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Comprehensive Cancer Centers: Their Locations And Role In Demonstration

Department of Health, Education, and Welfare

The National Cancer Institute should clarify for the Congress how it plans to designate comprehensive cancer centers and how these centers are to work with the public, physicians, and researchers in their communities.

MWD-76-98

MARCH 17, 1976

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

MANPOWER AND WELFARE
DIVISION

B-164031(2) GAO00260

The Honorable
The Secretary of Health,
Education, and Welfare

Dear Mr. Secretary:

This report recommends that the National Cancer Institute clarify for the Congress how it plans to designate comprehensive cancer centers and how these centers are to work with the public, physicians, and researchers in their communities. The National Cancer Institute officials agreed with our findings.

As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House and Senate Committees on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the House and Senate Committees; the House Committee on Interstate and Foreign Commerce; the Senate Committee on Labor and Public Welfare; the Director, Office of Management and Budget; your Assistant Secretaries for Health, Planning and Evaluation, and Comptroller; and the Directors, National Institutes of Health and National Cancer Institute.

Sincerely yours,

Gregory J. Ahart
Director

Contents

		Page
DIGEST		i
CHAPTER		
1	INTRODUCTION	
	Development of the center concept	1
	Role of the National Cancer Advisory Board	2
	Types of cancer centers	2
	Center characteristics	3
	Existing comprehensive centers	3
	Scope of review	3
2	DESIGNATION AND LOCATION OF COMPREHENSIVE CENTERS	7
	Congressional objectives regarding geographic distribution	7
	Method of designating comprehensive centers	8
	Adequacy of coverage today	8
	Potential center locations	9
	Problems in balancing criteria	11
	Conclusions	11
	Recommendations to the Secretary of HEW	12
3	COMPREHENSIVE CENTERS ARE NOT FOCAL POINTS FOR DEMONSTRATION ACTIVITIES IN THEIR AREAS	13
	Objectives regarding demonstration and coordination	13
	Lack of specific responsibilities	14
	Competition	15
	Multiinstitution centers	15
	Coverage area	16
	Conclusions	16
	Recommendations to the Secretary of HEW	17

APPENDIX		Page
I	Characteristics of comprehensive cancer centers	18
II	General considerations relating to cancer centers	20
III	Principal officials of the Department of Health, Education, and Welfare responsible for administering activities discussed in this report	22

ABBREVIATIONS

GAO	General Accounting Office
NCI	National Cancer Institute
NIH	National Institutes of Health

GENERAL ACCOUNTING OFFICE
REPORT TO THE SECRETARY
OF HEALTH, EDUCATION, AND
WELFARE

COMPREHENSIVE CANCER
CENTERS: THEIR LOCATION AND
ROLE IN DEMONSTRATION
Department of Health, Education,
and Welfare

D I G E S T

RECOMMENDATIONS

The National Cancer Institute should:

--Decide on the specific factors that will be used to determine locations of comprehensive cancer centers, balancing the need for geographic distribution with other factors.

--Report to the appropriate congressional committees on the affect other factors will have on locations of centers and the feasibility of achieving an appropriate geographic distribution.

--Clarify the role of the comprehensive center as a focal point for demonstration programs, including establishing criteria for determining when the centers can act effectively as focal points.

LOCATION OF CENTERS

As of December 31, 1975, the National Cancer Institute designated 17 comprehensive cancer centers across the country in response to 1 provision of the National Cancer Act of 1971. The Congress wanted these centers to be hubs of biomedical research, to link basic biomedical researchers and applied clinical care, and to be situated so that the majority of citizens would be within a reasonable distance.

The National Cancer Institute estimates that it will take about 31 comprehensive centers to serve about 180 million people. So far, the 17 comprehensive centers have been part of institutions where excellent

cancer research programs already exist and a balanced geographic distribution has not been achieved. If the National Cancer Institute continues to designate centers at the top research institutions, and indications are that it will, large portions of the country will not have immediate access to comprehensive centers. (See ch. 2.)

The National Cancer Institute is studying what factors should be considered in designating comprehensive cancer centers and how these factors will influence an appropriate geographic distribution.

ROLE IN DEMONSTRATION ACTIVITIES

The Congress wanted the centers to act as focal points for cancer-related demonstration activities in their areas. The National Cancer Institute has not, ~~however~~, given the centers any specific responsibilities to act as focal points nor evaluated the areas the centers are serving to see if they are reaching as many people as possible or if they are duplicating efforts of other centers.

