ABSTRACT

FOOD DISTRIBUTION SYSTEMS IN
MICHIGAN EXTENDED CARE FACILITIES

By

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This study was concerned with developing an overview of food service to patients in Michigan extended care facilities by a) determining the present on-premise patient food distribution practices, b) examining the viewpoints of persons directly responsible for the management of the food service with respect to the adequacy of their food distribution practices for their current and developing facility needs, and c) identifying the current and developing problems of on-premise patient food distribution systems associated with organization change and facility expansion.

For this investigation, a sample of 79 Michigan extended care facilities responded to a twelve-page mail questionnaire which, in order to characterize the facilities, was directed toward eliciting organizational data about the total facility and the essential elements concerned with the operation of the food service. Personal interviews in a selected sub-sample of 18 of the extended care facilities were used to gain more specific information concerning the

food service and the opinions of the food service manager. In both cases, data were sought from persons responsible for the management of the food services for the facilities.

Results of the study indicate that patient food service in the extended health care units surveyed varies greatly among facilities. In many cases, the systems of patient meal distribution are neither adequate nor efficient for the needs of the patients and the resources of the facility. Efficiency could be markedly improved in many of the existing food services by procedural modifications at relatively nominal cost. Opinions expressed by managers of the 18 food services reveal only a limited awareness of problem areas in their respective food services but express willingness to utilize practical counsel from food service specialists in order to improve their operations.

Despite the limited scope of this fact-finding study there is evidence that non-metropolitan Michigan extended care facility food services need assistance in organization and management. Related investigations with a larger number of metropolitan facilities are needed to supplement these data and to further identify the basic problem areas in this important segment of the health care institutional complex.

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By

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A PROBLEM

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Department of Institution Administration

1970

ACKNOWLEDGEMENTS

The author wishes to express gratitude to Dr. Grace A. Miller for her patience, support, and invaluable assistance during the author's period of graduate work and during this study.

The author gratefully acknowledges the contribution made by the extended care facilities which participated in this study.

Special gratitude is extended to the Sisters of the Precious Blood of Dayton, Ohio, who granted the author a two-year sabbatical to pursue graduate study and to the Department of Institution Administration which provided financial assistance.

TABLE OF CONTENTS

TABLE OF CONTENTS--continued

LIST OF TABLES

CHAPTER I

INTRODUCTION

The nursing care home, a relatively new phenomenon in the American medical scene, has grown out of social, medical, and economic changes in today's society. In the five year period from 1963 to 1967, the number of nursing care and personal care with nursing facilities in the United States increased by 7 per cent and the number of beds by 85 per cent; for a total of 14,500 facilities with 775,200 beds (35). In 1967 the national average for number of beds per unit was 54 beds per facility and the trend is toward larger unit capacities.

In spite of this growth, both in the number and size of nursing care and personal care with nursing care facilities, many food service departments have continued to operate without modifications consistent with the scope and complexity of the meal services required by the facility. As the number of beds per facility increases the on-premise patient food distribution system necessarily grows more complex.

In January 1967, Federal insurance coverage for care in skilled nursing facilities, termed extended care facilities, became available to persons 65 years and over through

the Medicare program of the 1965 amendments to the United States Social Security Act. This new legislation has provided additional impetus for the construction of new as well as the renovation and/or expansion of existing nursing care facilities. Extended care represents a new level of care designed to provide skilled nursing services in a high quality extended care facility at less cost than in a hospital.

Services of a dietitian are required for certification under Medicare. This service can be provided on a full-time, part-time, or consulting basis. The need is for excellent food service departments which incorporate imaginative solutions to nutritional and managerial problems. Good food service can be an important asset to an extended care facility. The quality of the food service may be more evident to the patient, his family, and visitors than any other aspect of the facility. There is need for facility administrators to a) recognize the importance of food service as an essential supportive health care service, b) examine the contributions which the food service department can, and indeed should, make to the total patient care program, and c) ensure that these concepts are translated into a workable, efficient and productive program of action.

Although the demand for more and larger nursing care and related facilities has generated considerable concern for and serious study of general nursing care facility needs,

few studies have reflected parallel concern for developing new or improving existing on-premise patient food distribution systems as essential components of these facilities. Furthermore, little is known about the patient food distribution practices and problems which existing facilities are now experiencing or will be facing in the near future as licensed bed expansion takes place.

According to a recent report (35), in 1967 Michigan ranked ninth in the United States in terms of numbers of nursing care and personal care with nursing care facilities with totals of 367 and 85 facilities in these respective categories. Of this 1967 total of 452 facilities, 108 or 24 per cent were certified as extended care facilities under the Medicare program (1).

Consequently, this survey of current on-premise patient food distribution systems of a sample of these Michigan extended care facilities was undertaken in order to provide descriptive data relative to the efficiency of systems currently in use and the actual or anticipated problems associated with facility expansion.

In planning the investigation, three basic assumptions were made:

a) Extended care facilities will continue to expand. This expansion to optimum size will demand more efficient on-premise patient food service systems than are currently in use.

b) The number of nursing care and personal care with nursing care facilities eligible to participate as providers of extended care services under Medicare will increase. Many facilities which are currently ineligible for Medicare certification will modify their organizational structures, policies, procedures, and physical plants to meet the certification requirements.

c) The availability of descriptive data concerning the food service characteristics of extended care facilities would be useful to persons responsible for planning and improving the operational efficiency of patient food distribution systems in Michigan nursing care and personal care with nursing care facilities.

The primary objective of this exploratory study was to gain an overview of selected extended care facility characteristics in terms of patient meal service a) by determining the present on-premise patient food distribution practices, b) by examining the viewpoints of persons directly responsible for the operation of the food service with respect to the adequacy of their food distribution practices for their current and developing facility needs, and c) by identifying the current and developing problems of on-premise patient food distribution systems associated with organization change and facility expansion.

Following these introductory statements concerning the rationale for and the stated purposes of the study, the

literature related to nursing care and related facilities, the Medicare program and fact-finding research methods are summarized in Chapter II. The survey procedures used in the study are described in Chapter III and the study findings are reported and discussed in detail in Chapter IV. The concluding chapter, Chapter V, includes a summary of the findings and general conclusions drawn from the study.

CHAPTER II

REVIEW OF LITERATURE

The early history of nursing care facilities is obscure but their rapid growth in the past thirty years has brought them into the medical scene today. The earliest compilation of data on nursing, convalescent and rest homes by the United States Bureau of the Census showed that in 1939 there were 1,200 facilities with a total capacity of 25,000 beds (7); by 1967 there were 19,200 nursing care and related facilities with a total capacity of 846,000 beds (35).

The expansion of nursing care and related facilities can be attributed to a variety of social and economic factors: the increased lifespan and resultant larger aged population, the residential shift of the elderly from normal family surroundings to institutional settings for required health care services, changes in the patterns of illness resulting from advances in medical technology, and the increasing prevalence of chronic disease. The effect of these factors was further precipitated by the decline of the public almshouse and the emergence of a new philosophy in public welfare in the Social Security Act of 1935 and its 1965 amendments (27,34,35).

According to Baumgarten (3), nursing care and related facilities are the least understood of all the health care facilities in America. The goals, objectives, standards and criteria for these facilities have not been clearly defined. Because of the vagueness about the identity of the nursing care facility, legal definitions of the term "nursing home" vary among licensing bodies as well as among licensing laws. In the State of Michigan a nursing home is defined as

> an establishment or institution other than a hospital having as one of its functions the rendering of healing, curing, or nursing care for periods of more than twenty-four hours to individuals afflicted with illness, injury, infirmity, or abnormality.[1]

The existing information concerning the availability of nursing home services, including age and health needs of patients, costs of care, and sources of financing, is very general and not uniformly reported (34).

According to the United States Bureau of the Census Population Reports (30,31), between 1963 and 1967 the total United States population for persons 65 years and over increased 7 per cent while the total population for all ages increased only 5 per cent. Bureau of the Census estimates indicate that by 1970 both the total population and the population for the group 65 years and over will have increased an additional 4 per cent from the 1967 level.

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[1]Michigan. Compiled Laws, Annotated (1967), Public Act 1956, Number 139, Section 331.652.

Although, according to the latest Bureau of the Census Population Report (32) the annual growth rate of the age group 65 years and over has declined during the past 20 years this age group remains the one that has grown most rapidly. For about the first half of this century, the effects of long-term declining fertility and mortality as well as the higher rates of immigration in the early decades of this century favored the higher annual rates of increase at the older ages. In the fiscal year 1967-1968, the rate of growth for the 65 and over age group was still higher than that for the population of all ages.

Nursing Care and Related Homes

The National Center for Health Statistics (35) has divided nursing care and related homes into four sub-classes according to the predominate service provided: nursing care homes, personal care with nursing care homes, personal care without nursing care homes and domiciliary care homes. Totals for the number of units in the United States, the number of units in each of the sub-classes, and the number of beds among and within sub-classes for 1963 and for 1967 are presented in Table 1.

Number of facilities

Of the 16,700 nursing care and related homes reported in 1963, 49 per cent were classified as nursing care units, 30 per cent as personal care with nursing care units, 17 per

Table 1. United States Nursing Care and Related Homes: 1963 and 1967[a]

Predominate Service Classification	1963 No.[b]	1963 % Total	1967 No.[b]	1967 % Total	Change 1963-1967 No.	Change 1963-1967 % Change
Facilities						
Nursing care	8,100	49	10,600	55	+ 2,500	+31
Personal care with nursing care	5,000	30	3,900	20	- 1,100	-22
Personal care without nursing care	2,900	17	4,400	23	+ 1,500	+52
Domiciliary care	700	4	300	2	- 400	-57
TOTAL ALL CLASSES	16,700	100	19,200	100	+ 2,500	+15
Beds Available						
Nursing care	319,200	56	584,100	69	+264,900	+83
Personal care with nursing care	188,300	33	191,100	22	+ 2,800	+ 2
Personal care without nursing care	49,000	9	66,800	8	+ 17,800	+36
Domiciliary care	12,100	2	4,600	1	- 7,500	-62
TOTAL ALL CLASSES	568,600	100	846,600	100	+278,000	+49

[a]Source: Health Resources Statistics. U. S. Public Health Service Publication No. 1509. 1968 Edition, p. 220.

[b]Rounded to nearest hundred.

cent as personal care without nursing care and 4 per cent as domiciliary care units. By 1967 the total number of nursing care and related homes had increased to 19,200 with corresponding sub-class percentages of 55, 20, 23, and 2, respectively. Although between 1963 and 1967 the total of all sub-classes of nursing care and related homes in the United States increased only 15 per cent, the number of units within sub-classes changed considerably. During this 5-year period the number of homes classified as nursing care units increased 31 per cent, personal care with nursing care decreased 22 per cent, personal care without nursing care increased 52 per cent and domiciliary care units decreased 57 per cent. These changes in numbers of units within sub-classifications reflect not only the previously mentioned social and economic factors of this time period but also the impact of Medicare legislation and its specific requirement for skilled nursing service in addition to personal care service.

Beds available

As shown in Table 1, in 1963 the total number of beds available in nursing care and related homes in the United States was 568,600. Of these, 56 per cent were in nursing care units, 33 per cent in personal care with nursing care units, 9 per cent in personal care without nursing care units and 2 per cent in domiciliary care units. In 1967 the total number of available beds for all service classes was 846,000 with 69 per cent in nursing care units, 22 per cent in

personal care with nursing care units, 8 per cent in personal care without nursing care units and 1 per cent in domiciliary care units. Although between 1963 and 1967 the total beds available in nursing care and related homes in the United States increased 49 per cent, this expansion in the number of beds available is reflected in only three of the four facility sub-classes with by far the greatest percentage increase occurring in the nursing care facility sub-classification.

The data reported in Table 1 also suggest that of the two facility sub-classes which between 1963 and 1967 evidenced growth in the number of units established, nursing care facilities have tended to increase in unit size whereas personal care without nursing care facilities have not.

Reports from the United States Public Health Service (34,35) indicate that over the fourteen year period of 1954 to 1967 the national average for number of beds per unit has doubled from 26.5 beds per facility in 1954 to 53.8 beds per facility in 1967. This increase in establishment size is in part the result of economic pressures; it is no longer feasible to operate a small facility. Other associated changes are the decrease in the number of conversions which are being made from existing structures and the increase in new facilities which are being built specifically for nursing care. According to Smith (27), the trend in newly constructed nursing care and related facilities is toward a unit capacity of at least 60 to 75 beds. In the opinions of Baumgarten (3)

and Harshman (11), as medical knowledge expands, demands for comprehensive skilled nursing care will continue to grow in nursing care and related facilities and will result in higher costs for facilities and personnel. Only facilities with an adequate income base will be able to survive.

Facility ownership

According to the Public Health Service (35), ownership of nursing care and related homes is of three types: government, proprietary, and non-profit. Of the 19,200 nursing care and related homes in 1967, 8 per cent were government owned, 77 per cent were proprietary, and 15 per cent were non-profit. Seventy-six per cent of the total number of nursing care and related homes were classified as providing some degree of nursing care, whereas, 24 per cent were classified as providing only personal or domiciliary care.

Within government-owned nursing care and related homes, as reported by the Public Health Service (35), 58 per cent of the facilities provide nursing care while 42 per cent do not. In proprietary-owned nursing care and related homes, 76 per cent of the facilities provide nursing care while 24 per cent do not. Eighty-three per cent of the facilities provide nursing care in the non-profit segment of the nursing care and related homes, whereas, 17 per cent provide only personal or domiciliary care.

Reports from the Public Health Service (35) in 1967 indicate that when based on degree of nursing care provided, ownership within facility types was predominately proprietary. For those nursing care and related homes with nursing care, government ownership represented 6 per cent, proprietary 78 per cent, and non-profit 16 per cent. Nursing care and related homes without nursing care were 13 per cent government owned, 76 per cent proprietary, and 11 per cent non-profit.

Nursing care and personal care with nursing care facilities operated by governmental agencies were generally large with an average bed capacity of 125 beds reported in 1963 (34). Since this is the smallest segment in the nursing care field, Baumgarten (3) believes that the various levels of government will enter the nursing care field only when a vacuum exists and when pressure is sufficient to activate legislators. The current trend is away from the public sector entering the nursing care field.

The proprietary nursing care and personal care with nursing care facilities tended in 1963 to be small with an average of 32 beds. The owners generally served as administrators. The regulation of these facilities was through various State licensing laws (34). In general, the proprietary nursing care or personal care with nursing care home was conceived and built by its owner-operators as a business investment (3). The current trend in the proprietary nursing

care and personal care with nursing care facilities is toward multiple-facility organization in which linkage is achieved through a common investor and/or management (4,8).

Non-profit nursing care and personal care with nursing care facilities in 1963 had an average of 78 beds per home. These facilities can be of two types: a) the hospital-based facility, an adjunct to a general hospital usually located on the hospital grounds so that it can utilize many of the services of the hospital; or b) independent facilities which tend to specialize in areas of medical care such as rehabilitative, custodial, psychiatric, or limit their services to men or to women (1).

