DEANS COMPENSATION SURVEY

The Association has conducted surveys of deans' compensation since 1965, as a service to members of the Council of Deans. The results are distributed in a confidential memorandum to the Council and are not used for any other purpose by the Association.

With the 1978 report, a questionnaire was included to ask each dean whether or not the report was of use to him and whether or not he would participate in a subsequent survey. Four weeks after distribution of the survey, seventy-eight responses had been received, with the following results.

Do Use = 66	Do Not Use = 12	Total = 78
Will Participate = 73	Will Not Participate = 2	Total = 75

Actual participation was 105 in 1977-78 and 1978-79 and 109 in 1979-80.

It seems clear that the report is of use to most deans and that they do support continuation of the survey. There are some questions, however, on which the staff requests advice from the Administrative Board.

Timing

At present, the Deans Compensation Survey is done after the Faculty Salary Survey is completed. For 1979-80, the questionnaire was distributed on January 24, and the report was mailed on May 5. Several deans have told us that the report needs to be ready sooner. There is a problem with peak workloads for staff of the Division of Operational Studies, so that it would not be very feasible to advance the date a month or two. The survey could be done in the early fall, however, while waiting for returns on the Faculty Salary Survey to come in. The survey would be mailed in late August, with a deadline for return of perhaps September 17. We would try to complete the report in October or early November. Would this be a preferable schedule for the deans?

Scope

For several years now, the deans compensation questionnaire has been limited to a single page, requesting title, title of immediate superior and amounts for salary, fringe benefits, deferred compensation and additional income. The 1976 report included additional detail on the nature of fringe benefits and perquisites. More detailed information would obviously be of interest, but on the other hand it would complicate both the completion of the form and the subsequent analysis. Should the form be made more comprehensive, should it be simplified still further, or should it remain at the same level of complexity?

Problem Areas

Do we need a definition of fringe benefits which would clearly distinguish them from perquisites? We might say something like: *Include all benefits with a dollar value that is known or can be estimated, and which are intended to supplement salary as a part of compensation. Do not include deferred compensation. Do not include perquisites such as travel or entertainment allowances, which are intended to assist in performing decanal functions.*

We continue to have problems in distinguishing deferred compensation from participation in tax deferred annuities through salary reduction agreements. How can the wording of this question be improved?

Do the members of the Administrative Board have any other suggestions for improvement of the survey and report?

ASSOCIATION OF AMERICAN MEDICAL COLLEGES--1980 ANNUAL MEETING

"The New Biology and the Future of Medical Education"

Plenary Sessions -- Preliminary Schedule

Monday, October 27

9:00 a.m.	DeWitt Stetten, M.D. Senior Science Advisor National Institutes of Health	The Evolution of New Ideas: general introduction to the meeting's theme, tracing interaction of funding, research, and new knowledge
9:30 a.m.	Eric Kandel, M.D. Director, Division of Neurobiology and Behavior Columbia University College of Physicians & Surgeons	The New Biology: Neurobiology: scientific advances in neurobiology (Sponsored by Burroughs Wellcome Fund)
10:00 a.m.	Coffee Break	
10:30 a.m.	Philip Leder, M.D. Chief, Laboratory of Molecular Genetics National Institute of Child Health & Human Development	The New Biology: DNA Research scientific advances in DNA research (Sponsored by Burroughs Wellcome Fund)
11:00 a.m.	Daniel Tosteson, M.D. Dean Harvard Medical School	Alan Gregg Memorial Lecture: relation of new biology and scientific advances to medical education and medical practice
11:30 a.m.	Adjournment	

Tuesday, October 28

9:15 a.m.	Presentation of Abraham Flexner Award by John Gronvall, Chairman of Flexner Award Committee
9:30 a.m.	Presentation of Borden Award by Harriet Dustan, Chairman of Borden Award Committee
9:45 a.m.	Keynote Address: Gerald Piel, Publisher, Scientific American
10:15 a.m.	Chairman's Address: Charles Womer, President, University Hospitals of Cleveland
10:45 a.m.	Adjournment

BIOMEDICAL TECHNOLOGY: ITS IMPACT ON MEDICAL EDUCATION AND MEDICAL PRACTICE

Tuesday, October 28, 1980
2:00 pm - 4:00 pm
Washington Hilton Hotel

Moderator: Charles A. Sanders, M.D.
General Director
Massachusetts General Hospital

Panelists: Robert H. Ebert, M.D.
President
Milbank Memorial Fund

Dr. Ebert will discuss the discovery/invention of new technology and its incorporation into medical education and medical practice; the evaluation of new technology, including the timing of the review, the criteria, and who reviews; and the point at which new technology replaces the old in the education and practice settings.

Steve Schroeder, M.D.
Associate Professor of Medicine
University of California, San Francisco

Dr. Schroeder will discuss the utilization of laboratory and x-ray technology, to shift the focus of the session away from just the "big technologies" such as CAT scanners.

Walter J. McNerney
President
Blue Cross/Blue Shield Associations

Mr. McNerney will discuss how technology gets paid for; when new technology replaces the old for reimbursement purposes; the role of cost in decisions about reimbursement for new technology; and the medical necessity project.