Because many centers are in cities where several institutions are sponsoring cancer research, the competition among these institutions, including the center, for Federal research funds raises questions about the practicality of a focal point. The National Cancer Institute has also encountered problems where several institutions have been designated as a single comprehensive center. (See ch. 3.)

The National Cancer Institute officials agreed that not all centers are acting as focal points for demonstration programs. They explained, however, that such centers have not developed to where they can effectively act as focal points.

CHAPTER 1

INTRODUCTION

The National Institutes of Health (NIH) mission is to improve the health of all Americans by conducting and supporting research concerning the nature, causes, prevention, detection, diagnosis, treatment, and cure of diseases and rehabilitating patients. It does this by research in its facilities, supporting others' research through grants and contracts, and sponsoring the training of new researchers.

The National Cancer Institute (NCI) is the oldest and largest of the 11 research institutes of NIH and received $691 million for fiscal year 1975. NCI coordinates the National Cancer Program, which includes cancer research in other NIH institutes and other Federal and non-Federal programs. The purpose of the National Cancer Program is to develop the means to reduce cancer in humans and morbidity and mortality caused by cancer.

DEVELOPMENT OF THE CENTER CONCEPT

In response to needing multidisciplinary cancer research and rapid translation of new findings into coordinated care for cancer patients, NCI initiated a cancer research centers program in the early 1960s to provide grants to support and develop cancer complexes. Initially research, although multidisciplinary, was directed to one approach to the cancer problem, such as radiation therapy. In recent years there has been increasing emphasis upon complexes with a broad scope which provide a comprehensive attack upon cancer.

In 1970 a panel of consultants on the conquest of cancer was established because of a Senate resolution. The panel reported its views on a comprehensive national plan to the Senate Labor and Public Welfare Committee, including a recommendation that existing cancer centers be strengthened and additional centers be created in different parts of the country. The panel wanted the centers to expand a multidisciplinary research effort

> "* * * where teams of highly qualified specialists are available to interact on problems of research, both clinical and nonclinical, teaching, diagnosis, preventive programs, and the development of improved methods in the delivery of patient care, including rehabilitation."

The panel's report was the basis for The National Cancer Act of 1971 (Public Law 92-218). Section 3 of that act authorized the NCI Director to establish "* * * fifteen new centers for clinical research, training, and demonstration of advanced diagnostic and treatment methods relating to cancer." An amendment to the act in 1974 (Public Law 93-352) removed the restriction on the number of new centers.

ROLE OF THE NATIONAL CANCER ADVISORY BOARD

The National Cancer Advisory Board was established in 1937 as the National Advisory Cancer Council. It was renamed and restructured by the 1971 act. The Board reviews applications for cancer research grants and advises the NCI Director about the National Cancer Program.

In October 1974 the Board reactivated its Subcommittee on Cancer Centers. The Subcommittee advises the Board and NCI about the centers program and helps the Board in guiding and developing the program to the fulfillment of the centers' objectives in the 1970 panel of consultants report and subsequent legislation. In February 1975 the Subcommittee recommended improvements in the centers program, with which the Board concurred. The NCI staff is working with the Subcommittee to implement those recommendations, including developing

--a long-range plan for the program,

--better criteria for evaluating the performance of centers, and

--procedures for identifying institutions which qualify for consideration as comprehensive cancer centers.

TYPES OF CANCER CENTERS

NCI supports two types of research centers--comprehensive and specialized. Comprehensive centers are those referred to in the 1971 act and are supposed to conduct long-term multidisciplinary programs in cancer biomedical research; cancer clinical services and investigations; cancer training and education; and community programs of cancer diagnosis, epidemiology, and preventive medicine. Specialized centers have programs in one or more but not all of the above areas, in which the research, specialized study, or patient treatment has resulted in well-defined areas of emphasis.

CENTER CHARACTERISTICS

The Board has determined that NCI's comprehensive and specialized centers should meet specific characteristics, ranging from a distinct administrative structure to an excellent research environment. The Board has also listed several general considerations relating to all cancer centers. These characteristics are listed in appendixes I and II.

EXISTING COMPREHENSIVE CENTERS

NCI and the Board determined that three comprehensive centers existed when the 1971 act was passed. As of December 31, 1975, NCI has designated 14 additional centers, consisting of research institutions, hospitals, and medical centers.

Centers can receive grants to support their central, or core, functions. These grants are awarded after application by the institution and the traditional peer review for scientific merit. NCI sponsors only two programs exclusively for comprehensive centers--a contract-supported communications network and a cancer control developmental grant program. In fiscal year 1975 these programs provided about $3.8 million to the comprehensive centers.