Patient characteristics

A major characteristic of patients in facilities with nursing care is age, for 80 per cent are 65 years of age and over, and 25 per cent are 85 years and over. The larger the facility, the more likely that it will have a higher proportion of younger patients. Because of their greater longevity and the fact that many more women than men in the later years are widowed, nearly three-fourths of the patients in nursing care facilities are women. This means that the problems of the aged are increasingly the problems of aged women (34).

About 40 per cent of the patients were admitted to nursing care facilities from their own homes and another 40 per cent from hospitals. Thirty-three per cent of the

patients who left the facility did so due to death, 33 per cent returned home, 25 per cent were transferred to a hospital, and the remaining 8 per cent went to other nursing homes (34).

Based on a 1966 report on the characteristics of proprietary nursing care facility patients in Massachusetts (34), the three leading diagnoses for 59 per cent of patients were cardiovascular conditions, chronic brain syndrome, and arthritis. The two next most frequent diagnoses which account for 15 per cent of the patients were diabetes, and fractures and amputations. In a 1953-1954 study in thirteen states (7), cardiovascular diseases were reported for two-thirds of the patients while "senility" was diagnosed for one-fourth of the patients at that time.

Data collected in a 1966 study of Missouri nursing homes indicated that 78 per cent of the patients had an appetite rating of good or excellent, about 16 per cent had special diets, and 14 per cent were not able to feed themselves. Less than half of the patients were ambulatory to the extent that they needed no assistance in walking (34).

Extended Care Services Under Medicare

Medicare program

Health benefits for extended care services following hospitalization became available on January 1, 1967, to persons 65 years of age and over enrolled in the hospital

insurance program under Title XVIII of the Social Security Act of 1965. Extended care represents a new level of care designed to provide skilled nursing services in a high-quality nursing care facility over a relatively short period of time at less cost than in a hospital (38).

The program is intended as an extension of hospital benefits for aged persons who have reached a stage in their recovery that does not demand the intensive care and costly services of a hospital but who do need skilled nursing services which can be provided equally well by a high-quality extended care facility. The program is not intended to provide governmental subsidy for custodial or long-term nursing care costs for the aged (40).

Extended care services. The term "extended care services," as defined in Title XVIII of the Social Security Act,[2] means the following items and services furnished to and/or by an extended care facility:

1) nursing care provided by or under the supervision or a registered professional nurse;

2) bed and board in connection with the furnishing of such nursing care;

3) physical, occupational, or speech therapy furnished by the extended care facility or by others under arrangements with them made by the facility;

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[2]U. S. Department of Health, Education, and Welfare, Title XVIII of the Social Security Act, P. L. 89-97 as Amended (Washington, D. C.: Government Printing Office, 1968), Section 1861(h), p. 35.

4) medical social services;

5) such drugs, biologicals, supplies, appliances, and equipment, furnished for use in the extended care facility, as are ordinarily furnished by such facility for the care and treatment of inpatients;

6) medical services provided by an intern or resident-in-training of a hospital with which the facility has in effect a transfer agreement and other diagnostic or therapeutic services provided by a hospital with which the facility has such an agreement in effect; and

7) such other services necessary to the health of the patients as are generally provided by extended care facilities; excluding, however, any item or service if it would not be included if furnished to an inpatient of a hospital.

Extended care facility. To qualify for certification as an "extended care facility"[3] an institution (or a distinct part of an institution) must be one which has in effect a transfer agreement with one or more hospitals participating in Medicare and must be one which--

1) is primarily engaged in providing to inpatients skilled nursing care and related services for patients who require medical or nursing care, or rehabilitation services for injured, disabled, or sick persons;

2) has policies which are developed with the advice of (and with provision of review of such policies from time to time by) a group of professional personnel, including one or more physicians and one or more registered professional nurses, to govern the skilled nursing care and related medical or other services it provides;

3) has a physician, a registered professional nurse, or a medical syaff responsible for the execution of such policies;

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[3]Ibid., Section 1861(j), p. 36.

4) has a requirement that the health care of every patient must be under the supervision of a physician, and provides for having a physician available to furnish necessary medical care in case of emergency;

5) maintains clinical records on all patients;

6) provides 24-hour nursing service which is sufficient to meet nursing needs and has at least one registered professional nurse employed full time;

7) provides appropriate methods and procedures for the dispensing and administering of drugs and biologicals;

8) has in effect a utilization review plan as required by law;

9) in the case of an institution in any State in which State or applicable local law provides for the licensing of institutions of this nature, a) is licensed pursuant to such law, or b) is approved, by the agency of such State or locality responsible for licensing institutions of this nature, as meeting the standards established for such licensing; and

10) meets such other conditions relating to the health and safety of individuals who are furnished services in such institution or relating to the physical facilities thereof.

In addition to the above requirements, each facility must also comply with Title VI of the Civil Rights Act of 1964 which prohibits discrimination based on race, color, or national origin (38).

Facility participation. Participation in the Medicare program is optional and only nursing care and personal care with nursing care facilities that wish to participate need apply for certification. According to Somers and Somers (29) in 1967 there were two basic reasons why many of the proprietary

and non-profit nursing care and personal care with nursing care facilities in several states, of which Michigan was one, were not participating in the Medicare program: either they could not or were not willing to meet the conditions of participation or they were dissatisfied with the method and formula for reimbursement.

Patient benefits. Benefits provided by the Health Insurance Program for the Aged (Medicare) include up to 100 days of extended care services in a certified extended care facility during a single benefit period (originally termed a "spell of illness"). The program pays the full cost of covered services for the first 20 days and the cost less a deductible for the remaining 80 days. In general, the extended care services for which Medicare insurance pays are the following: a) bed in a semiprivate room and all meals, including special diets, b) regular nursing services, c) drugs furnished by the extended care facility, d) physical, occupational and speech therapy, e) medical supplies such as splints and casts, f) use of appliances and equipment furnished by the facility such as wheelchairs, crutches, and braces, and g) medical social services. In order to qualify for reimbursement under Medicare for services provided by a certified extended care facility a patient must meet the following requirements: a minimum of three consecutive days of hospital confinement, admittance on a doctor's order to the extended care facility within 14 days of hospital discharge, and admittance to the

extended care facility for treatment of the conditions for which the patient was hospitalized (40).

Participating institutions

Of the 14,000 nursing care and personal care with nursing care facilities in the United States in 1967, approximately 3,700 (26%) were certified as providers of extended care services under Medicare. Of these, approximately 100 (nearly 3%) were located in the State of Michigan. Statistics reported by Allen (1) concerning the numbers of units and available beds of extended care facilities participating in the Medicare program for the United States and for the State of Michigan are shown in Table 2. Two different bases are presented for comparison: a) classification by type of extended care facility and b) classification according to type of facility ownership.

Units vs. facility type and ownership. As shown in Table 2, of the nearly 3,700 participating extended care units in the United States in 1967, 77 per cent were classified as skilled nursing care facilities, 14 per cent as extended care units of hospitals, 6 per cent as units of domiciliary care institutions, and 3 per cent as units of rehabilitation centers. Comparable figures for the State of Michigan indicate that there were 108 facilities of which 77 per cent were skilled nursing care facilities, 12 per cent were extended care units of hospitals, 8 per cent were units of domiciliary institutions

Table 2. Extended Care Facilities Participating in Medicare for the United States and for Michigan: numbers of units and beds in 1967 classified by type of facility and type of ownership[a]

United States					Type of Extended Care Facility	State of Michigan				
Units		Beds				Units		Beds		
No.	% Total	No.	% Total	Avg./ Unit		No.	% Total	No.	% Total	Avg./ Unit
2,831	77	213,208	81	75	Skilled Nursing Care Facility	83	77	7,893	77	95
514	14	27,342	11	53	Unit of Hospital	13	12	990	10	76
216	6	15,491	6	72	Unit of Domiciliary Institution	9	8	1,058	10	118
102	3	5,866	2	58	Unit of Rehabilitation Center	3	3	333	3	111
3,663	100	261,907	100	71	**TOTAL ALL TYPES**	108	100	10,274	100	95

United States					Type of Ownership of Extended Care Facility	State of Michigan				
Units		Beds				Units		Beds		
No.	% Total	No.	% Total	Avg./ Unit		No.	% Total	No.	% Total	Avg./ Unit
2,485	68	179,303	68	72	Proprietary	53	49	4,784	47	90
864	23	50,020	20	58	Non-profit (Churches and Other)	20	19	1,632	16	82
314	9	32,584	12	104	Government (Federal, State and Local)	35	32	3,858	37	110
3,663	100	261,907	100	71	**TOTAL ALL TYPES**	108	100	10,274	100	95

[a]Source: David Allen. "Health Insurance for the Aged: Participating Extended Care Facilities," Social Security Bulletin, XXX (June, 1967), 3-8.

and 3 per cent were units of rehabilitation centers. Percentage comparisons between Michigan units and United States units indicate a similar percentage distribution among facility classes.

When classified according to type of ownership, however, slightly more than two-thirds of the extended care facilities in the United States in 1967 were privately owned (proprietary). Churches and other non-profit organizations owned about 23 per cent of the facilities with the remaining 9 per cent owned by Federal, State, and Local governments. Corresponding figures for Michigan show that 49 per cent of the Michigan extended care facilities were under proprietary control, 19 per cent were owned by non-profit organizations and 32 per cent were government units. Percentage comparisons of ownership data for Michigan and the United States as a whole indicate that in 1967 the percentage of Michigan units under governmental ownership (Federal, State, Local) was considerably higher (23%) than for the nation as a whole.

Beds vs. facility type and ownership. In terms of beds available in extended care units in the United States in 1967, 81 per cent were in skilled nursing care facilities, 11 per cent were in units in hospitals, 6 per cent in units of domiciliary institutions and 2 per cent in units of rehabilitation centers. In the same year the distribution of available beds in Michigan extended care facilities differed somewhat from the national distribution with percentages of 77, 10, 10 and 3

for skilled nursing care facilities, units in hospitals, units in domiciliary institutions and units in rehabilitation centers, respectively.

As shown in Table 2, the nearly 3,700 extended care facilities in the United States provided nearly 262,000 beds in 1967; an overall national average of 71 beds per facility. Similar comparison for the State of Michigan indicated that in 108 facilities (3% of the U. S. total) there were 10,300 beds (4% of the U. S. total); an overall state average of 95 beds per facility. With respect to type of extended care facility, the Michigan averages for all types were considerably higher than the national averages with the largest differences occurring in the extended care units located in domiciliary institutions and rehabilitation centers.

When tabulated according to facility ownership, nationally 68 per cent of the available extended care beds were in privately owned establishments, 20 per cent were in non-profit facilities and 12 per cent were in government owned installations. In the State of Michigan percentages of beds among ownership classifications differed markedly from the national percentages; 47 per cent were in private facilities, 16 per cent were in non-profit units, and 37 per cent were in government units. In all classifications of ownership in 1967 Michigan facilities averaged more beds per unit than comparable averages for the United States as a whole.

In comparing government versus non-government extended care facilities for the nation as a whole, Allen (1) indicates that the average number of beds in participating government extended care facilities was one and one-half times as many as the average number of non-government beds for proprietary and non-profit extended care beds combined for each of the following categories: skilled nursing care, extended care unit of a hospital, extended care unit of a domiciliary institution, and extended care unit of a rehabilitation center.

Conditions of participation

All regulations pertaining to the conditions of participation for extended care facilities are given in Subpart K of the Social Security Administration's Regulations No. 5, Federal Health Insurance for the Aged, Part 405, and cover twenty-eight areas relating to the health and safety of Medicare beneficiaries (38). Of these, only two sections (405.1125--Dietary Services and 405,1134--Physical Environment, subsections h and i) specifically describe the statutory requirements for the dietary service component of the facility.

Dietary services. The eleven standards established for dietary services and for the physical environment of the kitchen and dining areas and the factors explaining each of these standards are included in the Appendix, pages 97 to 102. In general, these standards relate to departmental staffing, sanitation,

nutrition, food quality, and the physical aspects of the kitchen and food service areas. In capsule form, the standards indicate that the dietary service, under the direction of a qualified person appointed by the administrator, has food service personnel sufficient to meet the needs of the patients and the objectives of the operation. Sanitary conditions must be evident both in the personal hygiene of the workers as well as in the storage, preparation and distribution of food. Insofar as medically possible, diets (general and therapeutic) must be provided to meet the food and nutritional needs of patients in accordance with the orders of attending physicians. Quality food is required in terms of frequency and adequacy of meals, nutritional content, and acceptable methods of preparation and service. The physical layout of the food service areas must be adequate to meet the operational needs for refrigeration, storage, preparation, and service of food, dishwashing, and refuse storage and removal. Since table service is encouraged for all patients who can eat at a table, an attractive room of sufficient size for this purpose must be available (38).

The major impact of the Conditions of Participation for Extended Care Facilities on the food service operation in many nursing care facilities was felt in the standard requiring that a professional dietitian or other person with suitable training be hired on a full- or part-time or consulting basis. In the food service field, as in most health

care professions, there is a shortage of trained professional personnel. The lack of qualified dietitians was a serious problem even before the Medicare program. To meet the needs for professional direction, nursing care facilities, rather than having a full-time dietitian on the staff, often share the services of a dietitian with other institutions or receive guidance from a dietary consultant who works a minimum of eight hours a month (2,27).

Prior to the implementation of the Medicare program a booklet was published by the United States Public Health Service (36) which gave practical guidance on details of food service operation in nursing care facilities for administrators, food-service supervisors, and cook-managers. This guide was developed by many of the individuals who were working on the dietary service requirements for Medicare certification. During this Medicare pre-implementation period workshops were held to acquaint dietitians with the concept of dietary consultation and to encourage inactive dietitians to return to the food service field. Much of the literature at this time was concerned with getting the dietitian into the nursing home and in defining her role once she got there (17, 22,26). A few articles authored by public health nutritionists appeared in the literature which helped interpret the objectives of the Conditions of Participation for Extended Care Facilities (5,25,28). In general these articles were normative; they presented what was expected of the dietary

department as an essential supporting service of the extended care facility. With the exception of the Public Health Service booklet (36), there is little published material available to provide dietary directors of extended care facilities with practical assistance for improving the efficiency of their operational procedures. Basic resource books on food service management each contain sections which are valuable for the food service operator but leave the sorting of pertinent material to the reader's discretion (2,42). Some editorials and opinions can be found but, more often than not, they are written by generalists in the health care field or are directed to audiences other than dietary specialists in the extended care service field.

Methods of food distribution

Food distribution in a health care facility is one of the interfaces between food production and the patient. The layout of the facility to a large extent determines the characteristics of the distribution plan. Two general patterns of food distribution predominate: centralized and decentralized. In centralized service the individual trays are set up in one location, transported to the patient area by tray cart or mechanical conveyor, and delivered directly to the patients. In decentralized service, the prepared food is sent in bulk to the serving pantries on the various patient floors or wards where it is arranged on trays and carried to the patients (2,16,42).

Most nursing care facilities utilize the centralized method of tray service but in as far as possible serve the patients in a dining room rather than at their bedside. This is done in an effort to assist the patients socially and psychologically through provision of group contact. Such group food service has distinct therapeutic value in that it can help to minimize physical weakness or insecurity and enable the patient to become more self-reliant (6,24).

