DOCUMENT RESUME

ED 080 862 CE 000 075

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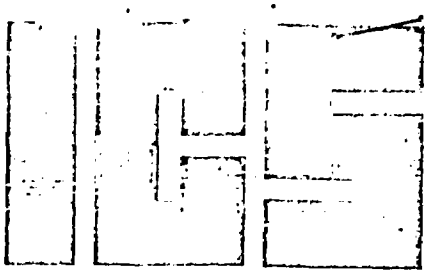
TITLE Master Facilities Inventory: A Study of Health Manpower Training Resources. Jackson and Clay Counties, Missouri--1967.
INSTITUTION Institute for Community Studies, Kansas City, Mo.
REPORT NO Pub-68-170
PUB DATE Jul 68
NOTE 41p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Adult Vocational Education; *Educational Programs; Educational Resources; *Health Occupations; *Manpower Needs; Manpower Utilization; Program Effectiveness; Statistical Surveys
IDENTIFIERS *Missouri

ABSTRACT

The objective of this inventory was to provide basic data concerning the effectiveness of new health manpower training programs for comparison with future studies and documented information, for planning purposes. It was necessary to define the components of the health manpower training network and to identify individuals responsible for its operation. A personal interview method of data-collection was used, loosely based upon a questionnaire. The Kansas City General Hopsital and Medical Center was the site for pilot-testing the interview procedure. Indicated refinements were made; then all institutions in Jackson and Clay Counties providing health manpower training programs were contacted. The private sector of health manpower utilization was represented by a random sampling of private physicians in the Greater Kansas City Area to determine the types of personnel and training required for employment in that sector. The study determined that 55 health manpower training programs in 21 health occupations were operating at 53 0/0 of their projected capacity. Five recommendations were offered to improve the situation. (Tables and six appendixes, including a sample questionnaire, are provided.) (AG)



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September 13, 1968

Mr. James Doarn, Director
US Dept. of Health, Education and Welfare
601 East 12th
Federal Office Building
Kansas City, Missouri 64106

Dear Mr. Doarn:

Our staff, in cooperation with community health training facilities, has compiled the enclosed copy of the "Master Facilities Inventory."

No doubt the conclusions indicating an impending (if not already existing) crisis in the supply of health manpower services have relevance for you, the persons on your staff, and other persons involved in the health manpower problem.

Sincerely,

Edith Hellerstein

(Mrs.) Edith Hellerstein
Health Development and Research

EH/nid

Enclosure

MASTER FACILITIES INVENTORY:

A STUDY OF HEALTH MANPOWER TRAINING RESOURCES

Jackson and Clay Counties, Missouri — 1967

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This study was conducted by the Institute for Community Studies for the original Kansas City Planning component of the Missouri Regional Medical Program's Planning Grant.

Department of Health and Mental Health
Institute for Community Studies
Kansas City, Missouri

Publication No. 68-170

July 1968

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I. INTRODUCTION

The original Kansas City Planning component of the Regional Medical Program Planning Grant called for a study of health manpower training resources in Kansas City, Missouri. The target area of the study was later expanded to include both Jackson and Clay Counties in Missouri. The study was proposed with the recognition that manpower is a significant rate-limiting factor in the production of health services. A second observation supporting this study was the realization that efforts to upgrade the attack on the killer diseases, i.e., heart disease, cancer and stroke, will require increased manpower. There is growing agreement that the solution to modern health problems will require placing new people in the field of health endeavors and improving the performance of the existing personnel. The responsibility for accomplishing such goals rests with the community's training resources.

The Master Facilities Inventory study (MFI, a term adopted from military operations) focused upon allied medical professions and resources. The selection of this focus was based upon two considerations. First, there is a growing acceptance of the health team concept and of the important roles that support personnel will play in the solution of contemporary health problems. The second assumption is that there will be continued expansion of the role of the paraprofessional.

The purposes of the Master Facilities Inventory were twofold:

(1) Evaluation: This study is intended to supply initial baseline data that can be used for comparison with data from similarly structured studies at successive intervals in the future. These studies will be used to answer the basic question: "Are new programs significantly enhancing the manpower training resources of the community?" Within this broad question there are two specific dimensions to be assessed. The first is "What is the configuration of the existing community health manpower training network?" The second dimension is "What is the capacity of the existing health manpower training network?" A corollary of the last question is "At what level of capacity is the current training network operating?"

(2) Planning: A second purpose of the Master Facilities Inventory study is to provide documented information for planning purposes. Two related efforts were made within the scope of this mission. The first was that of definition. The issue of clearly defining the parts and components of the community health manpower training network is related to the problem of determining configuration of the training network. The second endeavor was to identify the individuals in the community who are responsible for operating the community training resource. The definition of the existing community components gives a basis for identifying the existing gaps and for determining what the priorities should be in filling those gaps. The information regarding who operates the programs gives access to the individuals involved. The effort can be summarized as follows: (1) what exists? (2) who are the operators? and (3) where are the current needs? It is to these basic questions that the Master Facilities Inventory study was addressed.

II. METHODOLOGY

Initially, the MFI study of health manpower training resources was confined within the boundaries of Kansas City, Missouri. It was begun in February 1967. As time permitted, it was extended to the resources within the communities of both Jackson and Clay Counties, Missouri. The training programs selected for inventory were those at the baccalaureate level and below. This encompassed programs for high school dropouts, high school graduates, college-bound students, and various on-the-job training programs. Any program that was not classified as primarily in-service training was included in the Master Facilities Inventory. Training given to fill single vacancies in particular positions was not inventoried.

Specific developments in planning and effecting the MFI were as follows:

A. General Procedures

The initial interview protocol was developed after consultation with professionals in the fields of health and research. Experience in community survey work indicated the personal interview rather than the mailed questionnaire to be the more effective means of data collection. The Kansas City Area Hospital Association, in 1967, had compiled a partial listing of training programs. This compilation was never completed. In the course of the Master Facilities Inventory each program director was contacted individually.

B. Development and Testing of the Interview Procedure

A questionnaire was developed to serve as a structure for the interview (see Appendix A). Questions regarding qualitative as well as demographic data were included to establish a better baseline for future comparisons and evaluations. Questions regarding advantages, disadvantages and long range improvements of each program were included to ascertain feasibility and possible complications of experimental health manpower training programs. As all pertinent information could not be anticipated and/or categorized, the questionnaire instructed the interviewer to enter additional non-categorical data regarding particular programs. The questionnaire requested information regarding employment in addition to the information about the training program.

The intent was to construct an instrument which would cover all types of institutions concerned with health manpower training; e.g., teaching and general hospitals, academic institutions, trade and technical schools and health departments. For this reason not all of the interview schedule was applicable to all training programs.

The survey instrument was pilot tested at Kansas City General Hospital and Medical Center. This hospital was selected because of its ready accessibility and the hospital staff's familiarity with the project objectives. After a few programs were inventoried, the questionnaire was reviewed to correct incompleteness and redundancy.

Modifications and clarifications were made before further interviewing was conducted. To facilitate interviewing and later categorizing of the data, multiple-choice responses were used where appropriate. An expanded section regarding employment statistics was added to ascertain mobility and turn-over for each type of health care personnel.

C. Data Collection

The following is the order in which the inventory was made:

1. The institutions represented by the project steering committee were contacted (see Appendix B).

2. From this point, it was decided to widen the scope of this endeavor to include all other institutions in the Jackson County area having health manpower training programs (see Appendix C).

A list of hospitals was obtained from the Kansas City Area Hospital Association and other health facilities were added from The 1967 Edition, Directory of Greater Kansas City Area Medical, Dental, Health, & Related Facilities. The inventory included medical and osteopathic, teaching and general hospitals, ranging from twenty-seven beds to 517 beds.

Names of educational institutions were compiled from The Patterson's American Education and the Greater Kansas City Telephone Directory. These included colleges, public and private schools, trade and technical schools. To cover all types of programs, both accredited and non-accredited schools were considered.

Letters of introduction and intent preceded the interviewing (see Appendix D). The chief administrator of the institution was the first point of contact. Each program director, or another professional directly responsible for a training program, was then contacted individually for the formal interview.

3. Institutions in Clay County were surveyed.

The Kansas City Area Hospital Association and The 1967 Edition, Directory of Greater Kansas City Area Medical, Dental, Health, & Related Facilities were used to obtain a list of health-care facilities in the county. Again The Patterson's American Education and the Greater Kansas City Telephone Directory were used for the educational institutions (see Appendix E). The same procedure for arranging interviews was followed.

4. The final development in completing the inventory was to survey a random sample (N=30) of private physicians in the Greater Kansas City Area. They were selected as representative of the private sector of health manpower utilization.

The investigators contacted these physicians by sending an introductory letter to each one, explaining the purpose of the inventory (see Appendix F). The letter was followed by a telephone cammunicatian a week later.

The objective was to determine the types of health personnel working with the private physician and the kinds of training typically required for employment in the physician's office.

III. RESULTS

This study indicates that there were 55 health manpower training programs covering 21 health occupations operating in 19 institutions in the Kansas City, Missouri target area in 1967. These programs have a combined potential training capacity of 1,769 persons. At the time of the inventory these programs were operating at 53 percent of the projected capacity.