The table on the following pages identifies the 17 locations and the institutions making up the center in each location and provides data on their NCI support for fiscal year 1975.

SCOPE OF REVIEW

Our review of NCI's cancer centers program concentrated on only the comprehensive centers because of the specific provision for those centers in the National Cancer Act of 1971 and the emphasis placed on those centers by both the Congress and NCI. We also concentrated on NCI's efforts to achieve an appropriate geographic distribution for the comprehensive centers and the centers' efforts to coordinate demonstration activities in their areas.

We made our review at NCI headquarters in Bethesda, Maryland, and at the comprehensive centers in Philadelphia (Institute for Cancer Research and University of Pennsylvania) and Washington, D.C. (Georgetown and Howard Universities). We also visited the comprehensive centers in New York City (Memorial Hospital for Cancer and Allied Diseases and Sloan-Kettering Institute), Baltimore (Johns Hopkins University), and Boston (Sidney Farber Cancer Center). Our work included discussions with NCI and center officials and a review of (1) legislation, (2) legislative and appropriations hearings, and (3) NCI grant, contract, and program files.

Comprehensive Cancer Centers
NCI Funding
Fiscal Year 1975

	Location/institution and date designated	Core grant (note a)	Other grants (note b)	Contracts (note b)	Total
		(000 omitted)			
1.	Houston, Tex. (Dec. 1971) (note c):				
	M. D. Anderson Hospital and Tumor Institute	$ 1,029	$ 9,510	$ 4,241	$ 14,780
2.	Buffalo, N.Y. (Dec. 1971) (note c):				
	Roswell Park Memorial Institute	381	8,606	2,101	11,088
3.	New York, N.Y. (Dec. 1971) (note c):				
	Memorial Hospital for Cancer and Allied Diseases	-	5,680	2,836	8,516
	Sloan-Kettering Institute for Cancer Research	6,879	7,712	805	15,396
4.	Boston, Mass. (June 1973):				
	Sidney Farber Cancer Center	260	5,802	863	6,925
5.	Baltimore, Md. (June 1973):				
	Johns Hopkins University	913	5,405	2,366	8,684
6.	Durham, N.C. (June 1973):				
	Duke University	1,012	3,303	1,257	5,572
7.	Birmingham, Ala. (June 1973):				
	University of Alabama	1,757	1,616	1,354	4,727
8.	Madison, Wis. (June 1973):				
	University of Wisconsin-Madison	871	8,465	1,251	10,587

	Location/institution and date designated	Core grant (note a)	Other grants (note b)	Contracts (note b)	Total
9.	Seattle, Wash. (June 1973):				
	Fred Hutchinson Cancer Research Center	1,576	297	869	2,742
	University of Washington	-	3,953	735	4,688
10.	Los Angeles, Calif. (June 1973):				
	University of Southern California	1,103	3,984	4,154	9,241
11.	Miami, Fla. (June 1973):				
	University of Miami	631	2,914	983	4,528
12.	Rochester, Minn. (Nov. 1973):				
	Mayo Foundation	529	1,362	3,596	5,487
13.	New Haven, Conn. (June 1974):				
	Yale University	138	7,467	1,222	8,827
14.	Washington, D.C. (June 1974):				
	Georgetown University	91	246	787	1,124
	Howard University	283	502	659	1,444
15.	Chicago, Ill. (June 1974):				
	University of Chicago	984	3,751	989	5,724
	Northwestern University	-	842	-	842
	Rush-Presbyterian-St. Luke's Medical Center	357	616	708	1,681
	Chicago Medical School	-	164	-	164
	Southern Illinois University	-	-	-	-
	Loyola University	-	13	-	13
	Chicago College for Osteopathic Medicine	-	-	-	-
	VA Hospital	-	-	-	-
	Illinois Dept. of Public Health	-	-	209	209
	American Cancer Society (Illinois division)	-	-	-	-
	Illinois State Medical Society	-	-	-	-

Location/institution and date designated	Core grant (note a)	Other grants (note b)	Contracts (note b)	Total
16. Denver, Colo. (June 1974):				
University of Colorado Medical Center	386	1,234	305	1,925
University of Colorado (Boulder)	-	220	73	293
Colorado State University	-	924	160	1,102
Children's Hospital	-	282	114	396
17. Philadelphia, Pa. (Oct. 1974):				
Institute for Cancer Research	2,745	3,046	477	6,268
University of Pennsylvania	579	4,695	344	5,618
Total	$22,504	$92,629	$33,458	$148,591

a/Core grants may be used for key administrative personnel; commonly shared equipment, supplies, travel, and other expenses; and special center programs, such as education, outreach, and telecommunications.

b/Other grants and contracts support research projects.

c/Centers existing when the National Cancer Act was passed.