Regardless of the type of food distribution system used or the place in which the meal is eaten, an organized assembly and delivery method is necessary with the primary object being speed in getting hot, attractive and palatable food to the patient (42).

Fact-finding Research Methods

General description is characteristic of the early stage of investigative work in an area where the significant factors have not been isolated, and where perhaps one would not have means for measuring them if they were identified. It is, therefore, a method of exploration. Descriptive-survey approaches to investigation include induction, analysis, classification, enumeration, measurement, evaluation, and gathering data regarding current conditions. The typical descriptive survey does not delve deeply into relationships or causal factors; rather it discloses factors and suggests relatively prominent possible connections between these

factors and apparent causes which present avenues for future research (9).

An important disadvantage of the survey technique is the lesser degree of control over the data collection situation and the greater possibility for factors unknown to the investigator to interfere with the results than occurs in the experimental method of investigation (21).

Survey sampling

The elements of a population are the units for which information is sought. The population of a survey is defined jointly with the elements; since the population is the aggregate of the elements, and the elements are the basic units that comprise and define the population. The elements consist of a) content, b) units, c) extent, and d) time (14). For example, in this study the elements are a) food service operations, b) in extended care facilities, c) located in the lower peninsula of Michigan, d) as of fall, 1969.

The survey population that is actually achieved may differ somewhat from the desired target population due to non-responses and non-coverage. Strictly speaking, only the survey population is represented in the sample, however, often it is easier to write about the target population. The sample is that portion of the target population which is considered representative of the target population (13).

Parten (20) says an ideal sampling plan should yield an unbiased picture of the population of which it purports to

be a sample, should be the most efficient way of securing the desired information with the funds available, should be well-defined prior to drawing the sample, should be satisfactory for the questions under consideration, and should be set up to avoid biases from careless or illogical procedures and should include techniques for handling non-responses.

Survey techniques

Mail questionnaire. This technique consists of a list of questions sent by mail to persons selected for sampling. The form is supposed to be completed by the recipient and mailed back to the investigator. While the mail questionnaire is the most widely used survey technique, it is also the most criticized.

The primary advantage of using a mail questionnaire is that it is possible to reach a wider geographical area with a given amount of funds than could be accomplished by personal interviews. Mailing costs are relatively low compared with travel costs and time for interviews. An additional value is the directionality of the mail questionnaire in reaching a specific class of people (15,20).

The mail questionnaire technique of gathering data is not a quick or facile method of investigation according to Good and Scates (9). It is slow, requires a large investment of time on the part of the investigator, and often gives results that are highly disappointing because of their

incompleteness, indefiniteness, and the general indifference of respondents.

The chief drawback in the use of mail questionnaires is that the people who return them are not necessarily representative of the group to whom the questionnaires were sent. The direction of this bias tends to be toward those who are interested in the subject matter, who are higher in socio-economic status, and who have had more education (10). The rate of return from mailed questionnaires sent to the general public can be as low as 10 to 20 per cent (20). When the questionnaire is sent to a special interest group and appropriate follow-ups are made, the rate of return can still be as low as 50 or 60 per cent; higher percentages are rare (13). As a result of these low returns, valid generalizations are difficult to make. To facilitate interpretation of the data, Kerlinger (13) suggests that every effort should be made to obtain mail questionnaire returns of at least 80 per cent, and lacking such returns, to learn something of the characteristics of the non-respondents.

Personal interview. Of the several ways of carrying out a survey, the personal interview is considered the most powerful and useful tool (9,13). The personal interview is the method of direct investigation in which skilled interviewers call upon and solicit information from selected individuals (20). This method of securing information has the advantage of obtaining a high percentage of acceptable returns.

Parten (20) states that almost any survey using the personal interview can expect cooperation from 80 per cent of the cases, with 95 per cent often attained. The information secured is often more correct and complete than with other techniques since the interviewer can explain the questions to the respondent and collect supplementary information through observation.

There are two basic types of personal interviews: unstandardized and standardized. In the unstandardized interview, the interviewer is free to develop the situation and explore ideas within the confines of the topic guide. In a standardized interview, the interviewer is held to a specific wording in the interview schedule and is not free to adapt his questions to the situation. The unstandardized interview seems to have a definite advantage within the "context of discovery" by enabling the interviewer to explore new ideas and thus go beyond the original formulation of the problem (21).

Survey instrument design

Both mail questionnaires and interview schedules are frequently used tools in gathering a variety of data. They have been used for collection of personal preferences, social attitudes, beliefs, opinions, behavior patterns, group practices and habits, and factual data. The increasing use of questionnaires and schedules is probably due to increased

emphasis on quantitative measurement of uniformly accumulated data (43).

The real difference between the mail questionnaire and the interview schedule or guide is the way in which the inquiry is administered. The questionnaire is generally mailed to informants to be answered as specified in a cover letter without further assistance from the sender. The personal interview is conducted by the interviewer who fills out the interview schedule or guide and who can interpret the questions for the respondent when necessary. Interview schedules or guides are valuable as supplementary and extending devices in observation and interviews, and in evaluating personal behavior and social situations. They aid in standardizing and objectifying observations and interviews as well as being useful devices for isolating one element at a time and thus intensifying observation of it (43).

Questionnaires can be classified in various ways but basically are of two general types: structured or unstructured. Structured questionnaires are those which pose definite, concrete, and pre-ordained questions. Included in this type are closed-form questions or check-lists which are used when categorized data is required and open-ended questions which elicit responses that are free and spontaneous expressions on the part of the respondent. Closed response items are quicker and easier to answer since they require little writing; consequently, more questions can be asked

within a given length of time and more can be accomplished with a given sum of money. Structured questionnaires are generally used in mail surveys (19).

Unstructured questionnaires, frequently referred to as interview guides, also aim at precision and contain definite subject matter areas; however, the interviewer is free within limits to arrange the form, order and timing of the inquiries. Unstructured questionnaires are designed to obtain viewpoints, opinions, and attitudes and to show relationships between data which might escape notice under more impersonal types of investigation. The main disadvantage of the unstructured questionnaire is that the data collected may not be additive and comparable.

The information included or requested on the questionnaire is of three kinds:

a) Identifying information which includes sample number, name of the survey, title of the questionnaire, name of agency sponsoring the survey, name of the respondent, and often the name of the interviewer.

b) Census-type factual data about the respondent which provides the variable whereby the survey data can be classified and also form the basis for evaluating the sample. This information should conform, insofar as possible, to census and other previously collected data so that comparisons can be made.

c) Questions concerning the subject of the survey which are directed toward obtaining facts and/or revealing attitudes. These may be direct or indirect but in all cases should be selected and worded with care. If check-lists are used, allowance must be made for all possible responses. Alternatives in multiple-choice questions should be realistic and mutually exclusive. Apparently unreasonable questions should be introduced with a brief explanation justifying the question (20).

Attractiveness often contributes to the respondent's willingness to complete and return the mail questionnaire. The format of the questionnaire should make the form readable and appear as short as possible, and should facilitate completion. Layout, color and quality of paper, individuality of address, and return envelope are all important considerations. The layout of the mail questionnaire should be large enough to provide adequate space for comments if such are desired; since there is a definite relation between the write-in space provided and the amount of comments. Questionnaires should be printed on relatively heavy paper in order to withstand handling. If possible, they should be printed on only one side of the paper. Light colors especially yellow and pink have been found to have the highest percentage of returns. Distinctive colors also serve to call the respondent's attention to the questionnaire once it is on his desk awaiting completion (20). Studies show that when stamped, self-addressed return envelopes are provided a higher response rate is attained (19).

Irrespective of survey technique (mail questionnaire or personal interview) the design of the survey instrument must take into consideration the audience to whom it is directed. The questionnaire should be concrete and definite, the questions simple and objectively phrased, and care should be taken to avoid forcing replies. The everyday language of practical affairs has proved to be the most useful (43).

CHAPTER III

METHOD OF INVESTIGATION

Two types of study techniques were used to investigate on-premise food distribution systems currently being used in Michigan Extended Health Care facilities: a) the direct mail-questionnaire to gather descriptive information about the facilities and their respective food distribution policies and procedures and b) personal interviews with the food service managers of a few of the facilities participating in the study to solicit their opinions regarding the effectiveness of their respective food distribution systems.

The Mail Survey

The sample

The sample of 143 extended health care facilities located in the Lower Peninsula of Michigan was drawn from two sources: the United States Social Security Administration's October 1968 list of Medicare providers of services (39) and the January 1969 list for accredited long-term care facilities of the Joint Commission on Accreditation of Hospitals (12). Since the conditions for Medicare certification and for accreditation by the Joint Commission are

very similar, it was felt that most of the accredited long-term care facilities would also be eligible to provide nursing care under Medicare. It was anticipated that response data from this group would provide a descriptive overview of the current on-premise food distribution policies and procedures of Michigan nursing care facilities other than hospitals which are eligible for participation under Medicare.

The mail questionnaire

The mail questionnaire was designed to elicit information concerning the general facility characteristics of size, ownership, predominate health care and community health care services provided, and extent of eligibility and participation in Medicare. Requested information pertaining to the specific food service policies and procedures of the extended health care unit included identification of how the food service of the facility is managed, number and classification of food service personnel, specific duties of the food service manager, meal patterns and service systems used, types of clientele served, menu planning and service policies, and estimates of average weekday meal service volume detailed with respect to clientele class for each type of meal served. The twelve-page questionnaire was constructed to involve a minimum of the respondent's time through the use of check lists and simple completion items. In order to minimize

postal expense, the questionnaire was printed on both sides of heavy weight yellow paper.

The pre-test

The survey instrument was pre-tested by ten food service supervisors and dietitians in three inpatient health care facilities not included in the sample selected for study. Each person was sent a copy of the proposed cover-letter and questionnaire as well as a questionnaire-evaluation form. In addition, suggestions were solicited from four consulting dietitians and university educators who frequently work with food service personnel associated with extended health care facilities. The questionnaire was evaluated for format, clarity, adequacy of content and required time for completion.

Questionnaire distribution

The revised questionnaire was mailed in November 1969 to the administrators of the 143 facilities selected for study. Enclosed was a cover-letter identifying the survey and its purposes and requesting the administrators' cooperation in having the persons directly responsible for the management of the food services complete the questionnaire. A stamped, self-addressed envelope was included to encourage participation. Facilities which preferred not to participate in the study were requested to return the blank questionnaire.

Three weeks were allowed for reply to the questionnaire. A follow-up post card was sent to the administrators of those facilities which had not responded to urge their participation and to provide a ready means of contact with the researcher should they require an additional copy of the questionnaire. A thank you letter was sent to each administrator whose facility returned the completed questionnaire. Copies of these mail survey forms can be found in the Appendix, pages 103 to 121.

The Personal Interview

The sub-sample

A sub-sample of twenty-one food service managers of extended care facilities who responded to the mail questionnaire was selected for personal interview. These managers, all located within a sixty-mile radius of Lansing, Michigan, were contacted by telephone for an appointment and eighteen of the twenty-one were willing to have the researcher visit their respective food services. A letter of confirmation was sent to each food service manager stating the time of the appointment, the purpose of the visit, and means of contacting the researcher.

The interview guide

For the personal interview, an interview guide was developed so that similar information would be recorded for each extended care facility food service. Information sought

during the interview included a) the physical layout of the facility and of the food service in terms of food distribution to patients and types of equipment used for meal service, and b) attitudes of the food service manager concerning the food distribution system(s) currently in use as well as their suggestions and projections for improvement.

The interview

All personal interviews were conducted between February 23 and March 11, 1970, at times mutually convenient to the food service manager and the researcher. No attempt was made to visit each food service at the same time of the day or to observe food distribution, since this would have limited accessibility and the number of facilities that could be visited in time available to the researcher. In order to facilitate discussion, no attempt was made to record answers during the interview, rather information gathered was recorded by the investigator in the car immediately after the visit. Copies of the letter of confirmation and the personal interview guide are included in the Appendix, pages 122 and 123 to 125.

Analysis of Data

The mail survey data

The questionnaire returns were hand coded and key punched on cards for computer processing. For most of the data, frequency counts and per cents of total response for

each questionnaire item were calculated using the Michigan State University CISSR series ONEWAY routine (18) for frequency analysis and Control Data Corporation 3600 Computer at Michigan State University. Totals and means for certain items were calculated using the Michigan Agricultural Experiment Station STAT series MDSTAT routine (23) for calculating basic statistics when missing data are involved.

The personal interview data

The interview guide data were hand tabulated, summarized and examined by the investigator with particular attention to the operational similarities and differences among the facilities visited and the attitudes and opinions of the managers with respect to their food distribution system(s).

CHAPTER IV

ANALYSIS OF THE SURVEY DATA

Two fact-finding techniques were used to gather data relative to food distribution systems in selected Michigan extended health care facilities: a mail-questionnaire sent to a sample of 143 facilities located in the lower peninsula of Michigan, and follow-up interviews with the persons in charge of the food service departments of 18 of the responding facilities located within a sixty-mile radius of Lansing, Michigan. In both phases of the study a concerted effort was made to secure the data directly from individuals who were actively involved in the management of food service for the facility.

Mail-questionnaire Findings

The information sought included both descriptive organizational data about the total facility and the essential elements concerned with the operation of the food service component. The percentage of participation obtained from the sample selected for study is detailed in Table 3.

As shown in Table 3, usable returns were received from 79 facilities or 55 per cent of the group contacted. Although

Table 3. Responses to Mail Questionnaire

Michigan Area	Initial Mailing No.	%	Returns: Usable No.[a]	% [b]	Returns: Not-usable No.	%	No Response No.	%
Metropolitan Detroit and vicinity[c]	64	45	22	15	9	6	33	23
Outstate--lower peninsula	79	55	57	40	4	3	18	13
TOTAL	143	100	79	55	13	9	51	36

[a] Number of questionnaires
[b] Per cent of initial mailing
[c] Includes facilities within 30-mile radius of center of Detroit

the initial sample selected for study included a high proportion of facilities located in or near Metropolitan Detroit (45%), the relatively low usable response from this Michigan area (15% of initial mailing) was disappointing. As a result the findings herein reported may be more descriptive of food distribution systems in extended care facilities serving less populated areas than might be true of Metropolitan Detroit and vicinity.

Facility characteristics

Characteristics of the extended care facility determine the parameters within which the food service operation develops and functions. The following facility characteristics are reported and discussed in terms of percentages of the 79 respondents: facility names, administrators, size in

terms of bed capacity and occupancy, expansion plans for beds and ancillary services, ownership, type of nursing care facility, kinds of health care services provided, and Medicare eligibility and participation.

Facilities responding to the survey have a variety of names: medical care facilities (27%), nursing homes (22%), convalescent centers (11%), and units of hospitals (11%). The remaining 29 per cent are called either homes for the aged, lodges, manors, terraces, villas, or health centers. In general, facility names are not descriptive of the type(s) of care provided by the facility. Although all of the reporting facilities are eligible to participate in Medicare and can, therefore, be described as extended care facilities, this terminology has not become part of the facility names. Reluctance of many nursing care and personal care with nursing care facilities to be predominantly identified as medical care units, the diversity of services which they provide in addition to extended care under Medicare, and the lack of uniform terminology for this segment of the health care field, all contribute to the variety of facility names reported.