The data presented and analyzed in this study were provided in personal interviews by professionals responsible for training programs in the 19 institutions. The passage of time and changes in financial support since the interviews may have altered some aspects of the training programs. The investigators have assumed, however, that the information about each program was accurate and valid at the time of the interview.

Table I presents a listing of occupational programs and their actual enrollment.

Table I

ENROLLMENT IN HEALTH MANPOWER TRAINING PROGRAMS — 1967

Program Title	Number in Community	Actual Enrollment	% Total Enrollment
1. Activity Assistant	1	4	0.4
2. Dental Assistant	3	41	4
3. Dental Chairside Assistant	1	18	2
4. Dental Hygienist	1	20	2
5. Dietary Aide	2	8	1
6. Geriatric Aide	1	9	1
7. Histologic Technician	3	4	0.4
8. Inhalation Therapy	4	9	1
9. Laboratory Assistant	1	4	0.4
10. Medical Assistant	2	37	4
11. Medical Receptionist	1	6	1
12. Medical Records Technician	1	23	2
13. Medical Technologist	6	46	5
14. Nurse Anesthetist	1	7	1
15. Pharmacy	1	42	5
16. Physical Therapy Assistant	1	2	0.2
17. Practical Nursing	3	237	25
18. Professional Nursing	8	321	34
19. Psychiatric Aide	2	32	3
20. Radiologic Technologist	9	55	6
21. Surgical Technician	3	8	1
TOTAL	55	933	99.4%

The largest training resources were in the programs of nursing education, both professional and practical. Almost 60 percent of all students enrolled in all programs in 1967 were in nursing education.

The enrollment varied from 2 to 321 students per occupational category. The mean occupational category enrollment was 44, while the median was 18. The skewed distribution reflects the large enrollments in professional nursing and practical nursing.

Table II summarizes the levels of training available for each occupational listing.

Table II

LEVELS OF TRAINING AVAILABLE FOR EACH OCCUPATION — 1967

Training Program	Baccalaureate Degree	Associate Arts Degree	Diploma	Certificate	On-the-Job Training
1. Activity Assistant					X
2. Dental Assistant		X	X	X	
3. Dental Chairside Assistant					X
4. Dental Hygienist	X				
5. Dietary Aide					X
6. Geriatric Aide					X
7. Histologic Technician				X	X
8. Inhalation Therapy				X	X
9. Laboratory Assistant				X	X
10. Medical Assistant			X	X	
11. Medical Receptionist				X	
12. Medical Records Technician				X	
13. Medical Technologist	X			X	
14. Nurse Anesthetist			X		
15. Pharmacy	X				
16. Physical Therapy Assistant					X
17. Practical Nursing				X	
18. Professional Nursing	X	X	X		
19. Psychiatric Aide					X
20. Radiologic Technologist				X	
21. Surgical Technician				X	X

The majority of programs issue certificates upon completion of training. These may or may not be issued by a national accrediting body. Some certificates indicate satisfactory completion of training. Training in six of the aide (assistant) job categories does not result in any type of credential. These six involve on-the-job training only and in many cases are sponsored by an Office of Economic Opportunity (OEO) Project.

Dental Chairside Assistant is a training program designed to staff the University of Missouri — Kansas City School of Dentistry with auxilliary dental personnel for teaching purposes. It was established to give dental students an awareness of the capabilities of this type of personnel and practical experience in effective utilization of assistants.

Training for professional nursing is at three levels — baccalaureate degree, associate degree, and diploma. A student starting at one level usually cannot transfer previous training as credit into another level. This is also true for the dental assistant programs. There are three levels of training. A student who graduates from training with a diploma or certificate cannot transfer into the associate degree program without starting over at the very beginning.

Programs in medical technology offer two levels of training. A student may take three years of college and one year internship at an affiliate hospital to obtain a baccalaureate in medical technology, or finish a four year baccalaureate in science and then intern one year. Internship is prerequisite for registration as a certified medical technologist.

The inhalation therapy programs will soon become associate degree programs. Baptist Memorial Hospital, Menorah Medical Center and Research Hospital and Medical Center, in affiliation with the Metropolitan Junior College — Kansas City, are consolidating their efforts to design a standard curriculum among the hospitals with the junior college facilities for the academic subjects. The first associate degree inhalation therapy program will begin September, 1968.

The training capacity for each institution inventoried is presented in Table III.

Table III

ENROLLMENT CAPACITY OF TRAINING INSTITUTIONS — 1967

Name of Institution	Enrollment		Percent Capacity	Percent of Community Enrollment
	Potential	Actual		
1. Avila College	58	58	100%	6
2. Baptist Memorial Hospital	30	5	17	0.5
3. Career Academy	192	13	7	1
4. Independence Sanitarium and Hospital	56	50	89	5
5. Kansas City College of Medical and Dental Assistants	85	54	64	6
6. Kansas City College of Osteopathy and Surgery	6	6	100	0.6
7. Kansas City General Hospital and Medical Center	112	36	32	4
8. Kansas City, Missouri, Public School District	226	219	97	23
9. Menorah Medical Center	24	16	67	2
10. Metropolitan Junior College — Kansas City	75	38	51	4
11. North Kansas City Memorial Hospital	26	5	19	0.5
12. Research Hospital and Medical Center	173	101	58	11
13. Robinson Memorial Hospital	10	4	40	0.4
14. St. Joseph Hospital	10	4	40	0.4
15. St. Luke's Hospital	78	60	77	6
16. St. Mary's Hospital	162	121	75	13
17. Trinity Lutheran Hospital	34	24	70	3
18. University of Missouri — Kansas City	378	85	22	9
19. Western Missouri Mental Health Center	34	34	100	4
TOTAL	1,769	933		99.4%

Actual enrollment for 1967 represented only 53 percent of the maximum enrollment potential. Lack of qualified applicants, attrition rate and lack of interested people, respectively, were the three most frequently given reasons for below-capacity enrollment. The median for the percentage of capacity enrollment was 64 percent. Thirty-seven percent of the institutions reporting health manpower training programs function below a 50 percent capacity enrollment. The median for potential enrollment was 58 students while the median for actual enrollment was 36. The combined efforts of the thirteen hospitals reporting training programs provided one half (50 percent) of the trained health manpower.

Enrollment potential at Avila College was reported "unlimited" as they have training resources available for large expansion of their programs if the need arises. However, for the purposes of tabulation, the "unlimited" potential enrollment was recorded as equal to the actual enrollment number.

Table IV

UTILIZATION OF MANPOWER IN PRIVATE PRACTICE — 1967

Position	Number Employed	Percent of Total Employed	Prior Training	On-the-Job Training
1. Bookkeeper	6	7	2	4
2. Business Manager	2	2	2	0
3. EEG Technician	1	1	0	1
4. File Clerk	1	1	0	1
5. Laboratory Technician	6	7	3	3
6. Medical Assistant	12	14	4	8
7. Medical Secretary	24	28	2*	22
8. Medical Technologist	13	16	13	0
9. Physical Therapist	1	1	1	0
10. Physical Therapy Assistant	1	1	1	0
11. Registered Nurse	9	10	9	0
12. Secretary-Receptionist	9	10	3	6
13. X-Ray Technician	2	2	2	0
TOTAL	87	100%	42	45

*i.e., medical training in addition to secretarial training.

Data from this sample indicate that 21 percent of the staff employed in private physicians' offices were primarily non-medical, e.g., bookkeepers, secretary-receptionists. Some type of medical assistance was performed by the remaining 79 percent of those employed by private physicians. Personnel in this group ranged from the medical secretary level to the level of registered nurse. Of that 79 percent, only 51 percent had had previous training for their present positions. Forty-nine percent were given on-the-job training under the physicians' supervisions. There was a median of two people per office, in addition to the physician. The range was from one to eighteen employees per office.

One-half of the private offices were staffed only with non-credentialled personnel, e.g., medical assistant, medical secretary or secretary-receptionist. Of these, eight offices had only one person, a medical secretary, to assist the physician. Registered nurses were employed in less than one third of the offices. There was no office with more than one registered nurse. None of the physicians sampled reported any licensed practical nurses employed by them.

Secretaries make up the largest manpower category employed by private physicians. A secretary may or may not be a person with medical background. The scope of duties of the secretary is largely determined by the number of additional staff employed in the office. A medical secretary is often a person trained in secretarial skills who is given on-the-job training by the physician to acquire simple nursing skills, e.g., taking the vital signs, preparing the patient.

On the basis of the sample it is estimated that 2,346 persons were working for private physicians in 1967. Of that number, 1,876 were involved to some degree in the delivery of health care; the remaining personnel were primarily responsible for clerical services. Approximately 938 of the health care personnel received on-the-job training in the physician's office to acquire the necessary skills.

Table V presents an analysis of each program surveyed. Legends are provided to facilitate reading the table, which is designed with the following dimensions: title of program; name of training institution; accrediting body for program; credential received on satisfactory completion of program; length of program (months); qualifications for enrollment by sex, educational background and age; tuition per year (or length of program); means of financial assistance during training; primary source of students — geographic area and socio-economic level; actual over potential enrollment; usual placement following training; average length of stay after employed; budgeted positions in training institution not filled; salary range (monthly).