CHAPTER 2

DESIGNATION AND LOCATION OF COMPREHENSIVE CENTERS

According to the legislative history of the National Cancer Act, comprehensive cancer centers are to have an appropriate geographic distribution. Because NCI's criteria for these centers stress research excellence, geographic distribution is not being achieved. Although NCI officials realize the need for an appropriate geographic distribution, they believe that many other factors--such as the location of excellent research institutions--will also influence the locations of comprehensive centers. NCI should decide on the specific factors that will be used to determine the locations of comprehensive centers and report to the appropriate congressional committees on the affect these factors will have on achieving an appropriate geographic distribution of comprehensive cancer centers.

CONGRESSIONAL OBJECTIVES REGARDING GEOGRAPHIC DISTRIBUTION

In recommending that cancer centers be strengthened and new ones created, the Senate's panel of consultants expected the new centers to have appropriate geographic distribution. The panel wanted NCI to create the new centers in institutions already having scientific, professional, and managerial personnel, but not where creating new centers would dilute the effectiveness of the existing centers. The House and Senate Committees that considered legislation for the National Cancer Act both accepted the panel's report as the basis for the act.

The Committees were again concerned about the centers' locations when they considered the 1974 amendments to the act. The House Committee wanted NCI to designate and support enough centers so the vast majority of citizens would be reasonably close to comprehensive centers. The Senate Committee reported that 35 comprehensive centers would serve 75 percent of the citizens without an overnight stay.

The NCI Director has affirmed the goal of a balanced geographic distribution in testimony before the House and Senate Appropriations Committees over the past few years. He has testified that a balanced geographic distribution has always been a part of the planning process and in April 1975 has stated that about 31 comprehensive centers would be needed to serve the major part of the country--about 180 million people--by locating centers within 120 miles of the people. NCI officials were unable to supply us, however,

with the locations of the 14 additional centers that would be required to serve 180 million people.

METHOD OF DESIGNATING COMPREHENSIVE CENTERS

Institutions submit letters of intent to NCI stating they wish to be designated as comprehensive centers. NCI monitors the institutions' progress in developing as centers and advises the Board when it believes the institutions are ready for detailed reviews. The Board's reviews are based on its characteristics for comprehensive centers. After the Board's reviews the NCI Director designates the research institutions as comprehensive centers.

NCI has no formal mechanism to solicit letters of intent from institutions in areas which may need comprehensive centers. NCI and the Board, however, consider unsolicited letters of intent. In December 1975 an NCI official told us that NCI does not have a policy on designating more than one center in a single city and has received letters of intent from institutions wishing to become comprehensive centers in cities where comprehensive centers already exist. The Board has recently reviewed three institutions wishing to be named comprehensive centers; two are in cities which already have comprehensive centers.

ADEQUACY OF COVERAGE TODAY

When commenting on how adequately the comprehensive centers are geographically distributed, NCI refers to the number of people located near a center. The specific criteria have varied, but NCI currently measures the number of people living within 120 miles of a center--considered close enough to travel to a center and return home by ground transportation in the same day. Using 1970 census data and data developed before the center in Philadelphia was designated, NCI estimated that the then-existing 16 comprehensive centers served 98 million people (about 48 percent of the U.S. population). Of that 98 million people, however, 50 million were served by more than 1 center. NCI estimates that about 106.5 million people now live within 120 miles of a comprehensive center.

The 17 comprehensive centers have been designated primarily because of their excellent cancer research programs. The following analysis of NCI's fiscal year 1975 funding shows that proportionately, more excellent cancer research institutions have been designated as centers in the New England and Mideast States--from Maine to the District of Columbia--than in the rest of the country.

	New England-Mideast States	Rest of United States
	(percent)	
Number of comprehensive centers	41.2	58.8
NCI support to comprehensive centers	50.0	50.0
Number of other centers	46.9	53.1
NCI support to other centers	51.3	48.7
U.S. population	26.6	73.4

Geography and research excellence are obvious problems for NCI in designating comprehensive centers; the centers should be near the people, but they also should be where excellent cancer research is being conducted.

POTENTIAL CENTER LOCATIONS

NCI contractors have done a few studies suggesting where comprehensive centers should be, based on population, physicians, or hospital beds. These studies were intended only as sources of information for NCI and possible aids in decisionmaking.