The position titles of administrator or owner-administrator were reported for 89 per cent of the facility administrators, director or executive director were reported for 5 per cent, and four other position titles for the remaining 6 per cent: supervisor, commandant, superintendent, and corporate representative. Although historically most of the

chief administrators of general and specialized hospitals have been male medical doctors, this is not necessarily true of the chief administrators of Michigan nursing care and personal care with nursing care homes classified as extended care facilities. The findings from this study indicate that among the 79 Michigan extended care facilities surveyed two-thirds of the chief administrators are male and one-third are female. Furthermore, of the entire group only 3 (4%) of these persons have medical degrees.

The total number of available licensed patient beds represented by the participants was 10,587. However, among the units reporting, facility size, as expressed in terms of bed capacity, ranged from 15 to 859 beds per facility. Facility sizes of 50 beds or less were reported by 13 per cent of the respondents, of 51 to 150 beds by 62 per cent, of 151 to 250 beds by 19 per cent, and of 250 beds or more by 6 per cent. Of the latter, 3 facilities have between 300 and 400 beds and 2 have over 800 beds. At the time of the survey two-thirds of the facilities reported occupancy averages of 85 per cent or more, 17 per cent reported occupancy levels between 50 and 75 per cent, while 1 large government facility (1%) was operating at less than 50 per cent capacity. Seventeen per cent of the reporting group chose not to complete this item on the questionnaire.

According to the data received, outpatient services are not offered at the majority (80%) of the extended care facilities surveyed. However, outpatient services are

available at 15 per cent of the reporting facilities with 13 per cent averaging 50 or less patients/day and 2 per cent averaging 75 or more patients/day. Four of the survey participants (5%) failed to respond to this questionnaire item.

Information relative to two aspects of facility expansion was requested: a) planned increases in the number of licensed beds and b) planned expansion of existing ancillary services and/or the addition of new ones. Group response percentages for these questionnaire items were 95 and 84, respectively. With respect to bed capacity expansion, only 12 (15%) of the responding facilities are planning to increase their number of licensed beds. With the exception of one very small unit (31 beds) which is planning a major addition of 300 beds (an increase of 968%), the majority (10) of these facilities with present bed capacities ranging from 50 to 137 beds will have expanded capacities ranging from 100 to 175 beds. One unit, with a present capacity of 216 beds, did not indicate the number of beds involved in their expansion planning.

Planned expansion of one or more ancillary services was reported by only 14 (18%) of the facilities surveyed. Types of services to be added or enlarged include physical therapy at 11 units, occupational and inhalation therapy at 4 units, speech therapy at 3 units, and radiology (x-ray services) at 4 units.

Three ownership classifications are commonly recognized: private or corporate proprietary ownership, non-profit philanthropic (fraternal, religious, or other), and governmental (Federal, State or Local). Each type of ownership was represented among the responding facilities: proprietary 49 per cent, non-profit 17 per cent, and governmental 34 per cent. These percentages for each ownership classification are similar to those given in Table 2 (page 21) for all extended care facilities in the State of Michigan; consequently, the mail survey participants are considered fairly representative of Michigan extended care facilities in terms of ownership.

Of the 79 facilities surveyed, 52 facilities were under either proprietary or non-profit ownership. Membership in multiunit organizations in which there are other extended care facilities was indicated by 18 of the facilities in these two ownership classifications. The number of other units range from 1 to 5 for 6 respondents, 6 to 20 for 9 respondents, and 31 to 50 for 2 respondents, while 1 respondent did not complete this part of the question. Thirty-four of the proprietary and non-profit facilities indicated there were no other extended care facilities under the same ownership.

Proprietary and non-profit facilities which are part of multiunit chains in which there are other types of health care facilities are represented by 12 of the respondents. These other health care facilities include hospitals

(3 respondents), retirement homes (2 respondents), day care centers for children (3 respondents), and an associated general hospital (1 respondent); 3 respondents did not complete this part of the questionnaire item. Forty facilities indicated there were no other types of health care facilities under the same ownership.

Percentage comparisons among facility sizes and types of ownership indicate that for each of the three ownership types, the concentration of number of facilities is at the 51 to 150 bed size. Proprietary facilities cluster most closely in this range with 28 of 39 facilities in this size range; 8 proprietary facilities are in the range of 151 to 250 beds, 2 in the range of 50 beds or less, and 1 is over 250 beds. The non-profit facilities are spread throughout the size range: 4 of the 13 facilities are in the range of 50 beds or less, 6 facilities have between 51 and 150 beds, 2 facilities have between 151 and 250 beds, and 1 facility has over 250 beds. Government-owned facilities also cluster at the 51 to 150 bed size with 15 of the 27 facilities in this size range, 5 facilities have between 151 and 250 beds, 4 facilities have 50 beds or less, and 3 facilities have over 250 beds and 2 of these have over 800 beds each.

Facilities other than hospitals providing some form of nursing care are classified by the Division of Health Resources Statistics of the National Center for Health Statistics, United States Public Health Service (35), as either a

nursing care home or a personal care with nursing home according to the predominate service provided. The majority (93%) of the survey participants indicated their facility is a nursing care home in which 50 per cent or more of the residents received one or more nursing services and the facility has at least one registered nurse or licensed practical nurse employed 35 or more hours per week. Nursing services include nasal feeding, catheterization, irrigation, oxygen therapy, full bed bath, enema, hypodermic injection, intravenous injection, temperature-pulse-respiration, blood pressure, application of dressing or bandage, or bowel and bladder retraining.

Five (6%) of those surveyed indicated they are a personal care with nursing home which is defined as either a) one in which some but less than half of the residents receive nursing care or b) one in which more than half of the residents receive nursing care, but no registered nurses or licensed practical nurses are employed full time on the staff. In both types of facilities personal services are provided: rub or massage service, assistance with bathing, dressing, correspondence or shopping, walking or ambulation, or eating. One facility (1%) did not respond to this questionnaire item.

Health services provided by the responding extended care facilities are primarily convalescent and rehabilitative. Long-term convalescent care (95%), rehabilitation including

physical therapy, occupational therapy, and/or speech therapy (92%), and short-term and geriatric convalescent care (86% each) were most frequently mentioned by the survey participants. Half indicated they provide geriatric custodial care, while only 15 per cent offer psychiatric custodial care which is a highly specialized type of service.

Outpatient services include one or more of the following: rehabilitation, clinical laboratories for diagnoses and evaluation of specimens, and radiology departments. Outpatient services are offered by only 18 per cent of the survey participants. Moreover, those that do provide such services are primarily county (governmental) medical care facilities or extended care units which share outpatient services with a hospital.

Other health services offered by the survey participants include tuberculosis isolation/sanitarium (3%), physical therapy training (1%), and skilled or acute nursing care (1%).

All but one of the survey respondents reported they were eligible to participate in the Medicare program; for 80 per cent the <u>total</u> facility was eligible, and for 19 per cent <u>part</u> of the facility. One (1%) facility indicated it was restricted from eligibility because its primary source of funds was a Federal program which antedated the Medicare legislation. Of the 15 facilities which reported only partial eligibility 5 failed to indicate the percentage of their total

bed capacity which could be used for patients under the Medicare program. Among the 10 facilities which did divulge this information the percentages varied from less than 40 per cent for 1 facility, between 40 and 59 per cent for 6 facilities and between 60 and 71 per cent for 3 facilities.

At the time of the survey only 70 (90%) of the 78 eligible facilities were actually participating in the Medicare program. Of these, 57 were total facility participators and 13 were partial facility participators. Of the 8 eligible facilities (10%) which were not participating in the Medicare program 6 had total facility eligibility and 2 had only partial facility eligibility.

Food service department characteristics

An extended care facility primarily provides medical care, nursing care, and rehabilitative services for patients no longer in an acute phase of illness. Since patients generally remain longer in an extended care facility, food assumes an important role for the patient. As an essential supportive service, the dietary department should be committed to the preparation of nutritious and attractive meals in accordance with the needs of the patient population and within the limitations of the facility. Data herein reported reflect underlying limiting factors and patient needs in the responding extended care facilities' food services. The areas reported include the following: control of the food service organization, food service manager, responsibilities

of the manager, department staff, contribution of volunteers, meal service policies, resident patient meal service, meal distribution, menu policies, and food service volume.

Control of food service operation. Management of the food service operation in the responding extended care facilities is of three types: independent, satellite, and contract. The majority (79%) of the respondents independently operate the food service, while in twelve (15%) of the facilities it is satellite to a larger food service within the health care complex. Four (5%) of the food services are operated by a food management company under contract with either the extended care facility or a larger food service unit within the health care complex. One facility declined to divulge this point of information.

Operational responsibilities assumed by a food management company vary with the contract. All four respondents reported the following responsibilities as included in the contract: a) meal planning with the sub-responsibilities of planning general and modified diets, and estimating and procuring food and related supply needs; b) food preparation, distribution, and control with the sub-responsibilities of estimating daily production needs, controlling food quality standards and food cost levels, maintaining on-premise food and supply inventories, and establishing a satisfactory finished food distribution system; and c) staffing with sub-responsibilities of hiring, assigning, supervising, and

dismissing of employed food production and service workers and supervisors, and of volunteer workers.

Certain other operational responsibilities, however, vary with respect to individual contract agreements. Employee training of food production and service supervisors, and food production workers are the food management company's responsibility for all four respondents, but only two are responsible for training service workers, and only one is responsible for training the maintenance workers and volunteers involved in the food service operation. Two of the respondents indicated that the food management company assumes responsibility for food service maintenance insofar as area housekeeping, equipment, cleaning and repair, and departmental safety and sanitation. In all four contracted food services, the extended care facilities retain responsibility for providing employee uniforms and laundry. Three of the four respondents indicated that the food management company assumes responsibility for financial and transaction records as well as other internal operating records, while only one company is responsible for food service employee benefits. None of the food management companies are contractually responsible for employee payroll preparation and disbursement.

Food service manager. Persons responsible for the management of food service departments in these Michigan extended care facilities have a variety of titles and serve their respective institutions in varying capacities. When classified

according to the range of assigned managerial responsibilities, the respondents appear to fall into three basic professional employment categories: a) those for whom the management of the food service is only one part of a larger administrative assignment, b) those who manage only the food service department, and c) those who manage the food service department as well as engage in food production for the department. The majority of respondents (85%) were individuals, with position titles of dietitian, food service supervisor, kitchen supervisor, dietary manager, and manager or director of food service, who manage only the food service operation. Nine per cent of the respondents both manage the food service and engage in food production with the position title of cook; 5 per cent of the respondents were individuals for whom the management of the food service operation was only one of a variety of responsibilities with position titles of assistant administrator, dietary consultant, and domestic service supervisor. One respondent did not complete this questionnaire item.

Professional experience of the respondents as shown by their previous work experience, indicates that about half (48%) had had food service management experience as dietitians, food service supervisors, and restaurant managers. Twenty-five per cent had had non-managerial positions in food services as kitchen assistants and production workers, and 3 per cent had previous work experience in management positions

unrelated to food service. Twenty-four per cent did not respond to this questionnaire item.

Responsibilities of the manager. Management of a food service operation involves many tasks which are necessary for its successful functioning. Thirty-two of the most common of these tasks are listed in Table 4. The degree to which each task is a part of the food service manager's work in the 79 facilities participating in the study is detailed in terms of per cent of group response.

Ninety per cent or more of the respondents reported they estimate food, supply and equipment needs, purchase foods, provide employee in-service training, determine daily food production schedules, supervise workers in food production and patient tray assembly, and have food production as a regular assignment. Between 80 to 89 per cent indicated they plan general diets, purchase supplies, hire employees, determine portion size of food items, supervise workers in patient and dining room service, and participate in patient tray assembly as their regular work assignment. Planning of modified diets and purchasing of equipment were mentioned by 76 and 72 per cent, respectively. Between 50 and 69 per cent of the respondents reported supervising workers in equipment repair, compiling internal records, giving inpatient diet instructions and, as a regular assignment, work as a counter server. Less than 50 per cent indicated responsibility for assigning and training volunteers, determining the selling

Table 4. Responsibilities of the Food Service Manager

Task	Always or Sometimes %	Never %	No Response %
I. Menu Planning			
- general diets	84	13	3
- modified diets	76	14	10
II. Estimating Needs			
- foods	97	0	3
- supplies	95	1	4
- equipment	90	4	6
III. Purchasing			
- foods	93	5	2
- supplies	87	8	5
- equipment	72	18	10
IV. Staffing			
- hiring employees	88	9	3
- assigning volunteers	19	29	52
- employee in-service training	90	6	4
- volunteer in-service training	17	30	53
V. Determining			
- daily production schedule	95	3	2
- portion size of food items	86	4	10
- selling price of food items	39	32	29
- per diem inpatient rate	16	48	36
IV. Supervising Workers in:			
- food production	95	0	5
- patient tray assembly	94	0	6
- patient service	89	3	8
- dining room service	82	4	14
- equipment repair	52	32	16
- maintenance	49	32	19
VII. Departmental Accounting			
- financial accounting	21	61	18
- payroll	20	61	18
- other internal records	52	37	11
VIII. Dietary Instruction			
- inpatient	63	22	15
- outpatient	24	41	35
IX. Regular Work Assignment			
- food production	90	4	6
- patient tray assembly	86	1	13
- counter server	53	15	32
- dining room host/hostess	43	25	32
- cashier	18	44	38
X. Others not included above:			
- executive planning committee	2	0	98
- patient review meeting	3	0	97

price of food items and the per diem inpatient rate, supervising maintenance workers, financial and payroll accounting, instructing outpatients in diets, and regular work assignments of dining room hosting and cashiering. Two additional management responsibilities were added by some respondents: participation on executive planning committees (2%) and inpatient review meetings (3%).

In general, food service managers in extended care facilities usually have regular work assignments in addition to managerial responsibilities but less frequently are concerned with the financial accounting and payroll functions, volunteer workers, cashiering, and policy decisions concerning inpatient food rates. These tasks can be and more often are the responsibility of other organizational units within the extended care facility.

Department staff. The size of the food service staff including both administrative/supervisory staff and regular employees depends on the physical layout for production and distributive meal service, the extent of assigned managerial responsibility, patient load, operational objectives, and the level(s) of patient care provided by the facility. For 56 per cent of the survey participants the number of full-time administrative/supervisory staff in the food service is one staff member, while 13 per cent report no full-time administrative/supervisory personnel. Group response percentages of 14 and 15 report 2 and 3 or more full-time staff

members, respectively. One part-time supervisory staff member is reported by 34 per cent of the facilities and 2 part-time staff are reported by 8 per cent; however, the majority (54%) report no part-time supervisory staff.

The number of regular full-time employees averaged 1 to 5 persons for 22 per cent of the respondents, 6 to 10 for 37 per cent, 11 to 20 for 23 per cent, and 21 or more for only 15 per cent. Regular part-time employees averaged 5 or less for 70 per cent of the respondents, 6 to 10 for 15 per cent, 11 to 20 for 6 per cent, and 21 or more for only 4 per cent.