Table V

DETAILED ANALYSIS OF INDIVIDUAL HEALTH MANPOWER TRAINING PROGRAMS — 1967

Title of Program	Training Institution	Accrediting Agency	Credential	Length (months)	Qualifications for Entry: Sex	Educational Background	Age	Tuition (dollars) (yearly)	Financial Aid	Student Pop. Charac.: Geog. Area	Socio-Econ.	Enrollment Capacity	Usual Placement	Avg. length of stay (years)	Budgeted Positions not filled	Salary Range (monthly)
1. Activity Assistant	Western Missouri Mental Health Center	NA	OJT	3	M/F	HS + 1yr.exp	-	None	Salary	GKC	NA	4/4	WMMHC	Summer	None	$290-470
2. Dental Assistant	Career Academy	*	Cert	4	F	HS/GED	-	$898	Pt-time work	Midwest	NA	3/48	Dentist Office	NA	NA	$300-450
	KC Coll of Med & Dental Assistants	UCMDA	Cert/Dip	4	F	HS/GED	17-55	$485	None	Midwest	L-M	21/30	Dentist Office	NA	NA	
	Metro Jr Coll — KC	ADA-CDE	AA	18	M/F	HS/GED	-	$250***	Loans	GKC	M-U	17/25	Dentist Office	NA	NA	
3. Dental Chairside Assistant	UMKC — School of Dentistry	NA	OJT	12	M/F	HS/GED	-	None	Salary	GKC	varies	18/18	Sch of Dent	5-6	None	$260+
4. Dental Hygienist	UMKC — School of Dentistry	ADA-CDE	BS	18	M/F	2 yr.coll.	-	$1000***	Scholarship	Midwest	M-U	20/30	Dentist Office Pub Health	5-6	NA	$450-750
5. Dietary Aide	Research Hosp & M C	NA	OJT	approx.6	M/F	NA	-	None	OEO Stipend	KC,Mo.	L	6/6	Research Hosp	NA	NA	$262-306
	Robinson Memorial Hosp	NA	OJT	3	M/F	10th grade	18+	None	OEO Stipend	GKC	L	2/4	Hosps-NHs	1-2	1	
6. Geriatric Aide	Pub Sch — MDTA Training Facility	NA	Voc.Educ.	1-3/4	M/F	no reg.	18+	None	Stipend	KC,Mo.	L	9/16	Hosps-NHs	NA	NA	$250-299
7. Histologic Technician	NKC Memorial Hosp	ASCP	Cert/OJT	12	M/F	HS	-	None	Salary	Mo-Kan	L-M	0/2	Hospitals	3-4	None	$346-780
	Research Hosp & M C	ASCP	Cert/OJT	12	M/F	HS/GED	-	None	Salary	NA	NA	1/2	Research Hosp	NA	None	
	St Mary's Hospital	ASCP	Cert/OJT	12	M/F	HS/GED	-	None	Salary	Mo-Kan	M	3/4	Hospitals	5-6	NA	
8. Inhalation Therapist	Baptist Memorial Hosp	NA	Cert	18	M/F	HS	18-40	$100	None	GKC	M	1/20	Hospitals	Under 1	NA	$285-800
	KCGH & MC**	AMA-AAIT	Cert	18 or 36	M/F	HS/GED	-	None	Salary	NA	NA	3/30	Hosps-Industry	NA	None	
	Menorah Medical Center	AMA-AAIT	Cert	18	M/F	HS	-	None	MDTA Stipend	GKC	L-M	5/8	Hospitals	3-4	None	
Inhalation Therapy (Asst)	Research Hosp & M C	NA	OJT	6	M/F	HS	-	None	Salary	NA	NA	0/5	NA	NA	None	
9. Laboratory Assistant	KC College of Osteopathy & Surgery	NA	Cert/OJT	12	M/F	HS/GED	-55	None	OEO Stipend	GKC	L	4/4	KC Osteo Hosp	NA	None	$285-430
10. Medical Assistant	Career Academy	*	Cert	4	F	HS/GED	-	$898	Pt-time work	Midwest	NA	10/144	Hosps - Dr Office	NA	NA	$300-400
	KC Coll of Med & Dental Assistants	UCMDA	Cert/Dip	7	F	HS/GED	17-55	$685	None	GKC	M-U	27/40	Dr Office	1-2	NA	
11. Medical Receptionist	KC Coll of Med & Dental Assistants	UCMDA	Cert	2	F	HS/GED	17-55	$335	None	NA	NA	6/15	Dr Office	NA	NA	NA
12. Medical Records Technician	Research Hosp & M C	AMA-AAMRL	Cert	10	M/F	HS upper 1/3	-	$280	Loans	Midwest	M	23/23	Hospitals	NA	1	$375-500
13. Medical Technologist	KCGH & MC	ASCP	BS/Cert	12	M/F	3 yr.coll.	-	None	Salary	Far East Midwest	M-U	12/12	KCGH & MC	1-2	None	$503-730
	Menorah Medical Center	AMA	BS	12	M/F	3 yr.coll.	-	None	Salary	Mo-Kan	M	7/10	Hospitals	1-2	None	
	NKC Memorial Hosp	AMA-ASCP	BS/Cert	12	M/F	3 yr.coll.	-	None	Stipend	Mo-Kan	M	0/6	Hospitals	1-2	None	
	Research Hosp & M C	AMA	BS	12	M/F	3 yr.coll.	-	None	Loan-Stipend	Midwest	M-U	20/20	Hospitals	3-4	None	
	St Mary's Hospital	AMA-ASCP	BS/Cert	12	M/F	3 yr.coll.	-	None	Salary	Midwest	M	2/10	Hospitals	5-6	NA	
	UMKC	ARMT	BS/Cert	27 or 36	M/F	HS	-	$830***	Stipend	Mo-Kan	M	.5/80	Internship-Hosp	NA	NA	
14. Nurse Anesthetist	KCGH & MC	AANA	Dip	22	M/F	RN	-	None	Stipend	Midwest	varies	7/12	Hospitals	1-2	None	$700 - $700-1,000
15. Pharmacy	UMKC — Sch of Pharmacy	AACP	BS	45	M/F	HS/GED	-	$740	Loans-Scholar	Mo-Kan	M	42/250	Community Pharm	10+	NA	
16. Physical Therapy Assistant	Research Hosp & M C	NA	OJT	6	M/F	HS	-	None	Salary	NA	NA	2/3	Research Hosp	NA	as needed	$300
17. Practical Nursing	Independence San & Hosp	MSBN	Cert	12	M/F	10th grade	-	$245	None	GKC	L-M	12/18	Hosps-NHs	10+	6	$240-405
	KC,Mo Pub School Dist	MSBN	Cert	12	M/F	10th grade	17+	None	OEO Stipend	GKC	L-M	210/210	Training Hosp	NA	NA	
	St Mary's Hospital	MSBN	Cert	12	M/F	HS/GED	17-50	$100	Loan	Midwest	M	15-25	Hosps-Dr Office	NA	NA	
18. Professional Nursing	Avilo College	MSBN-NLN	BS	36	F	HS	-	$1700	Loans-Scholar	S & E states	M-U	58/unlim.	Public Health	NA	NA	$500-700
	Independence San & Hosp	MSBN-NLN	Dip	33	M/F	HS/GED	-	$350	Loans	US	M	30/30	Hospitals	5-6	None	
	KCGH & MC	MSBN	Dip	33	M/F	HS/GED	-	$380***	Scholarship	Mo	L-M	10/50	KCGH & MC	1-2	None	
	Metro Jr Coll — KC	MSBN	AA	18	M/F	HS/GED	17+	$165***	Loans-Scholar	KC,Mo	L-M	21/50	Hospitals	NA	NA	
	Research Hosp & M C	MSBN-NLN	Dip	33	M/F	HS/GED	-	$400	Loans-Scholar	GKC	M	39/100	Hospitals	5-6	None	
	St Luke's Hospital	MSBN-NLN	Dip	36	M/F	HS/GED	-	$400	Loans-Scholar	varies	M	50/68	Hospitals	1-2	2.5	
	St Mary's Hospital	MSBN-NLN	Dip	33	M/F	HS	17-35	$365	Loans-Scholar	Mo-Kan	L-M	91/105	Hospitals	NA	NA	
	Trinity Lutheran Hospital	MSBN-NLN	Dip	33	M/F	HS	-	$215***	Scholarship	Mo-Kan	M	22/30	Hospitals	Under 1	12	
19. Psychiatric Aide	Robinson Memorial Hosp	NA	OJT	3	M/F	10th grade	18+	None	OEO Stipend	GKC	L	2/6	NH - Psych Hosp	1-2	None	$250-378
	WMMHC	MSBN	OJT	150 hrs.	M/F	no req.	19+	None	Salary	KC,Mo	varies	30/30	WMMHC	NA	as needed	

Table V (continued)