In August 1974, for example, an NCI contractor reported to NCI on the order in which future comprehensive cancer centers should be designated, based on (1) 37 locations with institutions which were or wanted to become centers and (2) access of the U.S. population to those centers. This study did not use NCI's 120-mile criteria to measure the population served by a center but assumed that everyone in the United States would want access to a center. The contractor's conclusions on the order in which the centers should be designated were based on minimizing the cost for the population to get to the centers, expressed in terms of transportation distance.

The study showed that (1) before Denver and Chicago were designated as centers in June 1974, three other cities should have had comprehensive centers to obtain the best geographic distribution and (2) before New Haven and Washington were designated in June 1974, 16 other cities should have had comprehensive centers. After comprehensive centers were designated in June 1974 in those four cities, the study concluded that 12 other cities should have had comprehensive centers before Philadelphia. NCI, however, designated a center in Philadelphia in October 1974.

By April 1975 NCI had designated 17 centers and had advised the House and Senate Appropriations Committees that 14 additional centers would be needed to serve 180 million people. As of

December 31, 1975, NCI had not designated anymore centers. The contractor's report showed the best location for the 31 centers--17 existing plus 14 potential--if only population access is considered. In selecting institutions to be named centers, however, NCI considers other factors, such as research quality and the institutions' progress toward becoming a center.

The following schedule shows (1) the contractor's conclusion on the best locations of future comprehensive centers--all have institutions that have applied to NCI to be designated as centers--and the recommended order in which they be named, based on population and (2) the order in which NCI advised the Board in June 1975 it should review potential center locations based on the stage of development of the institution requesting such review.

Order and location recommended by contractor	NCI order for review
1. San Francisco	1. New York City
2. Oklahoma City	2. Los Angeles
3. St. Louis	3. Columbus
4. Detroit	4. Cleveland
5. Atlanta	5. Albuquerque
6. Cleveland	6. Tucson
7. Kansas City	7. Rochester
8. Louisville	8. Columbia, Mo.
9. New Orleans	9. Detroit
10. Salt Lake City	10. Boston
11. Tucson	11. Atlanta
12. Memphis	12. San Juan
13. Philadelphia (note a)	
14. Columbus	
15. Albuquerque	

[a]Designated a center in October 1974.

Thus of the 12 institutions NCI has scheduled for review, 6--one each in New York City, Los Angeles, Rochester, Columbia, Boston, and San Juan--are in cities that do not qualify for centers based strictly on population and 3--one each in New York City, Los Angeles, and Boston--are in cities that already have centers. In contrast the 3 cities which the contractor found needed centers the most on the basis of population--San Francisco, Oklahoma City, and St. Louis--are not among the 12 institutions NCI has selected for review because the NCI staff advised the Board that the institutions were still planning or needed better organization.

PROBLEMS IN BALANCING CRITERIA

NCI must consider many factors in designating potential comprehensive centers, primarily an institution's resources and ability to perform high-quality, long-term multidisciplinary research. One NCI official stated that the institution must have an excellent research base--one of the Board's criteria--to be considered as a comprehensive center and that NCI would not attempt to build up that research base for potential centers in areas not presently served by centers. Another NCI official said, however, that an institution could be designated as a comprehensive center if it does not meet the Board's criteria, but if it has the potential to meet them.

The officials said the entire centers program is undergoing significant evaluation and review. They will ask the Board to advise the NCI Director on the future of the centers program, including the respective roles of comprehensive and specialized centers, the criteria used to designate centers (including the relative importance of geographic distribution), and a technique for evaluating the centers' effectiveness.

CONCLUSIONS

Some geographic areas needing centers based on population do not have research institutions that NCI believes are sufficiently developed to be comprehensive centers. NCI has scheduled for review research institutions which it identified in some other geographic areas already having comprehensive centers or not having the highest need for a center based on population.

NCI will have a problem meeting the balanced geographic distribution that it has been reporting to the Congress--31 comprehensive centers to serve 180 million people--unless it adjusts its criteria for designating comprehensive centers. If it would rather not sacrifice the research excellence to achieve a balanced geographic distribution, NCI should recalculate the number of centers necessary to serve 180 million people or the number of people 31 centers are to serve.

Despite the emphasis the Congress and NCI have placed on the geographic distribution and population to be served by the comprehensive centers, NCI officials informed us in December 1975 that the entire centers program, and not necessarily the comprehensive centers alone, would provide the appropriate geographic distribution called for by the Senate's panel of consultants. We have not evaluated the entire centers program; however, the information presented to the Congress clearly shows that the comprehensive centers alone were to provide an appropriate geographic distribution.