Respondents were asked to indicate the average number of hours worked per week for each category of administrative/ supervisory and regular personnel. Full-time administrative/ supervisory staff averaged 45 hours/week and part-time staff 16 hours/week. Regular full-time employees averaged 40 hours/ week, while part-time regular employees work 21 hours/week. Although administrative/supervisory personnel still work more than the 40-hour work week typical in other segments of the labor force, regular employees have achieved this goal.

Contribution of volunteers. Volunteer workers can and do supplement the activities of many departments in the extended care facility, but only 4 (5%) of the responding facilities indicated that their food service departments have regular daily assistance from volunteer workers. In three of these facilities volunteers assist bed patients with eating, in 2

they collect and return patient trays, in 2 others they assist with dining room hostessing, in 1 facility they occasionally assist with food production and in another facility they transport trays to patients.

Meal service policies. Meal service policies involve meal patterns, clienteles served, areas of service and means of distributing food to these areas--all of which evolve from the needs of the patients and the goals of the extended care facility.

Basic meal patterns for inpatients vary among the reporting facilities. About two-thirds of the facilities provide breakfast, dinner, and supper plus supplements, while 22 per cent provide breakfast, lunch and dinner plus supplements. The daily meal pattern of 3-meals per day with no routine supplements is offered by 7 per cent of the respondents. Five facilities (6%) do not use the traditional 3-meals per day: 4 provide breakfast and dinner plus 2 or 3 generous supplements, and 1 uses "four meals per day."

In addition to providing meals for inpatients, meals for outpatients are provided in 13 (17%) of the facilities surveyed, either regularly or occasionally. Among these 13 facilities a variety of procedures are used: either service in the main dining room along with inpatients, or service in the main dining room when inpatients are not being served, or a separate area of the main dining room, or a separate dining room, or snack bar, coffee shop, or vending areas, or lounges on patient floors.

Meals for visitors are provided by 84 per cent of the facilities: 28 per cent on a regular basis and 56 per cent only occasionally. These meals are served chiefly in the main dining room and in patient rooms for 44 and 43 per cent of the facilities, respectively. Other areas in which visitor meals are served include the main dining room along with patients (18%), separate dining room (17%), employee cafeteria (11%), separate area of main dining room (8%), snack bar or coffee shop (6%), vending machine areas (5%), and patient floor lounges (1%).

Thirteen per cent of the facilities do not serve meals to employees; however, among those that do have employee meals available, the facility personnel served varies. About 80 to 87 per cent of the respondents serve meals to administrative, nursing service and food service personnel. About 72 per cent serve housekeeping and maintenance personnel. Smaller percentages of the survey participants serve the following groups: physicians and medical service personnel (57%), non-food service volunteers (33%), personnel in residence (28%), and food service volunteers (22%). Five per cent of the respondents provide meal service to beauticians, physical therapy aides, recreation directors, laundry personnel, librarians, and board members.

Facility personnel are provided separate or special dining areas in 82 per cent of the facilities. These are generally personnel dining rooms (70%); lounge areas (4%)

and patient dining rooms (8%) are used in a small percentage of the facilities. Eighteen per cent of the facilities do not provide special dining rooms for personnel.

Resident patient meal service. Of the average number of resident meals for the 79 facilities as a whole, slightly less than half are served in main dining rooms and slightly more than half are transported to patient rooms and nursing unit day rooms.

Within the total number of facilities surveyed, 51 per cent of the resident patients are on general diets and 49 per cent on modified diets. Seven types of modified diets were indicated: mechanical soft diets (17%), diabetic diets (13%), sodium restricted diets (7%), bland or ulcer diets (5%), reduction diets (5%), low fat diets (1%), and liquid tube feedings (1%).

Meal distribution. The system of distribution of meals to patients indicated most frequently by the survey respondents involves main kitchen tray assembly before delivery to patients for 90 per cent of the respondents. Decentralized service in which bulk food is transported to a floor pantry for tray assembly before delivery to patients was reported by 14 per cent of the facilities. Dining room table service with waitresses is used in 53 per cent of the facilities. Nine per cent or less of the respondents indicated the following service systems: family style dining room table service,

self-service cafeteria, self-service buffet, coffee shop or snack bar service, and vending service.

Various types of service equipment were reported for transporting main kitchen pre-assembled trays to patients and bulk foods to floor pantries. Closed carts were indicated by 51 per cent of the respondents while 38 per cent use some form of open cart to transport patient trays. Seventeen per cent of the facilities reported heated carts, and another 17 per cent use combination hot and cold carts. Refrigerated carts were mentioned by only 3 per cent of the respondents. One respondent indicated use of heated bulk carts and another reported use of a portable steam table to transport foods. Insulated bulk containers were used by 4 per cent of the facilities. When unheated carts are used, 19 per cent indicated use of preheated/chilled plate assemblies, 3 per cent use insulated sectional trays, and 24 per cent use insulated individual beverage servers.

Transportation between levels in facilities with more than one floor was performed by service or passenger elevators in 18 per cent of the facilities, by dumbwaiters in 8 per cent, and by continuous vertical tray belt in 3 per cent. Continuous horizontal belts were used in 6 per cent of the facilities either to distribute trays or to collect soiled trays.

The chief types of facility personnel who assist with the actual distribution of patient trays are nursing service

personnel for 99 per cent of the facilities, while food service personnel assist in 67 per cent, volunteer workers in 19 per cent, and housekeeping personnel in 4 per cent. After the patient receives his tray, assistance with his meal is provided by nursing service in all (100%) facilities. Volunteers also assist patients in 23 per cent of the facilities, food service personnel provide assistance in 13 per cent, family or relatives in 5 per cent, and housekeeping personnel in 4 per cent.

The findings from this study strongly support the conclusions of West, Wood and Harger (42) and MacEachern (16) that centralized tray assembly is the most common method used in facilities providing some form of nursing care. Since half of the reporting facilities do use table service for patients who are sufficiently ambulatory, this finding tends to add support to the suggestions of Savitsky and Zetterstrom (24) concerning the psycho-social needs of convalescents. Patient self-service, whether at meal time or for supplements, is very limited and is perhaps primarily due to the limited physical capabilities of the clientele.

Menu policies. Policies related to the type(s) of menu(s) available are administrative decisions based on the goals of the extended care unit and the capabilities of the food service department. Two types of menus are commonly used in inpatient health care facilities: non-selective menus in which the patient is given very little or no choice and

semi-selective menus in which the patient may choose some of the food items from a pre-determined list and/or select the size meal he prefers. When patients remain for a fairly long period of time, as in an extended care facility, actual food intake needs to be checked frequently to ensure a diet that is nutritionally adequate.

Respondents were asked to indicate from the following four daily menu options which one(s) were offered for general diet clientele: a) non-selective menu with preferences honored occasionally, b) choice of main meal at noon or evening, c) choice of breakfast items, and d) semi-selective menu choices for luncheon, dinner or supper food items within one or more of the following categories: appetizers, main dishes, vegetables, salads, breads, desserts, and beverages. More than two-thirds (68%) of the respondents indicated that patients have no formal choice of menu items but preferences are honored occasionally. Among the 25 (31%) of the reporting facilities which do permit some patient selection in one or more menu categories, 22 permit choice of breakfast items and beverages, 17 of bread items, 15 of vegetables, 14 of main dishes, 14 of desserts, 12 of salads, and 11 of appetizers.

Similar patterns are observed within the daily menu options for modified diets with slightly less than two-thirds (61%) of the respondents indicating that patients have no formal choice of menu items but preferences are honored

occasionally. Among the daily menu options for both general and modified diets there is very little difference with respect to clientele category: inpatients, outpatients, food service workers, other facility employees, and guests. Where patient selection is permitted, facility personnel and guests are offered the same menu options.

Policies concerning menu planning and menu approval for general and for modified diets differ somewhat among the survey participants but, in many cases, are a team responsibility shared by food service department personnel of different management levels and associated facility personnel outside the food service department. In addition, the degree of involvement for planning the menus and the responsibility for final approval of the planned menus may differ considerably among team members. In the majority of the reporting facilities the menus for both general and modified diets are planned by administrative and production staff within the food service department. However, in about half of the facilities surveyed the menus which are planned for both general and modified diets by the dietary personnel must also have the approval of one or more persons outside of the dietary department; facility administrators, physicians, and/or nurses.

Food service volume. Meal count estimates for an average weekday for each type of meal and supplement served were provided by only 71 (90%) of the 79 respondents. When totalled, these 71 extended care facilities provide, on the average, a

grand total of 32,100 meals per day and 7,250 meal supplements per day. Of the total number of meals served for all clientele types, 30 per cent are served at breakfast, 38 per cent at noon lunch or dinner, and 32 per cent at evening dinner or supper. More than half (59%) of the meal supplements are served in the evening, 25 per cent in the afternoon and 16 per cent in the morning.

Percentage distribution of total meals served among clientele categories for all facilities reporting indicate that the meal production and service patterns are purposely tailored to accommodate the needs of the patients who account for 88 per cent of all meals served: inpatients 84 per cent and outpatients 4 per cent. Of the total number of patient meals served, 49 per cent are general diet meals and 39 per cent are modified diet meals. Meals served to accommodate facility personnel and guests account for only 12 per cent of the total and, in most of the reporting facilities, are subject to the prevailing production and service patterns established for patients.

Personal Interviews

The sub-sample selected for interview consisted of 21 facilities within a sixty-mile radius of Lansing, Michigan, which had responded to the mail questionnaire. Of the 21 facilities contacted, 18 administrators were willing to have the investigator visit their food service department and talk with the person in charge.

Information sought during the interviews included the position title and number of years in the present position of the person in charge of the food service; physical layout of the extended care facility in relation to the food production area; flow of prepared food to patients; method of tray assembly and equipment and serviceware used in tray assembly and distribution; and opinions of the food service manager concerning problems involved in distributing patient trays, control of food items on patients trays, plans for modifying procedural or physical aspects of the food service system, and the feasibility of other styles of meal service for patients.

Characteristics of the sub-sample

The sub-sample was representative of the mail survey response sample in terms of licensed bed capacity and ownership of the extended care facilities. The majority (12) of the 18 facilities visited have between 51 and 150 beds each, 1 facility has less than 50 beds, and 5 facilities have between 151 to 250 beds. Of the 18 facilities 8 are under proprietary ownership, 5 are non-profit, and 5 are government owned. Only 3 of the 18 facilities indicated provision for outpatient services and each of these has less than 50 outpatients per day. Only 2 of the 18 facilities were planning expansion of licensed beds, and only 1 was planning expansion of ancillary services (physical therapy). Of the 10 facilities that were totally eligible for Medicare certification

all were participating in the program, while only 4 of the 7 facilities that were partially eligible had chosen to participate. One government-owned facility was restricted from Medicare certification because its source of Federal funds antedated the Medicare program; however, the required facility standards parallel those for Medicare certification.

All of the interviewees are food service professionals with position titles of dietitian in 6 of the facilities and of food service supervisor/manager in the remaining 12 facilities. Seven of the managers have been in their present positions for less than 3 years, while 11 have been in their present positions from 3 to 15 years.

Twelve of the facilities visited by the investigator are one-story structures and 6 are multi-story structures with 2 to 4 patient floors. Vertical transportation of food and supplies in all facilities with more than one patient floor was either by elevator, ramp or stairway.

Characteristics of the food service

The food production areas of these extended care facilities are located centrally on the first floor in 13 facilities and at the end of one wing in 5 facilities. Horizontal distances traveled in patient food delivery ranged all the way from the total length of the facility to group dining areas located adjacent to the food production area.

Flows of prepared patient trays to bed patients were of three types: a) centralized service--kitchen assembly on

trays, delivery via cart to nursing unit, passing of trays to patients by nursing service personnel (15 facilities); b) decentralized service--kitchen preparation of food, bulk portioning of food for delivery by carts to service kitchens located on patient floors near the nursing units, assembly of trays, and direct delivery to patients by nursing service personnel (2 facilities); and c) kitchen preparation and assembly on trays, followed by nursing service personnel pick-up for direct delivery to patients (1 facility).

In all of the facilities visited, some form of dining room or congregate dining service is available for patients who are sufficiently ambulatory. For these patients, the flows of prepared food from the kitchen are similar to those used for the bed patients. In 9 of the facilities, trays are assembled in the kitchen as in the centralized service method, loaded into carts and taken into the dining area where they are distributed to the patients. Seven facilities do not use carts as an intermediary; the trays are assembled in the kitchen and delivered directly to the patients. In 2 facilities patient trays are assembled at the cafeteria steamtable and then carried to the seated patient.

Assembly-line methods of putting together the food items for a patient tray requires a means of introducing a consistent sequence of operations so that at the end, the tray is complete; horizontal tracks or conveyor belts serve this function. In all of the facilities the trays were

manually moved along a track or surface; none of them utilized a motorized conveyor belt. The surface or track used included roller tracks in 5 facilities, tray slides in 6 facilities, and counter tops in 7 facilities. Another 7 facilities used the assembly-line technique for hot foods only; cold food items were placed on the trays prior to meal service time.

The assembled tray was put into some form of cart or truck in the 17 facilities in which the tray was not carried directly to the patients. The most frequently used cart is the open-shelf type in 9 facilities, with the closed-shelf, unheated carts used in 8 facilities. Only 3 of the facilities used a closed, heated/chilled cart and 1 used a bulk hot food cart. Two facilities that use heated/chilled carts also use a closed, unheated cart to supplement their service needs.

Service equipment used for maintaining the temperature of the food varied both within and among the facilities visited. Four of the units use heated/chilled carts to maintain food temperature, 2 use an insulated cover and base assembly for the main plate, 3 use a heated pellet placed in a special insulated plate assembly unit for the main plate, while 9 facilities only pre-heat the main plate and use a plate cover.

Serviceware for patient trays consists of china or pyrex dinnerware in 12 facilities and plastic dinnerware in

6 facilities. However, plastic dinnerware is available in all facilities to meet special patient needs. Drinking glasses used on trays are reusable plastic in 11 facilities, glass in 6, and disposable plastic in 1 facility. In all facilities, stainless steel or silverplate flatware is used rather than disposable plastic.

Disposable tray items are used only to a limited extent. Nine facilities use none, while 4 facilities use paper or plastic souffle cups for portioning some foods, 1 facility uses all disposable items except flatware and trays for the Sunday evening meal, and 1 facility has disposable dinnerware available for patients in isolation. All facilities indicated they have disposable tray items available for emergency use. One facility uses disposable cups and dishes to pre-portion meal supplements before sending them to the nursing unit. Another facility uses disposable quart containers to send meal supplements in bulk to the nursing unit for refrigerated storage until portioned by nursing personnel. Disposable dishes and containers are considered too expensive for extensive routine use by most of the facilities.