Title of Program	Training Institution	Accrediting Agency	Credential	Length (months)	Qualifications for Entry: Sex	Educational Background	Age	Tuition (dollars) (yearly)	Financial Aid	Student Pop. Charac.: Geog. Area	Socio-Econ.	Enrollment Capacity	Usual Placement	Avg. length of stay (years)	Budgeted Positions not filled	Salary Range (monthly)
20. Radiologic Technologist	Baptist Memorial Hosp	AMA-ARRT-ASRT	Cert	24	M/F	HS upper 1/3	18-40	$25	Salary	Mo-Kan	M	4/10	Hosps-Dr Office	3-4	1	
	Independence San & Hospital	AMA-ASRT	Cert	24	M/F	HS	-	None	Loans-Salary	GKC	M	8/8	Hosps-Dr Office	9-10	None	
	KCG.A & MC	AMA-ARRT-ACR	Cert	24	M/F	HS upper 1/3	18-27	None	Salary	Mo-Kan	varies	4/8	Hosps-Public H	1-2	None	
	Menorah Medical Center	AMA-ASRT	Cert	24	M/F	HS	-	None	Loans-Salary	GKC	M	4/6	Hosps-Dr Office	5-6	None	$385-750
	NKC Memorial Hosp	ARRT	Cert	24	M/F	HS upper 1/3	18-45	$25	Loans-Salary	NKC-KCN	M	5/18	Hosps-Clinics	3-4	None	
	Research Hosp & M C	AMA-ASRT	Cert	24	M/F	1 yr.coll.	18-35	None	Salary	Mo-Kan	M	6/10	Hosps-Dr Office	6-10	None	
	St Joseph Hospital	ACR	Cert	24	M/F	HS	18-35	None	Salary	Mo-Kan	M	4/10	Hosps-Dr Office	3-4	None	
	St Luke's Hospital	AMA-ASRT-ACR	Cert	24	M/F	HS	18-30	$25	Salary	Mo-Kan	L-M	10/10	Hosps-Dr Office	3-4	None	
	St Mary's Hospital	ASRT-ARRT	Cert	24	M/F	HS upper 1/3	17-30	$75	Salary	Mo-Kan	M	10/18	Dr Off-Staff Tech	NA	2	
21. Surgical Technician	KC College of Osteopathy & Surgery	NA	OJT/Cert	12	M/F	HS/GED	-55	None	OEO Stipend	GKC	L	2/2	KC Osteo Hosp	NA	NA	$285-432
	Research Hosp & M C	NA	OJT/Cert	3	M/F	HS	-	None	Salary	KC,Mo	L-M	4/4	Research Hosp	1-2	None	
	Trinity Lutheron Hosp	NA	OJT/Cert	3	M/F	HS&LPN	18-45	None	Stipend	GKC	L-M	2/4	Hospitals	NA	None	

*The Career Academy listed accreditation by the National Association of Trade and Technical Schools, the National Home Study Council, the Department of Justice, the Office of Education and the Bureau of Indian Affairs.
**Program in planning stage, 1967.
***Tuition for Missouri residents.

LEGEND

Accrediting Agencies

AAIT	American Association of Inhalation Therapists
AACP	American Association of Colleges of Pharmacy
AAMRL	American Association of Medical Record Librarians
AANA	American Association of Nurse Anesthetists
ACR	American College of Radiology
ADA	American Dental Association
AMA	American Medical Association
ARMT	American Registry of Medical Technologists
ARRT	American Registry of Radiologic Technologists
ASCP	American Society of Clinical Pathologists
ASRT	American Society of Radiologic Technologists
CED	Council on Dental Education
MSNB	Missouri State Board of Nursing
NA	Information was not available or not applicable to the program
NLN	National League of Nursing
UCMDA	United Colleges of Medical and Dental Assistants

Credentials

AA	Associate Arts degree
BS	Bachelor of Science degree
Cert	Certificate received
Dip	Diploma received
OJT	On the Job Training

Educational Background

GED	General Educational Development, high school equivalency certificate
HS	Graduated from High School
LPN	Licensed Practical Nurse

Geographic Area

GKC	Greater Kansas City Area
Mo-Kan	Missouri and Kansas

Socio-Economic Level

L	Lower
M	Middle
U	Upper

Capacity

Actual Enrollment/Potential Enrollment at Capacity

Table VI offers an analysis of institutions with training programs. The table is presented with the following dimensions: training institution; training programs provided; length of training (months); credential received; enrollment: actual enrollment/potential at capacity.

Table VI

INSTITUTIONS WITH HEALTH MANPOWER TRAINING PROGRAMS
JACKSON AND CLAY COUNTIES — 1967

Institution	Training Program	Length in Months	Credential	Student Enrollment*
1. Avila College	Professional Nursing	36	BS	58/unlim.
2. Baptist Memorial Hospital	Radiologic Technology	24	Cert	4/10
	Inhalation Therapy	18	Cert	1/20
3. Career Academy	Medical Assistant	4	Cert	10/144
	Dental Assistant	4	Cert	3/48
4. Independence Sanitarium and Hospital	Professional Nursing	33	Dip	30/30
	Radiologic Technology	24	Cert	8/8
	Practical Nursing	12	Cert	12/18
5. Kansas City College of Medical and Dental Assistants	Dental Assistant	4	Cert/Dip	21/30
	Medical Assistant	7	Cert/Dip	27/40
	Medical Receptionist	2	Cert/Dip	6/15
6. Kansas City College of Osteopathy and Surgery	Laboratory Assistant**	12	OJT/Cert	4/4
	Surgical Technician**	12	OJT/Cert	2/2
7. Kansas City General Hospital and Medical Center	Inhalation Therapy (in planning)	18/36	Cert	3/30
	Professional Nursing		Dip	10/50
	Medical Technology	12	BS/Cert	12/12
	Radiologic Technology	24	Cert	4/8
	Nurse Anesthetist	22	Dip	7/12
8. Kansas City, Missouri, School District	Practical Nursing**	12	Cert	210/210
	Resident Aide**	1-3/4	OJT	9/16
9. Menorah Medical Center	Medical Technology	12	BS	7/10
	Radiologic Technology	24	Cert	4/6
	Inhalation Therapy**	18	Cert	5/8
	(Professional Nursing)***	(36)	(BS)	(11/25)
10. Metropolitan Junior College — Kansas City	Professional Nursing	18	AA	21/50
	Dental Assistant	18	AA	17/25
11. North Kansas City Memorial Hospital	Radiologic Technology	24	Cert	5/18
	Medical Technology	12	BS/Cert	0/6
	Histologic Technician	12	OJT/Cert	0/2

Table VI (continued)

Institution	Training Program	Length in Months	Credential	Student Enrollment*
12. Research Hospital and Medical Center	Physical Therapy Assistant	6	OJT	2/3
	Medical Technology	12	BS	20/20
	Dietary Aide**	4	Cert	6/6
	Professional Nursing	33	Dip	39/100
	Inhalation Therapy Assistant	6	OJT	0/5
	Medical Records Technician	10	Cert	23/23
	Radiologic Technology	24	Cert	6/10
	Surgical Technician	3	OJT/Cert	4/4
	Histologic Technician	12	OJT/Cert	1/2
13. Robinson Memorial Hospital	Dietary Aide**	3	OJT	2/4
	Psychiatric Aide**	3	OJT	2/6
14. St. Joseph Hospital	Radiologic Technology	24	Cert	4/10
15. St. Luke's Hospital	Radiologic Technology	24	Cert	10/10
	Professional Nursing	36	Dip	50/68
16. St. Mary's Hospital	Radiologic Technology	24	Cert	10/18
	Professional Nursing	33	Dip	91/105
	Medical Technology	12	BS/Cert	2/10
	Practical Nursing	12	Cert	15/25
	Histologic Technician	12	OJT/Cert	3/4
17. Trinity Lutheran Hospital	Surgical Technician**	3	OJT/Cert	2/4
	Professional Nursing	33	Dip	22/30
18. University of Missouri — Kansas City	Medical Technology	27-36	Cert/BS	5/80
	Pharmacy	45	BS	42/250
	Dental Hygiene	18	BS	20/30
	Dental Chairside Assistant	12	OJT	18/18
19. Western Missouri Mental Health Center	Psychiatric Aide	150 hrs.	OJT	30/30
	Activity Aide	3	OJT	4/4

*Present enrollment/Enrollment possible at capacity
**Office of Equal Opportunity sponsored
***Affiliate program with Central Missouri State College

LEGEND
BS Bachelor of Science degree
Cert Certificate received
Dip Diploma received
OJT On-the-Job Training

For accrediting agencies see Table V.

Table VII presents a comparison of the maximum hospital capacity in relation to the number of training programs reported and the total student enrollment within each hospital.