NCI officials stated that several factors must be considered in designating comprehensive cancer centers and that they are studying what these factors should be and how they will influence an appropriate geographic distribution. This report will be useful to both NCI and the Board in improving the centers program.

RECOMMENDATIONS TO THE SECRETARY OF HEW

We recommend that the NCI Director:

--Decide on the specific factors that will be used to determine locations of comprehensive cancer centers, balancing the need for geographic distribution with factors independent of geography.

--Report to the appropriate congressional committees the affect these other factors will have on locations of comprehensive cancer centers and the feasibility of achieving an appropriate geographic distribution.

CHAPTER 3

COMPREHENSIVE CENTERS ARE NOT FOCAL POINTS FOR DEMONSTRATION ACTIVITIES IN THEIR AREAS

Comprehensive cancer centers are to conduct research and demonstrate the latest findings so that people in their areas can have the best in cancer prevention, detection, diagnosis, treatment, and rehabilitation. The centers are not to provide all these services to everyone in their areas, but are to act as focal points for activities of other medical schools and research institutions to improve overall cancer care. The centers' role could be more effective if NCI would define the centers' responsibilities and the geographic areas they are to serve. Also, NCI should insure that a center consisting of more than one institution operates as a single comprehensive center.

OBJECTIVES REGARDING DEMONSTRATION AND COORDINATION

The Senate's panel of consultants recommended that the cancer centers

> "* * * serve as administrative coordinators of those programs which require regional coordination. Such centers should support and assist clinics and community medical centers in their own geographic areas in order to assure the widespread use of the best available methods for early detection and treatment of cancer. They should also serve to collect data useful in the prevention and cure of cancer, including patient follow-up information, both at the lay and professional levels, that is useful in the prevention, diagnosis, and cure of cancer. The effective dissemination and utilization of such information is a most important part of any national plan to conquer cancer.

The National Cancer Act of 1971 provides that comprehensive centers demonstrate advanced diagnostic and treatment methods for cancer. NCI's demonstration function is defined as an aggressive and coordinated program to demonstrate research discoveries as rapidly as possible, using whatever community resources are available, and communicate them to practitioners.

The Board's comprehensive center characteristic on demonstration states that centers should provide leadership in developing community programs involving active participation by members of the medical profession practicing within

the area served by the center. The centers are also expected to have strong community interactions with the people, organizations, and institutions in their areas and to serve as focal points for community efforts.

NCI has developed these factors for reviewers to consider when they evaluate an institution's conformance with the Board's characteristics:

--What is the quality of the center's cancer control efforts?

--Is the proposed service area realistic and to what extent have public and professional education programs been designed to reach this area?

--Is there community participation and support for this center and its programs as demonstrated by such factors as affiliations with community hospitals and involvement by private physicians?

NCI's handbook for the cancer centers program states that developing community outreach programs for a geographic area is to be made through the comprehensive center that serves that area. Therefore, the comprehensive centers are expected not only to conduct demonstration projects but also to act as focal points for other institutions' demonstration programs within a predetermined geographic area.

LACK OF SPECIFIC RESPONSIBILITIES

Comprehensive centers officials we visited recognized their responsibility to act as focal points for demonstration programs in their areas. They advised us, however, that NCI has not specified what they are to do to act as focal points for their areas. NCI has no effective system to notify the centers (1) that NCI is sponsoring demonstration activities in their areas through other institutions or (2) what other activities the institutions are carrying out on their own.

To determine who was conducting demonstration programs with NCI support in areas near comprehensive centers, we selected 23 requests for proposals for demonstration contracts NCI issued from fiscal years 1973 to 1975. NCI received 240 proposals from comprehensive centers and other institutions and awarded 79 contracts. Although many of these contracts went to institutions that were or later became centers, many also went to other organizations near the comprehensive centers. The Director of the NCI division which funds the demonstration contracts told us that, where appropriate, contractors are to develop a liaison with the comprehensive center in their area.

At one center, however, the Senior Associate Director for Community Programs told us he was not aware of all the NCI-supported demonstration activities in the area served by his center, although we identified at least nine demonstration contracts.

If centers are to be effective in acting as focal points for demonstration programs, NCI should assure that centers are at least aware of these programs in their areas. One official suggested that one way for NCI to get the centers involved in acting as a focal point for demonstration programs in their areas would be to give the centers the opportunity to comment on proposals submitted by institutions in their areas before NCI awards the contracts.