Purchased pre-portioned items are not used to any extent in the facilities visited. Of those who do use them, 8 facilities use salt, pepper and sugar packets, 2 use individual catsup, mustard, and salad dressings, and 2 use individual jellies and jams. Seven of the food services do

not purchase pre-portioned items due to their cost and the difficulties patients encounter in opening them. Many of the facilities pre-portion their own food items during slack production periods.

Opinions of the food service manager

In an attempt to delineate current and potential problem areas in extended care facility food services, the opinions of the food service managers were sought concerning the five following areas: transportation of food to patients, control of food items on patient trays, ideas for remodeling the food service or modifying procedures for more efficient service, satisfaction with their present tray assembly and tray distribution procedures, and alternate styles of patient meal service. Differences in the interviewees' educational and experiential backgrounds, rather than the food service itself, could account for the responses.

Food service managers in 10 of the facilities indicated that very few problems are encountered in getting finished food from the preparation area to patients, but they do have some problems in the food preparation and tray assembly areas. In the opinions of 6 food service managers, the arrangement of the tray assembly-lines causes difficulties; in these particular cases they felt that the tray line is awkward in height or lacks adequate space or they do not have sufficient back-up refrigeration. One manager experiences frequent problems in controlling the serving of meal

supplements to patients via nursing service personnel. And in another, the physical layout of the facility necessitates a relatively steep ramp between floor levels which makes it difficult to wheel loaded heated/chilled carts from one part of the building to another.

In all facilities visited therapeutic diets and patient preferences are systematically recorded for each patient on a dietary record. In addition, some type of tray card which lists patient name, diet, major food preferences and dislikes, and room number is used in all facilities. Individual modified diets are handled in two ways: unusual or very restricted diet modifications are written individually for each patient concerned, but commonly used modified diets are served as posted for that meal. When the food service manager or consulting dietitian is not available, last minute food item changes for modified diets are usually handled by the cook on duty. All of the interviewees permit a limited amount of catering to patient preferences but agree that it can get out of their control. One food service manager felt that the longer a patient stays in the facility, the more likes and dislikes he or she develops.

Ideas for remodeling the food service centered chiefly around needs for certain additional equipment, replacement of obsolete equipment, and provision for increased refrigeration and storage space. One manager, who was new to the facility, feels that there are many physical limitations

in the layout of the food service, but is concentrating her efforts on developing and improving standardized procedures. Desired equipment mentioned by the interviewees includes mobile cooking and serving equipment, heated/chilled tray carts, closed carts to replace open carts, tray slides or conveyors to use for tray assembly, and larger dishwasher capacity. Many of the interviewees are aware of the material limitations of their respective food services, but feel that any type of major renovation is too expensive to be considered at this time.

The majority (15) of the food service managers interviewed are satisfied with their procedures for tray assembly and tray distribution to patients. The three that are not satisfied cited these problem areas: inadequate space in the kitchen for tray assembly and loading of carts, inadequate corridor space for transporting carts, lack of efficient means to keep food items at optimum temperatures, and a built-in tray line which requires too many workers to assemble trays. None of the managers indicated that they regularly personally check the quality of the food as it is received by the patient.

Although the majority of these extended care facilities routinely serve some of their patients by tray in some type of dining room, the investigator endeavored to discover what, if any, other styles of meal service have been tried with ambulatory patients or are used for special occasions.

Generally the facilities do not deviate from their routine manner of serving meals, however, at one time three facilities did regularly serve patients from the cafeteria line or serve them family-style in the dining room. The cafeteria service was discontinued due to the changing physical capabilities of patients who are now less ambulatory than at one time, while the family-style service was discontinued for reasons of sanitation and economy. Only one facility regularly has picnics or buffets for the patients who are able to participate. Waitress-style dining room service is not used in any of the extended care facilities visited, although 1 facility had used it previously but discontinued it for reasons of economy. In summary, most of the interviewees are satisfied with the method of serving patients from trays either in a dining room or patient room.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This study was concerned with developing an overview of food service to patients in 79 Michigan extended care facilities. Survey instruments were directed toward obtaining organizational data about the total facility and the essential elements concerned with the operation of the food service. Data used to characterize the extended care facility were gathered by mail questionnaire, while personal interviews in a selected sub-sample of 18 of the extended care facilities were used to gain more specific information concerning the food service and opinions of the food service manager. In both cases, data were sought from the person responsible for the management of the food service for the facility.

This chapter summarizes the data discussed in Chapter IV. Conclusions are drawn, the implications for food distribution systems associated with organizational change and facility expansion are suggested.

Mail-questionnaire Findings

Facility characteristics

Facilities responding to the survey have a variety of names with those mentioned most frequently being medical care facilities, nursing homes, convalescent centers, and units of hospitals. In general, the facility names are not descriptive of the type(s) of care provided by the facility.

The administrators of these extended care facilities generally have the position title of administrator or director.

Facility size as expressed in terms of number of licensed beds ranged from 15 to 859 beds per facility with the majority of the facilities in the range of 51 to 150 beds. At the time of the survey, occupancy of the majority averaged 85 per cent or more.

Outpatient services are not offered in the majority of the extended care facilities surveyed; moreover, most of those facilities which do offer these services only do so to a limited extent.

Facility expansion by increasing the number of licensed patient beds is planned by only a few facilities. This expansion can involve physical enlargement of the facility and/or conversion of surplus space to patient bedrooms. The current size of most of the facilities which are planning expansion is in the range of 50 to 137 beds, while the expanded size would range from 100 to 175 beds. Planned

expansion of ancillary services is likewise limited with rehabilitation services being the most frequently mentioned in contrast to supportive services, such as dietary, housekeeping, maintenance, and business office.

The ownership classifications are fairly representative of Michigan extended care facilities with almost half of the facilities under proprietary ownership, about a third under government ownership, and the remaining under non-profit ownership. Membership in multiunit organizations by the facilities of proprietary and non-profit ownership was indicated by about a third of those respondents. In some cases those reporting were members of the same multiunit organization.

Percentage comparisons among facility sizes and types of ownership indicate that, for each of the three ownership types, the concentration of numbers of facilities is at the 51 to 150 bed size. However, government-owned facilities within each size range tend to be larger than corresponding proprietary and non-profit facilities.

The majority of the facilities indicated they are a nursing care home as classified by the United States Public Health Service. In addition to nursing and personal services, convalescent and rehabilitative health care services are provided.

All but 1 of the 79 survey respondents reported they were eligible to participate in the Medicare program either

totally or partially; however, only 70 facilities were participating. A decision on the part of the facility not to participate in the Medicare program could be due to three reasons: the facility already has an adequate number of private patients without participating in the Federal program, the initial expense of establishing records and bookkeeping procedures is more than the facility can afford at this time, and Medicare reimbursement is perceived as inadequate to cover increased operational and financing costs.

Food service characteristics

Management of the food service operations in the 79 responding extended care facilities is primarily independent and operated by the respective facility; however, a few facilities are satellite to a larger health care facility or have a contract with a food management company. Operational responsibilities assumed by the food management company vary with the type of contract but in general include responsibilities for meal planning, food preparation, distribution and control, staffing and employee training. Utilization of the services of an outside food management company to a certain extent is dependent on the size of the extended care facility. All of the facilities contracting this service were either larger than the average or part of a multiunit organization.

Persons responsible for the management of the food service departments in these Michigan extended care facilities

generally have the position titles of dietitian, food service supervisor, kitchen supervisor, dietary manager, or director of food service. About half of the respondents have had previous work experience in the management of a food service operation, while a fourth have had non-managerial food service responsibilities. Another fourth did not respond to this questionnaire item; this could be due to an oversight when completing the questionnaire, lack of any previous work experience, or a reluctance to indicate that the previous experience was unrelated to either food service or management.

The size of the food service staff depends on many factors which may be unique to a particular facility. However, on the average a facility usually has 1 administrative/supervisory staff member who is responsible for the management of the food service; this person may work on a full-time basis for about 45 hours/week or on a part-time basis for about 16 hours/week. The majority of the facilities are staffed with regular, full-time employees who average 40 hours/week; part-time employees who average 21 hours/week are used only to a limited extent.

Only 4 of the 79 respondents indicated that their food service received regular daily assistance from volunteer workers. In these facilities the volunteers generally assist patients with eating, collect and return patient trays, and serve as dining room hostesses. Volunteer workers

can supplement the activities of many departments within the extended care facility but gain their greatest satisfaction from activities in which they have direct contact with patients.

The meal service policies of a facility tend to be individualized to fit its specific goals and needs; however, all of the extended care facilities surveyed seem to have certain elements in common. The basic meal pattern for patients in about two-thirds of the facilities consists of breakfast, lunch, evening dinner, and meal supplements; while about one-third provide breakfast, noon dinner, supper, and meal supplements. A few facilities use variations of the four- or five-meal-a-day plan. Those facilities with outpatients generally provide meals for them; in addition, meals for visitors and employees are available at the majority of extended care units surveyed.

Of the average number of meals served in the 79 responding facilities, half are served in the main dining room and about half are transported throughout the facility to patient rooms and nursing unit day rooms. Within the total number of facilities surveyed, about half of the patients are on general diets and about half are on modified diets.

The centralized system of distribution of meals to patients was indicated by 90 per cent of the respondents, whereas, decentralized service was indicated by only 14 per

cent. Half of the facilities also provide dining room table service with either waitresses or aides. Meal service to patients involving self-service is infrequently offered; this is most likely due to the physical limitations of the patients.

Various types of service equipment were reported for transporting the main kitchen pre-assembled trays to patients and bulk food to floor pantries. Closed carts were mentioned by about half of the respondents while about one-third use some form of open cart. Various forms of heated carts are used but by less than a fourth of the respondents. When unheated carts are used, less than a fourth use some form of insulated or heated plate assemblies to maintain the temperature of the food.

For extended care facilities of more than one floor, transportation between floors was by elevators for the most part, with a few facilities using dumbwaiters and continuous vertical belts.

The actual distribution of trays from the cart to patients is done by nursing service personnel in almost all facilities, with some food service personnel assistance in about two-thirds of the facilities. Smaller percentages of volunteer workers and housekeeping personnel also assist. After the patient receives his tray, assistance with eating is provided by nursing service personnel in all facilities; however, in a fourth or less of the facilities, volunteer

workers, food service personnel, family members or relatives, or housekeeping personnel provide assistance to the patient.

The types of menus for both general and modified diets commonly used in two-thirds of these extended care facilities are non-selective in which the patient has no formal choice of menu items but in which his preferences are honored occasionally. Some patient selection is permitted in a third of the facilities with the greatest flexibility in the choice of breakfast items and beverages. In most cases facility personnel and guests are offered the same menu options as patients.

Policies concerning menu planning and menu approval for general and for modified diets differ somewhat among the survey participants, but in most facilities, are a team responsibility shared by food service department personnel of different management levels and personnel outside the food service department. In many cases, menus planned by food service professionals must also be approved by persons outside of the food service department.

Of the total number of meals served for all clientele, approximately a third are served at breakfast, a third at lunch, and a third at dinner. Of the total number of meal supplements, more than half are served in the evening with somewhat more of the remaining served in the afternoon than in the morning. Percentage distribution of total meals served indicated that the primary production and service

patterns accommodate patient needs rather than personnel or guests.

Personal Interview Findings

Characteristics of the sub-sample

The 18 extended care facilities in the sub-sample selected for personal interviews were representative of the mail survey respondents in terms of licensed bed capacity and ownership of the facilities. Of the 18 facilities visited, 17 are eligible for Medicare certification; however, of the 17 eligible, only 14 are participating with the Federal program. The 3 non-participating facilities are each under proprietary ownership and are located in the same urban area of the state.

The majority of the extended care facilities are one-story structures and require only horizontal transport of food and supplies. Vertical transportation is provided primarily by elevators in the multi-story structures.

Characteristics of the food service

The persons interviewed were dietitians or food service managers. Their experience in this position ranged from a few months to 15 years. Generally those managers with more education and/or experience were very hospitable and talked freely with the investigator.

The food production areas in the 18 facilities visited are, for the most part, centrally located on the

ground floor, although in five facilities they are located at the end of one wing of the facility. The horizontal distance traveled in patient food distribution ranged from the total length of the facility to group dining areas adjacent to the food production area.

The majority of the facilities use centralized methods of food distribution to patients, and offer some form of congregate dining service for those patients who are sufficiently ambulatory. Patients generally eat from trays either in the patient's room or in the dining room.

Tray assembly-lines utilize roller tracks, tray slides, and counter tops; but none of the facilities use motorized conveyor belts which are common in many hospitals. The assembled trays are generally loaded onto open carts, with closed, unheated carts used in almost as many cases. Only a few of the facilities use closed, heated/chilled carts. Often one facility has several tray assembly methods and also uses several different kinds of carts to deliver patient meals. Service equipment used for maintaining temperature of the food varies both within and among the facilities visited. The types of service equipment used by about half of the facilities are the insulated cover and base assembly for the main plate, and heated pellet-insulated base assembly; however, half of the facilities use only a pre-heated main plate and cover to maintain food temperatures. Serviceware for patient trays is generally

china or pyrex with about a third of the facilities using plastic dishes. Drinking glasses are reusable plastic in most of the facilities. Disposable tray items and purchased pre-portioned food items are used only to a limited extent in any of the facilities due to their cost and the difficulties patients encounter in handling them.

Opinions of food service managers

The majority of food service managers interviewed did not feel that their problems centered around delivery of food to patients but, rather, their problems were associated with food preparation and tray assembly. Many food production and service areas evidenced lack of integrated planning in terms of the many functions performed within the area.

Patient preferences do receive consideration in all facilities and all of the managers feel that they have adequate control over the items that go on the patient trays.

Ideas for improving the efficiency of the food service centered to a great extent on remodeling or acquiring new equipment rather than procedural innovations utilizing the existing physical resources. Many of the interviewees are aware of limitations in their food service but were not actively engaged in improvement programs at the time of the interviews.

Although the majority of the extended care facilities visited routinely serve some of their patients by tray in the dining room, generally other styles of meal service have not

been tried with ambulatory patients even for special occasions. Reasons for this center around the limited physical capabilities of the patients, the added employee cost of other methods, and limited equipment for other styles of meal service. Most of the interviewees are satisfied with their method of serving patients from trays and feel that this is the best method within their resources. All acknowledged that meal time is an important time of the day for the patient but indicated that it is not meant to be the only diversional activity of the day.

Conclusions and Implications of the Study

These data suggest that the service of food to patients in the extended health care units surveyed varies greatly among facilities. In many cases the system of patient meal distribution is archaic and neither adequate nor efficient for the physical resources of the food service department. This is not to say that the physical facilities are old; on the contrary, many are relatively new but were not designed with built-in flexibility. As the meal service demands of the facility have increased, the food service itself has remained static so that its internal operational systems have become strained.

Hospital standards can not be applied indiscriminately to these food services. Evidence suggests that there is need to evaluate the operational goals of non-hospital

health care facilities as well as the functions of their food service and develop integrated, flexible systems specifically geared toward nursing care facilities. Efficiency could be markedly improved in most of the existing food services by procedural modifications at relatively nominal cost.