Table VII

MAXIMUM HOSPITAL CAPACITY AND HEALTH MANPOWER TRAINING CAPABILITIES — 1967

Name of Hospital	Capacity		Number of Training Programs	Actual Enrollment	Percent of Potential Enrollment
	Beds	Bassinets			
1. Baptist Memorial Hospital	380	30	2	5	17
2. Cerebral Palsy Center, The	23	0	0	-	-
3. Children's Mercy Hospital	100	0	0	-	-
4. Conley Maternity Hospital	27	27	0	-	-
5. Doctor's Hospital	34	8	0	-	-
6. Downtown Hospital	40	0	0	-	-
7. Excelsior Springs Hospital	50	12	0	-	-
8. Independence San & Hosp	196	34	3	50	83
9. Jackson County Hospital	60	6	0	-	-
10. Kansas City General Hosp and Medical Center	483	52	5	36	32
11. Kansas City Osteopathic Hospital (Kansas City College of Osteopathy and Surgery)	124	24	2	6	100
12. Lakeside Hospital	104	18	0	-	-
13. McCleary Memorial Hospital	204	0	0	-	-
14. Menorah Medical Center	335	35	3 (4)	16 (27)	67 (53)
15. Northeast Osteopathic Hosp	27	5	0	-	-
16. North Kansas City Memorial Hospital	175	22	3	5	19
17. Research Hospital and Medical Center	517	36	9	101	58
18. Robinson Memorial Hospital	112	0	2	4	40
19. St. Joseph Hospital	272	20	1	4	40

Table VII (continued)

Name of Hospital	Capacity		Number of Training Programs	Actual Enrollment	Percent of Potential Enrollment
	Beds	Bassinets			
20. St. Luke's Hospital	510	59	2	60	77
21. St. Mary's Hospital	385	60	5	121	75
22. Smithville Community Hospital	75	10	0	-	-
23. Trinity Lutheran Hospital	207	22	2	24	70
24. Veterans Administration Hospital	501	0	0	-	-
25. Western Missouri Mental Health Center	73	0	2	34	100
26. Wheatley-Provident Hospital	61	7	0	-	-

Only one-half of the hospitals contacted in Jackson and Clay Counties reported having health manpower training programs other than for nurse aides. Those hospitals reporting programs had an average maximum capacity of 290 beds; these without, 100 beds. The respective medians were 272 beds and 60 beds.

The training program data for Menorah Medical Center has two entries to indicate the capacity with and without their nursing program. The nursing program at Menorah is operated through an affiliation with Central Missouri State College at Warrensburg, Missouri.

Table VIII provides a directory of the reported personnel involved with each type of health manpower training program studied.

Table VIII

DIRECTORY OF REPORTED PERSONNEL: HEALTH MANPOWER TRAINING PROGRAMS GREATER KANSAS CITY AREA — 1967

ACTIVITY ASSISTANT

Anderson, Martha; Western Missouri Mental Health Center, Liaison with Nursing Service
Kleinman; Barbara; Western Missouri Mental Health Center, Occupational Therapist
Pendelton, Jerry; Western Missouri Mental Health Center, Director of Personnel
Wilson, Minnie Pearl; Western Missouri Mental Health Center, Dance Therapist

DENTAL ASSISTANT

Bartlett, Harold; Metropolitan Junior College — Kansas City, Director, Dental Assistant Program
Bisbee, Margaret; Metropolitan Junior College — Kansas City, Assistant Director, Dental Assistant Program
Freeman, Gloria; Kansas City College of Medical and Dental Assistants, Director
Sherman, Virginia; Kansas City College of Medical and Dental Assistants, Dental Instructor (night)
Mrs. Taylor; Kansas City College of Medical and Dental Assistants, Dental Instructor (day)
Tull, M. L.; Career Academy, School Administrator
Zuck, Gary; Career Academy, Dental Director

DENTAL CHAIRSIDE ASSISTANT (trained for School of Dentistry only)

Conkin, Elaine; University of Missouri — Kansas City, School of Dentistry, Instructor
Madl, Lee Ona, University of Missouri — Kansas City, School of Dentistry, Instructor
Wells, Jack, University of Missouri — Kansas City, School of Dentistry, Program Coordinator

DENTAL HYGIENE

Blake, Barbara; University of Missouri — Kansas City, School of Dentistry, Clinical Instructor
Moore, David; University of Missouri — Kansas City, School of Dentistry, Chairman, Operative Dentistry Department
Murphey, Susan; University of Missouri — Kansas City, School of Dentistry, Clinical Instructor
Patton, Marilyn; University of Missouri — Kansas City, School of Dentistry, Director of Dental Hygiene

DENTAL HYGIENE (continued)

Robinson, Hamilton B. G.; University of Missouri — Kansas City, School of Dentistry, Dean of School of Dentistry
Schwartz, Norman; University of Missouri — Kansas City, School of Dentistry, Chairman, Crown and Bridge Department
Soldanels, Karol; University of Missouri — Kansas City, School of Dentistry, Clinical Instructor in Dental Hygiene

DIETARY AIDE

Hunt, Marvin; Research Hospital and Medical Center, Director of Food Service
Schreiner, Ellen, Robinson Memorial Hospital, Director of Nursing
Walker, Myrna Bell; Robinson Memorial Hospital, Chairman of Dietary Department

HISTOLOGIC TECHNICIAN

Allebach, H. K. B.; Research Hospital and Medical Center, Director of Laboratory and Medical Technology
Allen, Louis A.; North Kansas City Memorial Hospital, Pathologist
Caffrey, Raymond; Research Hospital and Medical Center, Associate Pathologist
Flinner, Robert; Research Hospital and Medical Center, Associate Pathologist
Flynn, James M.; Research Hospital and Medical Center, Associate Director of Laboratory and School
Fritzlen, Thomas; St. Mary's Hospital, Assistant Director of Laboratory
Harrison, Judy; North Kansas City Memorial Hospital, Tissue Technologist
Heckman, Mary; Research Hospital and Medical Center, Coordinator of Medical Technology
Hostetler, Robert; North Kansas City Memorial Hospital, Laboratory Supervisor
Lapi, Angelo; St. Mary's Hospital, Director of Laboratory
Largent, Dale; St. Mary's Hospital, Medical Technologist
Mintor, Gertrude; St. Mary's Hospital, Assistant Laboratory Supervisor
Sister Patrick Mary; St. Mary's Hospital, Laboratory Supervisor
Wright, Earl J.; North Kansas City Memorial Hospital, Pathologist

INHALATION THERAPIST

Beatty, Nina; Kansas City General Hospital and Medical Center, Director of Inhalation Therapy
Bittner, Ted; Kansas City General Hospital and Medical Center, Nurse Anesthetist Instructor
Brown, Michael; Research Hospital and Medical Center, Assistant Director of Inhalation Therapy Department
Engert, Homer; Menorah Medical Center, Director, School of Inhalation Therapy, Chief Inhalation Therapist
Finch, Harold; Metropolitan Junior College — Kansas City, Dean of Applied Arts
Gunn, William; Menorah Medical Center, Chief Pulmonary Laboratory Therapist
Hollinger, L. A.; Baptist Memorial Hospital, Director of Pulmonary Disease
McCalla, John; Kansas City General Hospital and Medical Center, Resident Instructor
Mead, James; Research Hospital and Medical Center, Director, Inhalation Therapy Department

INHALATION THERAPIST (continued)

Ritchie, Carl; Kansas City General Hospital and Medical Center, Chief Inhalation Therapy Instructo·
Rode, Larry; Baptist Memorial Hospital, Director, Inhalation Therapy Department

LABORATORY ASSISTANT

Allebach, H. K. B.; Research Hospital and Medical Center, Director of Laboratory and Medical Technology
Caffrey, Raymond; Research Hospital and Medical Center, Associate Pathologist
Crosly, Lloyd; Kansas City College of Osteopathy and Survery, Laboratory Technician
Flinner, Robert; Research Hospital and Medical Center, Associate Pathologist
Flynn, James M.; Research Hospital and Medical Center, Associate Director of Laboratory and Medical Technology
Ivy, Ellen; Kansas City College of Osteopathy and Surgery, Registered Medical Secretary
Heckman, Mary; Research Hospital and Medical Center, Coordinator, School of Medical Technology
Knouse, Charles; Kansas City College of Osteopathy and Surgery, Pathologist
Louthain, Larry; Kansas City College of Osteopathy and Surgery, Director of Personnel
Rogers, John; Kansas City College of Osteopathy and Surgery, Pathologist
Stephenson, Ellen; Kansas City College of Osteopathy and Surgery, Cytopathologist

MEDICAL ASSISTANT

Adamson, Mrs. A.; Kansas City College of Medical and Dental Assistants, Instructor (night)
Bryant, T. J.; Career Academy, Medical Director
Eshelman, Mrs.; Kansas City College of Medical and Dental Assistants, Instructor (day)
Freeman, Gloria; Kansas City College of Medical and Dental Assistants, Director
Henson, Hazel; Kansas City College of Medical and Dental Assistants, Instructor (night)
Tull, M. L.; Career Academy, Admissions Director
Wilhelmson, Mrs.; Kansas City College of Medical and Dental Assistants, Instructor (day)