COMPETITION

The problem with having a center comment on another institution's proposal is that the cancer research and demonstration environment in some areas of the United States is very competitive. For example, before the Institute for Cancer Research and the University of Pennsylvania were designated as the comprehensive center in Philadelphia, three other major research institutions in the city submitted proposals for designation as a comprehensive cancer center. Each of these institutions competes or plans to compete for research and demonstration program funds. Also the Institute for Cancer Research and the University of Pennsylvania compete independently for research funds, even though the two institutions have combined to form one comprehensive cancer center. In addition, there are seven specialized cancer centers in Philadelphia, many of which have demonstration programs.

When many organizations are involved in demonstration programs in a small geographic area, it is difficult to see how the comprehensive cancer center can act as a focal point for such programs when the organizations are all competing for Federal and non-Federal support.

MULTIINSTITUTION CENTERS

In some locations, NCI has designated several institutions as one comprehensive center. NCI officials advised us that this was done primarily (1) to combine institutions with excellent basic research and those with excellent clinical research, such as in New York, (2) to recognize institutions that had already joined in a cooperative effort, such as in Chicago, or (3) to combine an institution without a medical school and one with a medical school, such as in Philadelphia and Seattle. NCI expected these multiinstitution centers to develop a single administrative structure as described in the Board's

characteristics (see app. I), thereby enabling them to serve as a single comprehensive center and a single focal point for demonstration projects in their areas.

During our review, however, the centers in Philadelphia and Washington had not developed single administrative structures. NCI officials are aware of this situation and are continuing to encourage these institutions to cooperate as single comprehensive centers.

A formal cooperative effort for multiinstitution centers is essential for these centers to act as focal points. We believe that NCI should stress this point in reviewing future comprehensive centers. In addition, NCI should make special efforts to see that existing multiinstitution centers develop into single focal points and single comprehensive centers. NCI officials agreed with our views on the problems with multiinstitution centers.

COVERAGE AREA

While the Board's guidelines suggest that a comprehensive center is responsible for a specific geographic area, NCI has not designated these areas, but has delegated that function to the centers. Although the centers we visited usually had selected their service areas, NCI had no assurance that centers were covering as large an area as they could (for example, NCI's 120-mile radius used to calculate population), or that some areas were not being served by more than one center. For example, comprehensive centers officials at both Georgetown University and Johns Hopkins University feel they are responsible for identical areas in Maryland. Therefore, it does not seem possible for both centers to act as focal points for the hospitals and practitioners in that area.

CONCLUSIONS

The congressional intent in authorizing comprehensive cancer centers is clear concerning the role of the centers as focal points. In commenting on this report, NCI officials told us that they are aware of the intent but that not all of the centers have developed to where they can effectively act as focal points for their areas. As a result, NCI has not attempted to define overall responsibilities for the centers in their role as focal points.

Multiinstitution centers have a unique problem in acting as single comprehensive centers and as single focal points for demonstration activities in their areas. NCI should review both existing and future multiinstitution centers to assure that they develop into single comprehensive centers.

BEST DOCUMENT AVAILABLE

The problems discussed in this chapter--the lack of specific responsibilities, especially considering the natural competition among institutions, and the lack of defined geographic areas--must be alleviated before the centers can effectively act as focal points for demonstration programs in their areas.

RECOMMENDATIONS TO THE SECRETARY OF HEW

We recommend that the NCI Director clarify the role of the comprehensive centers as focal points for demonstration programs, including establishing criteria for determining when the centers can effectively act as focal points. In clarifying this role, he will have to resolve the problems which limit the centers' effectiveness in this area, namely

--the lack of specific responsibilities considering the natural competition among research institutions and

--the need for defined coverage areas.

We also recommend that the NCI Director review both existing and future multiinstitution centers to assure that they develop into single comprehensive centers and act as single focal points for their areas.