Physical expansion of extended care facilities does not seem to be as extensive among the facilities studied as originally assumed. Expansion of existing facilities is a reflection of the demand for additional patient accommodations and is generally considered the least expensive way to add such facilities. However, changes in the licensure codes at the State level are demanding costly renovations in existing facilities, and, thus, diverting money from expansion as well as making new construction of nursing care facilities a better choice. As clean, safe, and modern buildings become the rule rather than the exception, the emphasis on construction will change to an emphasis on quality management. Perhaps the demand for licensed nursing care beds is being sufficiently met in many areas of Michigan so that the existing facilities are now faced with the challenge of improving the efficiency and quality of their patient care in order to remain in a competitive position.

Despite the limited scope of this fact-finding study there is evidence that non-metropolitan Michigan extended care facility food services need assistance in organization

and management. Related investigations with a larger number of metropolitan facilities are needed to supplement these data and to further identify the basic problem areas in this important segment of the health care institutional complex.

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APPENDIX

EXCERPTS FROM CONDITIONS OF PARTICIPATION;

EXTENDED CARE FACILITIES[4]

Section 405.1125 Condition of Participation--Dietary Services.

The dietary service is directed by a qualified individual and meets the daily dietary needs of patients. An extended care facility which has a contract with an outside food management company may be found to meet this condition of participation provided the company has a dietitian who serves, as required by the scope and complexity of the service, on a full-time, part-time or consultant basis to the extended care facility, and provided the company maintains standards as listed herein and provides for continuing liaison with the medical and nursing staff of the extended care facility for recommendations on dietetic policies affecting patient care.

a. Standard: Dietary Supervision. A person designated by the administrator is responsible for the total food service of the facility. If this person is not a professional dietitian, regularly scheduled consultation from a professional dietitian or other person with suitable training is obtained. The factors explaining the standard are as follows:

1. A professional dietitian meets the American Dietetic Association's qualification standards.
2. Other persons with suitable training are graduates of baccalaurate degree programs with major studies in food and nutrition.
3. The person in charge of the dietary service participates in regular conferences with the administrator and other supervisors of patient services.
4. This person makes recommendations concerning the quantity, quality and variety of food purchased.
5. This person is responsible for the orientation, training and supervision of food service employees, and participates in their selection and in the formulation of pertinent personnel policies.
6. Consultation obtained from self-employed dietitians or dietitians employed in voluntary or official agencies as acceptable if provided on a frequent and regularly scheduled basis.

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[4]U. S. Dept. of HEW, Social Security Admin., Health Insurance Regulations for the Aged, Part 405, Sub-part K, Document HIR-11.

b. Standard: Adequacy of Diet Staff. A sufficient number of food service personnel are employed and their working hours are scheduled to meet the dietary needs of the patients. The factors explaining the standard are as follows:

1. There are food service employees on duty over a period of 12 or more hours.
2. Food service employees are trained to perform assigned duties and participate in selected in-service education programs.
3. In the event food service employees are assigned duties outside the dietary department, these duties do not interfere with the sanitation, safety, or time required for dietary work assignments.
4. Work assignments and duty schedules are posted.

c. Standard: Hygiene of Diet Staff. Food service personnel are in good health and practice hygienic food handling techniques. The factors explaining the standards are as follows:

1. Food service personnel wear clean washable garments, hairnets, or clean caps, and keep their hands and fingernails clean at all times.
2. Routine health examinations at least meet local, State, or Federal codes for food service personnel. Where food handlers' permits are required, they are current.
3. Personnel having symptoms of communicable diseases or open infected wounds are not permitted to work.

d. Standard: Adequacy of Diet. The food and nutritional needs of patients are met in accordance with physicians' orders, and, to the extent medically possible, meet the dietary allowances of the Food and Nutrition Board of the National Research Council adjusted for age, sex and activity. A daily food guide for adults may be based on the following allowances:

1. Milk: Two or more cups.
2. Meat group: Two or more servings of beef, veal, pork, lamb, poultry, fish, eggs. Occasionally dry beans, nuts, or dry peas may be served as alternatives.
3. Vegetable and fruit group: Four or more servings of a citrus fruit or other fruit and vegetable important for Vitamin C; a dark green or deep yellow vegetable for Vitamin A, at least every other day; other vegetables and fruits including potatoes.
4. Bread and cereal group: Four or more servings of whole grain, enriched or restored.
5. Other foods to round out meals and snacks, to satisfy individual appetites and provide additional calories.

e. Standard: Therapeutic Diets. Therapeutic diets are prepared and served as prescribed by the attending physician. The factors explaining the standard are as follows:

1. Therapeutic diet orders are planned, prepared, and served with supervision or consultation from a qualified dietitian.
2. A current diet manual recommended by the State licensure agency is readily available to food service personnel and supervisors of nursing service.
3. Persons responsible for therapeutic diets have sufficient knowledge of food values to make appropriate substitutions when necessary.

f. Standard: Quality of Food. At least three meals or their equivalent are served daily, at regular times, with not more than a 14-hour span between a substantial evening meal and breakfast. Between-meal or bedtime snacks of nourishing quality are offered. If the "four or five meal a day" plan is in effect, meals and snacks provide nutritional value equivalent to the daily food guide previously described.

g. Standard: Planning of Menus. Menus are planned in advance and food sufficient to meet the nutrition needs of patients is prepared as planned for each meal. When changes in the menus are necessary, substitutions provide equal nutritional value. The factors explaining the standard are as follows:

1. Menus are written at least 1 week in advance. The current week's menu is in one or more accessible places in the dietary department for easy use by workers purchasing, preparing, and serving foods.
2. Menus provide a sufficient variety of foods served in adequate amounts at each meal. Menus are different for the same days of each week and are adjusted for seasonal changes.
3. Records of menus as served are filed and maintained for 30 days.
4. Supplies of staple foods for a minimum of a 1-week period and of perishable foods for a minimum of a 2-day period are maintained on the premises.
5. Records of food purchased for preparation are on file.

h. Standard: Preparation of Food. Foods are prepared by methods that conserve nutritive value, flavor, and appearance, and are attractively served at the proper temperatures and in a form to meet individual needs. The factors explaining the standard are as follows:

1. A file of tested recipes, adjusted to appropriate yield, is maintained.
2. Food is cut, chopped or ground to meet individual needs.
3. If a patient refuses foods served, substitutes are offered.
4. Effective equipment is provided and procedures established to maintain food at proper temperature during serving.
5. Table service is provided for all who can and will eat at a table including wheelchair patients.
6. Trays provided bedfast patients rest on firm supports such as overbed tables. Sturdy tray stands of proper height are provided patients able to be out of bed.

i. Standard: Maintenance of Sanitary Conditions. Sanitary conditions are maintained in the storage, preparation and distribution of food. The factors explaining the standard are as follows:

1. Effective procedures for cleaning all equipment and work areas are followed consistently.
2. Dishwashing procedures and techniques are well developed, understood and carried out in compliance with the State and local health codes.
3. Written reports of inspection by State or local health authorities are on file at the facility with notation made of action taken by the facility to comply with any recommendations.
4. Waste which is not disposed of by mechanical means is kept in leak-proof nonabsorbent containers with close-fitting covers and is disposed of daily in a manner that will prevent transmission of disease, a nuisance, a breeding place for flies, or a feeding place for rodents. Containers are thoroughly cleaned inside and out each time emptied.
5. Dry or staple food items are stored off the floor in a ventilated room not subject to sewage or waste water backflow, or contamination by condensation, leakage, rodents, or vermin.
6. Handwashing facilities including hot and cold water, soap, and individual towels, preferably paper towels, are provided in kitchen areas.

Section 405.1134 Condition of Participation--Physical Environment.

h. Standard: Dayroom and Dining Area. The extended care facility provides one or more attractively furnished multipurpose areas of adequate size for patient dining, diversional and social activities. The factors explaining the standard are as follows:

1. At least one dayroom or lounge, centrally located, is provided to accommodate the diversional and social activities of the patients. In addition, several smaller dayrooms, convenient to patient bedroom, are desirable.
2. Dining areas are large enough to accommodate all patients able to eat out of their room. These areas are well-lighted and well-ventilated.
3. If a multipurpose room is used for dining and diversional and social activities, there is sufficient space to accommodate all activities and prevent their interference with each other.

i. Standard: Kitchen or Dietary Area. The extended care facility has a kitchen or dietary area adequate to meet food service needs and arranged and equipped for the refrigeration, storage, preparation, and serving of food as well as for dish and utensil cleaning and refuse storage and removal. Dietary areas comply with the local health or food handling codes. Food preparation space is arranged for the separation of functions and is located to permit efficient service to patients and is not used for nondietary functions.

MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

COLLEGE OF HOME ECONOMICS • DEPARTMENT OF INSTITUTION ADMINISTRATION • HOME ECONOMICS BUILDING

October 24, 1969

To: _____

From: Sister Nancy Raley, C.PP.S.

Re: Request for assistance in pre-testing the survey instrument for a study of on-premise patient food distribution systems in selected Extended Care Facilities in Michigan.

Enclosed are _____(_) copies of the cover letter and questionnaire developed for the Michigan survey. The cover letter attempts to describe the purpose of the survey and, hopefully, the questionnaire will be completed by persons directly responsible for the management of the food services in extended care facilities (as opposed to administrators, general institutional managers, etc.).

Before final printing I am anxious to pre-test the questionnaire for format, clarity, comprehension by respondent, and ease of completion by persons who carry such responsibility in their respective operations. The responses from the "trial-run" questionnaires will not in any way be used in my study. My only purpose in requesting your cooperation is to test the quality of the survey questionnaire and, therefore, I am especially interested in your comments, criticisms, and recommendations for improvement of the survey form. A questionnaire evaluation form is enclosed to facilitate your evaluation.

Enclosed is a addressed, stamped envelope for return of completed questionaires and evaluation forms. Your cooperation in returning the completed forms to me by November 7 will be sincerely appreciated. Thank you for your time and assistance.

T

Facility_____

PRE-TEST QUESTIONNAIRE EVALUATION

1. Format

   a. Did you find the format difficult to follow? Please indicate any areas which were confusing.

   b. In an effort to reduce mailing costs, we have used both sides of the paper in printing this trial copy of the questionnaire. Do you find this practice objectionable?

      ___ Yes ___ No

   c. Other comments on format?

2. Questionnaire Content

   a. Are there questions you can not readily answer because you do not have access to the information requested? If so, please indicate by question number.

   b. Are there questions which request information which you are not at liberty to release? If so, please indicate by question number.

   c. Are there some important areas of inquiry which have been omitted? Please indicate the types of additional data which you feel would improve the questionnaire.

3. Questionnaire Clarity

   a. Are there questions which lack clarity and/or need further editing for consistency? Please identify by question number and indicate the ambiguities.

4. Completion Time

   a. Approximately how long did it take to complete the questionnaire?

   _____
   (total time)

5. Additional Comments and Suggestions

MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

COLLEGE OF HOME ECONOMICS • DEPARTMENT OF INSTITUTION ADMINISTRATION • HOME ECONOMICS BUILDING

November 21, 1969

Dear Administrator,

The enclosed questionnaire is a request for information about your food service organization. The survey responses will be used in assembling descriptive data which will indicate the patient food distribution practices currently in use in selected Michigan extended care facilities. By sharing with us information about practices and needs of your food service operation, you will enable us to get a clearer picture of this important ancillary service in the health care field.

I hope you will be willing to assist me in gathering this information for it is very important that we have comparable information from each of the chosen facilities. Your operation has been chosen to participate because we believe it is representative of food service establishments of its kind. If in your health care organization a selected member of your staff is directly responsible for the management of your food service department, your referral of our request to this person for completion will be appreciated.

Your cooperation in returning the completed form to me on or before December 15 will be sincerely appreciated. If you do not wish to participate, please return the unanswered form. An addressed, stamped envelope is enclosed for your convenience.

Sincerely yours,

Sister Nancy Raley, C.PP.S.
Graduate Assistant, Research

FOOD DISTRIBUTION SYSTEMS IN MICHIGAN EXTENDED CARE FACILITIES

Michigan State University, East Lansing

Institution Administration Dept. College of Home Economics

I - ORGANIZATION

1. FACILITY NAME: _____

NO. & STREET _____

CITY: _____ MICH. ZIP CODE_____ COUNTY:_____

TELEPHONE: _____
(Area Code) (Number)

2. FACILITY ADMINISTRATOR

(Miss, Mrs., Mr., Dr.)_____

POSITION TITLE:_____

3. PERSON IN CHARGE OF FOOD SERVICE FOR THE FACILITY:

(Miss, Mrs., Mr.)_____

POSITION TITLE:_____

POSITION HELD PRIOR TO THIS ONE:_____

_____

II - GENERAL FACILITY CHARACTERISTICS

4. FACILITY SIZE

a. Number of licensed inpatient beds: ____

b. Average number of inpatient beds <u>filled</u> as of October 1969: _____

c. Average number of <u>outpatients per day</u> (check one)

_____none _____26 to 50 _____76 to 100

_____25 or less _____51 to 75 _____over 100

d. Is your facility planning expansion of:

1. number of licensed beds ____ No ___Yes _____
(how many?)

2. ancillary services? ___No ___Yes_____
(what kind(s)

_____

5. OWNERSHIP

a. Which type of ownership best describes your facility? (check one)

___ proprietary: private or corporate ownership

___ public: federal, state or county agency

___ philanthropic: fraternal, religious, or other

b. If your facility is under proprietary or philanthropic ownership, are there other Extended Care Facilities under the same ownership?

___ Yes _____ ___ No
(how many?)

c. If your facility is under proprietary or philanthropic ownership are there other types of Health Care Facilities under the same ownership?

___ No ___ Yes _____
(what types? how many each type?)

_____

_____

_____

6. HEALTH CARE FACILITIES WITH NURSING CARE

Facilities providing some form of nursing care are classified by the U. S. Public Health Service according to the predominant service provided, which one of the following definitions most accurately describes YOUR facility?

___ a. one in which 50% or more of the residents receive one or more nursing services and the facility has at least one RN or LPN employed 35 hours or more per week.

___ b. one in which some, but less than 50%, of the residents receive nursing care.

___ c. one in which more than 50% of the residents receive nursing care, but no RN's or LPN's are employed full time on the staff.

___ d. none of the above: _____
(please describe your facility)

_____

_____

7. COMMUNITY HEALTH SERVICES

How many of the following kinds of health care services are available at YOUR facility? (check as many as applicable)

___ a. convalescent care, short-term

___ b. convalescent care, long-term

___ c. geriatric convalescent care

___ d. psychiatric custodial care

___ e. geriatric custodial care (primarily personal care)

___ f. rehabilitation _____
(type(s)

_____

___ g. sanitarium _____
(type(s)

_____

___ h. outpatient _____
(type(s)

_____

___ i. other _____
(describe)

_____

8. MEDICARE

a. Is your facility eligible to participate in MEDICARE?

___ Yes (total facility ___ Partially _____
(what part(s)

___ No _____

b. Is your facility currently participating in MEDICARE?

___ Yes (total facility) ___ Partially _____ (what part(s))

___ No _____

III - FOOD SERVICE CHARACTERISTICS OF THE FACILITY

9. MANAGEMENT RESPONSIBILITY

a. How is the food service of YOUR facility managed?