MEDICAL RECORDS TECHNICIAN

Harold, Ruth; Research Hospital and Medical Center, Instructor of Anatomy
Lambert, Marian; Research Hospital and Medical Center, Instructor of Physiology
Mardiat, Edith S.; Research Hospital and Medical Center, Director, School of Medical Records Technology
O'Daniel, Patricia; Research Hospital and Medical Center, Assistant Director, School of Medical Records Technology
Stevens, Carrol; Research Hospital and Medical Center, Assistant Director, School of Medical Records Technology

MEDICAL TECHNOLOGIST

Allebach, H. K. B.; Research Hospital and Medical Center, Director of Laboratory and Medical Technology
Allen, Louis A.; North Kansas City Memorial Hospital, Pathologist
Alms, Thomas H.; University of Missouri — Kansas City, Professor, Medicine and Microbiology
Barnekow, Russell; University of Missouri — Kansas City, Professor, Microbiology
Brunner, Lois; Menorah Medical Center, Chief Medical Technologist
Burdick, Harold; University of Missouri — Kansas City, Professor, Physiology
Caffrey, Raymond; Research Hospital and Medical Center, Associate Pathologist
Flinner, Robert; Research Hospital and Medical Center, Associate Pathologist
Flynn, James M.; Research Hospital and Medical Center, Associate Director of Laboratory and Medical Technology
Fritzlen, Thomas; St. Mary's Hospital, Assistant Director of Laboratory
Heckman, Mary; Research Hospital and Medical Center, Coordinator, School of Medical Technology
Hostetler, Robert; North Kansas City Memorial Hospital, Laboratory Supervisor
Jorgenson, Myron; University of Missouri — Kansas City, Director of Medical Technology
Lapi, Angelo; St. Mary's Hospital, Director of Laboratory
Levin, Samuel J.; Kansas City General Hospital and Medical Center, Chief Biochemist
Mantz, Frank; Menorah Medical Center, Director of Laboratories
Markine, Joseph; University of Missouri — Kansas City, Professor, Medicine
Minter, Gertrude; St. Mary's Hospital, Assistant Laboratory Supervisor
Moskal, Phillip A.; Kansas City General Hospital and Medical Center, Chief Microbiologist
Renner, Margaret; North Kansas City Memorial Hospital, Teaching Supervisor
Russell, Robert J.; University of Missouri — Kansas City, Professor of Biology
Simmons, Arthur; Kansas City General Hospital and Medical Center, Chief Laboratory Technician
Sister Patrick Mary; St. Mary's Hospital, Supervisor of Laboratory
Wheeler, Charles; North Kansas City Memorial Hospital, Pathologist
Wright, Earl J.; North Kansas City Memorial Hospital, Pathologist

NURSE ANESTHETIST

Beatty, Nina; Kansas City General Hospital and Medical Center, Chairman, Department of Anesthesiology
Bittner, Ted; Kansas City General Hospital and Medical Center, Chief Nurse Anesthetist
Brown, Elwin; Children's Mercy Hospital, Associate Professor
Fisher, Mary Lee; Kansas City General Hospital and Medical Center, Instructor
McCalla, John; Kansas City General Hospital and Medical Center, Resident Instructor
Smith, Connie; Kansas City General Hospital and Medical Center, Instructor

PRACTICAL NURSING

Cook, Lawrence; Independence Sanitarium and Hospital, Supervisor, Adult Education, Independence Public Schools
Dahlor, H. W.; Kansas City Missouri School District, Director of Vocational Education
Duncan, Geneva; Kansas City Missouri School District, Director of Practical Nursing
Ellis, Frank; Kansas City, Missouri, School District, Administrative Director, Kansas City General Hospital and Medical Center
Kramer, Mary; Independence Sanitarium and Hospital, Instructor
Nelson, Marilyn; St. Mary's Hospital, Instructor
Phelps, Kermit; St. Mary's Hospital, Chairman of Admissions Committee
Readecker, Pamela; St. Mary's Hospital, Instructor
Riccardi, Betty; St. Mary's Hospital, Director, School of Nursing
Sheets, Don; Kansas City, Missouri, School District, Assistant Director, Vocational Education
Stacker, C. (Mrs.); Independence Sanitarium and Hospital, Instructor
Thompson, Mary; Independence Sanitarium and Hospital, Director, Practical Nursing

PROFESSIONAL NURSING

Atchison, Penny; Kansas City General Hospital and Medical Center, Psychiatric Nursing Instructor
Atkins, Rosemary; Metropolitan Junior College — Kansas City, Instructor of Nursing
Buckles, Joan; Menorah Medical Center, Chairman, Department of Nursing, Central Missouri State College
Clay, Muriel; Research Hospital and Medical Center, Nursing Careers Consultant
Cook, Sharon; Metropolitan Junior College — Kansas City, Instructor of Nursing
Cooper, Lois; St. Luke's Hospital, Director, Student Health
Cordes, Dorothy; Kansas City General Hospital and Medical Center, Nursing Instructor
Estes, Mellanie; Kansas City General Hospital and Medical Center, Nursing Instructor, Admissions
Ferguson, Frieda; Kansas City General Hospital and Medical Center, Nursing Instructor
Foster, Barbara; Kansas City General Hospital and Medical Center, Nursing Instructor, Admissions
Gazda, John; Metropolitan Junior College — Kansas City, Director of Admissions
Gievett, Norma; Trinity Lutheran Hospital, Coordinator, Medical-Surgical Nursing
Helm, Elizabeth; Kansas City General Hospital and Medical Center, Director, School of Nursing
Hilker, Rose Marie; St. Luke's Hospital, Counselor
Hulse, Ruth; Metropolitan Junior College — Kansas City, Instructor of Nursing
Junk, Katherine; Menorah Medical Center, Coordinator, Department of Nursing, Central Missouri State College
Kelley, Mary; Kansas City General Hospital and Medical Center, Psychiatric Nursing Instructor
King, Joanne; Research Hospital and Medical Center, Curriculum Coordinator

PROFESSIONAL NURSING (continued)

King, Sandra; Metropolitan Junior College — Kansas City, Instructor of Nursing
Lewis, Norma; Avila College, Chairman, Department of Nursing
Long, Catherine; Kansas City General Hospital and Medical Center, Nursing Instructor, Admissions
Marshall, Adeline; Metropolitan Junior College — Kansas City, Director of Nursing Education
Mitchell, Teresa; Research Hospital and Medical Center, Director, School of Nursing
Moore, Sister Anne Benedict; Avila College, Nursing Instructor
Morgan, Nelle; Independence Sanitarium and Hospital, Director, School of Nursing
Nielsen, Sara; Menorah Medical Center, Nursing Instructor; Central Missouri State College
Piland, Sherry; Kansas City General Hospital and Medical Center, Nursing Instructor
Rutte, Sister Catherine Louis; Avila College, Nursing Instructor
Rutte, Sister Helen Lucile; Avila College, Nursing Instructor
Schorfheide, Sister Mary Helene; Avila College, Nursing Instructor
Sister Mary Angeline; St. Mary's Hospital, Director, School of Nursing
Soptick, Alyce Marie; Avila College, Nursing Instructor
Taylor, Mary Lou; Trinity Lutheran Hospital, Director, School of Nursing
Tripp, Alice; Kansas City General Hospital and Medical Center, Nursing Instructor
Windes, Peggy; St. Luke's Hospital, Director, Nursing Education

PHARMACY

Baeder, David H.; University of Missouri — Kansas City, Professor of Pharmacology
Chappell, Gary S.; University of Missouri — Kansas City, Assistant Professor of Pharmaceutical Chemistry
Grabowski, Bernard; University of Missouri — Kansas City, Associate Professor of Pharmaceutical Chemistry
Green, Vernon A.; University of Missouri — Kansas City, Professor of Pharmacology
Lanman, Robert C.; University of Missouri — Kansas City, Assistant Professor of Pharmacology
McMahon, James L.; University of Missouri — Kansas City, Associate Professor of Pharmacy Administration
Newcomb, James C.; University of Missouri — Kansas City, Assistant Professor of Pharmacy
Nuessle, Noel; University of Missouri — Kansas City, Associate Professor of Pharmacy
Rost, William; University of Missouri — Kansas City, Professor of Pharmaceutical Chemistry
Schanker, Lewis; University of Missouri — Kansas City, Trustee Professor of Pharmacology
Tuttle, Warren; University of Missouri — Kansas City, Assistant Professor of Pharmacology
Willits, Lyle; University of Missouri — Kansas City, Assistant Dean, School of Pharmacy

PSYCHIATRIC AIDES

Gloss, Lequetta; Western Missouri Mental Health Center, Instructor
Kelly, Mary; Western Missouri Mental Health Center, Assistant Director of Nursing Service
Lewis, Ruth; Western Missouri Mental Health Center, Director, Nursing Service
Maquire, Elizabeth; Western Missouri Mental Health Center, Co-ordinator of Nursing Service
Newfield, Cornelius; Western Missouri Mental Health Center, Associate Director of Nursing Service
Rhymes, Billie; Western Missouri Mental Health Center, Assistant Director of Nursing Service
Schreiner, Ellen; Robinson Memorial Hospital, Director of Nursing Service
Weibold, Mary; Robinson Memorial Hospital, Dietary Supervisor