CHARACTERISTICS OF

COMPREHENSIVE CANCER CENTERS

The National Cancer Advisory Board has determined that Comprehensive National Cancer Research and Demonstration Centers will have the following characteristics:

a. The Center must have a stated purpose that includes carrying out of basic and clinical research, training and demonstration of advanced diagnostic and treatment methods relating to cancer.

b. The Center must have high quality interdisciplinary capability in the performance of diagnosis and treatment of malignant diseases.

c. The Center must have an environment of excellence in basic science which will assure the highest quality in basic research.

d. The Center should have or should develop an organized cancer detection program.

e. The Center must maintain a statistical base for evaluation of the results of its program activities. For this purpose records should be developed which will standardize disease classification to enable exchange of information between institutions.

f. The Center should provide leadership in developing community programs involving active participation by members of the medical profession practicing within the area served by the center.

g. The Center must have a strong research base (fundamental and applied) and related training programs, with an organizational structure which will provide for the coordination of these activities with other facets of the center program.

h. The Center will participate in the National Cancer Program by integrating its efforts with the activities of other centers in an integrated nationwide system for the prevention, diagnosis and treatment of cancer. For this purpose the center must have sufficient autonomy to facilitate this function.

i. The Center must have an administrative structure that will assure maximum efficiency of operation and sound financial practices. The administration should include responsibility for program planning, monitoring and execution as well as preparation of the budget and control of expenditures.

Administration and management would include staff appointment and space allocation, the intent being that such a center will have the authority to establish the necessary administrative and management procedures for carrying out its total responsibility as defined in the criteria.

j. It is a requirement that each center have sufficient beds for cancer patients to give the program cohesion, identification and favorable facilities for the clinical research program to be carried out.

Abstracted from: "The Cancer Centers Program," NCI, December 1972.

GENERAL CONSIDERATIONS RELATING TO CANCER CENTERS

1. It is intended that the Centers should have appropriate geographical distribution to ensure the maximum benefits from the program and to ensure that these benefits accrue to the largest possible fraction of the population of the United States.

2. The Centers are expected to have strong community interactions with the people, organizations, institutions, and agencies in the area, and should specifically include the local physician community. Centers should also serve as focal points for community efforts, including clinics and community medical centers, to assure the widespread use of the best available methods for early detection and treatment of cancer, collection of data useful in the prevention and cure of cancer, and dissemination of information, both at the lay and professional levels.

3. The clincial cancer programs supported by the National Cancer Institute are not intended to undertake total responsibility for the nation's cancer patients. The delivery of care to cancer patients is part of the general problem of the delivery of patient care, and should be dealt with through other established means. However, Comprehensive Cancer Centers must include the patient care facilities necessary for clinical research and teaching, for the development and demonstration of the best methods of treatment in cancer cases, and for the provision of highly specialized or unique community resources.

4. The National Cancer Institute strongly encourages the development of a multiplicity of sources of support for each Cancer Center, including, where appropriate, other Federal sources, State and Local sources, charitable donations, and patient care charges.

5. Cancer Centers are expected to expand the present programs of interaction with other Centers in cooperative clinical investigations, in the communication of experience on the development of successful programs, and in the development of data pools with standardized reporting methods.

6. Educational activities will constitute an important segment of the program for each Cancer Center. A close relationship with medical schools and other schools of health professions is most desirable so that students may be exposed to a rational system of Cancer management at a formative point in their careers. Education of the health professionals practicing in the area is also an essential role of the Cancer Center.

APPENDIX II

7. The physical facilities associated with a Cancer Center should be adequate and should be arranged to promote cooperative interaction between all elements comprising a Center. It is essential that a visible physical facility be identifiable as a focal point for the Cancer Center. It is also expected that Centers will utilize those available local facilities which are especially suited to attainment of the goals of the Cancer Centers Program.

Abstracted from: "The Cancer Centers Program," NCI, December 1972.

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	Tenure of office	
	From	To
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David Mathews	Aug. 1975	Present
Caspar W. Weinberger	Feb. 1973	Aug. 1975
Frank C. Carlucci (acting)	Jan. 1973	Feb. 1973
Elliot L. Richardson	June 1970	Jan. 1973
ASSISTANT SECRETARY FOR HEALTH:		
Theodore Cooper (note a)	Feb. 1975	Present
Charles C. Edwards	Mar. 1973	Feb. 1975
Richard L. Seggel (acting)	Dec. 1972	Mar. 1973
Merlin K. DuVal	July 1971	Dec. 1972
DIRECTOR, NATIONAL INSTITUTES OF HEALTH:		
Donald S. Fredrickson	July 1975	Present
Ronald W. Lamont-Havers (acting)	Jan. 1975	July 1975
Robert S. Stone	May 1973	Jan. 1975
John F. Sherman (acting)	Jan. 1973	May 1973
Robert Q. Marston	Sept. 1968	Jan. 1973
DIRECTOR, NATIONAL CANCER INSTITUTE:		
Frank J. Rauscher	May 1972	Present
Carl G. Baker	July 1970	May 1972

a/Acting Assistant Secretary for Health from Feb. 1975 to May 1975.

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