___ independently operated by the Extended Care Facility

___ satellite to a larger food service department within a health care complex

___ operated by a food management company under contract with the Extended Care Facility or larger unit within the health care complex

b. If your facility is under contract with a good management company, which of the following operational responsibilities are included in the contract? (Check as many as applicable.) If your facility is not under such an outside contract, omit this section and proceed to question 10.

Meal Planning
- ___ Menu planning - general diets
- ___ Menu planning - modified (therapeutic) diets
- ___ Estimating food and related supply needs
- ___ Procurement of food and related supply needs

Food Preparation, Distribution, and Control
- ___ Estimation of daily production needs
- ___ Food quality standards
- ___ Food cost level(s)
- ___ On-premise food and supply inventory
- ___ Finished food distribution system

Staffing (hiring, assigning, supervising, dismissing)
- ___ Food production workers
- ___ Employed service workers
- ___ Food production and service supervisors
- ___ Volunteer workers

Employee Training
___ Food production and service supervisors
___ Food production workers
___ Employed service workers
___ Maintenance workers
___ Volunteer workers

Maintenance
___ Area housekeeping
___ Equipment cleaning and repair
___ Departmental safety and sanitation
___ Employee uniforms and laundry

Business and Accounting
___ Financial and transaction records
___ Other internal operating records
___ Payroll preparation and disbursement
___ Employee benefits

10. **FOOD SERVICE DEPARTMENT STAFF**

a. How many workers are there in your food service department? Please indicate according to classification and extent of participation.

Classification	Full-time (no.)	Part-time (no.)	TOTAL (NO.)
Administrative/Supervisory Staff	___	___	___
Regular Employees	___	___	___
Volunteer Workers	___	___	___
TOTALS	___	___	___

b. What is the average number of work hours/week for each of these food service personnel classifications?

Classification	Full-time (hr/wk)	Part-time (hr/wk)
Administrative/Supervisory Staff	____	____
Regular Employees	____	____
Volunteer Workers	____	____

11. **VOLUNTEERS**

a. Does your food service department have <u>regular daily</u> assistance from volunteer workers?

___ Yes (please complete <u>part b.</u>)

___ No (omit <u>part b</u>.)

b. What type(s) of duties/tasks do these volunteers perform? (Check as many as applicable.)

__ food preparation (daily)
__ food preparation (ocasionally)
__ patient tray assembly
__ transport tray to patients
__ collect & return patient trays
__ assist bed patients with eating
__ dining room hostessing
__ assist dining room patients with eating
__ assist with counter serving
__ assist with buffet service
__ work in snack bar/coffee shop

__ OTHER _____
(describe)

_____

_____

12. **RESPONSIBILITIES OF THE FOOD SERVICE MANAGER**

Many of the operational tasks which are necessary for the successful functioning of a food service department in an Extended Care Facility are listed below. Check (X) the column which denotes the degree to which each item is a part of the <u>manager's work</u> in YOUR facility.

	Task	Always	Some-times	Never
I.	<u>Menu Planning</u> - general diets	___	___	___
	- modified diets	___	___	___
II.	<u>Estimating Needs</u>			
	- foods	___	___	___
	- supplies	___	___	___
	- equipment	___	___	___
III.	<u>Purchasing</u>			
	- foods	___	___	___
	- supplies	___	___	___
	- equipment	___	___	___

Task	Always	Some-times	Never
IV. Staffing			
- Hiring employees	___	___	___
- assigning volunteers	___	___	___
- employee in-service training	___	___	___
- volunteer in-service training	___	___	___
V. Determining			
- daily production schedule	___	___	___
- portion size of food items	___	___	___
- selling price of food items	___	___	___
- per diem inpatient rate	___	___	___
VI. Supervising Workers in:			
- food production	___	___	___
- patient tray assembly	___	___	___
- patient service	___	___	___
- dining room service	___	___	___
- equipment repair	___	___	___
- maintenance	___	___	___
VII. Departmental Accounting			
- financial accounting	___	___	___
- payroll	___	___	___
- compilation other internal records	___	___	___
VIII. Dietary Instruction			
- inpatient	___	___	___
- outpatient	___	___	___
IX. Regular Work Assignment			
- food production	___	___	___
- patient tray assembly	___	___	___
- counter server	___	___	___
- dining room host/hostess	___	___	___
- cashier	___	___	___
X. Others not included above:			
- _____	___	___	___
- _____	___	___	___

13. **MEAL SERVICE POLICIES**

a. Of the meal service patterns commonly used which one best describes YOUR basic pattern for INPATIENTS?

___ breakfast, lunch, dinner
___ breakfast, lunch, dinner plus supplements
___ breakfast, lunch, supper
___ breakfast, dinner, supper plus supplements
___ breakfast, dinner plus 2 or 3 supplements

___ none of these_____
(describe pattern used)

_____

b. Do you provide meal service for **OUTPATIENTS?**

___ Yes ___ Occasionally ___ No

If **'YES'**, where may they be served? (Check all permissible areas.)

___ main dining room along with inpatients
___ main dining room when inpatients are not being fed
___ separate area of main dining room
___ separate dining room
___ snack bar/coffee shop/vending area

___ other _____
(identify)

c. Which of the following meal service styles or systems do you use for **PATIENTS?** (Check as many as apply for each type of patient clientele.)

Service Styles or Systems	In-patients	Out-patients
Main kitchen tray assembly before delivery to patient	___	___
Bulk food to floor pantry for tray assembly before delivery to patient	___	___
D.R. table service (waitress)	___	___
D.R. table service (family style)	___	___
Self-service: Cafeteria	___	___
Self-service: Buffet	___	___
Coffee Shop/Snack bar	___	___
Vending service (central location)	___	___
Vending service (floor locations)	___	___
Other _____ (specify)	___	___

d. What is your average weekday PATIENT main meal census (noon or night) in each of the following dining areas? (Inpatients and outpatients)

Main dining room ___

Day room in nursing unit ___

Patient rooms ___

Other _____ ___
(describe)

e. On the average, how many PATIENTS are currently on each of the following types of diets? (Inpatients and outpatients.)

general _____ sodium restricted ___

diabetic _____ bland or ulcer ___

reduction _____ mechanical soft ___

other _____ _____
(specify (how many?)

other _____ _____
(specify (how many?)

f. Which of the following types of Extended Care Facility personnel assist with the on-premise distribution of PATIENT meals? (Check as many as apply.)

___ food service personnel ___ housekeeping personnel
___ nursing service personnel ___ volunteer workers

___ other(s) _____
(identify)

g. If the patient needs assistance with his meal who performs this type of service? (Check as many as apply.)

___ food service personnel ___ housekeeping personnel
___ nursing service personnel ___ volunteer workers

___ other(s) _____
(identify)

_____

h. Which of the following types of service equipment do you use for transporting bulk foods to the floor pantries or main kitchen pre-assembled trays to the patients?

___ Open cart
___ Closed cart
___ Refrigerated cart
___ Heated cart
___ Combination hot & cold cart
___ Insulated bulk container
___ Insulated sectional tray
___ Preheated/chilled plate assembly
___ Insulated beverage server (individual)
___ Continuous tray belt (vertical)
___ Continuous tray belt (horizontal)
___ Service elevator (passenger)
___ Dumbwaiter
___ Other _____
___ Other _____

i. Do you provide meal service for VISITORS?

___ Yes ___ Occasionally ___ No

If 'YES', where may they be served? (Check all permissible areas)

___ main dining room along with patients
___ main dining room when patients are not being fed
___ separate area of main dining room
___ separate special dining room
___ in patient's room (special tray)
___ snack bar/coffee shop
___ vending machine areas

___ other _____
(identify)

j. Do you provide (whether individual purchase and/or facility furnished) meal service for the following types of FACILITY PERSONNEL?

Yes	No	Personnel Types
___	___	Administrative personnel
___	___	Physicians & medical service personnel
___	___	Nursing service personnel
___	___	Food service personnel
___	___	Housekeeping personnel
___	___	Maintenance personnel
___	___	Personnel in residence
___	___	Volunteers (food service)
___	___	Volunteers (other than food service)
___		Other _____ (identify)

k. Do you provide separate or special dining areas for FACILITY PERSONNEL?

___ Yes ___ No

If 'YES' please list the special dining areas and indicate who may use them.

1. _____
(area) (used by)

2. _____

3. _____

4. _____

5. _____

14. MENU POLICIES

a. What are the daily menu options for each type of general diet clientele?

Options	Patients In-	Patients Out-	Food Service workers	Other facility employees	Guests
Non-selective menu only	___	___	___	___	___
No formal choice: preferences honored occasionally	___	___	___	___	___
Choice of most breakfast items	___	___	___	___	___
Choice lunch vs. noon dinner	___	___	___	___	___
Choice light supper vs. heavier dinner	___	___	___	___	___
Semi-selective menu choice:					
- appetizer	___	___	___	___	___
- main dish	___	___	___	___	___
- vegetable(s)	___	___	___	___	___
- salad	___	___	___	___	___
- bread item	___	___	___	___	___
- dessert	___	___	___	___	___
- beverage	___	___	___	___	___
May order substitute items as desired	___	___	___	___	___
Other_____ (specify)	___	___	___	___	___

b. What are the daily menu options for each type of modified diet clientele?

Options	In patients	Out patients	Food Service workers	Other facility employees
Non-selective menu only	___	___	___	___
No formal choice: preferences honored occasionally	___	___	___	___
Choice of most breakfast items	___	___	___	___
Choice of lunch vs. noon dinner	___	___	___	___
Choice of light supper vs. heavier dinner	___	___	___	___
Semi-selective menu choice:				
- appetizer	___	___	___	___
- main dish	___	___	___	___
- vegetable(s)	___	___	___	___
- salad	___	___	___	___
- bread item	___	___	___	___
- beverage	___	___	___	___
May order substitute items as desired	___	___	___	___
Other _____ (specify)	___	___	___	___

c. What is the policy at YOUR facility for menu planning and menu approval? Please complete the chart below according to your policy for general diets and for modified diets.

Person Responsible	General Diets		Modified Diets	
	Planned by	Approved by	Planned by	Approved by
Facility Administrator	___	___	___	___
Physician(s)	___	___	___	___
Nurse(s)	___	___	___	___
Dietitian--Consulting	___	___	___	___
Dietitian--Staff	___	___	___	___
Food Production Manager	___	___	___	___
Other _____ (specify)	___	___	___	___

15. **FOOD SERVICE VOLUME**

On an average weekday, approximately how many meals are served by your food service department? In the chart below please record your meal count estimates for each type of meal you serve for the clientele categories indicated.

CLIENTELE CATEGORY	TYPE OF MEAL SERVED					
				Supplements		
	Breakfast	Lunch/Dinner (noon)	Dinner or Supper	Morning	Afternoon	Evening
Inpatient						
General diets						
Modified diets						
Outpatient						
General diets						
Modified diets						
Personnel						
Food Service						
Other employees						
Volunteer workers						
Guests						
Patients' visitors						
Others						
TOTALS						

MICHIGAN STATE UNIVERSITY East Lansing
College of Home Economics--Dept. of Institution Administration

December 16, 1969

Dear Administrator,

If you have not completed and returned my questionnaire concerning the food distribution system of your extended care facility, may I encourage you to do so as soon as possible.

By cooperating in gathering this information, you will enable us to present a clearer picture of how this important ancillary service is managed in selected types of extended care facilities in Michigan.

Should you have mislaid your questionnaire and need another, please contact me at the following address:

3-B Home Economics Building
Michigan State University
East Lansing, Michigan 48823

Sister Nancy Raley, C.PP.S.
Graduate Assistant, Research

MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

COLLEGE OF HOME ECONOMICS • DEPARTMENT OF INSTITUTION ADMINISTRATION • HOME ECONOMICS BUILDING

December 18, 1969

_____
_____
_____
_____
_____

Dear _____:

Thank you for your cooperation in completing my questionnaire concerning the food distribution system of your extended care facility. By sharing this descriptive information, you are enabling us to get a clearer picture of how this important ancillary service is managed in selected types of extended care facilities in Michigan.

Your assistance is deeply appreciated.

Sincerely yours,

Sister Nancy Raley, C.PP.S.
Graduate Assistant, Research

MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

COLLEGE OF HOME ECONOMICS • DEPARTMENT OF INSTITUTION ADMINISTRATION • HOME ECONOMICS BUILDING

February 12, 1970

_____
_____
_____
_____

Dear_____:

This letter is to confirm our telephone conversation of __(date)__, in which I requested an appointment with you. I plan to be at __(name of extended care facility)__ on (date), at __(time)__.

By visiting your facility's food service, I hope to learn more about your methods of food distribution to patients and share in your ideas and opinions concerning them. Perhaps you have ideas for the future which you believe could improve your food service and food services of facilities serving similar types of patients.

In reporting data which I have and will gather, anonymity for all respondents and their respective facilities is assured. Should you wish to contact me for any reason, I can be reached at 517-351-4717 (home, East Lansing) or 517-355-4586 (Institution Administration Department).

Sincerely yours,

Sister Nancy Raley, C.PP.S.
Graduate Assistant, Research

ON SITE VISIT INFORMATION GUIDE

1. NAME OF FACILITY: CODE NO.

2. NAME OF PERSON INTERVIEWED:

   POSITION:

   YEARS IN PRESENT POSITION WITH THIS E.C.F.:

3. BRIEF OUTLINE OF VISIT (indicate interviewers' activities during visit, areas visited or viewed)

4. PHYSICAL LAYOUT OF FACILITY

   a. No. of floors including basement/ground level:

   b. Location of kitchen in relation to rest of facility:

   c. Available means of transport between floors:

   d. Food service areas in other buildings; service performed for e.c.f.:

5. **PHYSICAL LAYOUT OF FOOD SERVICE/TRAY SERVICE:**

   a. Relation of tray service/food distribution areas to preparation kitchen;

   b. Flow of prepared food from preparation kitchen to a representative bed patient:

   c. Flow of prepared food from preparation kitchen to dining room(s):

   d. Type of tray service or method of tray set-up (use brand names, give characteristics, etc.)

   e. Type of food carts for tray service and/or bulk food:

6. **SMALL EQUIPMENT**

   a. Kind of dinner ware used:

      for tray service

      for cafeteria/dining room

   b. Use of disposable tray/service utensils and service-ware

   c. Use of commercially pre-portioned items:

   d. Reasons for choice of above items if within realm of food service manager now in charge:

7. **ATTITUDES OF FOOD SERVICE MANAGER**

   a. Most frequent problems and/or difficulties encountered in getting food from preparation area to patients:

   b. Do therapeutic diets or patient likes/dislikes present any special difficulties in controling what goes on patient trays?

   c. Do you have ideas for remodeling your food service or modifying your meal service pattern so that you can function more efficiently?

   d. Are you satisfied with the relation between food service tray assembly and tray distribution to patients (indicate method in use and other depts. involved)?

   e. Have you considered using these styles of service for patients:

      cafeteria

      buffet

      dining room with waitress

      dining room, family style

      other

8. **ADDITIONAL COMMENTS:**