PHYSICAL THERAPY ASSISTANT

Cooper, Dennis; Research Hospital and Medical Center, Director of Physical Therapy

RADIOLOGIC TECHNICIANS

Courter, L. P.; Research Hospital and Medical Center, Radiologist
Ferwalt, Mrs. Ruth; Research Hospital and Medical Center, Assistant Instructor
Keeling, Blanche; Research Hospital and Medical Center, Radiologic Technology Instructor
Kitchen, Dr.; St. Mary's Hospital, Director of School of Radiology
McNaughton, Ralph; St. Joseph Hospital, Radiologist
McNaughton, Robert; St. Joseph Hospital, Radiologist
Scholtman, Gerhard W. O., Jr.; St. Luke's Hospital, Director of Radiology
Sister Marie Michel; St. Mary's Hospital, Chief Radiologic Technician
Sister Rose Odile; St. Joseph Hospital, Administrative Supervisor of Radiology Department
Smith, A. B.; Research Hospital and Medical Center, Radiologist
Stoechlein, Helen M.; St. Joseph Hospital, Instructor, Radiologic Technology
Walker, John W.; Research Hospital and Medical Center, Radiologist

RADIOLOGIC TECHNOLOGISTS

Armstrong, Jay; North Kansas City Memorial Hospital, Radiologist
Bowser, John F.; Independence Sanitarium and Hospital, Director, Radiologic Technology School
Heinselman, Merlin; North Kansas City Memorial Hospital, Chief X-ray Technician
Johnson, George; Kansas City General Hospital and Medical Center, Chief, Radiologic Technology
Lee, Henry A.; Baptist Memorial Hospital, Assistant Director, Department of Radiology
Lineback, Carol; North Kansas City Memorial Hospital, Assistant Chief X-ray Technician
McIntyre, Helen; Menorah Medical Center, Chief Radiologic Technologist
Riley, Patrick; Kansas City General Hospital and Medical Center, Chairman, Department of Radiology
Rubin, Sidney; Menorah Medical Center, Chairman, Department of Radiology

RADIOLOGIC TECHNOLOGISTS (continued)

Schaefer, Agnes; Baptist Memorial Hospital, Chief Radiologic Technician
Shelton, Patricia; Kansas City General Hospital and Medical Center, Training Supervisor
Virden, Herbert; Baptist Memorial Hospital, Director, Department of Radiology
Wald, D. M.; North Kansas City Memorial Hospital, Radiologist
West, Jo; Kansas City General Hospital and Medical Center, Training Supervisor
Young, Cleveland; Kansas City General Hospital and Medical Center, Training Supervisor
Young, Lois; Independence Sanitarium and Hospital, Assistant Director of Radiologic Technology School

SURGICAL TECHNICIAN

Arnold, Emma; Kansas City College of Osteopathy and Surgery, Director of Nursing
Biezup, Helen; Research Hospital and Medical Center, Director of Surgical Services
Duckworth, Dorthea; Kansas City College of Osteopathy and Surgery, Head Nurse, Operating Room
Lord, Patricia; Trinity Lutheran Hospital, Director of Nursing Service
Louthain, Larry; Kansas City College of Osteopathy and Surgery, Director of Personnel
Lundell, Karen; Trinity Lutheran Hospital, Operating Room Instructor
Plummer, Bonnie; Research Hospital and Medical Center, Inservice Instructor
Williams, Margaret; Trinity Lutheran Hospital, Operating Room Supervisor
Wolfer, Emogene; Kansas City College of Osteopathy and Surgery, Operating Room Supervisor

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Twenty-one different health occupational categories have been presented in the above eight tables. Nurse aide (orderly) was not included in the tables because each hospital operates its own training program for this position as the need arises. There is a yearly employment turnover of over 100 percent in this area. The extent of the need for nurse aides is evident from the data sampled from five hospitals. Over 300 nurses aides are trained yearly. Many of these training programs are sponsored through various Office of Economic Opportunity (OEO) projects.

The salary for the nurse aide position is very low and there is little if any advancement. Training for this position is the least transferable of any training reported in this inventory. The training does not prepare the individual for advancement to other positions. Nor does it necessarily qualify him for employment in the same position at another hospital since each hospital teaches its own particular "essential" skills. Even the length of training for the nurse aide varies from place to place, ranging from three weeks to three months of on-the-job training.

Richards Gebaur Air Force Base was not included in the inventory at this time as the investigators felt the variables involved in operating a military health care unit did not fit into the framework of "community training resources."

It is essential but difficult to obtain a complete listing of health care institutions and of health manpower training resources in this area. Employment statistics are almost as difficult to obtain. There seems to be a great reluctance to provide this information, especially in the area of salaries and advancements. This may be due to the problems arising from factors of time and government financial support, both of which influence the variations in this type of information.

It is the opinion of the investigators that in order to obtain the most reliable and complete data, efforts should be made to interview the person directly responsible for each training program. Administrators and personnel directors have broad knowledge of the training programs but do not always have the detailed information necessary for a thorough inventory.

At the time of publication of the Master Facilities Inventory some programs may no longer exist; new ones may now be in operation. Two reasons for this are (1) the transient and temporary results of OEO sponsored projects due to a variety of problems, such as national budgetary cutbacks; and (2) the seasonal nature of some types of training programs, including those for operating room technicians, cardiovascular care nurses, home health aides.

Data in Table V include the responses to the question regarding budgeted positions not filled (see Appendix A, XIX-8). These data do not adequately reflect the present and future needs for increased manpower in these positions. In many cases positions were not incorporated into projected budgets because there was little evidence that qualified manpower would be available to fill the positions. With limited manpower and limited financial resources, the majority could only respond that no budgeted positions were presently unfilled.

The investigators feel that the actual need for specific kinds of health personnel could be determined more adequately by (1) revising the question to read, "How many positions could be incorporated into the budget if the manpower were available?" and (2) including a question regarding the present level of employment for each position.

IV. CONCLUSIONS AND RECOMMENDATIONS

Analysis of the information collected indicates most clearly that (a) there is broad community interest in health training, (b) there is an impressive network of training activities, (c) a sizeable body of health professionals, representing many disciplines, is involved in training; but that (d) the present level of activity and planning does not and will not meet the need for manpower in the community health industry. Five major problems need to be emphasized:

1. The community health training effort is seriously fragmented. Each program is developed in relative isolation from all other programs. There is a lack of communication, and therefore of coordinated planning, between programs within the same institution and between institutions.

2. Health training programs and professionals lack visibility within institutions, within occupational areas and within the community.

3. The development of training programs is uneven. Knowledge of related efforts and priorities is unavailable without baseline data. The effect is that programs with short-sighted perspectives are developed.

4. The status of health training in the community is obviously in transition. There continues to be an explosion of new health occupations, of interest by institutions in health training, of federal programs aimed at increased manpower and health capabilities and of health professional organizations.

5. Student recruitment is severely hampered by an almost complete lack of comprehensive and reliable information about training and employment opportunities.

In the light of these and related problems, the following recommendations are offered:

1. The continuation of the Master Facilities Inventory, or a similar study, on a sustained basis to monitor health training activities in order to provide information for planning and a basis for evaluation. The continued efforts should utilize computer capabilities to avoid the obsolescence of information which characterizes any rapidly changing field.

2. Immediate efforts to mobilize the training professionals identified in the study; instituting first steps toward collaboration at the community level. Joint recruitment efforts may yield the most rapid increase of available health manpower.

3. A greater recognition of the training role and resource of the physician in private practice. Discussions should be scheduled to determine how this sizeable resource can be developed.

4. Efforts to encourage professional and voluntary organizations to take an active role in meeting local health manpower needs through consultation, recruitment, financial aids and political support.

5. A program for key executive personnel of institutions with health training components to provide them with information regarding health training developments and problems.

In summary, the proposition is simple. The expanding urban population coupled with the increasing scope of potential health services, translate into a growing need and demand for health care. New facilities are only a part of the answer. Most importantly, new people must be trained to competently provide health care.

This study strongly suggests that the present level of community effort is lagging now and will not be at all adequate for the future. Serious and immediate effort needs to be mobilized and directed at planning and developing community health training resources.

DATE:
SURVEYOR:

APPENDIX A

HEALTH MANPOWER TRAINING PROGRAM SURVEY

We would greatly appreciate your assistance in facilitating the completion of the Health Manpower Training Program survey. Would you please fill in the following questionnaire as completely as possible by circling the most correct answer or filling in the blanks. The survey has been designed to cover a variety of training programs; therefore, some items may not be applicable to your particular program. If they do not apply, write "not applicable" in those blanks. Thank you for your assistance.

I. Name of Institution: _____

II. Name of Training Program: _____

III. Address: _____ Phone: _____

IV. Name and Position of Informant: _____

V. Accrediting Agencies: (for the program)

VI. Type of Program:

1. Degree 4 yr. 3 yr. 2 yr. 1 yr.

2. Certificate 4 yr. 3 yr. 2 yr. 1 yr.

3. On the Job Training w/degree — w/certificate — w/salary-alone

VII. Admissions Staff: (2-3) (Name and Position)

VIII. Qualifications for Entry:

1. Minimal educational background

a) high school diploma
b) diploma equivalent
c) neither necessary
d) other _____

2. Age limits:

a) yes — ages _____
b) no

3. Sex: a) females only b) males only c) either

4. Race: a) Caucasian b) Non-white c) no specifications

IX. STUDENT POPULATION:

1. Where are most applicants from:

   a) Geographic area:

      1) Kansas City, Missouri
      2) Greater Kansas City
      3) Missouri and Kansas
      4) Midwest
      5) Other _____

   b) Socio-economic level:

      1) Low
      2) Low-middle
      3) Middle
      4) Middle-upper
      5) Upper

   c) Educational Background:

      1) 8th grade
      2) 10th grade
      3) High school graduate
      4) College (number of years _____)

2. What is the rate of drop-outs during training? What do you consider the major reasons for this?

3. What quantity of man-power is provided currently? _____

   Quantity possible at full capacity? _____

   If not at capacity, give possible reasons for this.

4. Where are most students placed upon completion of the training program?

   a) Institution:
   b) Position:

5. Percent of graduates working in field.

   a) 25%
   b) 50%
   c) 75%
   d) 100%

   If not working, why not?

X. TUITION:

a) yes (amt./yr _____)
b) no

1. Is financial aid other than salary or stipend available?

   a) yes How much _____
   b) no

2. Is a salary or stipend given while in training?

a) yes (amt./mo._____)
b) no

3. Are scholarship programs available? a) yes b) no

Kind:
a) Government
b) Private
c) Both Number_____

XI. PROGRAM

1. How often do you enter students for training?

a) once a year
b) every six months
c) semesters
d) trimesters
e) quarters
f) rotating as needed

2. Length of program in months_____

3. Does the program allow for transfer students to enter? a) yes b) no

4. Is training received in this program applicable as transfer credit into other schools?

a) yes
b) no

5. What specific areas does the program include?

6. What is the ratio of classroom hours to practicum hours?

7. Is the program geared more towards theoretical knowledge or practical knowledge?

8. What percentage of the teaching staff performs other health services in addition to teaching?

a) none
b) under 25%
c) approximately 50%
d) above 75%
e) 100%

9. Upon completion of the training program are the students immediately qualified for employment? (i.e., without internship, etc.)

a) yes
b) no

10. Is continuing education provided for within your institution?

a) yes
b) no

11. Is special training necessary to become a trainer? a) yes b) no

XII. Who are the staff members directly involved in the training program? (Names of teaching staff and position)

XIII. Who are the members in the health fields who are most immediately involved with the students after training? (Names and positions. If names are not available, give usual staff position)

XIV. What do you consider the primary advantages of your program? (3-5)

XV. What do you consider the primary disadvantages of your program? (3-5)

XVI. What would your immediate steps be to improve the existing program? (3-5)

XVII. What long range plans would you implement to improve the program? (3-5)

XVIII. What legislation (state or national) is going on or has been passed to facilitate training programs of this type?

XIX. Once on the job:

1. What is the percentage of turnover?

   a) under 25%
   b) 25%
   c) 50%
   d) 75%
   e) above 75%
   f) 100%

2. What is the average length of stay?

   a) under 1 year
   b) 1-2 years
   c) 3-4 years
   d) 5-6 years
   e) 7-8 years
   f) 9-10 years
   g) over 10 years

3. What is the career mobility (i.e., are the trained students eligible and qualified for more than one type of employment? If so, what types?)

4. Salary range per month _____

5. Is an annual salary increment given? a) yes b) no

   If so, for how long? _____

   Fringe benefits? _____

6. What are the yearly salary increments?

7. Would credit via salary increments be given for additional education?

   a) yes
   b) no

8. How many budgeted positions are not filled currently, but could be if manpower were available?

COMMENTS: (Other relevant but not quantifiable data -- Please request brochures, catalogues, application blanks, etc.)

Revised: 6/67

APPENDIX B

PROJECT STEERING COMMITTEE

John G. L. Dowgray, Jr., Ph.D.
Dean of Faculties
University of Missouri — Kansas City

Charles Wilkinson, M.D.
Director of Training
Western Missouri Mental Health Center

Walter B. Wright, M.B.A.
Dean of the Division of Continuing Education and Extension
University of Missouri — Kansas City

Harold Finch, M.S.
Dean of Applied Arts
Metropolitan Junior College — Kansas City

Eugene Powers, Ed.D.
President
Kansas City College of Osteopathy and Surgery

~~John Philp, M.D.~~
Kansas City, Missouri, Public Health Department

Robert R. Wheeler, M.S.
Assistant Superintendent
Division of Urban Education
Kansas City, Missouri, Public School District

Amelia Wahl
Associate Regional Commissioner
Administration on Aging
Kansas City, Missouri

Hamilton Robinson, D.D.S.
Dean, School of Dentistry
University of Missouri — Kansas City

APPENDIX C

JACKSON COUNTY INSTITUTIONS CONTACTED

FOR MASTER FACILITIES INVENTORY – 1967

Health Care Facilities

Baptist Memorial Hospital
Children's Mercy Hospital
Conley Maternity Hospital
Downtown Hospital Foundation
Doctors' Hospital
Independence Sanitarium and Hospital
Jackson County Hospital
Kansas City General Hospital and Medical Center
Lakeside Hospital
Menorah Medical Center, The
Northeast Osteopathic Hospital
North Plaza Hospital and Foot Clinic
Research Hospital and Medical Center
Robinson Memorial Hospital (The Neurological Hospital)
Saint Joseph Hospital
Saint Luke's Hospital
Saint Mary's Hospital
Trinity Lutheran Hospital
Veterans Administration Hospital
Western Missouri Mental Health Center
Wheatley-Provident Hospital
Willows Maternity Sanitarium, Inc.

Educational Institutions

Avila College
Career Academy
Catholic Diocese of Kansas City-St. Joseph School District
Consolidated Public School District #1
Consolidated Public School District #2
Grandview Consolidated Schools
Independence, Missouri, Public School District
Kansas City College of Medical and Dental Assistants
Kansas City, Missouri, Public School District
Kansas City, Missouri, Public Schools — MDTA Training Facility
Metropolitan Junior College — Kansas City
Rockhurst College
University of Missouri — Kansas City

Other

Cerebral Palsy Center
Jackson County Public Health Department
Kansas City, Missouri, Public Health Department
Midwest Children's Center
Visiting Nurse Association

INSTITUTE FOR COMMUNITY STUDIES

APPENDIX D

Dear Sir:

As research assistant to Dr. T. F. Zimmerman, Director of Health Careers and Development Programs, at the Institute for Community Studies; I am responsible for conducting a study of health manpower training facilities and resources in Kansas City. The specific objective of this task is to study existing manpower supply resources while collecting basic descriptive and baseline data regarding training programs presently operating in the metropolitan area.

Your cooperation would greatly assist in making this inventory complete and accurate. I would like to arrange an appointment with you at your convenience to obtain titles of training programs, bochelor's level and below, operating in your institution. I would also like to obtain the names of those persons I should contact to acquire the descriptive data on these.

Sincerely,

Carol Crnic

Carol Crnic, B.A.
Research Assistant
Health Careers Research and Development

CC:nid

HOLMES KANSAS CITY, MISSOURI 64108 TELEPHONE (816) BA 1-2510

APPENDIX E

CLAY COUNTY INSTITUTIONS CONTACTED FOR MASTER FACILITIES INVENTORY — 1967

Health Care Facilities

Excelsior Springs Hospital
North Kansas City Memorial Hospital
Smithville Community Hospital
McCleary Memorial Hospital

Educational Institutions

Clay County Superintendent of Schools
Liberty, Missouri, Public School District
North Kansas City, Missouri, Public School District
William Jewell College

Other

Clay County Health Department
Job Corps of America for Women — Excelsior Springs
Spa View Health Haven

INSTITUTE FOR COMMUNITY STUDIES

APPENDIX F

Dear Doctor:

The Institute for Community Studies is conducting an inventory of the health training facilities in the Greater Kansas City Area. The directors of health manpower training programs have been interviewed. We included in our inventary all health training from the baccalaureate level down to an-the-job type programs.

The purpose of this inventory was to determine what health training programs were available, how many there were of each kind, and haw many students were being graduated. Another purpose of the study was to determine the difference between the number of graduates and the number of health positions available in the community. Results of this inventory will be used in planning and evaluating future health manpower training programs.

If it would be convenient, I would like to contact your office by phone early next week to ask a limited number of questions. It should anly take a few minutes.

To save time I have included them in this correspondence. They are:

1) What types of health personnel are presently working in your affice? (e.g., nurses, medical assistants, medical secretaries, etc.)
2) How many of each are emplayed?
3) Has any of yaur staff been hired without prior training for their position? If sa, which ones?

In order to obtain a complete picture or health manpower utilization, we feel it is impartant to contact a sample af private physicians. Your caoperatian would be greatly appreciated in helping us complete aur study. Thanking you in advance. . .

Sincerely,

Carol A. Crnic

Carol A. Crnic, B.A.
Research Assistant
Health Careers Research and Development

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